CASE 6663: DOYLE HARTMAN FOR AN UNORTHODOX WELL LOCATION AND APPROVAL OF INFILL DRILLING, LEA COUNTY, NEW MEXICO

CASE NO.

-6663

APPLICATION,

TRANSCRIPTS,

SMALL EXHIBITS,

ETC.

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
Oil Conservation Division
State Land Office Bldg.
Santa Fe, New Mexico
19 September 1979

EXAMINER HEARING

IN THE MATTER OF:

Application of Doyle Hartman for an unorthodox well location and approval of infill drilling, Lea County, New Mexico.

CASE 6663

BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation Division: Ernest L. Padilla, Esq.
Legal Counsel for the Division
State Land Office Bldg.
Santa Fe, New Mexico 87503

For the Applicant: William F. Carr, Esq.
CAMPBELL & BLACK P. A.
Jefferson Place
Santa Fe, New Mexico 87501

I N D E X

WILLIAM P. AYCOCK

Direct Examination by Mr. Carr 3

Cross Examination by Mr. Nutter 18

E X H I B I T S

Applicant Exhibit One, Plat 4

Applicant Exhibit Two, Plat 5

Applicant Exhibit Three, Cross Section 5

Applicant Exhibit Four, Cross Section 6

Applicant Exhibit Five, Letter 6

Applicant Exhibit Six, Decline Curve 12

Applicant Exhibit Seven, Summary 13

Applicant Exhibit Eight, 16

Applicant Exhibit Nine,

MR. NUTTER: We'll call now Case Number 6663.

MR. PADILLA: Application of Doyle Hartman for an unorthodox well location and approval of infill drilling, Lea County, New Mexico.

MR. CARR: May it please the Examiner, I am William F. Carr, with the law firm Campbell and Black, Santa Fe, appearing on behalf of the applicant.

I have one witness who needs to be sworn.

(Witness sworn.)

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 Will you state your name and place of residence?

A William P. Aycock, Midland, Texas.

Q By whom are you employed and in what capacity?

A By Mr. Doyle Hartman as an Engineering Consultant.

Q. Have you previously testified before this Commission, had your credentials accepted and made a matter of record?

A. Yes, sir, I have.

Q. Are you familiar with the application of Mr. Hartman in this case?

A. Yes, sir, I am.

MR. CARR: Are the witness' qualifications acceptable?

MR. NUTTER: Yes, they are.

Q. (Mr. Carr continuing.) Mr. Aycock, will you briefly summarize what Mr. Hartman seeks with this application?

A. Mr. Hartman seeks an unorthodox well location and approval of infill drilling in the -- and waiver of existing well spacing requirements and finding that the drilling of a well at this unorthodox location 330 feet from the south and 2310 feet from the west line of Section 36, Township 23 South, Range 36 East, in the Jalmat Gas Pool in Lea County, is necessary is necessary to effectively and efficiently drain that portion of the existing proration unit which cannot be 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?

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Q. This also shows the traces which --

A. Of the cross sections which will be subsequently presented in testimony, yes, sir, they do.

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It covers the same area as the previous map and has similarly indicated the active Jalmat Wells and also includes the traces of the cross section which will be subsequently presented.

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A. Exhibit Number Three is a cross section that's labeled A-A', A to the north, A' to the south, of four wells including the existing active gas well on the proration unit, I believe. Yes, it does. Number three from the lefthand side.

It shows the completion intervals, the history of all -- all four of these wells.

Q. Now I direct your attention to what has been marked as Exhibit Number Four and ask you to review this for the Examiner.

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It also shows the history of each well as far as the date on which it was completed and from the zones in which it was completed, as well as the -- how the completion interval is configured, whether it's through perforations or open hole.

Q. Mr. Aycock, I'm handing you a letter which has been marked for identification as Exhibit Number Five, and I would ask that you summarize the contents of this letter for Mr. Nutter.

A. This letter is the result of the investigation which I was requested to do by Mr. Hartman, pertaining to the determination of whether or not we could infer that substantial drainage has occurred from the reservoir that would be assigned to the proposed well, and an estimate of the increased gas recovery that might be attributable to this

well if the Commission sees fit to grant this application.

The Commission is aware that on this same 80-acre tract there is an existing gas -- Jalmat gas well, the Maralo Inc. Shell C State No. 2, located in Unit N. It was completed on February 28th, 1948, from the interval 2900 to 3000 feet and was producing with a very favorable production decline trend through 1975.

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This is -- this experience has been I won't say absolute, but has been expected in the Jalmat Pool, and when you have to work on the lower zone or you have to affect subsurface mechanical repairs, that require you to kill these old wells, you're never able to get them back to the degree that you did prior to the time that they were killed.

I would have to guess that this is probably due to a combination of chemical interaction of the killing fluid with the formation with which it's incompatible, and possibly with permanent relative permeability damage that results from the high interfacial tension between the gas

and the water and the fact that the reservoir pressures are low enough that a high differential is simply not available to physically remove the water from some of the tighter pore spaces through which gas would otherwise flow.

We can infer, I think, that some drainage has probably occurred throughout the entire proration unit, although the wellhead pressures that were submitted to the NMOCC in 1978, as indicated in the Engineering Committee 1978 volume, do indicate a substantial difference in the immediate vicinity of the well, ranging from 92.2 psi shut-in pressure for the immediate east offset, the Cities Service State "Q" No. 1; 155.2 for the well in question, the Maralo Shell "C" State No. 2; to 249.2 for the Getty Oil Skelly-Mexico "D", which I believe is the immediate east offset, as I recall. Let me look at the map and be sure.

Yes, sir, it's the immediate northeast offset to the existing well.

So those pressures could say that there is not efficient drainage throughout the area. They don't by themselves, they're not definitive that there isn't efficient drainage, but they indicate that it could well be.

In addition, if you look at the production decline trends of the Maralo well, we've estimated that about 3160 MMCF would have been the expected ultimate recovery had the trends for '75 and before prevailed. Since

1975 with the less favorable trends that have resulted since the workover, we think it's going to be only about 2900 MMCF with, therefore, an indicated loss in ultimate recovery of about 260 MMCF, which we believe that the proposed well would probably recover.

MR. NUTTER: Do you have a production decline curve for the Maralo Well, Mr. Aycock?

A. I thought we did as one of our exhibits. Yes, sir, this has not been put into evidence yet, Mr. Nutter, this is the next exhibit that we plan to submit to you.

It's Exhibit Six.

MR. NUTTER: Well, let's see --

A. It's the first part of Exhibit Six, the first curve on the top of Exhibit Six.

MR. NUTTER: Well, now, I don't see this production decline curve that you were talking about to 1975. It looks like in 1975 that it recovered there from a decrease in '73.

A. Well, beginning in '76 it was much less than '75 and previous. It was much less.

MR. NUTTER: Do you know what happened in '73 to the well?

A. No, sir, I don't.

MR. NUTTER: It had a drop but it recovered from that?

A. Yes, sir. I don't know whether it was allowable or performance, but it did, except for that one year, the five years, including '75, previous, they all had a much more favorable trend than it did since that time.

MR. NUTTER: Now, when was it, in 1976?

A. Yes, sir. That's when -- it was during that year that they could not submit, because they had a pumping unit on the well, attempting to recover the killing fluid that they used in affecting that workover.

MR. NUTTER: So there was a decrease in production from '75 to '76 but there was a more radical decrease in production from '76 to '77.

A. Yes, sir. And from '77 on there's been much lower than any reasonable extrapolation of the previous trends.

MR. NUTTER: Okay.

Q. (Mr. Carr continuing.) All right, Mr. Aycock, would you like to -- are you through with Exhibit Number Five?

A. Yes, I think that the other thing that we need to bring out is that if you went on the basis of analogy, as another limit, and as an upper limit to what might be expected if no drainage had occurred, which I am not saying that it has, but I'm saying this gives you a measure, one measure of what the well might be expected to recover,

is 260-million, and if you look at the thirteen nearest Jalmat gas wells, both active and inactive, and look at the expected ultimate recover, it's projected from their pressure and production declines, you get a mean of about 5200 MMCF per well; a minimum about 430 MMCF per well; and a maximum of 16.4 MMCF per well. So that on that basis the expected recovery could be well in excess of the 260, that difference that could be recovered by the existing well that will apparently not be recovered by the proposed well -- pardon me, that apparently will not be recovered by the existing well.

MR. NUTTER: Now where are you getting that 260 MMCF for the existing well?

A. That's from page two of the letter, Mr. Nutter, where I showed the trend prior to '76. I've shown an estimated ultimate recovery of 3163 MMCF.

MR. NUTTER: Now that would be an extrapolation of this existing curve prior to '76.

A. Yes, sir.

MR. NUTTER: And you're taking it down to --

A. 500 Mcf per month, which is an expected economic limit, which that is looking at a lot of experience in the area and where operators have put these wells in the past.

Now, admittedly, the existing well is pro-

ducing at lower rates than that, but I would have to anticipate the reason for that is that it's subject to obtaining stripper gas prices, while under historical conditions, of course, no such price break existed.

It's well below the 60 -- 60 Mcf a day, I believe, is the limit, as I recall.

MR. NUTTER: Uh-huh.

Q (Mr. Carr continuing.) Mr. Aycock, will you now refer again to Exhibit Number Six and explain anything that you haven't already covered concerning that?

A. Exhibit Number Six is the production curves for four of the nearby wells, the four nearest wells that are still active to the proposed location, the first one being the Maralo Shell No. 2 "C" State; the second one being the El Paso Natural Gas Carlson No. 2, which is admittedly a long distance away, but it is the nearest northeastern Jalmat Well to the proposed location.

The third one is the El Paso Natural Gas Company Harrison No. 1, which as I recall, is to the north of the existing well. Let me be sure.

No, it's in 20 -- it's in 27.

The last of the curves that's included in Exhibit Six is for the Amerada Hess No. 2 State LMT, which is the immediate north offset to the existing Maralo Well.

These were picked at random, Mr. Nutter.

No attempt has been made to high grade the material or anything. We just picked some curves at random that we felt were indicative of what the experience has been. The other experience for the remainder of the thirteen wells will be presented to you in the next -- in the next exhibit.

Q. Mr. Aycock, will you now refer to what has been marked for identification as Exhibit Number Seven and review this information for the Examiner?

A. Exhibit Number Seven is a summary of individual well information of the thirteen Jalmat wells that are nearest to the existing well and the proposed location, including both those that are now active and those that were formerly active.

Only two of the thirteen had adequate log information for us to be able to make pore volume calculations. For the rest of them we did have in most cases, all except one case, we did have pressure information and I think that we -- hopefully, will have substantiated to the Commission's satisfaction that the extrapolation of these production performance curves give reasonable answers for ultimate recovery, because when you compare the pressure decline and production decline nowhere are you getting a physically unreasonable estimated gas recovery factor, with the exception of one well, which is the third from the righthand, which shows only a 57.3 percent estimated gas

recovery factor. I can't tell you or can't explain why this is, unless the well is being adversely influenced by a water production, which has proven to be a problem, as I know the Commission's aware, in some areas of the Jalmat Field.

This simply is a resume of all the available information for the thirteen Jalmat wells that are nearest to the -- both the proposed location and the existing Maralo State Well.

MR. NUTTER: Well now, Mr. Aycock, before we leave this exhibit, you have calculated original gas in place for each of these wells, but you only have volumetric data on two of them.

A. Yes, sir.

MR. NUTTER: How did you arrive at the original gas in place for the remainder of the wells?

A. Using the pressure decline curves.

MR. NUTTER: On their pressures?

A. Yes, sir, I have them here. If you care to look at them, I brought them all with me, yes, sir.

I just took the wellhead pressures that were reported to the Commission, as in the annual volumes that the Engineering Committee presents, and converted them mathematically to -- to bottom hole pressure divided by compressability factor, assuming that there was both stability and no fluid in the hole, both of which assumptions

I recognize are probably false, but the trends in most cases do indicate that they're giving some valid information.

In other words, they're irregular from year to year, but the overall trends appear to be giving you an answer that's more restricted than you would expect.

MR. NUTTER: I wonder, can you make those part of the record, the substantiating decline curves that you used for all these ---

A. I have them all here with me. We'd be glad to, Mr. Nutter, if that's what you --

MR. NUTTER: I'd like to have those in the record, I think.

A. I don't think that would be any problem at all. We'll have to make copies of them and submit them to you later.

MR. NUTTER: That will be fine.

A. We don't have copies of them but we'll be delighted to do that.

MR. NUTTER: And then the two wells that you had the volumetric data on, was that a volumetric calculation of original gas in place, or did you use production decline curves on those, too?

A. No, sir, that's calculated from log information.

MR. NUTTER: Okay.

MR. CARR: And, Mr. Nutter, when we submit that, we will mark all of that additional data as the Applicant's Exhibit Number Ten.

MR. NUTTER: All right, that will be fine.

Q. Mr. Aycock, do you believe that the proposed well is necessary to effectively and efficiently drain the proration unit?

A. Yes, sir, I do, and I believe it's also necessary to protect the correlative rights of both the royalty and working interest owners under that tract.

Q. Has notice of this hearing been given to offsetting operators?

A. Yes, sir, it has.

Q. And are copies of those letters marked for identification as Applicant's Exhibit Number Eight.

A. Yes, sir, they are.

Q. How does Mr. Hartman acquire his interest in this property?

A. Through a farmout from Maralo.

Q. In your opinion will drilling the new well in Section 36 result in the recovery of hydrocarbons that would otherwise not be recovered?

A. Yes, sir, I believe they will.

Q. And why is the well being proposed at the unorthodox location?

A. In order to get as far away as possible from both of the existing wells on the 80-acre tract.

From the standpoint of the existing gas well we're afraid that the water contamination could extend some distance from it, and we would like not to get in the north part of the tract because of the old plugged oil well that's up there, so it appeared that the best way to move to get as far away from potential problems as possible, and to also move towards an area where there was -- had been less dense drilling, would be to move to that southeastern corner of the tract.

Q. Will granting this application be in the interest of conservation, the prevention of waste?

A. I believe it will, yes, sir.

Q. How soon does Mr. Hartman plan to commence drilling operations on this well?

A. We would like to expedite them if the Commission sees fit to grant this application.

Q. So you're requesting that the order be expedited?

A. Yes.

Q. Mr. Aycock, were exhibits One through Seven prepared by you or under your direction and supervision?

A. Yes, they were.

MR. CARR: Mr. Examiner, at this time we

would offer into evidence Exhibits One through Eight, and also Exhibit Number Ten, which we will supply at a later date, being the supporting documents for Exhibit Number Seven.

MR NUTTER: What is Exhibit Nine, Mr. Carr?

MR. CARR: There is no Exhibit Nine.

MR. NUTTER: So that would be Exhibit Nine, rather than Exhibit Ten.

MR. CARR: Okay.

MR. NUTTER: Those exhibits will be admitted in evidence, Exhibits One through Eight.

CROSS EXAMINATION

BY MR. NUTTER:

Q. Mr. Aycock, then what is your final determination here that the additional recovery to be expected from the well drilled as an infill well at the proposed location, that it would be in the range that you have listed at the top of page three --

A. Yes, sir.

Q. -- of your letter?

A. Yes, sir. I don't think, in all candor, Mr. Nutter, we can come in and give you a single value for it, because I don't think we have specific enough information

to do that. I think all we can try to do is just set the -- set the limits, the upper and lower limits, and that's what I've attempted to do.

Q. And you have a pretty broad range of estimated --

A. Very definitely, but I think the interesting thing is that -- that all of the reserves appear to be in the range that would justify the drilling of the well, if the application is granted as an infill well, and if the price is the -- is the infill price. Of course, if it's the old price, I don't think the low reserves would probably -- would probably justify the drilling of the well.

Q. That would be the minimum of remaining reserves.

A. Yes, sir.

MR. NUTTER: Are there any further questions of Mr. Aycock?

He may be excused.

Does anyone else have anything to offer in Case Number 6663?

MR. CARR: Mr. Examiner, you did not admit Exhibit Number Nine. Was it your intention to do so?

MR. NUTTER: Exhibit Nine will be accepted when it arrives.

MR. CARR: Okay.

MR. NUTTER: Did you have anything further, Mr. Carr?

MR. CARR: Nothing further.

MR. NUTTER: If there is nothing further, we'll take the Case Number 6663 under advisement, and you will furnish the additional information?

MR. AYCOCK: Yes, sir, as soon as we can get it copied, Mr. Nutter and submit it to you.

(Hearing concluded.)

REPORTER'S CERTIFICATE

I, SALLY W. BOYD, a court reporter, DO HEREBY CERTIFY that the foregoing and attached Transcript of Hearing before the Oil Conservation Division was reported by me; that the 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. 6663, heard by me on 9/19 1979.

Oil Conservation Division, Examiner

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3010 Plaza Blanca (505) 471-2463
Santa Fe, New Mexico 87501

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

LARRY KEHOE
SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-2434

October 15, 1979

Re: CASE NO. 6663
ORDER NO. R-6138

Mr. William F. Carr
Campbell and Black
Attorneys at Law
Post Office Box 2208
Santa Fe, New Mexico

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. 6663
Order No. R-6138

APPLICATION OF DOYLE HARTMAN
FOR AN 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 September 19, 1979, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 12th day of October, 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 a waiver of existing well spacing requirements and a finding that the drilling of a well at an unorthodox gas well location 330 feet from the South line and 2310 feet from the West line of Section 36, Township 23 South, Range 36 East, NMPM, Jalmat Gas Pool, Lea County, New Mexico, is necessary to effectively and efficiently drain that portion of the existing proration unit which cannot be so drained by the existing well.

(3) That the E/2 SW/4 of said Section 36 is to be dedicated to the well.

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

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

(6) That the standard spacing unit in the Jalmat Gas Pool is 640 acres.

(7) That the evidence indicates that the proposed infill well at the above-described unorthodox location may recover some 264 million cubic feet of gas underlying the E/2 SW/4 of Section 36 which cannot be produced by the existing well on the proration unit.

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

IT IS THEREFORE ORDERED:

(1) That an unorthodox gas well location is hereby approved for the Doyle Hartman Maralo State Well No. 1 to be drilled at a point 330 feet from the South line and 2310 feet from the West line of Section 36, Township 23 South, Range 36 East, NMPM, Jalmat Gas Pool, Lea County, New Mexico, inasmuch as this well is necessary to effectively and efficiently drain that portion of the existing proration unit which cannot be so drained by the existing well.

(2) That the E/2 SW/4 of said Section 36 shall be dedicated to the above-described well.

(3) 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 Land Office Bldg.
Santa Fe, New Mexico
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BEFORE: Daniel S. Nutter

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I have one witness who needs to be sworn.

(Witness sworn.)

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A. William P. Aycock, Midland, Texas.

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A. By Mr. Doyle Hartman as an Engineering Consultant.

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Q. Are you familiar with the application of Mr. Hartman in this case?

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I would have to guess that this is probably due to a combination of chemical interaction of the killing fluid with the formation with which it's incompatible, and possibly with permanent relative permeability damage that results from the high interfacial tension between the gas

and the water and the fact that the reservoir pressures are low enough that a high differential is simply not available to physically remove the water from some of the tighter pore spaces through which gas would otherwise flow.

We can infer, I think, that some drainage has probably occurred throughout the entire proration unit, although the wellhead pressures that were submitted to the NMOCC in 1978, as indicated in the Engineering Committee 1978 volume, do indicate a substantial difference in the immediate vicinity of the well, ranging from 92.2 psi shut-in pressure for the immediate east offset, the Cities Service State "Q" No. 1; 155.2 for the well in question, the Maralo Shell "C" State No. 2; to 249.2 for the Getty Oil Skelly-Mexico "D", which I believe is the immediate east offset, as I recall. Let me look at the map and be sure.

Yes, sir, it's the immediate northeast offset to the existing well.

So those pressures could say that there is not efficient drainage throughout the area. They don't by themselves, they're not definitive that there isn't efficient drainage, but they indicate that it could well be.

In addition, if you look at the production decline trends of the Maralo well, we've estimated that about 3160 MMCF would have been the expected ultimate recovery had the trends for '75 and before prevailed. Since

1975 with the less favorable trends that have resulted since the workover, we think it's going to be only about 2900 MMCF with, therefore, an indicated loss in ultimate recovery of about 260 MMCF, which we believe that the proposed well would probably recover.

MR. NUTTER: Do you have a production decline curve for the Maralo Well, Mr. Aycock?

A. I thought we did as one of our exhibits. Yes, sir, this has not been put into evidence yet, Mr. Nutter this is the next exhibit that we plan to submit to you.

It's Exhibit Six.

MR. NUTTER: Well, let's see --

A. It's the first part of Exhibit Six, the first curve on the top of Exhibit Six.

MR. NUTTER: Well, now, I don't see this production decline curve that you were talking about to 1975. It looks like in 1975 that it recovered there from a decrease in '73.

A. Well, beginning in '76 it was much less than '75 and previous. It was much less.

MR. NUTTER: Do you know what happened in '73 to the well?

A. No, sir, I don't.

MR. NUTTER: It had a drop but it recovered from that?

A. Yes, sir. I don't know whether it was allowable or performance, but it did, except for that one year, the five years, including '75, previous, they all had a much more favorable trend than it did since that time.

MR. NUTTER: Now, when was it, in 1976?

A. Yes, sir. That's when -- it was during that year that they could not submit, because they had a pumping unit on the well, attempting to recover the killing fluid that they used in affecting that workover.

MR. NUTTER: So there was a decrease in production from '75 to '76 but there was a more radical decrease in production from '76 to '77.

A. Yes, sir. And from '77 on there's been much lower than any reasonable extrapolation of the previous trends.

MR. NUTTER: Okay.

Q. (Mr. Carr continuing.) All right, Mr. Aycock, would you like to -- are you through with Exhibit Number Five?

A. Yes, I think that the other thing that we need to bring out is that if you went on the basis of analogy, as another limit, and as an upper limit to what might be expected if no drainage had occurred, which I am not saying that it has, but I'm saying this gives you a measure, one measure of what the well might be expected to recover,

is 260-million, and if you look at the thirteen nearest Jalmat gas wells, both active and inactive, and look at the expected ultimate recover, it's projected from their pressure and production declines, you get a mean of about 5200 MMCF per well; a minimum about 430 MMCF per well; and a maximum of 16.4 MMCF per well. So that on that basis the expected recovery could be well in excess of the 260, that difference that could be recovered by the existing well that will apparently not be recovered by the proposed well -- pardon me, that apparently will not be recovered by the existing well.

MR. NUTTER: Now where are you getting that 260 MMCF for the existing well?

A. That's from page two of the letter, Mr. Nutter, where I showed the trend prior to '76. I've shown an estimated ultimate recovery of 3163 MMCF.

MR. NUTTER: Now that would be an extrapolation of this existing curve prior to '76.

A. Yes, sir.

MR. NUTTER: And you're taking it down to --

A. 500 Mcf per month, which is an expected economic limit, which that is looking at a lot of experience in the area and where operators have put these wells in the past.

Now, admittedly, the existing well is pro-

ducing at lower rates than that, but I would have to anticipate the reason for that is that it's subject to obtaining stripper gas prices, while under historical conditions, of course, no such price break existed.

It's well below the 60 -- 60 Mcf a day, I believe, is the limit, as I recall.

MR. NUTTER: Uh-huh.

Q. (Mr. Carr continuing.) Mr. Aycock, will you now refer again to Exhibit Number Six and explain anything that you haven't already covered concerning that?

A. Exhibit Number Six is the production curves for four of the nearby wells, the four nearest wells that are still active to the proposed location, the first one being the Maralo Shell No. 2 "C" State; the second one being the El Paso Natural Gas Carlson No. 2, which is admittedly a long distance away, but it is the nearest northeastern Jalmat Well to the proposed location.

The third one is the El Paso Natural Gas Company Harrison No. 1, which as I recall, is to the north of the existing well. Let me be sure.

No, it's in 20 -- it's in 27.

The last of the curves that's included in Exhibit Six is for the Amerada Hess No. 2 State LMT, which is the immediate north offset to the existing Maralo Well.

These were picked at random, Mr. Nutter.

No attempt has been made to high grade the material or anything. We just picked some curves at random that we felt were indicative of what the experience has been. The other experience for the remainder of the thirteen wells will be presented to you in the next -- in the next exhibit.

Q. Mr. Aycock, will you now refer to what has been marked for identification as Exhibit Number Seven and review this information for the Examiner?

A. Exhibit Number Seven is a summary of individual well information of the thirteen Jalmat wells that are nearest to the existing well and the proposed location, including both those that are now active and those that were formerly active.

Only two of the thirteen had adequate log information for us to be able to make pore volume calculations. For the rest of them we did have in most cases, all except one case, we did have pressure information and I think that we -- hopefully, will have substantiated to the Commission's satisfaction that the extrapolation of these production performance curves give reasonable answers for ultimate recovery, because when you compare the pressure decline and production decline nowhere are you getting a physically unreasonable estimated gas recovery factor, with the exception of one well, which is the third from the righthand, which shows only a 57.3 percent estimated gas

recovery factor. I can't tell you or can't explain why this is, unless the well is being adversely influenced by a water production, which has proven to be a problem, as I know the Commission's aware, in some areas of the Jalmat Field.

This simply is a resume of all the available information for the thirteen Jalmat wells that are nearest to the -- both the proposed location and the existing Maralo State Well.

MR. NUTTER: Well now, Mr. Aycock, before we leave this exhibit, you have calculated original gas in place for each of these wells, but you only have volumetric data on two of them.

A. Yes, sir.

MR. NUTTER: How did you arrive at the original gas in place for the remainder of the wells?

A. Using the pressure decline curves.

MR. NUTTER: On their pressures?

A. Yes, sir, I have them here. If you care to look at them, I brought them all with me, yes, sir.

I just took the wellhead pressures that were reported to the Commission, as in the annual volumes that the Engineering Committee presents, and converted them mathematically to -- to bottom hole pressure divided by compressability factor, assuming that there was both stability and no fluid in the hole, both of which assumptions

I recognize are probably false, but the trends in most cases do indicate that they're giving some valid information.

In other words, they're irregular from year to year, but the overall trends appear to be giving you an answer that's more restricted than you would expect.

MR. NUTTER: I wonder, can you make those part of the record, the substantiating decline curves that you used for all these --

A. I have them all here with me. We'd be glad to, Mr. Nutter, if that's what you --

MR. NUTTER: I'd like to have those in the record, I think.

A. I don't think that would be any problem at all. We'll have to make copies of them and submit them to you later.

MR. NUTTER: That will be fine.

A. We don't have copies of them but we'll be delighted to do that.

MR. NUTTER: And then the two wells that you had the volumetric data on, was that a volumetric calculation of original gas in place, or did you use production decline curves on those, too?

A. No, sir, that's calculated from log information.

MR. NUTTER: Okay.

MR. CARR: And, Mr. Nutter, when we submit that, we will mark all of that additional data as the Applicant's Exhibit Number Ten.

MR. NUTTER: All right, that will be fine.

Q. Mr. Aycock, do you believe that the proposed well is necessary to effectively and efficiently drain the proration unit?

A. Yes, sir, I do, and I believe it's also necessary to protect the correlative rights of both the royalty and working interest owners under that tract.

Q. Has notice of this hearing been given to offsetting operators?

A. Yes, sir, it has.

Q. And are copies of those letters marked for identification as Applicant's Exhibit Number Eight.

A. Yes, sir, they are.

Q. How does Mr. Hartman acquire his interest in this property?

A. Through a farmout from Maralo.

Q. In your opinion will drilling the new well in Section 36 result in the recovery of hydrocarbons that would otherwise not be recovered?

A. Yes, sir, I believe they will.

Q. And why is the well being proposed at the unorthodox location?

A. In order to get as far away as possible from both of the existing wells on the 80-acre tract.

From the standpoint of the existing gas well we're afraid that the water contamination could extend some distance from it, and we would like not to get in the north part of the tract because of the old plugged oil well that's up there, so it appeared that the best way to move to get as far away from potential problems as possible, and to also move towards an area where there was -- had been less dense drilling, would be to move to that southeastern corner of the tract.

Q. Will granting this application be in the interest of conservation, the prevention of waste?

A. I believe it will, yes, sir.

Q. How soon does Mr. Hartman plan to commence drilling operations on this well?

A. We would like to expedite them if the Commission sees fit to grant this application.

Q. So you're requesting that the order be expedited?

A. Yes.

Q. Mr. Aycock, were exhibits One through Seven prepared by you or under your direction and supervision?

A. Yes, they were.

MR. CARR: Mr. Examiner, at this time we

would offer into evidence Exhibits One through Eight, and also Exhibit Number Ten, which we will supply at a later date, being the supporting documents for Exhibit Number Seven.

MR NUTTER: What is Exhibit Nine, Mr. Carr?

MR. CARR: There is no Exhibit Nine.

MR. NUTTER: So that would be Exhibit Nine, rather than Exhibit Ten.

MR. CARR: Okay.

MR. NUTTER: Those exhibits will be admitted in evidence, Exhibits One through Eight.

CROSS EXAMINATION

BY MR. NUTTER:

Q. Mr. Aycock, then what is your final determination here that the additional recovery to be expected from the well drilled as an infill well at the proposed location, that it would be in the range that you have listed at the top of page three --

A. Yes, sir.

Q. -- of your letter?

A. Yes, sir. I don't think, in all candor, Mr. Nutter, we can come in and give you a single value for it, because I don't think we have specific enough information

to do that. I think all we can try to do is just set the -- set the limits, the upper and lower limits, and that's what I've attempted to do.

Q. And you have a pretty broad range of estimated --

A. Very definitely, but I think the interesting thing is that -- that all of the reserves appear to be in the range that would justify the drilling of the well, if the application is granted as an infill well, and if the price is the -- is the infill price. Of course, if it's the old price, I don't think the low reserves would probably -- would probably justify the drilling of the well.

Q. That would be the minimum of remaining reserves.

A. Yes, sir.

MR. NUTTER: Are there any further questions of Mr. Aycock?

He may be excused.

Does anyone else have anything to offer in Case Number 6663?

MR. CARR: Mr. Examiner, you did not admit Exhibit Number Nine. Was it your intention to do so?

MR. NUTTER: Exhibit Nine will be accepted when it arrives.

MR. CARR: Okay.

MR. NUTTER: Did you have anything further, Mr. Carr?

MR. CARR: Nothing further.

MR. NUTTER: If there is nothing further, we'll take the Case Number 6663 under advisement, and you will furnish the additional information?

MR. AYCOCK: Yes, sir, as soon as we can get it copied, Mr. Nutter and submit it to you.

(Hearing concluded.)

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3010 Plaza Blanca (505) 471-2462
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 Hearing before the Oil Conservation Division was reported by me; that the 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.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 6663 heard by me on 9/19 1979.

, Examiner
Oil Conservation Division

RADTKE, AYCOCK, & ASSOCIATES, INC.
Petroleum Engineering Consultants
310 WALL TOWERS WEST
MIDLAND, TEXAS 79701
TELEPHONE 915/684-8044

September 17, ~~1979~~

Mr. Doyle Hartman
508 C&K Petroleum Building
Midland, Texas 79701

Subject: Proposed Jalmat Pool
Gas Development Well,
330' FS&EL, SW/4 Section 36,
Township 23-S, Range 36-E
Lea County, New Mexico

Dear Mr. Hartman:

As you requested, an engineering study of 13 wells that are the nearest to the proposed location, and for which production and/or pressure performance data are available, has been made. The dual purposes of this effort were:

1. To infer as to whether or not substantial drainage has occurred from the reservoir beneath the E/2, SW/4, 36-23S-36E
2. To determine, insofar as possible, the expected increase in gas ultimate recovery attributable to the proposed well.

The acreage on which the proposed well is to be located is presently assigned to the Maralo, Inc. Shell "C" St. 2N. As can be ascertained from the attached table, this well was completed on February 28, 1948, from the interval 2900 to 3000 feet. This well was producing with favorable production and pressure performance trends through 1975.

Apparently, mechanical repairs became necessary in 1976 and the well was "killed" as a part of effecting these repairs. The shut-in wellhead pressures tabulation in the New Mexico Engineering Committee 1976 Annual Volume for the Jalmat field contains the notation "unit on well, 6-15-76" for the Maralo Shell-St. 2N. While the pressure performance did not substantially deviate from the previous trend during and subsequent to 1976, the production performance never returned to the former trend. Such irreversible production inhibition after a well having been "killed" is normal for the Jalmat Pool. Ostensibly, the production drop is due to formation drainage, resulting from both the chemical interaction and relative permeability loss due to the high interfacial tension of gas and water.

As a result of the experienced production inhibition for this well, an estimated 264 MMCF of otherwise recoverable gas will apparently not be recovered from this well. If efficient drainage is or can occur to offsetting wells, the correlative rights of the owners of the E/2, SW/4, 36-23S-36E will be violated as a result of this drainage. If efficient drainage to the offsetting wells is not occurring, this gas will not be recovered, unless the proposed well is drilled. This situation can be summarized as follows:

Production Performance	Estimated Ultimate Recovery, MMCF
Trend Prior to 1976	3163
Trend Since 1975	2899
Loss	264

The drainage efficiency among wells in the vicinity of the proposed location may not be high, as evidenced by the reported 1978 shut-in wellhead pressures for the first three wells on the attached table:

Operator, Lease and Well	1978 SIWHP, psia
Maralo, Inc. Shell "C" St. 2N	155.2
Cities-Service St. "Q" 1	92.2
Getty Oil Co. Skelly-Mexico "D" 1	249.2

These pressures do indicate, however, that some gas drainage has likely occurred from the Jalmat reservoir underlying the E/2, SW/4, 36-23S-36E.

Although gas from the existing well should qualify for "stripper" (Natural Gas Policy Act Section 108) gas prices, this price will not compensate for the postulated gas loss. The proposed well cannot be drilled, unless it is classified as an infill development well under the Natural Gas Policy Act, as the allowable price would be insufficient to justify the investment required to drill it. Accordingly, the requirements of Section 10, "Special Rules and Regulations", Natural Gas Policy Act Infill Findings Administrative Procedure (as established by the Conservation Division, State of New Mexico, Energy and Minerals Department, Case No. 6516, Order No. R-6013) must be considered.

If inefficient interwell drainage exists in the vicinity of the proposed well location, analogy to existing wells provides a method of estimating the increased recovery for the proposed well. The results of this method can be summarized as follows:

Basis from 13 Jalmat Gas Wells	Estimated Increased Recovery, MMCF
Mean	5,195
Minimum	426
Maximum	16,396

Normally, calculated effective drainage areas are useful in estimating such potential increased gas recovery; however, well logs for only two of the 13 analyzed wells were available, and since well log interpretation is necessary in order to estimate effective drainage area. These calculations can be summarized as follows:

Well	Location	Calculated Effective Drainage Area, Acres
Conoco, Inc. Vaughn B-1, 1	1H-24S-36E	395
Atlantic-Richfield Camp 2	6E-24S-36E	32

Previous experience indicates that the calculated effective drainage areas are generally much nearer to 32 acres than 395 acres.

You are aware that any water occurrence within the Jalmat zones is extremely detrimental to well performance. This is particularly so if the water is either nonindigenous or results from conversion of vaporized water to the liquid state. All gas is saturated with water vapor initially, and the amount of water so vaporized increases substantially as the pressure decreases attendant to depletion. Correct production practices involve subjecting these zones to as little water for a short a period as possible. Unforeseen water occurrence in the Jalmat zones constitutes the most probable risk factor associated with drilling the proposed well.

As a result of the foregoing and assuming you are willing to assume the not inconsiderable risks associated with drilling this well, we expect that the resulting well should be economically attractive.

Very truly yours,

ORIGINAL SIGNED BY
WM. P. AYCOCK
Wm. P. Aycock, P. E.

WPA/bw

Attachment

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
Hartman EXHIBIT NO. 6
CASE NO. 6603

MARALO, INC. NO. 2
SHELL "C" STATE
36(N)-26S-36E
JALMAT (Tansill-Yates-7 Rivers)
HOBBS DIST.-Gas
LEA COUNTY, NEW MEXICO
RADTKE, AYCOCK & ASSOC., INC.

GAS PRODUCTION - MCF/MONTH

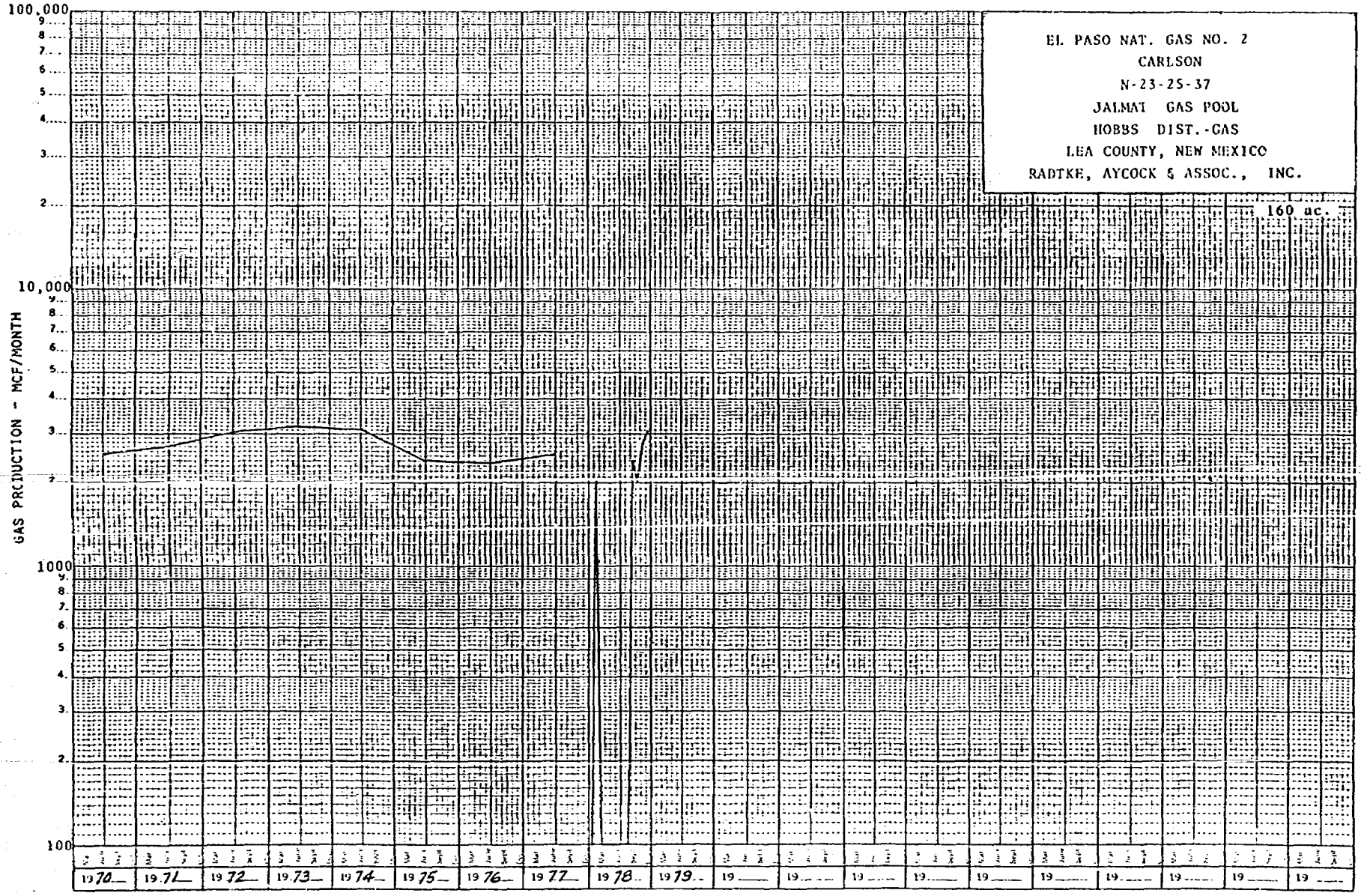
100,000
10,000
1000
100

19 70 | 19 71 | 19 72 | 19 73 | 19 74 | 19 75 | 19 76 | 19 77 | 19 78 | 19 79 | 19 ___ | 19 ___ | 19 ___ | 19 ___ | 19 ___ | 19 ___ | 19 ___ | 19 ___ | 19 ___ | 19 ___

at reserves 3168: adequate prod data current to 500 mcf/mo economic limit

EL PASO NAT. GAS NO. 2
CARLSON
N-23-25-37
JALMAT GAS POOL
HOBBS DIST.-GAS
LEA COUNTY, NEW MEXICO
RADTKE, AYCOCK & ASSOC., INC.

160 ac.



EL PASO NAT. GAS CO. NO. 1
HARRISON
L-27-25-37
JALMAT GAS POOL
HOBBS DIST.-GAS
LEA COUNTY, NEW MEXICO
RADTKE, AYCOCK & ASSOC., INC.

160 ac.

GAS PRODUCTION - MCF/MONTH

100,000
10,000
1000
100

19 70 — 19 71 — 19 72 — 19 73 — 19 74 — 19 75 — 19 76 — 19 77 — 19 78 — 19 79 — 19 — 19 — 19 — 19 — 19 — 19 — 19 — 19 — 19 — 19 —

AMERADA-HESS NO. 2
STATE LMT
36(F)-23S-36E
JALMAT (Tansill-Yates-7 Rivers)
HOBBS DIST.-GAS
LEA COUNTY, NEW MEXICO
RADTKE, AYCOCK & ASSOC., INC.

GAS PRODUCTION - MCF/MONTH

100,000
10,000
1000
100

19 70 | 19 71 | 19 72 | 19 73 | 19 74 | 19 75 | 19 76 | 19 77 | 19 78 | 19 79 | 19 ____ | 19 ____ | 19 ____ | 19 ____ | 19 ____ | 19 ____ | 19 ____ | 19 ____ | 19 ____ | 19 ____

DOYLE HARTMAN

SUMMARY OF INDIVIDUAL WELL INFORMATION
IN THE VICINITY OF THE PROPOSED WELL LOCATION
IN E/2, SW/4, SECTION 36, TOWNSHIP 23-S, RANGE 36-E
JALMAT (TANSILL-YATES-SEVEN RIVERS) POOL
LEA COUNTY, NEW MEXICO

	Maralo, Inc. Shell "C" St. 2	Cities Service State "Q" 1	Getty Oil Co. Skelly-Mexico "D" 1	Conoco, Inc. Vaughn "B"-1 6	Amerada-Hess St. LMT 2	Conoco, Inc. Vaughn "B"-1 1	ARCO Camp, W. N. 2	ARCO Combest 3	ARCO Combest 1	
Location of Well	36(N)-23S-36E	36(L)-23S-36E	36(I)-23S-36E	1(E)-24S-36E	36(F)-23S-36E	1(H)-24S-36E	6(E)-24S-37E	35(A)-23S-36E	35(H)-23S-36E	2
Distance and Direction From Proposed Location	850' SE	2200' NW	1800' NE	2750' SW	2800' NNW	2750' SE	4400' SE	4900' NW	4100' NW	
Completion Date	2-28-48	11-20-52	-	11-13-74	3-23-59	10-20-47	6-7-65	12-13-76	-	
Init. CAOFP, MCF/day	10,000	4,492	-	718	1,697	33,300	1212	700	-	
Completion Interval	2900-3000	2915-3015	-	2928-3258	2930-3090	2910-3171	2944-3234	2950-3418	-	
Cumulative Gas Production, MCF @ 6-1-79	2,897,213	2,056,485	2,976,707	391,563	5,569,695	8,143,733	1,793,432	286,270	6,079,006	
Volumetric Analysis Results:										
Mean Eff. Por., % Bulk Vol.	-	-	-	-	-	14.8	22.6	-	-	
Mean Con. Wtr. Stn., % NEPS	-	-	-	-	-	27.0	22.5	-	-	
Net Effective Pay, feet	-	-	-	-	-	78.	181.	-	-	
Original Gas-in-place, MMCF/ac.	-	-	-	-	-	24.7	93.6	-	-	
Estimated OGIP, MMCF	3625	2400	3648	-	7230	9758	2950	781	6582	
Estimated Ult. Gas Rec., MMCF	2899*	2138	2977	426	5812	9009	2812	1280	6303	
Est. Gas Rec. Factor, % OGIP	80.0	89.1	81.6	-	80.4	92.3	95.3	-	96.6	
Est. Drainage Area, acres	-	-	-	-	-	395	32	-	-	
1978 SIWHP, psia	155.2	92.2	249.2	-	-	171.2	142.2	152.2	123.2	

*Projected from well performance 1977-1979; previous well performance yields estimated ultimate recovery of 3163 MMCF. Loss in ultimate recovery from change in performance is 264 MMCF, with a recovery factor of 87.2% of OGIP.

Conoco, Inc. Lynn "B"-25 2	Conoco, Inc. Lynn "B"-25 1	Conoco, Inc. Lynn "B"-26 1	A. Gackle R.W. Cowden "B"-1
5(M)-23S-36E	25(J)-23S-36E	26(J)-23S-36E	30(L)-23S-37E
5900' NNW	6400' NNE	8200' NW	7750' NE
3-4-48	11-10-47	-	-
80,800	10,900	-	-
2776-3350	2894-3380	-	-
9,700,011	3,387,723	15,969,247	3,502,922
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
10,830	6050	19,170	3572
10,435	3464	16,396	3518
96.4	57.3	85.5	98.5
-	-	-	-
136.2	151.2	151.2	436.2

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
Hartman EXHIBIT NO. 7
CASE NO. 6603

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

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
Hartman EXHIBIT NO. 8
CASE NO. 6663

September 13, 1979

Amerada Hess Corporation
Drawer "D"
Monument, New Mexico 88265

RE: New Mexico Oil Conservation Division
Case 6663.

Gentlemen:

Enclosed is a copy of the Docket for the September 19, 1979 Oil Conservation Division Examiner Hearing.

You may have an interest that will be affected by the above-referenced case.

Very truly yours,

William F. Carr

WFC:tn

Enclosure

P08 5740081

RECEIPT FOR CERTIFIED MAIL
NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

SENT TO Amerada Hess Corp.
STREET AND NO. Drawer "D"
P.O. STATE AND ZIP CODE Monument, NM 88265

POSTAGE	$
CERTIFIED FEE	
SPECIAL DELIVERY	
RESTRICTED DELIVERY	
SHOW TO WHOM AND DATE DELIVERED	
SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY	
SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	
SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	
TOTAL POSTAGE AND FEES	$
POSTMARK OR DATE	

CONSULT POSTMASTER FOR FEES
OPTIONAL SERVICES
RETURN RECEIPT SERVICE

PS Form 3800, Apr. 1976

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

September 13, 1979

Getty Oil Company
Post Office Box 703
Hobbs, New Mexico 88240

RE: New Mexico Oil Conservation Division
Case 6663.

Gentlemen:

Enclosed is a copy of the Docket for the September 19, 1979 Oil Conservation Division Examiner Hearing.

You may have an interest that will be affected by the above-referenced case.

Very truly yours,

William F. Carr

WFC:tn

Enclosure

P08 5740080

RECEIPT FOR CERTIFIED MAIL
NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

SENT TO
Getty Oil Co.
STREET AND NO.
P.O. Box 703
P.O. STATE AND ZIP CODE
Hobbs, NM 88240

POSTAGE	$
CERTIFIED FEE	
SPECIAL DELIVERY	
RESTRICTED DELIVERY	
SHOW TO WHOM AND DATE DELIVERED	
SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY	
SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	
TOTAL POSTAGE AND FEES	$
POSTMARK OR DATE	

CONSULT POSTMASTER FOR FEES
OPTIONAL SERVICES
RETURN RECEIPT SERVICE

PS Form 3800, Apr. 1976

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

September 13, 1979

Continental Oil Company
Post Office Box 460
Hobbs, New Mexico 88240

RE: New Mexico Oil Conservation Division
Case 6663.

Gentlemen:

Enclosed is a copy of the Docket for the September 19, 1979 Oil Conservation Division Examiner Hearing.

You may have an interest that will be affected by the above-referenced case.

Very truly yours,

William F. Carr

WFC:tn

Enclosure

P08 574 079

RECEIPT FOR CERTIFIED MAIL
NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

SENT TO
Continental Oil Co.
STREET AND NO.
P.O. Box 460
P.O. STATE AND ZIP CODE
Hobbs, NM 88240

PS Form 3800, Apr. 1976

POSTAGE	$
CERTIFIED FEE	
CONSULT POSTMASTER FOR FEES	
OPTIONAL SERVICES	
SPECIAL DELIVERY	
RESTRICTED DELIVERY	
RETURN RECEIPT SERVICE	
SHOW TO WHOM AND DATE DELIVERED	
SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY	
SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	
TOTAL POSTAGE AND FEES	$
POSTMARK OR DATE	

CAMPBELL AND BLACK, P.A.
LAWYERS

JACK M. CAMPBELL
BRUCE D. BLACK
MICHAEL D. CAMPBELL
WILLIAM F. CARR
PAUL R. CALOWELL

POST OFFICE BOX 2208
JEFFERSON PLACE
SANTA FE, NEW MEXICO 87501
TELEPHONE (505) 988-4421

September 13, 1979

Cities Service Company
Post Office Box 300
Tulsa, Oklahoma 74102

RE: New Mexico Oil Conservation Division
Case 6663.

Gentlemen:

Enclosed is a copy of the Docket for the September 19, 1979 Oil Conservation Division Examiner Hearing.

You may have an interest that will be affected by the above-referenced case.

Very truly yours,

William F. Carr

WFC:tn

Enclosure

P08 5740078

RECEIPT FOR CERTIFIED MAIL
NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

SENT TO
Cities Service Co.
STREET AND NO.
P.O. Box 300
P.O. STATE AND ZIP CODE
Tulsa, Ok. 74102

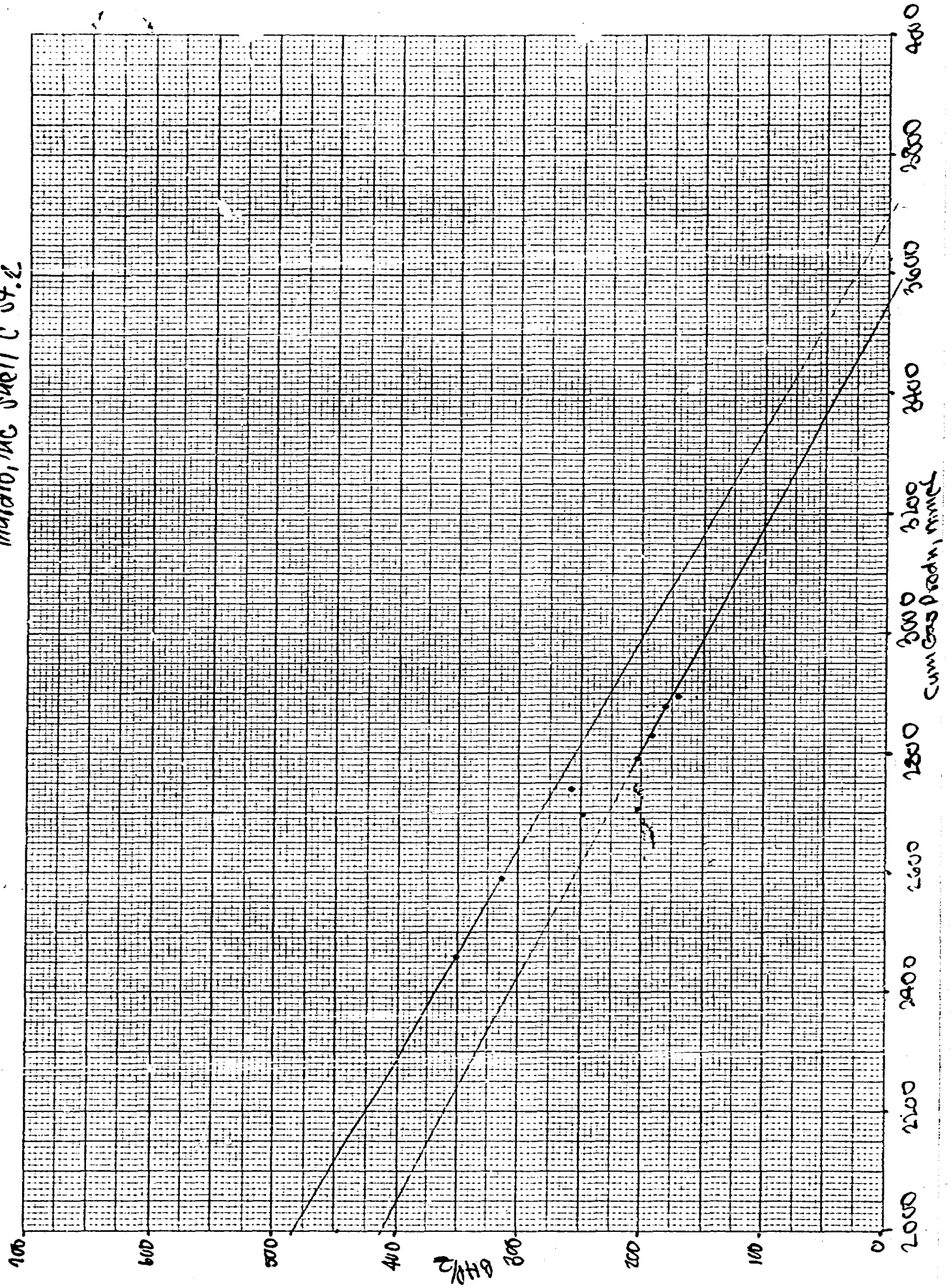
PS Form 3800, Apr. 1976

POSTAGE	$
CERTIFIED FEE	¢
SPECIAL DELIVERY	¢
RESTRICTED DELIVERY	¢
RETURN RECEIPT SERVICE: SHOW TO WHOM AND DATE DELIVERED	¢
RETURN RECEIPT SERVICE: SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY	¢
RETURN RECEIPT SERVICE: SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	¢
RETURN RECEIPT SERVICE: SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	¢
TOTAL POSTAGE AND FEES	$
POSTMARK OR DATE	

CONSULT POSTMASTER FOR FEES
OPTIONAL SERVICES
RETURN RECEIPT SERVICE

46 1320

Marlo, Inc Shell "C" St. #2



SUPPORTING DATA
FOR HARTMAN
EXHIBIT #7

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
HARTMAN SUTTON EXHIBIT NO. 9
CASE NO. 6663

Initials Date
Prepared by MM 12-5-79
Approved by

Tabulation of SIWHP & cum.Gas @ Consistent Dates
Marato, Inc. Shell "C" St, 2
36(N) - 23S - 36E
Jalmat Pool, Lea County, N.M.

	1 Year	Date	2 S.I. Time, Hrs	3 SIWHP, psig	BHP/Z (correlation)	4 Cum Gas @ Date	
1	1970	4-10	72	310	351	2459752	1
2							2
3	1971	8-26	72	277	313	2586768	3
4							4
5	1972	9-5	72	221	248	2698481	5
6							6
7	1973	7-3	72	229	257	2737829	7
8							8
9	1974	10-1	72	183	203	2789779	9
10							10
11	1975	6-30	72	172	191	2820584	11
12							12
13	1976	" Unit on Well 6-15-16	-	-	-	-	13
14							14
15	1977	7-6	24	163	180	2889827	15
16							16
17	1978	7-17	72	155	171	2894023	17
18							18
19							19
20							20
21							21
22							22
23							23
24							24
25							25
26							26
27							27
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36							36
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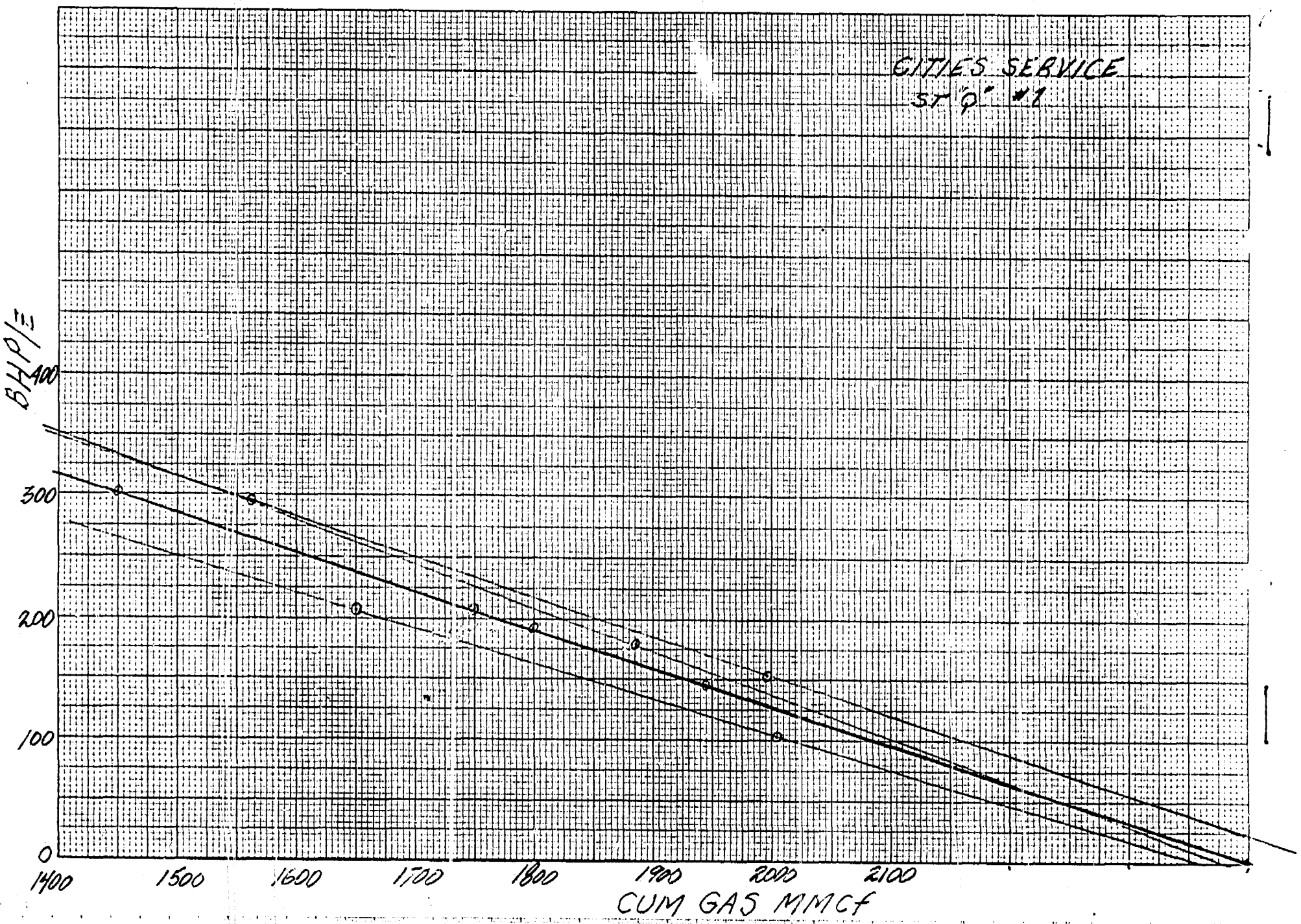
40							40
41							41
42							42
43							43
44							44

K·E 10 X 10 TO ½ INCH 7 X 10 INCHES
KEUFFEL & ESSER CO. MADE IN U.S.A.

46 1320

CITIES SERVICE
STATE #1



Initials Date
Prepared by [illegible] 9-18-79
Approved by

Tabulation of SIWHP & Cum. Gas @ Consistent Dates:

Cities-Service St. Q, 1
36(L) - 23S - 36E
Salwat Pool, Lea County, N.M.

	Year	Date	1 S.I. Time, hrs	2 SIWHP, psig	3 BHP/Z (correlation)	4 Cum Gas @ Date
1	1970	2-20	72	268	302	1,458,823
2						
3	1971	8-26	72	259	292	1,570,541
4						
5	1972	7-5	72	185	206	1,652,541
6						
7	1973	7-3	72	181	208	1,746,498
8						
9	1974	7-1	72	173	192	1,831,607
10						
11	1975	6-30	72	160	177	1893677
12						
13	1976	6-15		133	146	1942510
14						
15	1977	7-26	72	141	155	1990950
16						
17	1978	7-17	72	92	101	2023,872
18						
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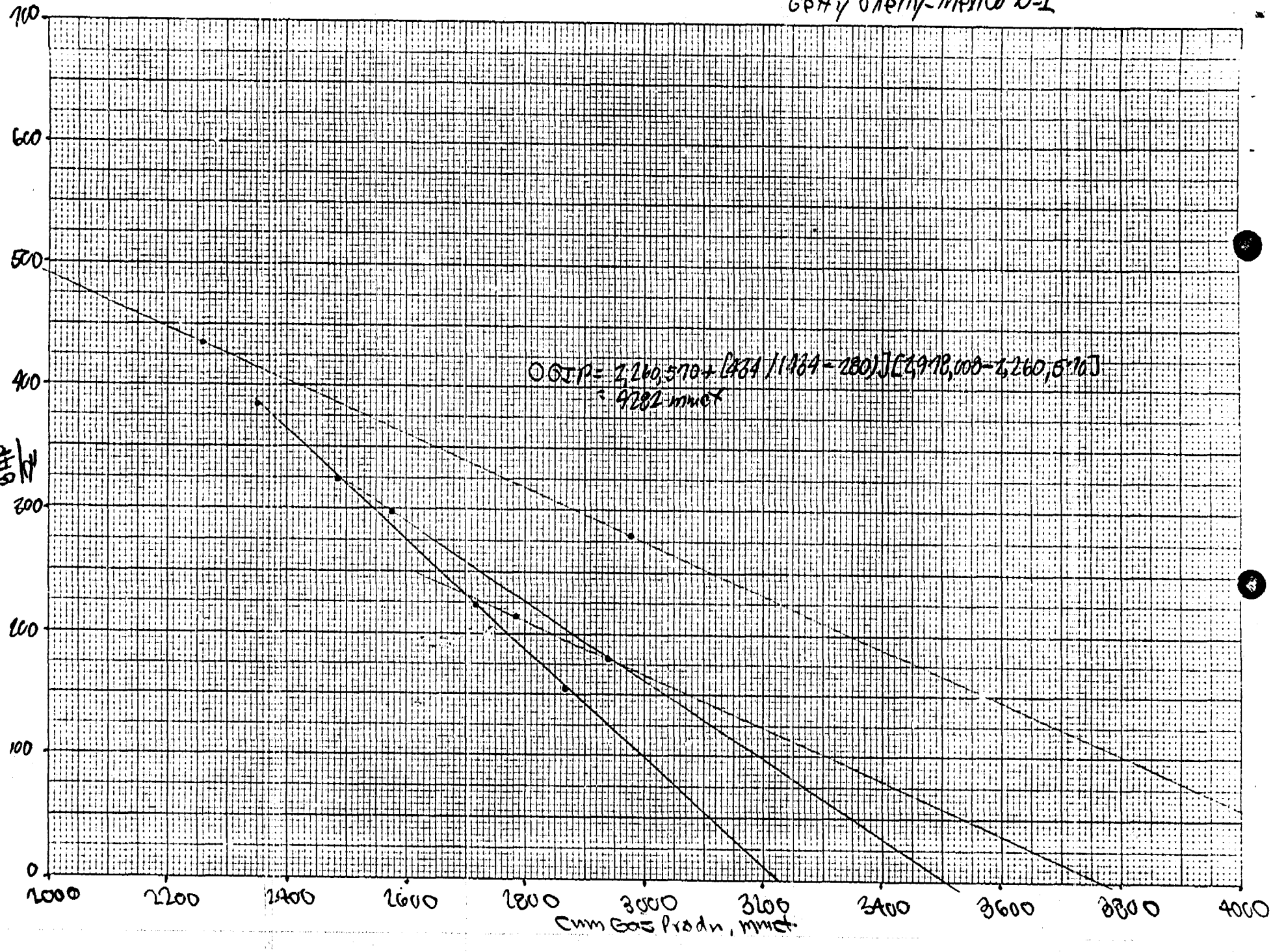
44						

Getty Skelly-Mavico O-L



Initials Date
Prepared by [illegible] 9-13-7
Approved by

Tabulation of SIWHP & Cum. Gas @ Consistent Dates
Getty Oil Co., Skelly - Merico 0, 1
36(W) - 23S - 36E
Salmat Pool, Lea County, N.M.

	Year	Date	1 S.I.Time hrs	2 SIWHP, psia	3 BHP/Z (Correlation)	4 Cum Gas @ Date
1	1970	9-10	72	381	434	2,260,570
2						
3	1971	8-26	72	339	385	2,352,477
4						
5	1972	9-5	72	281	324	2,485,401
6						
7	1973	7-3	72	263	297	2,578,806
8						
9	1974	10-1	72	199	222	2717378
10						
11	1975	6-30	72	192	214	2855362
12						
13	1976	6-15		143	151	2867268
14						
15	1977	7-26	72	163	180	2942582
16						
17	1978	9-17	72	249	280	2978008
18						
19						
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36						
37						
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39						
40						
41						
42						
43						
44			6			

1-1- CUM: | UPDATED THRU: | BY:

FIELD: Jalmat (Tansill-Yates-7-Rivers)
OPERATOR: Conoco, Inc.
LEASE: Vaughn "B"-1
LOCATION OR RRC #: 1(E)-24-36E | DIST: Hobbs | ☐ OIL ☒ GAS
COUNTY: Lea | STATE: N.M.
NO. WELLS: 1 | WELL NOS: 6
DATE PROD BEGAN: | ACRES:

MIDLAND SIPES, WILLIAMSON & AYCOCK, INC. HOUSTON

GAS PRODUCTION - MCF/MONTH

MONTHS X 3 LOG CYCLES

100 000
10 000
1000
100

2919
88,266
265,186
389,355
482,449
591,563

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 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19

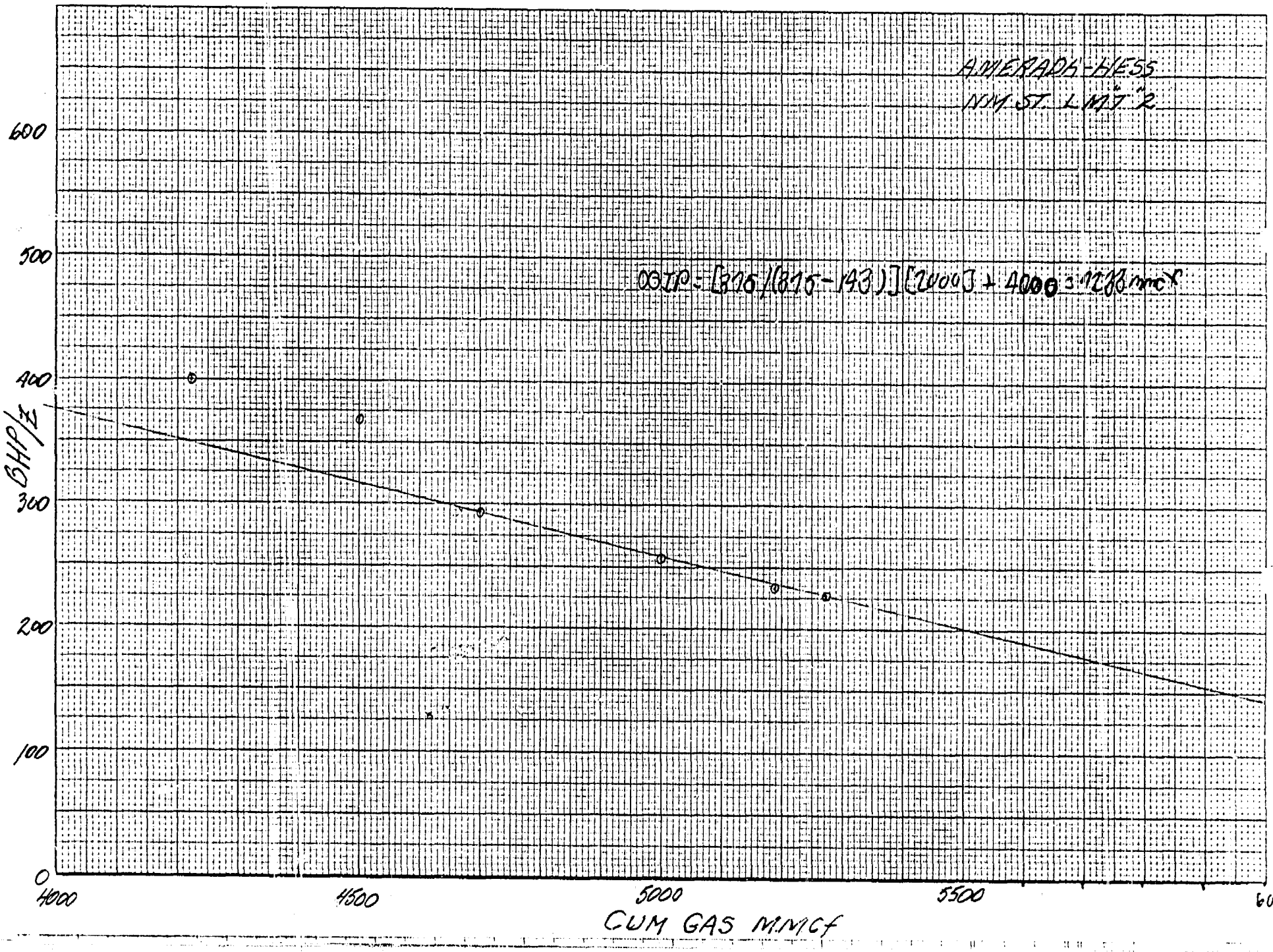
SWA-T-12

SWA TR

46 1320

AMERADA-HESS
NM ST. L #17 "2

QIP = [376/(815-143)][2000] + 4000 = 1288 mcf



Prepared by Initials Date MW 9-12-79
Approved by

Tabulation of SIWHP & Cum. Gas @ Consistent Dates
Amerada-Hess N.M. St. LMT 12
36(F)-26S-36E
Salt Mat Pool, Lea County, N.M.

	Year	Date	1 S.I. Time Hrs.	2 SIWHP, psig	3 BHP/Z (Correlation)	4 Cum Gas @ Date	
1	1970	4-4	72	352	400	4,229,239	1
2							2
3	1971	6-4	72	325	369	4,510,568	3
4							4
5	1972	7-13	72	260	293	4,778,243	5
6							6
7	1973	8-13	72	229	257	5,009,256	7
8							8
9	1974	8-22	72	210	235	5,178,073	9
10							10
11	1975	5-8	72	204	228	5,277,565	11
12							12
13	1976						13
14							14
15	1977	—	—	—	—	—	15
16							16
17	1978	—	—	—	—	—	17
18							18
19							19
20							20
21							21
22							22
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36							36
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39							39
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41							41
42							42
43							43
44							44

2-

1-1- CUM.	UPDATED THRU:	BY:

FIELD:	Jalmat (Tansill-Yates-7 Rivers)
OPERATOR:	Sinclair Oil & Gas Co.
LEASE:	Vaughn B-1
LOCATION OR RRC #:	1(H)-23-36 S
DIST:	Hobbs
☐ OIL ☑ GAS	
COUNTY:	Lea
STATE:	N.M.
NO. WELLS:	1
WELL NOS:	1
DATE PROD. BEGAN:	
ACRES:	
MIDLAND	SIPES, WILLIAMSON & AYCOCK, INC. HOUSTON

GAS PRODUCTION-MCF/MONTH

10 000
9
8
7
6
5
4
3
2
1000
9
8
7
6
5
4
3
2
100
9
8
7
6
5
4
3
2
100

5,018,426
6,047,633
6,508,460
6,881,805
7,122,841
7,426,682
Sold to Sinclair Oil & Gas Co.

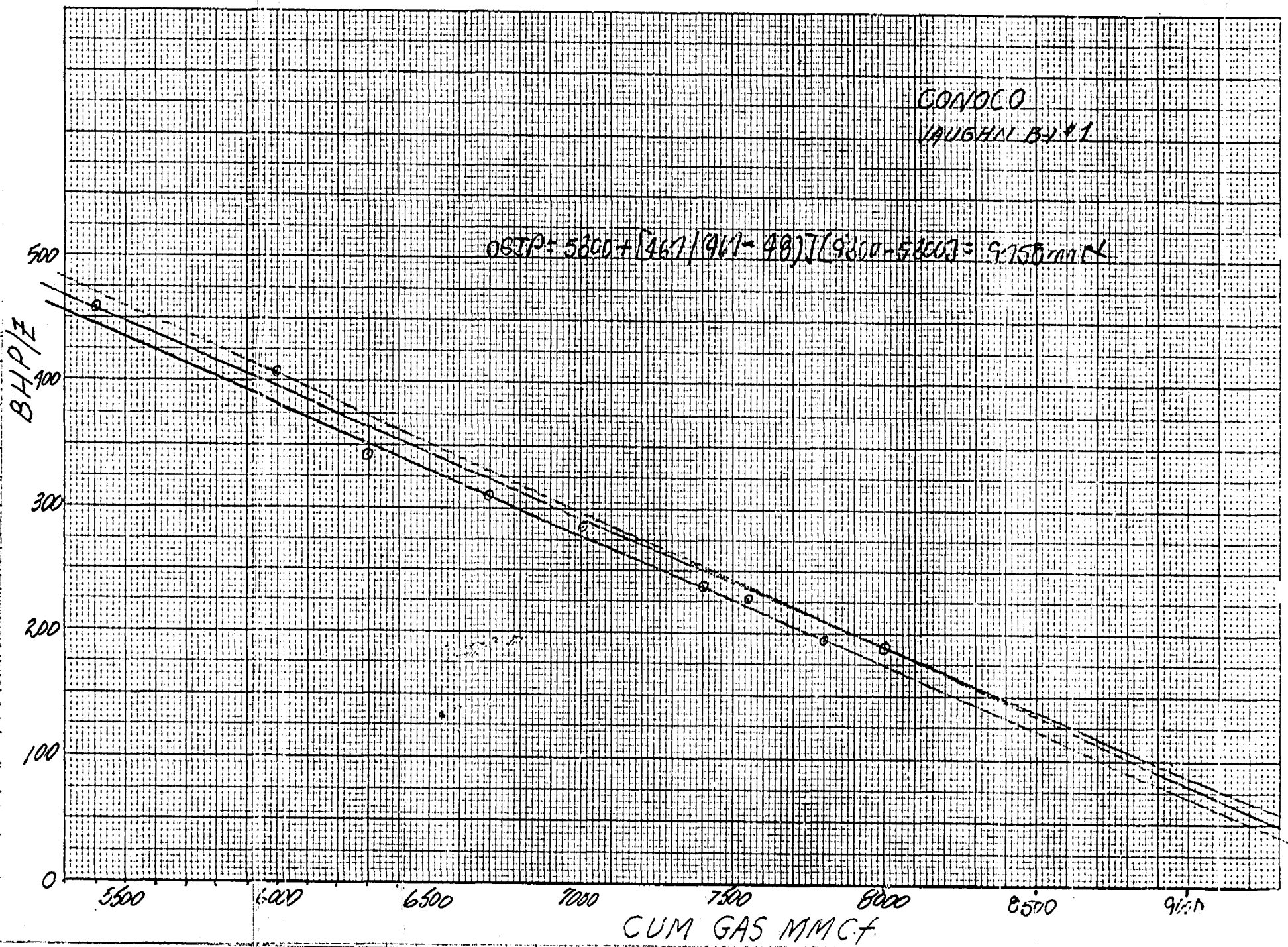
Mar June Sept Dec | 1970 | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | 19____ | 19____ | 19____ | 19____ | 19____ | 19____ | 19____ | 19____ | 19____

SWA-T-11

SWA TR____

CONOCO
VAUGHAL B-1 #1

OSTP = 5800 + [467/961 - 48)][9350 - 5800] = 9,158 mm CK



Prepared by: [illegible] Date 9-16-19
Approved by

Tabulation of SIWHP & Cum. Gas @ Consistent Dates
Conoco, Inc. Vaughn B-1, 1
1 (H)-24S-36E
Jalmat Pool, Lea County, N.M.

	Year	Date	1 S.I. Time hrs	2 SIWHP, psia	3 BHP/Z Correlation	4 Cum. Gas @ Cons. Date	
1	1970	2-13	72	403	459	5,396,475	1
2							2
3	1971	10-7	72	368	401	6,017,725	3
4							4
5	1972	8-14	72	303	343	6,354,848	5
6							6
7	1973	6-26	72	215	310	6,695,138	7
8							8
9	1974	6-24	72	253	285	7,023,983	9
10							10
11	1975	6-23	72	213	288	7,384,813	11
12							12
13	1976	6-8		203	221	7,557,745	13
14							14
15	1977	7-19	72	175	194	7807542	15
16							16
17	1978	7-17	72	171	190	7,999,876	17
18							18
19							19
20							20
21							21
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41							41
42							42
43							43
44							44

I-I- CUM:	UPDATED THRU:	BY:

FIELD:	Jalmat (Tansill-Yates-7 Rivers)
OPERATOR:	Atlantic-Richfield
LEASE:	Jim Camp WN
LOCATION OR RRC #:	6 (E)-24S-36E
DIST:	Hobbs ☐ OIL ☒ GAS
COUNTY:	Lea
STATE:	N.M.
NO. WELLS:	1
WELL NOS:	2
DATE PROD. BEGAN:	
ACRES:	

MIDLAND SIPES, WILLIAMSON & AYCOCK, INC. HOUSTON

GAS PRODUCTION - MCF/MONTH

100 000 / 10 000 / 1000 / 100

589,981 · 634,385 · 865,100 · 936,078 · 1,049,635 · 1,651,566 · 1,499,487 · 1,610,512 · 1,449,765 · Cum Gas: 11,934,432

19 66	19 69	19 70	19 71	19 72	19 73	19 74	19 75	19 76	19 77	19 78	19 79	19	19	19	19	19	19	19	19
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

MONTHS X 3 LOG CYCLES

SWA-T-12

SWA TR_____

ATLANTIC RICHFIELD
CAMP #2

OGIP = 500 + [463/(463-46)][2400-500] = 2609 mmcf (me m)
= 500 + [463/(463-76)][2400-500] = 2776 mmcf
= 500 + [458/(458-102)][2400-500] = 2951 mmcf

BHP/Z

500
400
300
200
100
0

500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700

CUM GAS MMcf

44 43 42 41 40 39 38 37 36 35 34

Prepared by Initials Date
Approved by MM 9-18-19

Tabulation of SIWHP & Cum. Gas @ Consistent Dates
Atlantic-Richfield Jim Camp WN 2
6(E)-24S-37E
Jalmat Pool, Lea County, N.M.

Year	Date	1 SI Time, hrs	2 SIWHP, psia	3 BHP/Z (Fm Cumulation)	4 Cum. Gas @ Date	
1970	9-24	72	420	488	501,944	1
1971	8-20	72	396	450	567,947	3
1972	8-22	72	350	398	807,354	5
1973	8-26	72	327	371	951,580	7
1974	6-24	72	284	321	1102,756	9
1975	6-23	72	273	308	1,295,313	11
1976	6-8		248	279	1,428,346	13
1977	7-19	72	192	214	1561,652	15
1978	7-17	72	142	156	1692,942	17

1-1- CUM: | UPDATED THRU: | BY:

FIELD: Jalmat (Tansill-Yates-7 Rivers)
OPERATOR: Atlantic-Richfield
LEASE: Conoco St
LOCATION OR RRC #: 35(A)-26S-36E | DIST Hobbs | ☐ OIL ☐ GAS
COUNTY: Lea | STATE: N.M.
NO. WELLS: 1 | WELL NOS: 3
DATE PROD BEGAN: 3-'77 | ACRES:
MIDLAND SIPES, WILLIAMSON & AYCOCK, INC. HOUSTON

GAS PRODUCTION - MCF/MONTH

100 000
10 000
1000
100

121,902
132,157
286,210

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	19	19	19	19	19	19	19	19

SWA-T-12

SWA TR

Initials Date
Prepared by: MDG 9-16-79
Approved by

Tabulation of SIWHP & Cum. Gas @ Consistent Dates
Atlantic - Richfield Ambest 3
35(A)-22S-36E
Jalmat Pool, Lea County, N.M.

	Year	Date	1 S.I. Time, hrs	2 SIWHP, psig	3 BHP/Z (Correlation)	4 Cum Gas @ Date	
1	1960	—					1
2							2
3	1971	—					3
4							4
5	1972	—					5
6							6
7	1973	—					7
8							8
9	1974	—					9
10							10
11	1975	—					11
12							12
13	1976	—					13
14							14
15	1977	7-26 (New Well)	72	188	209	36594 (2)	15
16							16
17	1978	7-24	72	152	167	186247	17
18							18
19							19
20							20
21							21
22							22
23							23
24							24
25							25
26							26
27							27
28							28
29							29
30							30
31							31
32							32
33							33
34							34
35							35
36	OBTP = 36,594 + [209/(209-167)][188,241-36,594] = 181,196 mcf						36
37							37
38							38
39							39
40							40
41							41
42							42
43							43
44							44

I-I- CUM:	UPDATED THRU:	BY:

FIELD:	Jalmat (Tansill-Yates-7 Rivers)
OPERATOR:	Atlantic-Richfield
LEASE:	Comboat
LOCATION OR RRC #:	33(H)-23S-36E
DIST:	☐ OIL ☑ GAS
COUNTY:	Lea
STATE:	N.M.
NO. WELLS:	1
WELL NOS:	1
DATE PROD BEGAN:	
ACRES:	

MIDLAND SIPES, WILLIAMSON & AYCOCK, INC. HOUSTON

GAS PRODUCTION-MCF/MONTH

MONTHS X 3 LOG CYCLES

100 000 · 10 000 · 1000 · 100

5,906,444 · 5,818,866 · 5,801,650 · 5,802,115 · 5,801,163 · 5,800,163 · 5,790,624 · 6,006,590 · 6,055,606 · 6,029,006

Mar June Sept Dec

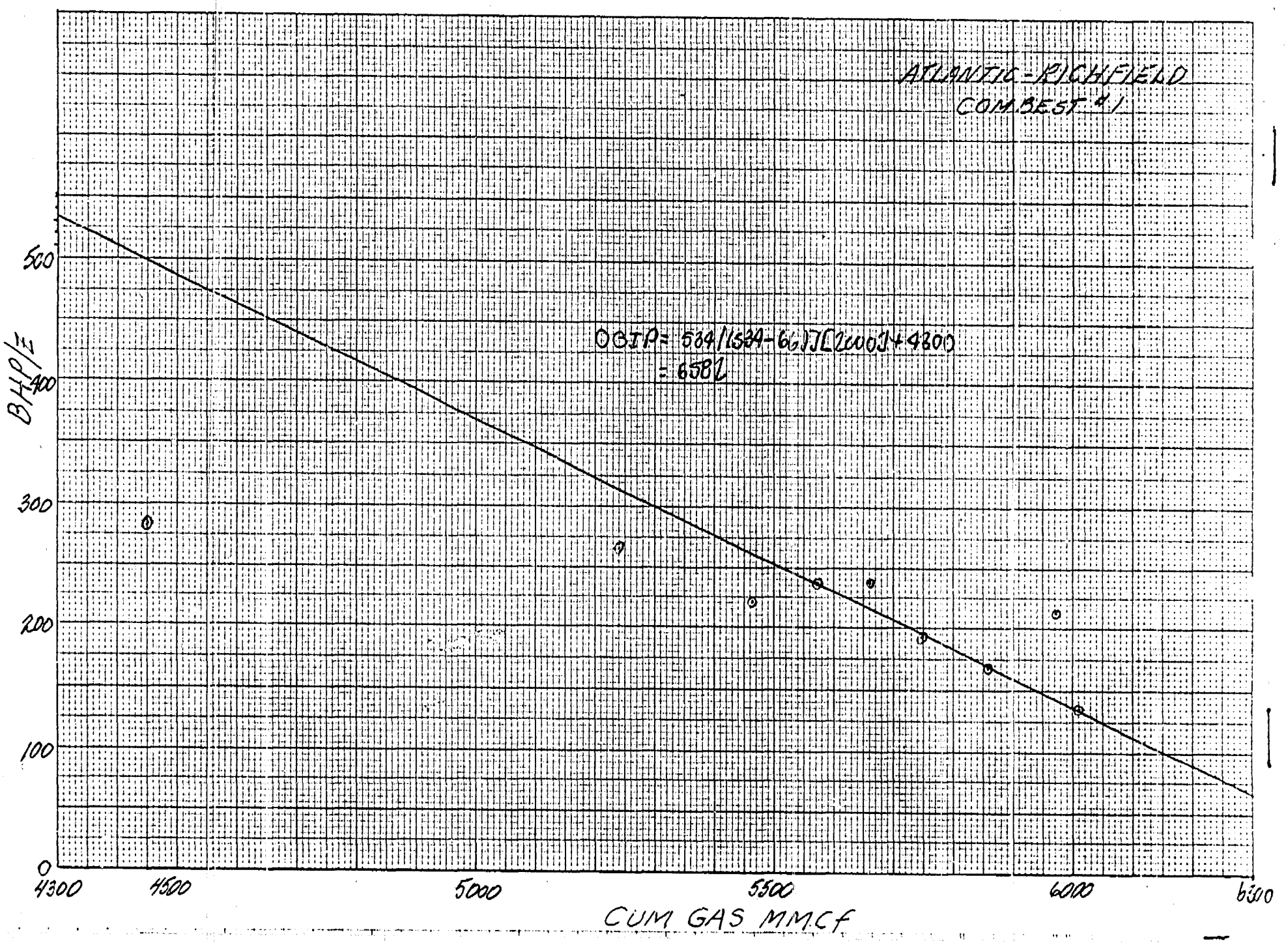
19 70 | 19 71 | 19 72 | 19 73 | 19 74 | 19 75 | 19 76 | 19 77 | 19 78 | 19 79 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19

SWA-T-12

SWA TR ____

ATLANTIC-RICHFIELD
COMBEST #1

OGIP= 534/1.52A-66)JL2000J+4800
= 6582



Prepared by: Initials MDH Date 9-13-79
Approved by

Tabulation of SIWHP & Cum. Gas @ Consistent Dates

Atlantic-Richfield Combest 1
35(H)-23S-36E
Jalmat Pool, Lea County, N.M.

		1	2	3	4	
Year	Date	S.I. Time hrs	SIWHP, psig	(BHP) ≈ (fm corr.)	Cum Gas @ Date	
1970	9-10	72	255	287	4,450,511	1
						2
1971	8-26	72	231	266	5,241,259	3
						4
1972	9-5	72	200	223	5,460,117	5
						6
1973	1-3	72	212	237	5,575,075	7
						8
1974	1-1	71	213	238	5,661,476	9
						10
1975	6-30	72	172	191	5,741,955	11
						12
1976	6-15	—	152	167	5,867,371	13
						14
1977	1-26	72	192	214	5,976,912	15
						16
1978	1-24	72	123	135	6,039,690	17
						18
						19
						20
						21
						22
						23
						24
						25
						26
						27
						28
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						30
						31
						32
						33
						34
						35
						36
						37
						38
						39
						40
						41
						42
						43
						44

5

I-I- CUM.	UPDATED THRU:	BY:

FIELD:	Jalmat (Tansill-Yates-7 Rivers)
OPERATOR:	Amoco, Inc.
LEASE:	Lynn B-25
LOCATION, OR RRC #:	25(M)-26S-36E
DIST:	Hobbs ☐ OIL ☑ GAS
COUNTY:	Lea
STATE:	N.M.
NO. WELLS:	1
WELL NOS:	2
DATE PROD BEGAN:	
ACRES:	

MIDLAND SIPES, WILLIAMSON & AYCOCK, INC. HOUSTON

GAS PRODUCTION-MCF/MONTH

10 000
9
8
7
6
5
4
3
2
10000
9
8
7
6
5
4
3
2
1000
9
8
7
6
5
4
3
2
100

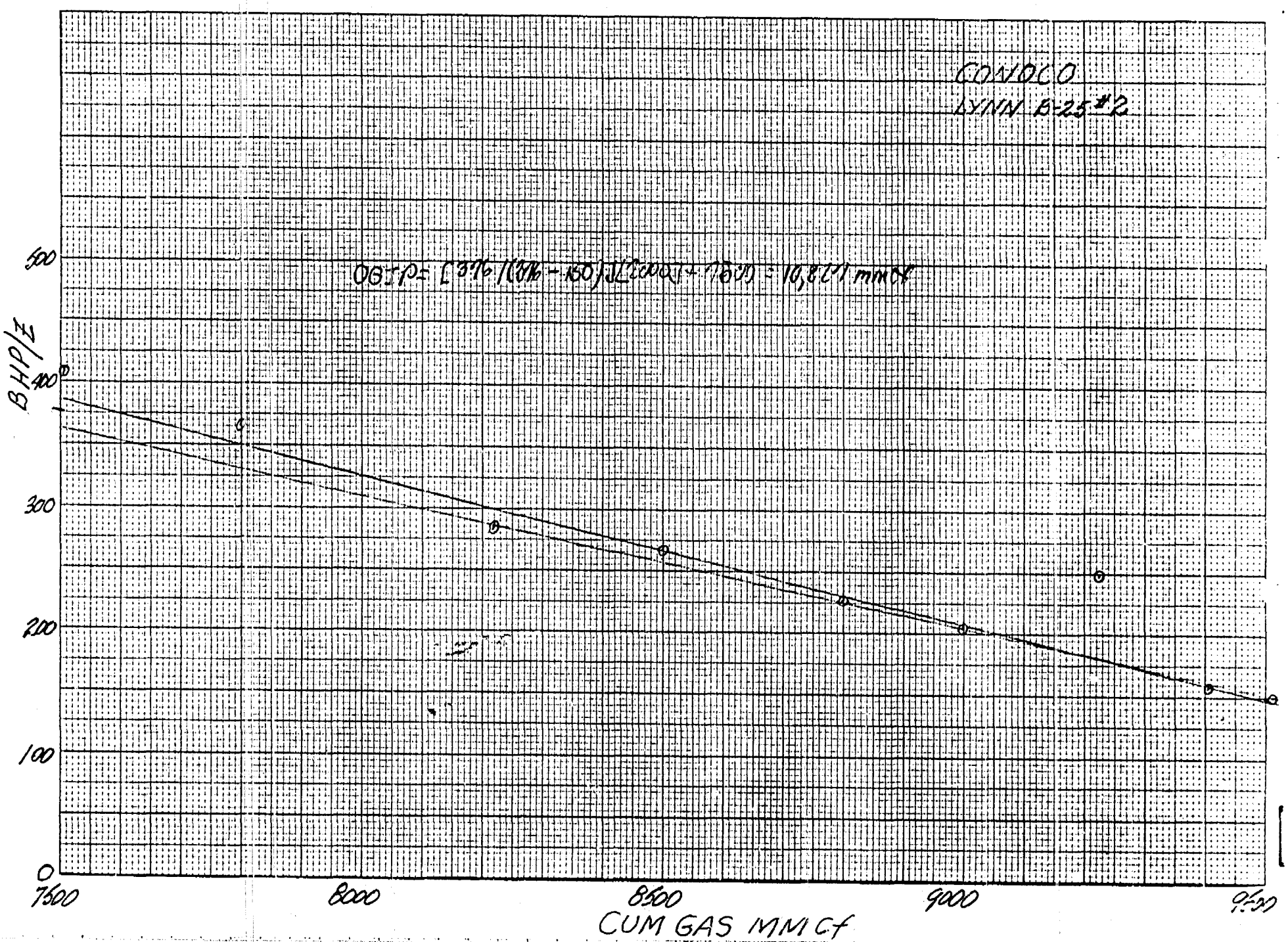
Mar	June	Sept	Dec
1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	19____	19____	19____	19____	19____	19____	19____	19____	19____	19____

SWA-T-11

SWA TR____

CONOCO
LYNN B-25 #2

OBTP= [376/(376+150)][2000(1+.75)] = 10,821 mmcf



Prepared by [illegible] Date 9-13-79
Approved by

Tabulation of SIWHP & Cum. Gas @ Consistent Dates
Conoco, Inc. Lynn B-25, 2
25(M)-20S-36E
Jalmat Pool, Lea County, N.M.

Year	Date	1 S.I. Time hrs	2 SIWHP, psig	3 BHP/Z (Correlation)	4 Cum. Gas @ Date
1970	9-10	72	359	408	7,523,899
1971	8-26	72	323	366	7830736
1972	9-5	72	248	279	8,213,448
1973	1-3	72	238	261	8,499,572
1974	1-1	72	203	221	8,803,289
1975	6-30	72	184	205	9,037,186
1976	6-15		265	299	9,224,744
1977	1-26	72	144	158	9417958
1978	1-24	72	186	150	9590538

1-1- CUM. | UPDATED THRU: | BY:

FIELD: Jalmat (Tansill-Yates-7 Rivers)
OPERATOR: Conoco, Inc.
LEASE: Lynn B-25
LOCATION OR RRC #: 25 J-23S-36E | DIST: Hobbs | ☐ OIL ☑ GAS
COUNTY: Lea | STATE: N.M.
NO. WELLS: 1 | WELL NOS: 1
DATE PROD BEGAN: | ACRES:
MIDLAND SIPES, WILLIAMSON & AYCOCK, INC. HOUSTON

GAS PRODUCTION-MCF/MONTH

10 000
1000
100

6,891,605
2,899,604
2,899,605
2,899,605
2,899,605
3,125,316
3,125,316
3,266,990
3,650,013
6,300,428

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 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19

SWA-T-11

SWA TR _____

Prepared by: [illegible] Date 9-13-19
Approved by

Tabulation of SIWHP & Cum. Gas @ Consistent Dates
Conoco, Inc Lynn B-25, 1
25 (JJ-23S-36E

	Year	Date	1 S.I. Time, hours	2 SIWHP, psia	3 BHP/Z (correlation)	4 Cum Gas @ Date
1	1976	—	—	—	—	—
2						
3	1977	—	—	—	—	—
4						
5	1978	—	—	—	—	—
6						
7	1979	—	—	—	—	—
8						
9	1980					
10						
11	1985					
12						
13	1986					
14						
15	1987	8-2		155	171	3241941
16						
17	1988	9-24	92	151	166	3324039
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						
33						
34						
35						
36						
37						
38						
39						
40						
41		OGIP = 3241941 + [171/(171-166)][3,324,039 - 3,241,941] = 6099,092				
42						
43						
44						

6

I-I- CUM. | UPDATED THRU: | BY:

FIELD: Jalmat (Tansill-Yates-7 Rivers)
OPERATOR: Conoco, Inc.
LEASE: Lynn B 1
LOCATION OR RRC #: 26(J)-23-36E | DIST Hobbs | ☐ OIL ☑ GAS
COUNTY: Lea | STATE: N.M.
NO. WELLS: 1 | WELL NOS: 1
DATE PROD BEGAN: | ACRES:
MIDLAND SIPES, WILLIAMSON & AYCOCK, INC. HOUSTON

GAS PRODUCTION-MCF/MONTH.

10 000
9
8
7
6
5
4
3
2
1000
9
8
7
6
5
4
3
2
100

18,440,146
13,948,249
13,398,854
13,165,272
5,027,750
13,556,606
12,803,581
12,358,435
12,091,623

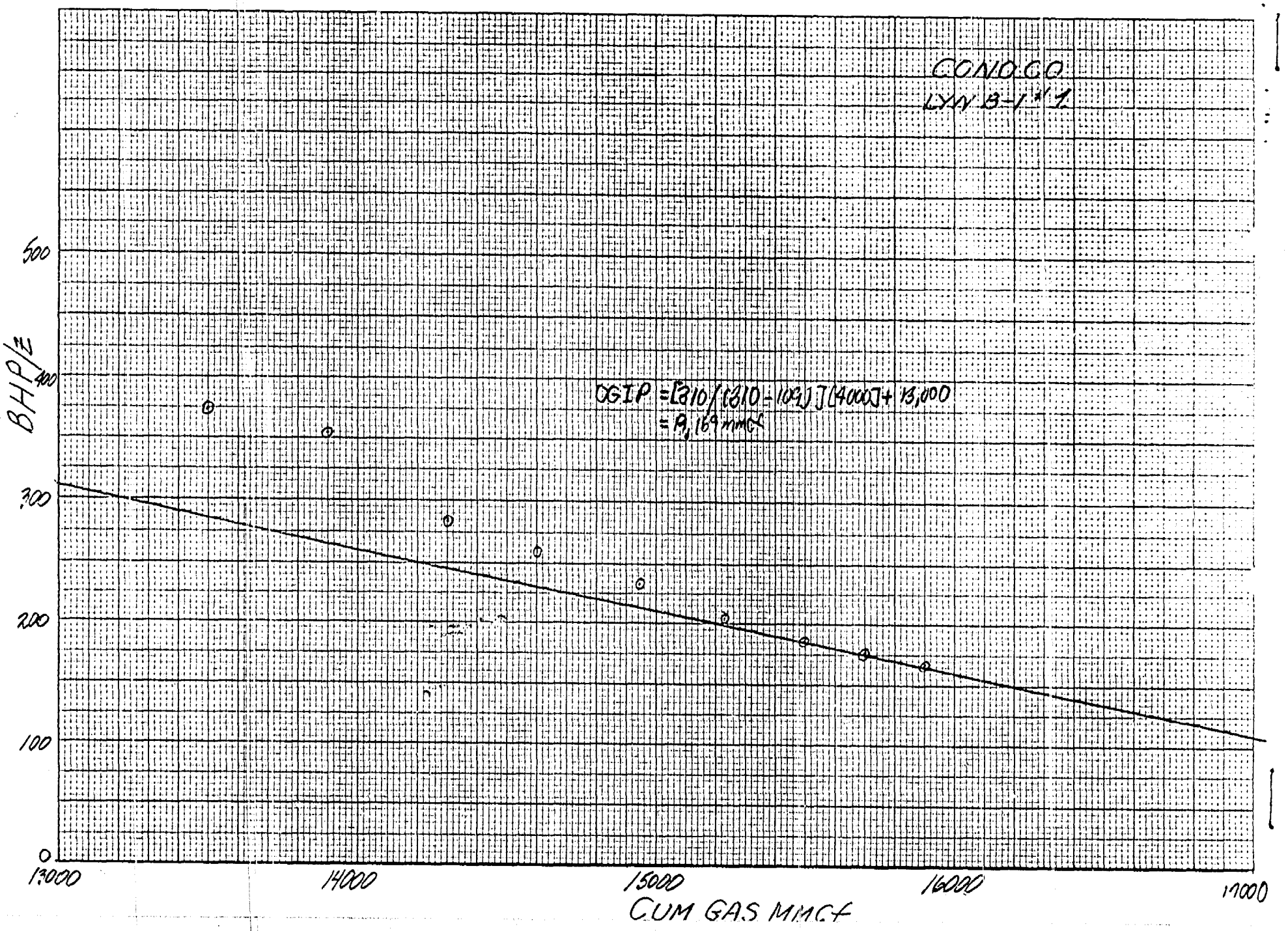
Mar June Sept Dec

19 20 | 19 21 | 19 22 | 19 23 | 19 24 | 19 25 | 19 26 | 19 27 | 19 28 | 19 29 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19

SWA-T-11

SWA TR ____

CONOCO
LYNN B-1 #1



OGIP = [810 / (810 - 102)] [4000] + 13,000
= 8,169 mmcf

Initials Date

Prepared by MDG

Approved by

Tabulation of SIWHP & Cum. Gas @ Consistent Dates

Conoco, Inc. Lynn B-1, 1

26(J)-23S-36E

Salmon Pool, Lea County, N.M.

Year	Date	1 S.I. Time, HRS	2 SIWHP, psig	3 BHP/Z (Correlation)	4 Cum. Gas @ Date	
1970	9-10	72	330	314	13,549,868	1
						2
1971	8-25	72	313	255	13,930,162	3
						4
1972	9-5	72	252	284	14,290,834	5
						6
1973	7-10	72	232	260	14613063	7
						8
1974	7-8	72	210	235	14,947,165	9
						10
1975	7-7	72	183	203	15239726	11
						12
1976	6-22		168	186	15479592	13
						14
1977	8-2	72	155	171	15,744,149	15
						16
1978	7-24	72	151	166	15,904,567	17
						18
						19
						20
						21
						22
						23
						24
						25
						26
						27
						28
						29
						30
						31
						32
						33
						34
						35
						36
						37
						38
						39
						40
						41
						42
						43
						44

1-1- CUM.	UPDATED THRU:	BY:

FIELD:	Jalmat (Tansill-Yates-7 Rivers)
OPERATOR:	Albert Gackle
LEASE:	R.W. Cowden "B" 2
LOCATION OR RRC #:	30 LW-23S-37E
DIST:	Hobbs
OIL / GAS	☐ OIL ☑ GAS
COUNTY:	Lea
STATE:	N.M.
NO. WELLS:	1
WELL NOS.:	1
DATE PROD BEGAN:	
ACRES:	

MIDLAND SIPES, WILLIAMSON & AYCOCK, INC. HOUSTON

GAS PRODUCTION-MCF/MONTH

10 000 9 8 7 6 5 4 3 2 1000 9 8 7 6 5 4 3 2 100 9 8 7 6 5 4 3 2 1

3,413,611 3,241,994 3,369,870 3,481,696 3,765,519 3,440,619 3,494,574 3,498,316 3,501,203 3,802,442

Mar. June Sept. Dec.

19 30 | 19 31 | 19 32 | 19 33 | 19 34 | 19 35 | 19 36 | 19 37 | 19 38 | 19 39 | 19 ____ | 19 ____ | 19 ____ | 19 ____ | 19 ____ | 19 ____ | 19 ____ | 19 ____ | 19 ____ | 19 ____

SWA-T-11

SWA TR ____

Initials Date
Prepared by DMG 9-15-19
Approved by

Tabulation of SIWHP & Cum. Gas @ Consistent Dates
Albert C. Sackle, Cowden B, 1
30(L)-28S-37E
Jalmat Pool, Lea County, N.M.

	1	2	3	4	
Year	Date	S.I. Time, hrs	SIWHP, psia	BHP/Z (correlation)	Cum Gas @ Date	
1970	8-14	72	394	449	3,171,884	1
1971	9-9	72	413	471	3,271,399	3
1972	8-28	72	259	292	3329213	5
1973	7-3	72	308	349	3,426,677	7
1974	10-1	72	525	599	3,585,152	9
1975	6-30	72	525	601	3488249	11
1976	6-15		498	576	3,492,592	13
1977	7-26	72	363	413	3496751	15
1978	7-31	72	436	498	3,500,115	17

OGIP(76/75) = 3,488,249 + (3,492,592 - 3,488,249)[601/(601-576)]
= 3,512,441 mcf

OGIP(78/76) = 3,492,592 + (3,500,115 - 3,492,592)[576/(576-498)]
= 3,562,199 mcf

RADTKE, AYCOCK, & ASSOCIATES, INC.
Petroleum Engineering Consultants
310 WALL TOWERS WEST
MIDLAND, TEXAS 79701
TELEPHONE 915/684-8044

September 17, 1979

Mr. Doyle Hartman
508 C&K Petroleum Building
Midland, Texas 79701

Subject: Proposed Jalmat Pool
Gas Development Well,
330' FS&EL, SW/4 Section 36,
Township 23-S, Range 36-E
Lea County, New Mexico

Dear Mr. Hartman:

As you requested, an engineering study of 13 wells that are the nearest to the proposed location, and for which production and/or pressure performance data are available, has been made. The dual purposes of this effort were:

1. To infer as to whether or not substantial drainage has occurred from the reservoir beneath the E/2, SW/4, 36-23S-36E
2. To determine, insofar as possible, the expected increase in gas ultimate recovery attributable to the proposed well.

The acreage on which the proposed well is to be located is presently assigned to the Maralo, Inc. Shell "C" St. 2N. As can be ascertained from the attached table, this well was completed on February 28, 1948, from the interval 2900 to 3000 feet. This well was producing with favorable production and pressure performance trends through 1975.

Apparently, mechanical repairs became necessary in 1976 and the well was "killed" as a part of effecting these repairs. The shut-in wellhead pressures tabulation in the New Mexico Engineering Committee 1976 Annual Volume for the Jalmat field contains the notation "unit on well, 6-15-76" for the Maralo Shell-St. 2N. While the pressure performance did not substantially deviate from the previous trend during and subsequent to 1976, the production performance never returned to the former trend. Such irreversible production inhibition after a well having been "killed" is normal for the Jalmat Pool. Ostensibly, the production drop is due to formation drainage, resulting from both the chemical interaction and relative permeability loss due to the high interfacial tension of gas and water.

As a result of the experienced production inhibition for this well, an estimated 264 MMCF of otherwise recoverable gas will apparently not be recovered from this well. If efficient drainage is or can occur to offsetting wells, the correlative rights of the owners of the E/2, SW/4, 36-23S-36E will be violated as a result of this drainage. If efficient drainage to the offsetting wells is not occurring, this gas will not be recovered, unless the proposed well is drilled. This situation can be summarized as follows:

Production Performance	Estimated Ultimate Recovery, MMCF
Trend Prior to 1976	3163
Trend Since 1975	2899
Loss	264

The drainage efficiency among wells in the vicinity of the proposed location may not be high, as evidenced by the reported 1978 shut-in wellhead pressures for the first three wells on the attached table:

Operator, Lease and Well	1978 SIWHP, psia
Maralo, Inc. Shell "C" St. 2N	155.2
Cities-Service St. "Q" 1	92.2
Getty Oil Co. Skelly-Mexico "D" 1	249.2

These pressures do indicate, however, that some gas drainage has likely occurred from the Jalmat reservoir underlying the E/2, SW/4, 36-23S-36E.

Although gas from the existing well should qualify for "stripper" (Natural Gas Policy Act Section 108) gas prices, this price will not compensate for the postulated gas loss. The proposed well cannot be drilled, unless it is classified as an infill development well under the Natural Gas Policy Act, as the allowable price would be insufficient to justify the investment required to drill it. Accordingly, the requirements of Section 10, "Special Rules and Regulations", Natural Gas Policy Act Infill Findings Administrative Procedure (as established by the Conservation Division, State of New Mexico, Energy and Minerals Department, Case No. 6516, Order No. R-6013) must be considered.

If inefficient interwell drainage exists in the vicinity of the proposed well location, analogy to existing wells provides a method of estimating the increased recovery for the proposed well. The results of this method can be summarized as follows:

Basis from 13 Jalmat Gas Wells	Estimated Increased Recovery, MMCF
Mean	5,195
Minimum	426
Maximum	16,396

Normally, calculated effective drainage areas are useful in estimating such potential increased gas recovery; however, well logs for only two of the 13 analyzed wells were available, and since well log interpretation is necessary in order to estimate effective drainage area. These calculations can be summarized as follows:

Well	Location	Calculated Effective Drainage Area, Acres
Conoco, Inc. Vaughn B-1, 1	1H-24S-36E	395
Atlantic-Richfield Camp 2	6E-24S-36E	32

Previous experience indicates that the calculated effective drainage areas are generally much nearer to 32 acres than 395 acres.

You are aware that any water occurrence within the Jalmat zones is extremely detrimental to well performance. This is particularly so if the water is either nonindigenous or results from conversion of vaporized water to the liquid state. All gas is saturated with water vapor initially, and the amount of water so vaporized increases substantially as the pressure decreases attendant to depletion. Correct production practices involve subjecting these zones to as little water for a short a period as possible. Unforeseen water occurrence in the Jalmat zones constitutes the most probable risk factor associated with drilling the proposed well.

As a result of the foregoing and assuming you are willing to assume the not inconsiderable risks associated with drilling this well, we expect that the resulting well should be economically attractive.

Very truly yours,

ORIGINAL SIGNED BY
WM. P. AYCOCK

Wm. P. Aycock, P. E.

WPA/bw

Attachment

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
Hartman EXHIBIT NO. 6
CASE NO. 6603

MARALO, INC. NO. 2
SHELL "C" STATE
36(N)-26S-36E
JALMAT (Tansill-Yates-7 Rivers)
HOBBS DIST.-Gas
LEA COUNTY, NEW MEXICO
RADTKE, AYCOCK & ASSOC., INC.

GAS PRODUCTION - MCF/MONTH

100,000
10,000
1000
100

1970 1971 1972 1973 1974 1975 1976 1977 1978 1979 19 19 19 19 19 19 19 19 19 19

EL PASO NAT. GAS NO. 2
CARLSON
N-23-25-37
JALMAT GAS POOL
HOBBS DIST.-GAS
LEA COUNTY, NEW MEXICO
RADTKE, AYCOCK & ASSOC., INC.

160 ac.

GAS PRODUCTION - MCF/MONTH

100,000
9
8
7
6
5
4
3
2
10,000
9
8
7
6
5
4
3
2
1000
9
8
7
6
5
4
3
2
100

1970 | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | 19___ | 19___ | 19___ | 19___ | 19___ | 19___ | 19___ | 19___ | 19___ | 19___

EL PASO NAT. GAS CO. NO. 1
HARRISON
L-27-25-37
JALMAT GAS POOL
HOBBS DIST.-GAS
LEA COUNTY, NEW MEXICO
RADTKE, AYCOCK & ASSOC., INC.

160 ac.

GAS PRODUCTION - MCF/MONTH

100,000
9
8
7
6
5
4
3
2
10,000
9
8
7
6
5
4
3
2
1000
9
8
7
6
5
4
3
2
100

19 70 | 19 71 | 19 72 | 19 73 | 19 74 | 19 75 | 19 76 | 19 77 | 19 78 | 19 79 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19

AMERADA-HESS NO. 2
STATE LMT
36(F)-23S-36E
JALMAT (Tansill-Yates-7 Rivers)
HOBBS DIST.-GAS
LEA COUNTY, NEW MEXICO
RADTKE, AYCOCK & ASSOC., INC.

GAS PRODUCTION - MCF/MONTH

100,000
10,000
1000
100

1970 1971 1972 1973 1974 1975 1976 1977 1978 1979 19__ 19__ 19__ 19__ 19__ 19__ 19__ 19__ 19__ 19__

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

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
Hartman EXHIBIT NO. 8
CASE NO. 6663

September 13, 1979

Amerada Hess Corporation
Drawer "D"
Monument, New Mexico 88265

RE: New Mexico Oil Conservation Division
Case 6663.

Gentlemen:

Enclosed is a copy of the Docket for the September 19, 1979 Oil Conservation Division Examiner Hearing.

You may have an interest that will be affected by the above-referenced case.

Very truly yours,

William F. Carr

WFC:tn

Enclosure

P 085 740081

RECEIPT FOR CERTIFIED MAIL
NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

SENT TO Amerada Hess Corp.
STREET AND NO. Drawer "D"
P.O. STATE AND ZIP CODE Monument, NM 88265

POSTAGE	$
CERTIFIED FEE	¢
SPECIAL DELIVERY	¢
RESTRICTED DELIVERY	¢
CONSULT POSTMASTER FOR FEES	
OPTIONAL SERVICES: RETURN RECEIPT SERVICE — SHOW TO WHOM AND DATE DELIVERED	¢
OPTIONAL SERVICES: RETURN RECEIPT SERVICE — SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY	¢
OPTIONAL SERVICES: RETURN RECEIPT SERVICE — SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	¢
OPTIONAL SERVICES: RETURN RECEIPT SERVICE — SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	¢
TOTAL POSTAGE AND FEES	$
POSTMARK OR DATE	

PS Form 3800, Apr. 1976

CAMPBELL AND BLACK, P.A.
LAWYERS

JACK M. CAMPBELL
BRUCE D. BLACK
MICHAEL B. CAMPBELL
WILLIAM F. CARR
PAUL R. CALOWELL

POST OFFICE BOX 2208
JEFFERSON PLACE
SANTA FE, NEW MEXICO 87501
TELEPHONE (505) 988-4421

September 13, 1979

Getty Oil Company
Post Office Box 703
Hobbs, New Mexico 88240

RE: New Mexico Oil Conservation Division
Case 6663.

Gentlemen:

Enclosed is a copy of the Docket for the September 19, 1979 Oil Conservation Division Examiner Hearing.

You may have an interest that will be affected by the above-referenced case.

Very truly yours,

William F. Carr

WFC:tn

Enclosure

P03 5740080

RECEIPT FOR CERTIFIED MAIL
NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

SENT TO
Getty Oil Co.
STREET AND NO.
P.O. Box 703
P.O. STATE AND ZIP CODE
Hobbs, NM 88240

POSTAGE	$
CERTIFIED FEE	
SPECIAL DELIVERY	
RESTRICTED DELIVERY	
CONSULT POSTMASTER FOR FEES	
OPTIONAL SERVICES: RETURN RECEIPT SERVICE — SHOW TO WHOM AND DATE DELIVERED	
SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY	
SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	
TOTAL POSTAGE AND FEES	$
POSTMARK OR DATE	

PS Form 3800, Apr. 1976

CAMPBELL AND BLACK, P.A.
LAWYERS

JACK M. CAMPBELL
BRUCE D. BLACK
MICHAEL B. CAMPBELL
WILLIAM F. CARR
PAUL R. CALOWELL

POST OFFICE BOX 2208
JEFFERSON PLACE
SANTA FE, NEW MEXICO 87501
TELEPHONE (505) 988-4421

September 13, 1979

Continental Oil Company
Post Office Box 460
Hobbs, New Mexico 88240

RE: New Mexico Oil Conservation Division
Case 6663.

Gentlemen:

Enclosed is a copy of the Docket for the September 19, 1979 Oil Conservation Division Examiner Hearing.

You may have an interest that will be affected by the above-referenced case.

Very truly yours,

William F. Carr

WFC:tn

Enclosure

P08 574 079

RECEIPT FOR CERTIFIED MAIL
NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

SENT TO
Continental Oil Co.
STREET AND NO.
P.O. Box 460
P.O., STATE AND ZIP CODE
Hobbs, NM 88240

PS Form 3800, Apr. 1976

POSTAGE	$
CERTIFIED FEE	
CONSULT POSTMASTER FOR FEES	
OPTIONAL SERVICES	
SPECIAL DELIVERY	
RESTRICTED DELIVERY	
RETURN RECEIPT SERVICE	
SHOW TO WHOM AND DATE DELIVERED	
SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY	
SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	
TOTAL POSTAGE AND FEES	$
POSTMARK OR DATE	

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

September 13, 1979

Cities Service Company
Post Office Box 300
Tulsa, Oklahoma 74102

RE: New Mexico Oil Conservation Division
Case 6663.

Gentlemen:

Enclosed is a copy of the Docket for the September 19, 1979 Oil Conservation Division Examiner Hearing.

You may have an interest that will be affected by the above-referenced case.

Very truly yours,

William F. Carr

WFC:tn

Enclosure

P08 574 0078

RECEIPT FOR CERTIFIED MAIL
NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

SENT TO
Cities Service Co.
STREET AND P.O.
P.O. Box 300
P.O., STATE AND ZIP CODE
Tulsa, Ok. 74102

PS Form 3800, Apr. 1976

POSTAGE	$
CERTIFIED FEE	
SPECIAL DELIVERY	
RESTRICTED DELIVERY	
CONSULT POSTMASTER FOR FEES	
OPTIONAL SERVICES	
RETURN RECEIPT SERVICE	
SHOW TO WHOM AND DATE DELIVERED	
SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY	
SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	
TOTAL POSTAGE AND FEES	$
POSTMARK OR DATE	

CASE 6658: Application of Texas Pacific Oil Company, Inc. for an unorthodox well location and a non-standard proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 160-acre non-standard gas proration unit comprising the S/2 NE/4 and N/2 SE/4 of Section 14, Township 24 South, Range 36 East, Jalmat Gas Pool, to be dedicated to its J. W. Cooper Well No. 8 at an unorthodox location 2010 feet from the North line and 2310 feet from the East line of said Section 14.

CASE 6659: Application of Amoco Production Company for an exception to Order No. R-3221, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Order No. R-3221 to permit disposal of produced brine in several unlined surface pits located in Sections 27, 34 and 35, Township 18 South, Range 31 East.

CASE 6660: Application of B. & W. Oil Reclaiming for an oil treating plant permit, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority for the construction and operation of an oil treating plant for the purpose of treating and reclaiming sediment oil at a site in the NE/4 NE/4 NE/4 of Section 34, Township 18 South, Range 26 East.

CASE 6661: Application of LaRue and Muncy for an exception to R-111-A, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an exception to the casing-cementing rules of Order R-111-A to permit a well to be drilled in Unit C of Section 22, Township 18 South, Range 30 East, Leo Queen-Grayburg Pool, to be cased by setting surface casing at the top of the salt, circulating cement on the oil string, and omitting the intermediate casing required by R-111-A; applicant further requests special rules to apply to all of Sections 15 and 22 of said township to permit additional wells to be completed in the same manner.

CASE 6662: 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 6663: Application of Doyle Hartman for an unorthodox well location and 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 a well at an unorthodox location 330 feet from the South line and 2310 feet from the West line of Section 36, Township 23 South, Range 36 East, Jalmat Gas Pool, is necessary to effectively and efficiently drain that portion of the existing proration unit which cannot be so drained by the existing well.

CASE 6664: 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 6647: (Continued from September 5, 1979, Examiner Hearing)

Application of O. H. Berry for an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a Seven Rivers well to be located 1650 feet from the North line and 330 feet from the East line of Section 15, Township 24 South, Range 36 East, Jalmat Gas Pool, the NE/4 of said Section 15 to be dedicated to the well.

CASE 6665: Application of Amax Chemical Corporation for the amendment of Order No. R-111-A, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-111-A to extend the boundaries of the Potash-Oil Area by the inclusion of certain lands in Sections 22 and 23, Township 19 South, Range 29 East, and Section 19, Township 19 South, Range 30 East.

CASE 6666: Application of Exxon Corporation for a non-standard proration unit, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 377.57-acre non-standard gas proration unit comprising Lots 1, 2, 3, and 4 and the N/2 N/2 of Section 36, Township 26 South, Range 25 East, and Lots 3 and 4 and the N/2 NW/4 of Section 31, Township 26 South, Range 26 East, to be dedicated to a Morrow test well to be located in Unit A of said Section 36.

CASE 6667: Application of Exxon Corporation for a non-standard proration unit, an unorthodox well location, and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the approval of a 320-acre non-standard gas proration unit comprising the W/2 of Section 10, Township 21 South, Range 36 East, Eumont Pool, to be simultaneously dedicated to its A. J. Adkins Com Well No. 1 located in Unit L, and to its Well No. 2, at an unorthodox location 1650 feet from the North and West lines of said Section 10.

CAMPBELL AND BLACK, P.A.
LAWYERS

JACK M. CAMPBELL
BRUCE D. BLACK
MICHAEL B. CAMPBELL
WILLIAM F. CARR
PAUL R. CALOWELL

POST OFFICE BOX 2208
JEFFERSON PLACE
SANTA FE, NEW MEXICO 87501
TELEPHONE (505) 988-4421

August 30, 1979

Mr. Joe D. Ramey
Division Director
Oil Conservation Division
New Mexico Department of
Energy and Minerals
Post Office Box 2088
Santa Fe, New Mexico 87501

Dear Mr. Ramey:

Enclosed herewith, in triplicate, is the application of Doyle Hartman for unorthodox well location, non-standard proration unit and infill findings, Lea County, New Mexico. The applicant requests that this case be set for the examiners hearing to be held on September 19, 1979.

Very truly yours,

William F. Carr

William F. Carr

WFC:tn

Enclosure

cc: Mr. Doyle Hartman
Suite 508
C & K Petroleum Building
Midland, Texas 79701

Mr. James A. Davidson
Post Office Box 494
Midland, Texas 79702

BEFORE THE

OIL CONSERVATION DIVISION

NEW MEXICO DEPARTMENT OF ENERGY AND MINERALS

IN THE MATTER OF THE APPLICATION OF DOYLE HARTMAN FOR UNORTHODOX WELL LOCATION, NON-STANDARD PRORATION UNIT AND INFILL FINDINGS, LEA COUNTY, NEW MEXICO.

CASE 6663

APPLICATION

Comes now, Doyle Hartman by and through his undersigned attorneys and hereby makes application for an order for wellhead price ceiling category determination pursuant to the Special Rule of the Division and Part 271.305 (b) of the Federal Energy Regulatory Commission's Regulations Implementing the Natural Gas Policy Act of 1978 and for approval of an unorthodox gas well location and creation of a non-standard proration unit and in support of this application respectfully states:

1. Applicant is the operator of the E/2 SW/4, Section 36, Township 23 South, Range 36 East, N.M.P.M., Lea County, New Mexico.

2. ~~Applicant seeks the establishment of an 80-acre non-standard proration unit in the Jalmat Formation comprising all of the above described acreage. Said non-standard unit is to be dedicated to a~~ Jalmat well which applicant proposes to drill.

3. Applicant seeks an exception to the well location requirements of Oil Conservation Division Rule 104 C II (a) for the drilling of the well at the above mentioned unorthodox location.

4. At present there is an existing well on this proration unit which was completed in and produced from the Jalmat Formation.

5. Applicant seeks a determination pursuant to Part 271.305 (b) of the Federal Energy Regulatory Commission Regulations Implementing the Natural Gas Policy Act of 1978 that the subject well is necessary to effectively and efficiently drain the portion of the Jalmat Gas Pool covered by the proposed proration unit which cannot be effectively and efficiently drained by any existing well within the proration unit and will offer evidence in support of that determination.

WHEREFORE, applicant respectfully requests that this matter be set for hearing on September 19, 1979 and that, after notice and hearing as required by law, the Division enter its order granting the application for unorthodox well location, non-standard proration unit and infill findings 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

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 UNORTHODOX WELL LOCATION, NON-STANDARD PRORATION UNIT AND INFILL FINDINGS, LEA COUNTY, NEW MEXICO.

CASE 6663

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1. Applicant is the operator of the E/2 SW/4, Section 36, Township 23 South, Range 36 East, N.M.P.M., Lea County, New Mexico.

2. Applicant seeks the establishment of an 80-acre non-standard proration unit in the Jalmat Formation comprising all of the above described acreage. Said non-standard unit is to be dedicated to a Jalmat well which applicant proposes to drill.

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Respectfully submitted,

CAMPBELL AND BLACK, P.A.

By _____
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 UNORTHODOX WELL LOCATION, NON-STANDARD PRORATION UNIT AND INFILL FINDINGS, LEA COUNTY, NEW MEXICO.

CASE 6663

APPLICATION

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1. Applicant is the operator of the E/2 SW/4, Section 36, Township 23 South, Range 36 East, N.M.P.M., Lea County, New Mexico.

2. Applicant seeks the establishment of an 80-acre non-standard proration unit in the Jalmat Formation comprising all of the above described acreage. Said non-standard unit is to be dedicated to a Jalmat well which applicant proposes to drill.

3. Applicant seeks an exception to the well location requirements of Oil Conservation Division Rule 104 C II (a) for the drilling of the well at the above mentioned unorthodox location.

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WHEREFORE, applicant respectfully requests that this matter be set for hearing on September 19, 1979 and that, after notice and hearing as required by law, the Division enter its order granting the application for unorthodox well location, non-standard proration unit and infill findings 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

William F. Carr
Post Office Box 2208
Santa Fe, New Mexico 87501
Attorneys for Applicant

DRAFT

dr/

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. 6663

ORDER NO. R- 6138

APPLICATION OF DOYLE HARTMAN

FOR AN UNORTHODOX ~~GAS~~ 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 September 19, 1979, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this _____ day of _____, 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 a waiver of existing well spacing requirements and a finding that the drilling of a well at an unorthodox gas well location 330 feet from the South line and 2310 feet from the West line of Section 36, Township 23 South, Range 36 East, NMPM, ~~to test the formation~~, Jalmat Gas Pool, Lea County, New Mexico, is necessary to effectively and efficiently drain that portion of the existing proration unit which cannot be so drained by the existing well.

(3) That the E/2 SW/4 of said Section 36 is to be dedicated to the well.

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

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

(6) That the standard spacing unit in the Jalmat Gas Pool is 640 acres.

(7) That the evidence indicates that the proposed infill well at the above-described unorthodox location may recover some 264 million cubic feet of gas underlying the E/2 SW/4 of Section 36 which cannot be produced by the existing well in the proration unit.

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

IT IS THEREFORE ORDERED:

(1) That an unorthodox gas well location ~~for the~~ for the Doyle Hartman Harold Stuckrod No 1 to be drilled ~~formation~~ is hereby approved ~~for a well to be located~~ at a point 330 feet from the South line and 2310 feet from the West line of Section 36, Township 23 South, Range 36 East, NMPM, Jalmat Gas Pool, Lea County, New Mexico, inasmuch as and this well is necessary to effectively and efficiently drain that portion of the existing proration unit which cannot be so drained by the existing well.

(2) That the E/2 SW/4 of said Section 36 shall be dedicated to the above-described well.

(3) 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.

Memo

From

FLORENE DAVIDSON
ADMINISTRATIVE SECRETARY

To called in by Bill Carr
8/30/59

NSP, Unorthodox Well Location,
Approval of Infill Drilling
Jalmat Gas Pool

330/S + 2310/W

36-23-36

NSP - E/2 SW/4 of Sec. 36

Doyle Hartman

OIL CONSERVATION COMMISSION-SANTA FE