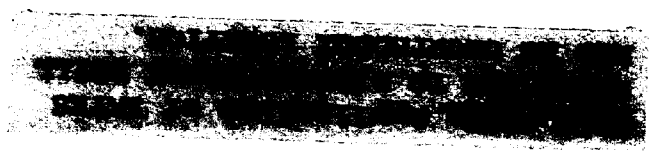


Case Number

4803

Application

Trascripts

Small Exhibits

ETC.

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
STATE LAND OFFICE
SANTA FE, NEW MEXICO
Wednesday, August 23, 1972 at 1:15 P. M.

EXAMINER HEARING

IN THE MATTER OF:	
Application of Yates Petroleum Corporation to directionally drill and an unorthodox location, Eddy County, New Mexico.	Case No. 4803

BEFORE: RICHARD L. STAMETS, Examiner

TRANSCRIPT OF HEARING

P R O C E E D I N G S

MR. STAMETS: The hearing will come to order, please. We will call next case 4803.

MR. HATCH: Case 4803, Application of Yates Petroleum Corporation to directionally drill and an unorthodox location, Eddy County, New Mexico.

MR. LOSEE: Mr. Examiner, I am A. J. Losee, Artesia, representing the applicant. We have two witnesses.

(Whereupon, Mr. Ray H. Beck was called to the stand and sworn.)

MR. RAY H. BECK

having been first duly sworn according to law, upon his oath, testified as follows:

DIRECT EXAMINATION

BY MR. A. J. LOSEE:

Q State your name, please.

A Ray H. Beck.

Q Where do you live and what is your occupation?

A I live in Artesia, New Mexico. I am a petroleum geologist.

Q Employed by?

A Yates Petroleum.

Q You have not previously testified before this Commission and had your qualifications made a part of the record?

A No.

Q Where did you take your undergraduate work?
A Texas Tech University.
Q What degree did you obtain?
A B. S. degree.
Q What was your major?
A Petroleum geology.
Q Did you obtain a higher degree?
A Yes, I obtained a master's degree subsequently.
Q In the same field?
A Yes.
Q You are also at this point working on your doctorate?
A That's right.
Q Have you had any practical experience prior to your employment with Yates?
A Yes. I worked for Shell Oil Company for eight years.
Q In what field?
A Petroleum geology.
Q In what areas?
A West Texas.
Q Where were you living?
A Midland.
Q Working out of Midland office?
A Yes.
Q How long have you been with Yates?
A Six months.

MR. LOSEE: Are Mr. Beck's qualifications acceptable?

THE EXAMINER: They are.

Q (By Mr. Losee) What is the purpose of the application of Yates Petroleum Corporation in this case number 4803?

A Yates wishes to drill and end up in an unorthodox location in the North Half of Section 25 and they wish to directionally drill at that point from an abandoned hole nineteen-eighty from the north and six-sixty from the east of Section 25, 18 South, 25 east.

Q What is the bottom-hole unorthodox location to be, Mr. Beck?

A It is to be 500 feet from the north line and 600 feet from the east line of Section 25, Township 18 south, Range 25 East.

Q To dedicate the North Half of 25 to that well?

A That's right.

Q And the proposed bottom is then at the Atoka West Morrow?

A Atoka West Morrow field.

Q Please refer to what has been marked Exhibit 1 and explain what is shown on this exhibit.

A Exhibit 1 is a land ownership map and this marks off the North Half of Section 15, 18 South, 25 East. It is on acreage dedicated to the proposed well.

Q It also shows the offset operators and the wells within the two mile radius of this acreage dedication, does it

not?

A Yes, sir.

Q Please refer to what has been marked as Exhibit 2, the isopach map, and explain what is portrayed by this exhibit.

A Exhibit 2 is an isopach map of the Atoka B Sand interval which covers the Atoka Penn field in eighteen twenty-six and the Atoka Morrow West field which is in eighteen twenty-five in the extreme western portion of eighteen twenty-six. The blue lines indicate isopach values of interconnected shoreline strike sands such as beaches, laguna beaches, barrier island beaches and a channel system which cuts across the field indicated in orange. It indicates a river bar channel system and it is interconnected and reservoir connected with the shoreline strike sands. To the left in the Atoka Morrow West field red indicates the shoreline strike sands, the thicknesses of them, and the yellow indicates the thicknesses of the channel sands which cross-cut the shoreline strike sands. Now, we wish to draw an analogy between the Atoka Penn well on the right and the Atoka Morrow field on the left. Geological studies such as these on isopach map in the cross sections presented later indicate along with pressure data that the partially completed Atoka Penn gas field is a reservoir consisting of a thick channel sands cross-cutting but reservoir connected to thinner shoreline

strike sand bodies. Geologic studies, this map and cross sections to be shown later indicate along with pressure data to be introduced by Mr. Mahfood simarly indicate that the newly developing Atoka Morrow West gas field in eighteen twenty-five is also a reservoir consisting of a thick channel sands body cross-cutting but reservoir connected to thinner shoreline strike sand bodies. The Fasken Brown Yates well in the Southwest Quarter of Section 24, eighteen twenty-five and the Mountain States McCaw well in Section--in the Northwest Quarter of Section 19, eighteen twenty-six are in the Atoka Morrow West field. The Fasken Brown Yates well Section 24 is producing from the channel sand stone and the Mountain States McCaw is producing from interconnected shoreline strike sand and beach deposit. The pressure information indicates that these wells are in the same reservoir system even though one is in a thinner sand stone body and the other is in a thicker channel sand stone body.

Q Now, those are the only producing wells in Morrow West field, are they not?

A That's right.

Q Would you point out the other wells that have been drilled to the Morrow in this field?

A In the Northwest Quarter of Section 25 there is a well, Fasken Number 1 Yates Federal Comm which was drilled to

the Morrow and the operator decided not to complete the well, but we believe that it is connected geologically and we present pressure information later supporting this. Also in the Northeast Quarter of Section 25 there is a well drilled, a Fasken Number 1 Yates Hornbaker E, which penetrated the extreme left-hand or western side of the channel sand stone. The operator found the Morrow B sand channel there to be the edge of the channel and a natural levy environment and was indicated to be tied on drill system. They sidetracked the hole 310 feet to the east and 83 feet south or about 321 feet from the original hole and found the channel, whereas the channel was 45 feet thick in the original hole, it was 106 feet thick in the well, only 321 feet of well.

THE EXAMINER: Let me get a clarification on this. The original Fasken Yates Hornbaker is that the one you are referring to?

THE WITNESS: Yes.

THE EXAMINER: That is represented by the small circle?

THE WITNESS: Yes, sir.

THE EXAMINER: To the right of the well as you have drawn it on your map?

THE WITNESS: Yes, sir.

Q (By Mr. Losee) What is the bottom-hole location of the sidetrack well?

A The bottom-hole location of the sidetrack is 310 feet from the east of the original surface location and 83 feet south.

Q Now, there is one other well in the field that we were talking about that has been drilled.

A This is the Bates Number 1 Linck in the Southwest Quarter of Section 23, eighteen twenty-five. This well is also near the channel edge and again it is in the unfavorable natural levy environment rather than being in the cleaner sands of the channel. Near the edge of the channel you run into lesser permeability than you do in the channels themselves. We have an article here written by Wayne Prior of the University of Cincinnati. It was a study conducted for the A.P.I. and it was published in the Journal of Petroleum Engineers and his results indicate that the permeability on the channel edges is less than the permeability in the channel proper. That is, you lose permeability as you approach the natural levy or edge of the channel.

Q Do you have any further comments on the isopach map?

A No, I believe not.

Q Please refer to what has been marked as Exhibit 3 and explain what is shown by this exhibit.

A Exhibit 3 is a stratigraphic cross section extending from location A, as you see on the index map, to location A-Prime.

It goes from the Atoka Morrow West field on the left to the Atoka Penn field on the right and tends to supplement the original Exhibit Number 2, the osopach map. The wells included are the Fasken Number 1, Yates Federal Comm 25, Fasken Yates Hornbaker Number 1, Fasken Hornbaker Number 1 and the whipstock hole. That is in the Atoka West field. Starting into the Atoka Penn field there is the Marathon Nicks Number 1 and the Ohio Nicks Number 1 and the Ohio Noel Number 1 and the Yates-UA Number 1. On the cross section it is located at the top of the Morrow Clastics. This is the horizon on which the structural contours which are on Exhibit 2 are taken from. On the left of the cross section the beds in red match the beds of the isopach's map in red. The yellow would be the channel going through the Atoka Morrow West field and then the blue on the right corresponds to the shoreline strike sands of the Atoka Penn field and the orange corresponds to the cross-cutting channel. Each well is indicated and the drill stem test data and perforations.

Q Do you wish to comment on the drill stem test data on either of these Fasken wells in the North Half of 25?

A No. I would just point out that speaking from a geological standpoint the stratigraphic relationships that the isopach indicates, we see that the shoreline strike sands on the Atoka west are intercepted by the channel. The

channel of the Fasken Yates Hornbaker well indeed has been deviated only a short distance into a channel much like the channel that the Ohio Nicks is in and the same stratigraphic relationships apply from the Atoka Penn which is a pool that is about 12 years old to the newly developing Atoka Morrow West field which we would like to develop more.

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

A Yes, sir.

MR. LOSEE: We move the introduction of Exhibits 1 through 3 and I have no more direct examination of this witness.

MR. STAMETS: Without objection applicant's Exhibits 1 through 3 are admitted into evidence.

Are there questions of the witness?

Now, speaking about the Fasken Yates Hornbaker well, this was sidetracked and did encounter the channel?

THE WITNESS: Yes, sir.

MR. STAMETS: That a substantial amount of pay in there, 106 feet or at least of sand?

THE WITNESS: 106 feet of channel sands, yes, sir.

MR. STAMETS: Can you tell me why that well didn't produce and why you are seeking, at least according to your map, to drill a location which would encounter the channel at about the same thickness?

THE WITNESS: Yes, sir. Mr. Mahfood may expand on this later, but they found after they had drilled into the channel 78 feet, they attempted to drill stem test, and in this drill stem test they obtained gas to surface nine and a half minutes at a maximum of 692,000 but then in 49 minutes the mud and formation water flowed to the surface and recovered 5650 feet of salt water and they had it--it indicates that we believe that they drilled too far into the channel before they drill stem tested. Subsequent tests also obtained water but they did finally have good pressure and we are of the opinion that had they not penetrated as far as they did that perhaps they would have found the gas above the water or that they might be in a transition zone where the cut may be a little bit too high. They thought it would be not good from a mechanical standpoint to complete the well because of the water problems.

THE EXAMINER: According to Exhibit 2 it would appear that substantially most of the reservoir that you would be producing from would lie outside the boundaries of Section 25; is that correct?

THE WITNESS: Would you say that again?

THE EXAMINER: Well, the reservoir that you propose to tap--

THE WITNESS: Yes.

THE EXAMINER: --With your well, the channel appears to be mostly outside Section 25.

THE WITNESS: Well, the channel does cross through Section 24 there, yes, more than it does in 25. However, we believe, and we tried to point out by analogy with the Atoka Penn West field, that even though the channel would be a likely place to go, you can still drain from the same reservoir by interconnected strike sands so that the entire half of 25 is still part of the system.

THE EXAMINER: For the record would you run over the results of the drill stem tests on the Yates--Fasken Yates Comm which is the well which was not completed in the North Half of the Northwest Quarter of Section 25?

THE WITNESS: Yes, sir. Drill stem test number 2 eighty eighty-eight, thirty eighty-eight, ninety-two. Condensate 450 foot of gas cut mud. Flowed gas at 2.65 million and decreased 2.4 million at the end of the test. Flow pressures twenty-two ninety-one to twenty eighty-nine. Shut-in pressures thirty-four eighty at one hour and final shut-in pressure was thirty eighty-one in six hours.

THE EXAMINER: Do you feel that the entire North Half of the Section 25 can reasonably be presumed to be productive of gas?

THE WITNESS: From the geologic standpoint, I believe that's true.

THE EXAMINER: The well at the bottom-hole location that you propose, will that efficiently and economically drain

the entire half of the north section?

THE WITNESS: I believe it will.

THE EXAMINER: Are there any other questions of this witness?

MR. HATCH: It is proposed to dedicate the North Half rather than the East Half. Is there any reason?

MR. LOSEE: I can offer one. Looking at their isopach I suppose one is that it is more logical that those beach sands will drain in the channel across the North Half than it will across the East Half. Another reason which may be the foremost reason is that Yates is the owner of the entire North Half. Although they have a good part of the East Half they don't have it all, as I understand it.

THE EXAMINER: The witness may be excused.

(Whereupon, Mr. Eddie Mahfood was called to the stand and sworn.)

MR. EDDIE MAHFOOD

having been first duly sworn according to law, upon his oath, testified as follows:

DIRECT EXAMINATION

BY MR. A. J. LOSEE:

Q State your name, please.

A Eddie Mahfood.

Q Where do you live and what is your occupation?

A Artesia, New Mexico, petroleum engineer employed with Yates Petroleum Corporation.

Q Have you previously testified before this Commission and had your qualifications made a part of the record?

A Yes.

Q Please refer to what has been marked as Exhibit 4 and explain the data that is shown on this exhibit.

A Exhibit 4 is a pressure build-up and supporting data log of the Fasken Yates Federal Number 1. The purpose of this is to show that there is gas reserves in this area and that it is not a limited reservoir and that there is communication with the rest of the West Atoka field. You will note that the extrapolated pressure is thirty-seven seventy-one on the initial test period and also on the frontal test period. You will note that the well is very tight and that the well is some three feet away from the well bore and to extend state conditions would have yielded only 100 MCF per day. This is just not enough quantity sufficient to justify most operators' completion of the well. For that reason I believe the well was not completed.

Q Would you compare the pressure, initial pressure, on this well with other wells in the field?

A Yes. I would like to refer back to Exhibit 2. You will notice that the McCaw Number 1 well in Section 19 of eighteen twenty-six was the discovery well of the West

Atoka field. In October of '70 the top hole pressure test was 3600 pounds. Two months later the Brown Yates well in the Southeast Quarter of Section 24 eighteen twenty-five was completed and tested with a bottom-hole pressure of thirty-five ninety-nine. Three months later the one twenty-five in Section 25 was drilled and its pressure was thirty-seven seventy-one after extrapolation shown in Exhibit 4. The Linck well in Section 24 was approximately thirty-six ten by extrapolation and the Baker well drilled some 12 months later was thirty-five seventy-nine and thirty-five eighty-one. These pressures are all very close to one another and would indicate communication to me. I would direct your attention to the log on this Yates Federal one twenty-five. You will notice in the red in the Morrow B section the porosities. That portion of the pay is what I consider to have reserves. This would suggest a fingering effect. The log suggests beach phases or a trough between sand bars such as you will find down there. You can wade three-quarters of a mile or a mile from the shore and you go through several troughs and come up on sand bars. I think that this will just happen to be in a bad location. It was drilled in that local tight spot.

Q Please refer to what has been marked as Exhibit 5 and explain what is shown by this exhibit.

A Exhibit 5 is a pressure build-up on the Hornbaker Number 1, the original hole to the left and the deviated hole on the right top side of the graph. Supporting data is drill stem test data on both holes and the electric log of each hole. We notice that drill stem test number 1 of the original hole shows a very tight formation. The well flows 90 MCF per day with no fluid but it just didn't have it because as Mr. Beck stated earlier, this well is located on the levy of the channel. I ask you to look at the gamma ray side of the log. This would indicate to me that it was outside of a beach area and that this is in a channel. Then we have a deviated hole, this great thick channel, in there and you note again on the gamma ray side there how thick and low activity is. It is our conclusion from the several drill stem tests run on this deviated hole that a transition zone exists in this channel and I refer you back to Exhibit 3. Drill stem test number 4 was first run through the A and B zone and it flowed 652 MCF per day with a salt water recovery of 5650 feet. Drill stem test number 6 tested the bottom part of this interval in the B zone and it flowed 240,000 cubic feet per day and recovered 5300 feet of salt water. The drill stem test number 5 was taken at the upper part of the B zone and it flowed 600 MCF per day and recovered only 2700 feet of gas cut water. Drill stem test number

9 was taken still a half part of that B zone and a quarter or one-quarter million cubic feet a day, recovering very little water. Only after five hours of flow did that water--did it produce any water. It seems to me that if we can get up dip from this location, say approximately 400 feet, that we can complete in this channel free of water. Furthermore, this channel will drain the beach sands much more effectively than would a well in the beach sand because of the greater permeability in the channel sands and the greater surface area of the beach sands exposed to the channel sands. I also draw your attention back to Exhibit 2 that the pool's location is approximately the same elevation, subsea elevation, as the McCaw Number 1 well. McCaw Number 1 was in nineteen eighteen twenty-six and the McCaw well is free of water.

Q Have you found any evidence of the transition zone in your study of the older Atoka Penn field in the channel?

A We know of two wells in the channel in the old Atoka field which is not included in this cross section. I am referring to the Haukins well and the Everest well. It is not included in this cross section, but I believe our examiner is familiar with them.

Q Explain what water was encountered in those wells.

A The Haukins well which was located on top of this transition zone there, produced gas for some ten years before

it was finally voided out and the Everest well, produced several years later than that. Also there was a pan-American well in there between the Haukins and the Everest but the point that I am making here is that a well can be at the top of this transition zone although it may produce some water it will effectively drain the gas.

Q Please refer to what has been marked as Exhibit 6 and explain what is shown on this exhibit.

A Exhibit 6 is a pressure build-up on the Brown Yates Number 1 well which is in this channel. It is located in the Southeast Quarter of Section 24. You will observe the pressure came up rapidly and stabilized at thirty-five ninety-nine on the initial charts. This just supports the previous testimony about the pressures in these other wells that are in the West Atoka field.

Q How do these compare with a one twenty-five well that is in the Northwest Quarter of 25?

A The pressure is higher but it was a well that was drilled three months earlier and I believe is already in production at the time that the one twenty-five was drilled.

Q What about the pressure in the Hornbaker?

A The pressure in the Hornbaker is a little less than the Brown Yates, although it is in a channel and in the transition zone which would probably explain for it being a little bit higher than the one twenty-five.

Q Please refer to what has been marked Exhibit 7.
A Exhibit 7 is the drill stem test data on McCaw Number 1 well in Section 19 of eighteen twenty-six. You will note that the original shut-in pressure was 3600 pounds.
Q That is a beach sands well. How does that pressure compare with the one twenty-five?
A It compares very well considering that this was a discovery well in that beach sands and was drilled several months before the one twenty-five was penetrated.
Q So that the two wells in the field that are producing are this McCaw and the Brown Yates well?
A That is correct.
Q How much gas approximately have they produced since discovery?
A It has been around three billion cubic feet of gas.
Q In your company's studies of the reserves in this field, have you reached any estimate as to what might be the reserves in the total field?
A Yes. I would estimate 40 billion cubic feet as the reserves in the Atoka field just from the draw on these two wells. That is a lot more gas in dedicated acreage to these two wells. It is a lot more gas than there is in that channel, so it must be draining the beach also.
Q Mr. Mahfood, do you have an opinion as to whether the entire North Half of Section 25 will contribute gas to a

well located 500 feet from the north line and 600 feet from the east line?

A Yes. I definitely think it would.

Q Do you think that a well at that location will sufficiently and economically drain the North Half of the section?

A Yes.

Q Do you have anything further to add?

A I think to enter this old well would prevent economic waste insofar that it is $30,000 cheaper to deviate the old well than to drill a new well. It would protect correlative rights since it would afford drainage of that entire North Half and it would prevent waste insofar as the channel completion and will afford us better recovery from the beach sands at a more economic rate.

Q Were Exhibits 4 through 7 prepared by you or under your direction?

A Yes.

MR. LOSEE: We move the introduction of Exhibits 4 through 7.

THE EXAMINER: Without objection the exhibits will be admitted.

MR. LOSEE: I have no further direct examination.

THE EXAMINER: Other questions of the witness?

Mr. Mahfood, how do you propose to directly drill this well?

THE WITNESS: We will set a whipstock at 5400. We would set a target space probably 50 feet east of where we want to wind up which is, I believe, what our docket says.

THE EXAMINER: You say 5400 or 5500?

THE WITNESS: 5400 feet. We will set this whipstock and we will aim 50 feet east of the objective and the objective is 600 feet from the east line and 500 feet from the north line. We feel that the permeability trends and the dip of the channel will carry the tubing back on to target.

THE EXAMINER: Do you propose to follow the course of the hole during the time of drilling?

THE WITNESS: Yes, sir. We intend to do that.

THE EXAMINER: By running deviation directional surveys?

THE WITNESS: That's correct. We will probably have to reset the whipstock several times.

THE EXAMINER: Do you know if a directional survey has been run by the previous operator which would already show us the location of the bottom of the hole 5400 feet?

THE WITNESS: This is correct.

THE EXAMINER: So you would go ahead and use that one rather than running a completely new directional survey?

THE WITNESS: This is correct, yes.

THE EXAMINER: Upon completion of the drilling, you would run a directional survey.

THE WITNESS: Directional survey.

THE EXAMINER: From the 5400 point on down?

THE WITNESS: This is correct.

THE EXAMINER: Has Yates Petroleum to your knowledge discussed this proposal with the offset operators in the field?

THE WITNESS: Yes. They are familiar with our intention.

THE EXAMINER: Do you know if they have expressed any opposition to this?

THE WITNESS: They just thought we were crazy.

THE EXAMINER: So they are not objecting to the final location?

THE WITNESS: I don't believe they are.

THE EXAMINER: But they have been advised as to this and they could be here if they did object?

THE WITNESS: Yes.

THE EXAMINER: Does Yates Petroleum propose a penalty for this non-standard location?

THE WITNESS: No, sir.

THE EXAMINER: Referring to Exhibit Number 5 and to previous testimony, I believe it has been stated that along the margins of this channel the porosity development is somewhat less than in the center?

THE WITNESS: Yes, it is.

THE EXAMINER: Would this act as any type of a barrier

to migration of the gas between the beach sands and the channel sands?

THE WITNESS: I would not think so. We know there is a decrease in permeability as we go back from the channel. This is rarely observed today in all big rivers, but it does not eliminate the porosity. It just decreases it as shown in that original hole.

THE EXAMINER: Do you propose some sort of a tolerance on the target area or do you anticipate any problem?

THE WITNESS: No, sir. I would ask a clearance of at least 50 feet.

THE EXAMINER: Are there any other questions? The witness may be excused.

Are there any statements in this case?

The case will be taken under advisement. Call next case 4804.

* * * * * * * * * * *

I N D E X

E X H I B I T S

STATE OF NEW MEXICO)
: ss.
COUNTY OF BERNALILLO)

I, MARCIA J. HUGHES, Court Reporter, do hereby certify that the above and foregoing pages are a true and correct transcript of the proceedings had before the New Mexico Oil Conservation Commission on Wednesday, August 23, 1972.

Marcia J. Hughes

Case 4803

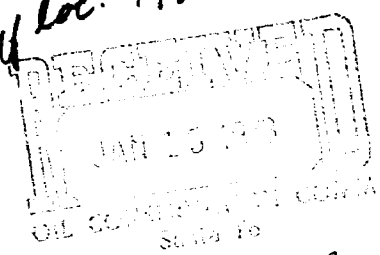
Memo

From

W. A. Gressett, Supervisor and
Oil & Gas Inspector

To Dan Nutter
They did not hit the target as
Approved by Order R-4391
However it doesn't look like they
have a well, so it may not make
any difference.
What do you think.
File Case 4803

surf loc: 1980' FNL 660' FEL
25-18-25



over

Target area (R 4391): bottom
ft within 50 of a point 500
ft from N line 600 ft from
East line of Sec 25

Told Bennett over the
phone to remind Yates
Petroleum when approving
the C-103 that a hearing
to amend R 4391 would be
necessary before
producing the well,
provided production
is obtained

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O. C. C.
ARTESIA, OFFICE

NEW MEXICO OIL CONSERVATION COMMISSION

JAN 5 1973
OIL CONSERVATION COMM.
Santa Fe

Form C-103
Supersedes Old C-102 and C-103
Effective 14-65

5a. Indicate Type of Lease State ☐ Fee ☒

5. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT —" (FORM C-101) FOR SUCH PROPOSALS.)

1. OIL WELL ☐ GAS WELL ☒ OTHER-

7. Unit Agreement Name

2. Name of Operator
Yates Petroleum Corporation

8. Farm or Lease Name
Kincaid "BI" Com

3. Address of Operator
207 South 4th Street - Artesia, NM 88210

9. Well No.
2

4. Location of Well
UNIT LETTER A , 600 FEET FROM THE North LINE AND 610 FEET FROM THE East LINE, SECTION 25 TOWNSHIP 18S RANGE 25E NMPM.

10. Field and Pool, or Wildcat
Atoka W. (Morrow)

15. Elevation *(Show whether DF, RT, GR, etc.)*
3438 GR

12. County
Eddy

16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐		COMMENCE DRILLING OPNS. ☐	PLUG AND ABANDONMENT ☐
PULL OR ALTER CASING ☐	CHANGE PLANS ☐	CASING TEST AND CEMENT JOB ☒	
OTHER ☐		OTHER Directional Srvy, Perf. SF ☒	

17. Describe Proposed or Completed Operations *(Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work)* SEE RULE 1103.

Well was drilled to TD of 9029', logged and directionally surveyed. Bottom hole location at 7560 was 15' North 28' West of casing shoe, with 1/2-1 degree to TD. The Morrow "B" sand was tested at 8800-8875', flowed gas at 2# TP on 1/4" choke; tested again at 8855-8930', flowed gas at 4# TP on ¼" choke, recovered 90' muddy formation water. Well was plugged back to 7486' as approved by Mr. Bill Gressett NMOCC, Oil & Gas Inspector, with 65 sacks Class H cement at 9010-8800' and 175 sx Class H w/15% Sd & 3/4% CFR-2 at 7800-7400', dressed to 7486' w/BH location at 17' North and 27' West of casing shoe. Well was directionally drilled to new TD of 8955'; tested at 8883-8907', GTS in 32", TSTM, rec. 280' SGCM; tested 8886-8955; GTS in 8", 14#TP on ½" ck, rec. 220' GCM & 1100' Fm. Wtr. Unable to log open hole. Ran 4½" casing as follows: Float shoe and collar at 8962', 9 jts 11.6# N-80 (289'), 62 jts 11.6# K-55 (2005'), 193 jts 10.5# K-55 (6666'), cmtd with 100 sx Pozlite, 0.5% D60 & 0.2% D-65 followed by 150 sx expanding cement 0.2% D-74. PD 9:20 AM 12-3-72, top of cmt at 7960'. WOC 120 hrs, logged & perf. well at 8891-8898' w/10 jets, ran 2" tbg & set packer at 8850. Sand Frac W/ 7900# 20-40 &1000# 20-40 beads in 230 bbls treated gel wtr. No recovery. BH location is 138' N & 167' East.

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

SIGNED Eddie M. Hurdlead TITLE Engineer DATE 1-9-73

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

EASTMAN OIL WELL SURVEY COMPANY
P. O. DRAWER 1112 2310 E. EIGHTH STREET ODESSA, TEXAS 79760 337-3515 AREA CODE 915
CABLE ADDRESS "EASTCO" HOUSTON

SYMBOL OF SERVICE

December 7, 1972

THE STATE OF TEXAS

COUNTY OF ECTOR

R. J. Brinlee & Glen Harbert being duly sworn, depose and says that: They are employed by the Eastman Oil Well Survey Company, as well bore surveyors, in charge of the following described survey; and that a Magnetic Multiple Shot Survey was run from, 1100 feet to 7300 feet, and a Single Shot Survey was run from 7400 feet to 8437 feet, measured depth.

Said well more particularly described by operators, as follows:

YATES PETROLEUM COMPANY
KINCAID WELL # 2
EDDY COUNTY, NEW MEXICO

That the attached documents, namely title sheet, computation sheets, and one plan showing the True Vertical Depth of 8423.52 feet, the well being 117.84 feet, in a direction of North 48 degrees, 21 minutes, East.

This is a full, true and correct representation of the said survey, to the best of their knowledge.

R. J. Brinlee
R. J. Brinlee

Glen Harbert
Glen Harbert

Subscribed and sworn to, before me this 7th day of December 1972.

Dorothy Conklin
Dorothy Conklin, Notary Public in and for the County of Ector, State of Texas.

EASTMAN

SYMBOL OF SERVICE

REPORT
of
SUB-SURFACE
DIRECTIONAL
SURVEY

Yates Petroleum Company
COMPANY

Kincaid Well # 2
WELL NAME

Eddy County, New Mexico
LOCATION

JOB NUMBER	TYPE OF SURVEY	DATE
WTS 114772	MMS / SS	December 7, 1972

SURVEY BY
R.J.Brinlee & Glen Harbert

OFFICE
Odessa, Texas

FORM D-666 R1

RECORD OF SURVEY

JOB NO. WTS 114772 DATE December 6, 1972 CHECKED BY

STATION	MEASURED DEPTH	DRIFT ANGLE	TRUE VERTICAL DEPTH	VERTICAL SECTION	COURSE DEVIATION	DRIFT DIRECTION	RECTANGULAR COORDINATES NORTH	SOUTH	EAST	WEST
1	1100	2°			80	N 85 E	07		80	
2	1200	2°			3 49	N 81 E	62		4 25	
3	1300	2°			3 49	N 79 E	1 29		7 68	
4	1400	2°			3 49	N 84 E	1 65		11 15	
5	1500	1° 45'	1499 76		3 05	N 84 E	1 97		14 19	
6	1600	1° 45'			3 05	N 86 E	2 18		17 24	
7	1700	1° 45'			3 05	N 84 E	2 50		20 28	
8	1800	1° 45'			3 05	N 88 E	2 61		23 33	
9	1900	1° 45'			3 05	N 89 E	2 66		26 38	
10	2000	1° 30'	1999 53		2 62	S 86 E	2 48		28 99	
11	2100	1° 30'			2 62	S 87 E	2 34		31 60	
12	2200	1° 15'			2 18	N 86 E	2 49		33 78	
13	2300	1°			1 75	N 89 E	2 52		35 52	
14	2400	1°			1 75	N 72 E	3 03		37 19	
15	2500	1°	2499 42		1 75	N 83 E	3 24		38 92	
16	2600	1°			1 75	N 78 E	3 60		40 63	
17	2700	1°			1 75	N 78 E	3 96		42 34	
18	2800	1°			1 75	N 82 E	4 20		44 07	
19	2900	45'			1 31	N 83 E	4 36		45 37	
20	3000	30'	2999 35		87	N 78 E	4 54		46 22	
21	3100	30'			87	N 78 E	4 72		47 07	
22	3200	30'			87	S 88 E	4 69		47 94	
23	3300	30'			87	N 77 E	4 87		48 79	
24	3400	15'			44	N 83 E	4 92		49 22	
25	3500	30'	3499 35		87	N 30 E	5 27		49 48	

FORM NO. D—303E

RECORD OF SURVEY

JOB NO. WTS 114772 DATE December 7, 1972 CHECKED BY

STATION	MEASURED DEPTH	DRIFT ANGLE	TRUE VERTICAL DEPTH	VERTICAL SECTION	COURSE DEVIATION	DRIFT DIRECTION	RECTANGULAR COORDINATES NORTH	SOUTH	EAST	WEST
26	3600	15'			44	N 76 E	5 38		49 90	
27	3700	15'			44	N 16 E	5 80		50 02	
28	3800	15'			44	N 26 W	6 19		49 83	
29	3900	30'			87	N 08 E	7 05		49 95	
30	4000	15'	3999 35		44	N 33 W	7 42		49 71	
31	4100	30'			87	N 09 W	8 28		49 57	
32	4200	45'			1 31	N 40 W	9 28		48 73	
33	4300	30'			87	N 45 W	9 90		48 11	
34	4400	45'			1 31	N 55 W	10 65		47 04	
35	4500	45'	4499 32		1 31	S 89 W	10 63		45 73	
36	4600	1°			1 75	S 64 W	9 87		44 16	
37	4700	1°			1 75	S 81 W	9 60		42 44	
38	4800	45'			1 31	S 70 W	9 15		41 21	
39	4900	45'			1 31	S 66 W	8 62		40 01	
40	5000	1°	4999 24		1 75	S 82 W	8 38		38 28	
41	5100	1°			1 75	S 75 W	7 93		36 59	
42	5200	1°			1 75	S 71 W	7 39		34 93	
43	5300	1°			1 75	S 60 W	6 52		33 42	
44	5400	1° 30'			2 62	S 81 W	6 11		30 83	
45	5500	1° 30'	5499 12		2 62	S 87 W	5 97		28 22	
46	5600	1° 45'			3 05	S 89 W	5 92		25 17	
47	5700	2°			3 49	N 85 W	6 22		21 69	
48	5800	2°			3 49	N 85 W	6 52		18 21	
49	5900	2°			3 49	N 79 W	7 19		14 78	
50	6000	2°	5998 83		3 49	N 80 W	7 80		11 34	

FORM NO. D—303E

RECORD OF SURVEY

JOB NO. WTS 114772 DATE December 7, 1972 CHECKED BY

STATION	MEASURED DEPTH	DRIFT ANGLE	TRUE VERTICAL DEPTH	VERTICAL SECTION	COURSE DEVIATION	DRIFT DIRECTION	RECTANGULAR COORDINATES NORTH	SOUTH	EAST	WEST
51	6100	2°			3 49	N 80 W	8 41		7 90	
52	6200	2°			3 49	N 76 W	9 25		4 51	
53	6300	2°			3 49	N 80 W	9 86		1 07	
54	6400	1° 45'			3 05	N 75 W	10 65			1 88
55	6500	2°	6498 54		3 49	N 63 W	12 23			4 99
56	6600	1° 45'			3 05	N 60 W	13 76			7 63
57	6700	1° 45'			3 05	N 63 W	15 15			10 35
58	6800	2°			3 49	N 56 W	17 10			13 24
59	6900	2°			3 49	N 72 W	18 18			16 56
60	7000	1° 45'	6998 27		3 05	N 73 W	19 07			19 48
61	7100	1° 30'			2 62	N 86 W	19 25			22 09
62	7200	1°			1 75	S 71 W	18 68			23 74
63	7300	30'			87	S 61 W	18 27			24 51
64	7400	1°			1 75	S 68 W	17 62			26 13
65	7486	30'	7484 20		75	S 36 W	17 01			26 57
66	7551	1° 30'			1 70	N 66 E	17 70			25 02
67	7630	1° 30'			2 07	N 88 E	17 77			22 95
68	7661	1° 30'			81	N 83 E	17 87			22 15
69	7690	3° 15'			1 64	N 87 E	17 96			20 51
70	7774	5° 45'	7771 67		8 42	N 79 E	19 57			12 24
71	7837	6° 15'			6 86	N 74 E	21 46			5 65
72	7901	6° 45'			7 52	N 73 E	23 66		1 54	
73	7998	7° 45'			13 08	N 66 E	28 98		13 49	
74	8060	8° 15'			8 90	N 60 E	33 43		21 20	
75	8118	11°	8112 26		11 07	N 62 E	38 63		30 97	

FORM NO. D—303E

RECORD OF SURVEY

JOB NO. WTS 114772 DATE December 7, 1972 CHECKED BY

STATION	MEASURED DEPTH	DRIFT ANGLE	TRUE VERTICAL DEPTH	VERTICAL SECTION	COURSE DEVIATION	DRIFT DIRECTION	RECTANGULAR COORDINATES NORTH	SOUTH	EAST	WEST
					12 10	N 61 E	44 50		41 55	
76	8180	11° 15'			13 10	N 59 E	51 24		52 78	
77	8243	12°			21 77	N 53 E	64 34		70 17	
78	8338	13° 15'			22 69	N 52 E	78 31		88 05	
79	8437	13° 15'	8423 52							

Closure: 117.84' North 48° 21' East

					26 82	N 53 E	94 45		109 47	
80	8554	13° 15			27 68	N 52 E	111 49		131 28	
81	8677	13° 15			25 57	N 54 E	126 52		151 96	
82	8800	12°			19 94	N 52 E	138 79		167 67	
83	8900	11° 30								

Closure: 117.84' North 48° 21' East

217 North about 5° East

FORM NO. D—3038

YATES PET. CO.
KINCAID NO. 2
EDDY CO. N.M.

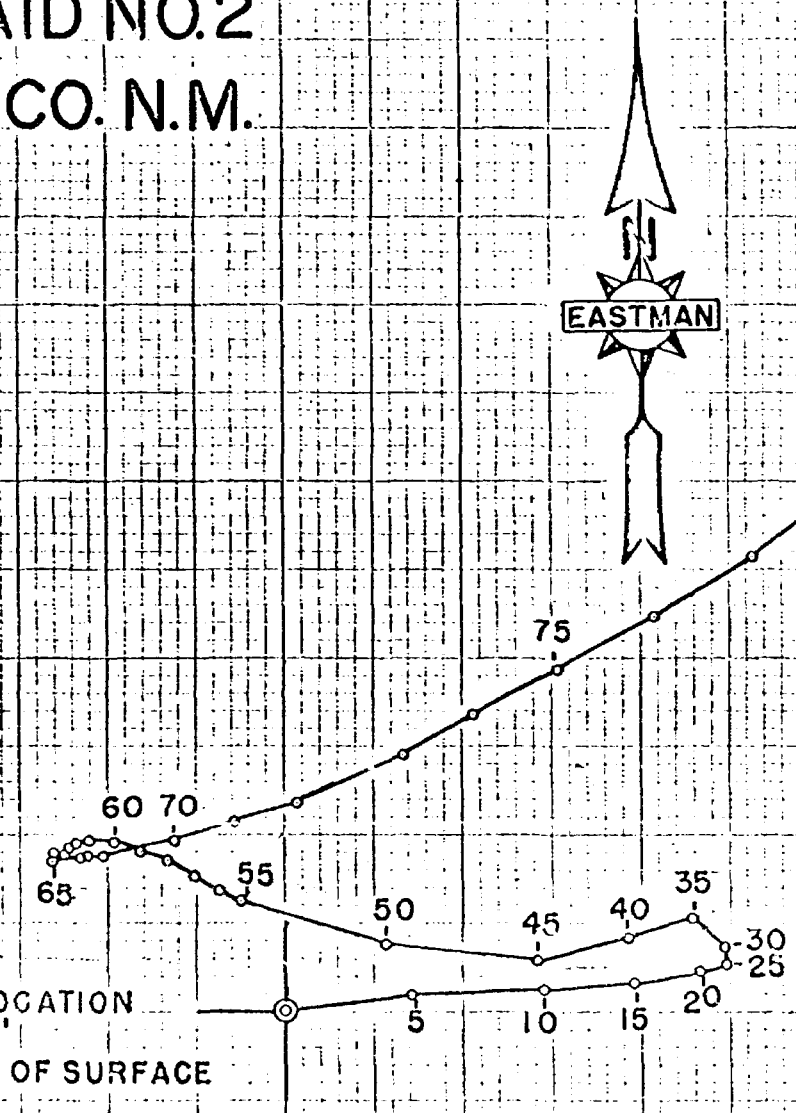
WTS 114772

EASTMAN

CLOSURE FROM 8437 TO 8900
NORTH 60.48
EAST 79.62
NORTH 52° 47' EAST
SCALE 1"=50'

CLOSURE 117.48
NORTH 7831 EAST 88.05
NORTH 48° 21' EAST
DEPTH 8437

117.48
60.48
96
117
8805
1962
16467



HOLE LOCATION
AT 1077'
BOTTOM OF SURFACE
PIPE

SCALE 1"=20'

OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO
P. O. BOX 2088 - SANTA FE
87501

GOVERNOR
BRUCE KING
CHAIRMAN

LAND COMMISSIONER
ALEX J. ARMIJO
MEMBER

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

September 8, 1972

Re: Case No. 4803
Order No. R-4391
Applicant:
Yates Petroleum Corp.

Mr. A. J. Losee
Losee & Carson
Attorneys at Law
Post Office Box 239
Artesia, New Mexico 88210

Dear Sir:

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

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

ALP/ir

Copy of order also sent to:

Hobbs OCC x
Artesia OCC x
Aztec OCC
Other

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE NO. 4803
Order No. R-4391

APPLICATION OF YATES PETROLEUM
CORPORATION TO DIRECTIONALLY
DRILL AND AN UNORTHODOX LOCATION,
EDDY COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on August 23, 1972, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 7th day of September, 1972, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That the applicant, Yates Petroleum Corporation, has acquired and is the owner and operator of a well drilled at a surface location 1980 feet from the North line and 660 feet from the East line of Section 25, Township 18 South, Range 25 East, NMPM, Eddy County, New Mexico.

(3) That the applicant proposes to dedicate the north half of said Section 25 to the well and that with such dedication the well location will be unorthodox.

(4) That the subject well was drilled a total depth of 9150 feet into the West Atoka-Morrow Gas Pool, plugged back to a depth of approximately 7300 feet and directionally drilled to the east and south to a total depth of 9070 feet and was subsequently plugged back to a depth of 5200 feet.

(5) That the applicant now seeks, as exceptions to Rules 104 C II(a) and 111(b), authority to re-enter and clean-out the subject well to a depth of approximately 5400 feet and to

set a whipstock at said depth and directionally drill in such a manner as to bottom the well in the West Atoka-Morrow Gas Pool at an unorthodox bottom-hole location within 50 feet of a point 500 feet from the North line and 600 feet from the East line of said Section 25.

(6) That the applicant proposes to determine the sub-surface location of the whipstock point by means of a continuous multi-shot directional survey conducted prior to said directional drilling and in the same manner to determine the sub-surface location of the directionally drilled hole at its total depth.

(7) That the evidence indicates that the entire N/2 of said Section 25 is productive of gas from the West Atoka-Morrow Gas Pool.

(8) That the entire N/2 of said Section 25 can be efficiently and economically drained and developed by the subject well.

(9) That there is evidence that a well at the proposed unorthodox location would penetrate a thicker and more productive pay section than a well at an orthodox location.

(10) That no offset operator or interest owner objected to the unorthodox location or directional drilling.

(11) That approval of the subject application will prevent the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Yates Petroleum Corporation, is hereby authorized to re-enter a dry hole having an unorthodox surface location 1980 feet from the North line and 660 feet from the East line of Section 25, Township 18 South, Range 25 East, NMPM, Eddy County, New Mexico, set a whipstock at approximately 5400 feet and directionally drill in such a manner as to bottom the well in the West Atoka-Morrow Gas Pool at an unorthodox bottom-hole location within 50 feet of a point 500 feet from the North line and 600 feet from the East line of said Section 25.

PROVIDED HOWEVER, that prior to commencing the aforesaid directional drilling, a continuous multi-shot directional survey shall be made of the well bore with shot points not more than 100 feet apart in order to determine the sub-surface location of the whipstock point; that the operator shall cause the surveying company to forward a copy of the survey report directly to the Santa Fe office of the Commission, Box 2088, Santa Fe, New Mexico; and that the operator shall notify the Commission's Artesia District Office of the date and time said survey is to

be commenced. In the alternative, a copy of the directional survey run prior to the initial directional drilling shall be an acceptable substitute if said survey adequately locates the sub-surface whipstock point.

(2) That subsequent to the above-described directional drilling, a continuous multi-shot directional survey shall be made of the well bore from total depth to the whipstock point with shot points not more than 100 feet apart; that the operator shall cause the surveying company to forward a copy of the survey report directly to the Santa Fe Office of the Commission, Box 2088, Santa Fe, New Mexico, and that the operator shall notify the Commission's Artesia District Office of the date and time said survey is to be commenced.

(3) That Form C-105 shall be filed in accordance with Commission Rule 1108 and the operator shall indicate thereon true vertical depths in addition to measured depths.

(4) That the N/2 of said Section 25 shall be dedicated to the subject well.

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

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

BRUCE KING, Chairman

ALEX J. ARMIJO, Member

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

S E A L

dr/

YATES PETROLEUM CORPORATION
YATES BUILDING - 207 SOUTH 4TH ST.
ARTESIA, NEW MEXICO - 88210

S. P. YATES
PRESIDENT
MARTIN YATES, III
VICE PRESIDENT
JOHN A. YATES
VICE PRESIDENT
B. W. HARPER
SEC.-TREAS.

September 15, 1972

Mr. A. L. Porter, Jr., Secretary-Director
New Mexico Oil Conservation Commission
P. O. Box 1148
Santa Fe, New Mexico

Re: Oil Conservation Commission Order No. R-4391
Case No. 4803

Dear Sir:

Herewith is Directional Survey Report for David Fasken, Yates Hornbaker No. 1 which above Commission Order requires.

Yours truly,

YATES PETROLEUM CORPORATION

Eddie M. Mahfood
Petroleum Engineer

EMM:jg
Attachment

cc: Oil Commission
Artesia

SPERRY-SUN

DIRECTIONAL SURVEY REPORT

FOR

DAVID FASKEN

TYPE OF SURVEY: Magnetic Multishot

SURVEY DEPTH: FROM 1200 FT. TO 9150 FT.

LEASE: Yates Hornbaker WELL NO. 1

FIELD:

COUNTY/~~PARISH~~ Eddy STATE New Mexico

DATE OF SURVEY April 11, 1972 JOB NO. MS-6226

OFFICE: Odessa, Texas 563-1106

STATE OF Texas
COUNTY/PARISH OF Ector

I/We, Gary Benson

_____

_____

_____, in the employ of the Directional Surveying Department of Sperry-Sun Well Surveying Company, did on the 11th day of April 19 72
and the _____ day of _____ 19____
and the _____ day of _____ 19____
and the _____ day of _____ 19____
respectively conduct or supervise the taking of a Multi-shot/~~Single shot~~ Directional survey by method indicated:
from a depth of 1200 feet to 9150 feet by ~~Gyroscopic~~/Magnetic/Oriented Survey
depth of _____ feet to _____ feet by Gyroscopic/Magnetic/Oriented Survey
depth of _____ feet to _____ feet by Gyroscopic/Magnetic/Oriented Survey
depth of _____ feet to _____ feet by Gyroscopic/Magnetic/Oriented Survey
with records of inclination and direction of inclination being taken at approximately every 100 feet.

This survey was conducted at the request of David Fasken

for their Yates Hornbaker Well No. 1

_____ Survey, Eddy County/Parish,

State of New Mexico, in the _____ Field.

I/We certify that this is a true and correct report of such survey and that it affords a true and correct representation of our findings as to the nature and conditions of the well at the time the survey was/surveys were made.

_____

_____

_____

_____

STATE OF _____
COUNTY/PARISH OF _____

Before me the undersigned authority/authorities, on this day personally appeared _____, _____, _____, _____, known to me to be the person/persons whose name is/names are subscribed to this instrument, who after being by me duly sworn on oath, states that he has/they have knowledge of all the facts stated above and that the same is a true and correct statement of the facts therein recited.

Subscribed and sworn to before me this the _____ day of _____ 19____.

_____

Notary Public in and for _____

FORM SP-330 (REV. 2)

DAVID FASKEN 608 FIRST NAT. BANK BLDG. MIDLAND
YATES HORNSAKER WELL NO. 1
FIELD
EDDY COUNTY, NEW MEXICO
MAGNETIC MULTISHOT DIRECTIONAL SURVEY

DATE OF SURVEY APRIL 11, 1972
VERTICAL SECTION COMPUTED ALONG CLOSURE
11 DEG EAST MAGNETIC CORRECTION APPLIED
MS-6226

SPERRY-SUN
RECORD OF SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION DEG	DOG-LEG SEVERITY DEG/100	VERTICAL SECTION	RECTANGULAR COORDINATES NORTH	SOUTH	EAST	WEST
1200.	1200.00	ORIGIN AT 1200 FEET					.00		.00	
1300.	1299.98	1	15	N 89 E	.22	-.26	.04		2.18	
1400.	1399.95	1	15	N 79 E	.22	-.14	.45		4.32	
1500.	1499.94	1	0	S 80 E	.33	-.38	.45		6.07	
1600.	1599.91	1	15	N 64 E	.56	.30	1.41		8.03	
1700.	1699.88	1	30	N 63 E	.25	1.16	2.60		10.36	
1800.	1799.86	1	15	N 61 E	.25	1.95	3.66		12.27	
1900.	1899.83	1	15	N 65 E	.09	2.60	4.58		14.25	
2000.	1999.81	1	15	N 48 E	.37	3.82	6.04		15.87	
2100.	2099.78	1	15	N 47 E	.02	5.08	7.53		17.46	
2200.	2199.77	1	0	N 44 E	.26	5.16	8.76		18.67	
2300.	2299.75	1	0	N 40 E	.07	7.33	10.12		19.80	
2400.	2399.74	1	0	N 21 E	.33	8.86	11.75		20.42	
2500.	2499.72	1	0	N 36 E	.26	10.12	13.16		21.45	
2600.	2599.71	0	45	N 38 E	.25	11.03	14.19		22.25	
2700.	2699.69	1	15	N 19 E	.59	12.98	16.25		22.96	
2800.	2799.67	1	15	N 17 E	.04	14.96	18.34		23.60	
2900.	2899.64	1	15	N 17 E	.00	16.94	20.43		24.24	
3000.	2999.63	1	0	N 17 E	.25	18.52	22.10		24.75	
3100.	3099.61	1	0	N 16 E	.02	20.12	23.77		25.27	
3200.	3199.58	1	30	N 18 W	.87	22.69	26.26		24.42	

DAVID FASKEN 608 FIRST NAT. BANK BLDG. MIDLAND
YATES HORNBAKER WELL NO. 1
FIELD
EDDY COUNTY, NEW MEXICO
MAGNETIC MULTISHOT DIRECTIONAL SURVEY

DATE OF SURVEY APRIL 11, 1972
VERTICAL SECTION COMPUTED ALONG CLOSURE
11 DEG EAST MAGNETIC CORRECTION APPLIED
MS-6226

SPERRY-SUN
RECORD OF SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION DEG	DOG-LEG SEVERITY DEG/100	VERTICAL SECTION	RECTANGULAR COORDINATES NORTH	SOUTH	EAST	WEST
3300.	3299.53	1	45	N 12 W	.30	25.74	29.25		23.79	
3400.	3399.48	1	45	N 18 W	.18	28.74	32.15		22.84	
3500.	3499.44	1	45	N 19 W	.03	31.74	35.04		21.85	
3600.	3599.39	1	45	N 19 W	.00	34.74	37.93		20.86	
3700.	3699.33	2	0	N 23 W	.28	38.10	41.14		19.49	
3800.	3799.27	2	0	N 27 W	.14	41.40	44.25		17.91	
3900.	3899.21	2	0	N 29 W	.07	44.65	47.30		16.22	
4000.	3999.16	1	45	N 32 W	.27	47.44	49.89		14.60	
4100.	4099.08	2	15	N 33 W	.50	50.99	53.19		12.46	
4200.	4199.01	2	15	N 36 W	.12	54.45	56.36		10.15	
4300.	4298.93	2	15	N 35 W	.04	57.95	59.58		7.90	
4400.	4398.85	2	15	N 37 W	.08	61.38	62.71		5.54	
4500.	4498.76	2	30	N 30 W	.38	65.41	66.49		3.36	
4600.	4598.64	2	45	N 36 W	.37	69.64	70.37		.54	
4700.	4698.55	2	30	N 30 W	.37	73.68	74.15			1.65
4800.	4798.45	2	30	N 29 W	.04	77.75	77.96			3.76
4900.	4898.36	2	30	N 22 W	.31	81.98	82.01			5.39
5000.	4998.26	2	30	N 20 W	.09	86.24	86.11			6.89
5100.	5098.17	2	30	N 19 W	.04	90.52	90.23			8.31
5200.	5198.07	2	30	N 20 W	.04	94.79	94.33			9.80
5300.	5297.96	2	45	N 22 W	.27	99.44	98.78			11.60

SPERRY-SUN
RECORD OF SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION DEG	DOG-LEG SEVERITY DEG/100	VERTICAL SECTION	RECTANGULAR COORDINATES NORTH	SOUTH	EAST	WEST
5400.	5397.84	2	45	N 23 W	.05	104.07	103.20			13.47
5500.	5497.73	2	45	N 21 W	.10	108.74	107.68			15.19
5600.	5597.61	2	45	N 20 W	.05	113.43	112.18			16.83
5700.	5697.53	2	15	N 20 W	.50	117.27	115.87			18.17
5800.	5797.46	2	15	N 20 W	.00	121.11	119.56			19.52
5900.	5897.41	1	45	N 14 W	.54	124.14	122.53			20.25
6000.	5997.39	1	15	N 20 W	.52	126.27	124.58			21.00
6100.	6097.35	1	30	N 4 W	.46	128.89	127.19			21.18
6200.	6197.33	1	15	N 4 W	.25	131.06	129.36			21.34
6300.	6297.30	1	15	N 3 W	.02	133.24	131.54			21.45
6400.	6397.30	0	30	N 4 W	.75	134.11	132.41			21.51
6500.	6497.30	0	30	N 37 W	.28	134.87	133.11			22.04
6600.	6597.29	0	45	N 34 W	.25	136.04	134.19			22.77
6700.	6697.28	0	45	N 36 W	.03	137.20	135.25			23.54
6800.	6797.27	0	45	N 65 W	.38	137.91	135.81			24.72
6900.	6897.26	0	45	S 87 W	.36	138.02	135.74			26.03
7000.	6997.26	0	30	S 61 W	.37	137.70	135.31			26.79
7100.	7097.24	1	0	S 50 W	.52	136.77	134.19			28.13
7200.	7197.22	1	15	S 51 W	.25	135.64	132.82			29.83
7300.	7297.20	1	0	S 53 W	.25	134.79	131.77			31.22
7400.	7397.20	0	45	S 65 W	.31	134.41	131.22			32.41

DAVID FASKEN 608 FIRST NAT. BANK BLDG. MIDLAND
YATES HORNSBAFER WELL NO. 1
FIELD
EDDY COUNTY, NEW MEXICO
MAGNETIC MULTISHOT DIRECTIONAL SURVEY

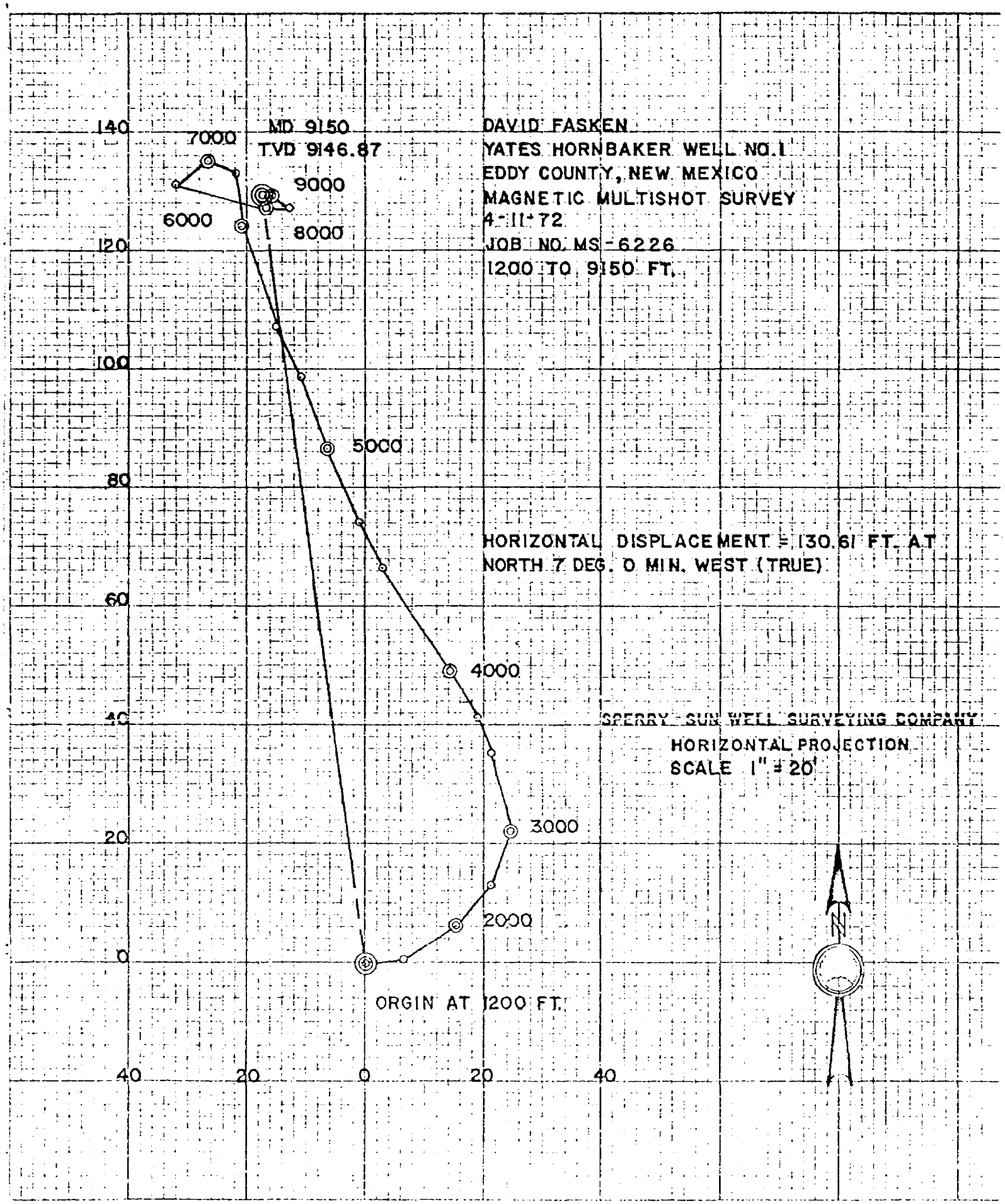
DATE OF SURVEY APRIL 11, 1972
VERTICAL SECTION COMPUTED ALONG CLOSURE
11 DEG EAST MAGNETIC CORRECTION APPLIED
MS-6226

SPERRY-SUN
RECORD OF SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION DEG	DOG-LEG SEVERITY DEG/100	VERTICAL SECTION	RECTANGULAR COORDINATES NORTH	SOUTH	EAST	WEST
7500.	7497.20	0	0	N 11 E	.75	134.41	131.22			32.41
7600.	7597.12	2	15	S 78 E	2.25	133.08	130.40			28.57
7700.	7697.07	1	45	S 70 E	.57	131.65	129.36			25.70
7800.	7797.02	1	45	S 90 E	.61	131.23	129.36			22.64
7900.	7896.96	2	0	S 83 E	.34	130.34	128.93			19.18
8000.	7996.93	1	30	S 67 E	.69	129.00	127.91			16.77
8100.	8096.91	1	0	S 67 E	.50	128.11	127.23			15.16
8200.	8196.91	0	45	S 76 E	.29	127.62	126.91			13.89
8300.	8296.90	0	30	N 59 E	.53	127.96	127.36			13.14
8400.	8396.90	0	0	N 11 E	.50	127.96	127.36			13.14
8500.	8496.90	0	0	N 11 E	.00	127.96	127.36			13.14
8600.	8596.90	0	0	N 11 E	0.00	127.96	127.36			13.14
8700.	8696.90	0	15	N 50 W	.25	128.29	427.64			13.48
8800.	8796.89	0	45	N 59 W	.50	129.11	128.31			14.60
8900.	8896.88	0	45	N 60 W	.01	129.91	129.97			15.73
9000.	8996.88	0	30	N 61 W	.25	130.43	129.39			16.50
9100.	9096.88	0	30	N 62 W	.01	130.94	129.80			17.27
9150.	9146.87	0	45	S 52 W	1.42	130.61	129.40			17.78

THE CALCULATION PROCEDURES ARE BASED ON THE USE OF THE TANGENTIAL OR CHORD METHOD

HORIZONTAL DISPLACEMENT = 130.61 FEET AT NORTH 7 DEG. 0 MIN. WEST (TRUE)


MD 9150
TVD 9146.87
DAVID FASKEN
YATES HORNBAKER WELL NO.1
EDDY COUNTY, NEW MEXICO
MAGNETIC MULTISHOT SURVEY
4-11-72
JOB NO. MS-6226
1200 TO 9150 FT.
7000
9000
6000
8000
5000
4000
3000
2000
140
120
100
80
60
40
20
0
40
20
0
20
40
HORIZONTAL DISPLACEMENT = 130.61 FT. AT
NORTH 7 DEG. 0 MIN. WEST (TRUE)
SPERRY-SUN WELL SURVEYING COMPANY
HORIZONTAL PROJECTION
SCALE 1" = 20'
N
ORGIN AT 1200 FT.

CASE 4807: In the matter of the hearing called by the Oil Conservation Commission on its own motion for the amendment of Rule 104 C. I of the Commission Rules and Regulations to permit the drilling of development oil wells as close as 330 feet to another well on the same unit drilling to or capable of producing from the same pool.

CASE 4800: Application of Mobil Oil Corporation for waterflood expansion and capacity allowable, Lea County, New Mexico. Applicant, in the above-styled cause, seeks to expand its Bridges State Waterflood Project, Vacuum Grayburg-San Andres Pool, Lea County, New Mexico, by the addition of its Bridges State Wells Nos. 12 and 174 located, respectively, in Unit P of Section 26 and Unit J of Section 15, Township 17 South, Range 34 East.

Applicant further seeks the assignment of capacity allowable to said Well No. 12.

CASE 4801: Application of The Petroleum Corporation for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Parkway West Unit Area comprising 3840 acres, more or less, of State lands in Sections 20, 21, 22, 27, 28, and 29 of Township 19 South, Range 29 East, Eddy County, New Mexico.

CASE 4802: Application of Crown Central Petroleum Corporation for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Grayburg formation in the open-hole interval from 4011 feet to 4083 feet in its Fred Turner Well No. 2 located in Unit O of Section 6, Township 20 South, Range 38 East, Skaggs (Grayburg) Pool, Lea County, New Mexico.

CASE 4803: Application of Yates Petroleum Corporation to directionally drill and an unorthodox location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to re-enter a dry hole having an unorthodox surface location 1980 feet from the North line and 660 feet from the East line of Section 25, Township 18 South, Range 25 East, Eddy County, New Mexico, and to directionally drill in such a manner as to bottom the well in the West Atoka-Morrow Gas Pool at an unorthodox bottom hole location 500 feet from the North line and 600 feet from the East line of said Section 25. The N/2 of said Section 25 to be dedicated to the well.

CASE 4804: Application of Dugan Production Corporation for downhole commingling and a non-standard proration unit, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks as an exception to Rule 303 of the Commission Rules and Regulations, authority to commingle oil production from the Amarillo-Gallup Oil Pool and gas from the

Docket No. 19-72

DOCKET: EXAMINER HEARING-- WEDNESDAY - AUGUST 23, 1972

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

The following cases will be heard before Richard L. Stamets, Examiner, or Daniel S. Nutter, Alternate Examiner:

CASE 4775: (Continued from the July 26, 1972 Examiner Hearing)

Application of Continental Oil Company for amendment of special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks amendment of the special rules and regulations governing the Blinebry Pool, Lea County, New Mexico, to provide for annual bottom-hole pressure, gas-oil ratio, and gas-liquid tests in the pool. Applicant further seeks the designation of oil areas and gas areas in the pool with allowables within each area equalized on a per-acre basis and total withdrawals from the gas area to be volumetrically equivalent to the total withdrawals from the oil area.

Applicant further seeks to extend the vertical limits of the Blinebry Pool down to the top of the Tubb Pool.

Also to be considered by the Commission on its own motion will be amendment of the special rules and regulations to require that intermediate- or low-pressure gas be charged against a well's allowable; elimination of the requirement to conduct bottom-hole pressure, gas-oil ratio, and gas-liquid tests; and to require that all gas production be reported on Form C-111.

CASE 4779: (Continued from the July 26, 1972, Examiner Hearing)

Application of Merrion & Bayless for a non-standard proration unit, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 160-acre non-standard gas proration unit comprising the SE/4 of Section 35, Township 30 North, Range 12 West, within one mile of Flora Vista-Mesaverde Pool, San Juan County, New Mexico, to be dedicated to its Carnahan Well No. 1 located in Unit P of said Section 35.

CASE 4798: In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider revision of Rule 701 E of the Commission Rules and Regulations to provide for unrestricted allowables for water-flood projects and to eliminate the necessity of response for administrative approval of additional injection wells.

CASE 4799: In the matter of the hearing called by the Oil Conservation Commission on its own motion to amend Rule 306 of the Commission Rules and Regulations to incorporate therein the provisions of Order No. R-4070 which regulate the flaring or venting of casinghead gas.

(v continued from page 7 - Case 4806)

TOWNSHIP 8 SOUTH, RANGE 34 EAST, NMPM
SECTION 34: SE/4

(w) Extend the West Ranch-Queen Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 14 SOUTH, RANGE 30 EAST, NMPM
SECTION 21: SE/4

(x) Extend the Washington Ranch-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 25 SOUTH, RANGE 24 EAST, NMPM
SECTION 27: All
SECTION 35: W/2

TOWNSHIP 26 SOUTH, RANGE 24 EAST, NMPM
SECTION 3: All
SECTION 4: E/2

CASE 4786: (Continued from August 9, 1972, Examiner Hearing).

Application of Highland Production Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Delaware formation in the open-hole interval from 4378 feet to 4418 feet in its Russell Federal Well No. 6 located in Unit K of Section 20, Township 26 South, Range 32 East, East Mason-Delaware Pool, Lea County, New Mexico.

(n) Extend the South Empire-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 29 EAST, NMPM
SECTION 6: S/2

(o) Extend the Fowler-Upper Yeso Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 24 SOUTH, RANGE 37 EAST, NMPM
SECTION 10: SE/4
SECTION 11: SW/4

(p) Extend the Golden Lane-Strawn Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 29 EAST, NMPM
SECTION 4: Lot 9, 10, 11, 12, 13, 14, 15 and 16

(q) Extend the Grayburg-Jackson Pool in Eddy County New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 30 EAST, NMPM
SECTION 9: S/2

(r) Extend the Hardy-Blinebry Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 36 EAST, NMPM
SECTION 2: SW/4

(s) Extend the McDonald-Pennsylvanian Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 13 SOUTH, RANGE 36 EAST, NMPM
SECTION 33: SE/4

(t) Extend the Sand Dunes-Cherry Canyon Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 23 SOUTH, RANGE 31 EAST, NMPM
SECTION 26: NW/4 NE/4

(u) Extend the Sulimar-Queen Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 15 SOUTH, RANGE 29 EAST, NMPM
SECTION 27: SE/4 SE/4
SECTION 34: NE/4 NE/4

(v) Extend the Vada-Pennsylvanian Pool in Roosevelt County, New Mexico, to include therein:

(f) Contract the Bagley-Pennsylvanian Pool in Lea County, New Mexico, by the deletion of the following described area:

TOWNSHIP 11 SOUTH, RANGE 33 EAST, NMPM
SECTION 35: N/2 NW/4

(g) Extend the North Bagley-Pennsylvanian Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 11 SOUTH, RANGE 33 EAST, NMPM
SECTION 35: N/2 NW/4

(h) Contract the Bough-Permo Pennsylvanian Pool in Lea County, New Mexico, by the deletion of the following described area:

TOWNSHIP 9 SOUTH, RANGE 36 EAST, NMPM
SECTION 17: NW/4

(i) Extend the North Benson Queen-Grayburg Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 30 EAST, NMPM
SECTION 26: S/2 SW/4

(j) Extend the Bluitt-San Andres Associated Pool in Roosevelt County, New Mexico, to include therein:

TOWNSHIP 8 SOUTH, RANGE 38 EAST, NMPM
SECTION 8: NW/4

(k) Extend the South Carlsbad-Atoka Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 23 SOUTH, RANGE 27 EAST, NMPM
SECTION 7: W/2
SECTION 18: N/2

(l) Extend the South Carlsbad-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 23 SOUTH, RANGE 27 EAST, NMPM
SECTION 7: S/2
SECTION 18: N/2

(m) Extend the Dos Hermanos-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 20 SOUTH, RANGE 30 EAST, NMPM
SECTION 22: All
SECTION 27: All

(Case 4806 continued)

(e) Extend the vertical limits of the Langlie-Mattix Pool in Lea County, New Mexico, to include the Grayburg formation. Also, extend said Langlie Mattix Pool to include therein:

TOWNSHIP 21 SOUTH, RANGE 36 EAST, NMPM
SECTION 13: E/2
SECTION 24: E/2
SECTION 25: NE/4 and E/2 SE/4

TOWNSHIP 21 SOUTH, RANGE 37 EAST, NMPM
SECTION 4: Lots 3, 4, 5, 6, 11, 12, 13, 14 and SW/4
SECTION 7: S/2
SECTION 8: S/2 and NE/4
SECTION 9: W/2
SECTION 16: S/2 and NW/4
SECTION 17: All
SECTION 18: All
SECTION 19: All
SECTION 20: All
SECTION 21: All

TOWNSHIP 21 SOUTH, RANGE 37 EAST, NMPM
SECTION 27: All
SECTION 28: All
SECTION 29: All
SECTION 30: All
SECTION 31: All
SECTION 32: All
SECTION 33: All
SECTION 34: All
SECTION 35: All

TOWNSHIP 22 SOUTH, RANGE 37 EAST, NMPM
SECTION 2: All
SECTION 3: All
SECTION 4: All
SECTION 5: All
SECTION 6: E/2
SECTION 7: NE/4
SECTION 8: All
SECTION 9: All
SECTION 10: All
SECTION 11: All
SECTION 14: All
SECTION 15: All
SECTION 16: All
SECTION 17: E/2

(d) Abolish the Penrose Skelly-Grayburg Pool in Lea County, New Mexico, described as:

TOWNSHIP 21 SOUTH, RANGE 36 EAST, NMPM
SECTION 13: E/2
SECTION 24: E/2
SECTION 25: NE/4 and E/2 SE/4

TOWNSHIP 21 SOUTH, RANGE 37 EAST, NMPM
SECTION 4: Lots 3, 4, 5, 6, 11, 12 13, 14 and SW/4
SECTION 7: S/2
SECTION 8: S/2 and NE/4
SECTION 9: W/2
SECTION 16: S/2 and NW/4
SECTION 17: All
SECTION 18: All

TOWNSHIP 21 SOUTH, RANGE 37 EAST, NMPM
SECTION 19: All
SECTION 20: All
SECTION 21: All
SECTION 27: All
SECTION 28: All
SECTION 29: All
SECTION 30: All
SECTION 31: All
SECTION 32: All
SECTION 33: All
SECTION 34: All
SECTION 35: All

TOWNSHIP 22 SOUTH, RANGE 37 EAST, NMPM
SECTION 2: All
SECTION 3: All
SECTION 4: All
SECTION 5: All
SECTION 6: E/2
SECTION 7: NE/4
SECTION 8: All
SECTION 9: All
SECTION 10: All
SECTION 11: All
SECTION 14: All
SECTION 15: All
SECTION 16: All
SECTION 17: E/2

(Case 4804 continued)

Basin-Dakota Pool in the wellbore of its Fullerton Well No. 1 located 1850 feet from the North and West lines of Section 34, Township 28 North, Range 13 West, San Juan County, New Mexico. Applicant further seeks approval for a non-standard 160-acre gas proration unit for the Basin-Dakota Pool comprising the NW/4 of said Section 34 to be dedicated to the subject well.

CASE 4805: Application of W. C. Montgomery for a non-standard proration unit, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks approval for an 80-acre non-standard oil proration unit comprising the NE/4 NE/4 of Section 20 and the NW/4 NW/4 of Section 21, Township 8 South, Range 38 East, Bluitt-San Andres Associated Pool, Roosevelt County, New Mexico, to be dedicated to a well to be drilled in the NE/4 NE/4 of said Section 20.

CASE 4806: Southeastern New Mexico nomenclature case calling for an order for the creation, extension, contraction and abolishment of certain pools in Lea, Chaves, Eddy and Roosevelt Counties, New Mexico.

(a) Create a new pool in Eddy County, New Mexico, classified as a gas pool for Cisco production and designated as the Boyd-Cisco Gas Pool. The discovery well is the David Fasken Arco "9" Morrison No. 1 located in Unit B of Section 9, Township 19 South, Range 25 East, NMPM. Said pool would comprise:

TOWNSHIP 19 SOUTH, RANGE 25 EAST, NMPM
SECTION 9: N/2

(b) Create a new pool in Chaves County, New Mexico, classified as an oil pool for Queen production and designated as the South Lucky Lake-Queen Pool. The discovery well is the Dalport Oil Corporation Todhunter Federal No. 1 located in Unit F of Section 22, Township 15 South, Range 29 East, NMPM. Said pool would comprise:

TOWNSHIP 15 SOUTH, RANGE 29 EAST, NMPM
SECTION 22: SE/4 NW/4

(c) Create a new pool in Lea County, New Mexico, classified as a gas pool for Devonian production and designated as the East Ranger Lake-Devonian Gas Pool. The discovery well is the Union Texas Petroleum Corporation Shell State Com No. 1 located in Unit E of Section 6, Township 13 South, Range 35 East, NMPM. Said pool would comprise:

TOWNSHIP 13 SOUTH, RANGE 35 EAST, NMPM
SECTION 6: W/2

YATES PETROLEUM CORPORATION
YATES BUILDING – 207 SOUTH 4TH ST.
ARTESIA, NEW MEXICO – 88210

Case 4803
R-4391

October 13, 1972

Mr. A. L. Porter, Jr., Secretary-Director
New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

RE: Unorthodox Location, Kincaid BI Com. No. 2
OCC Order No. R-4391 Case No. 4803

Dear Sir:

Herewith is Notice of Intent to Drill, and new location plat on Kincaid BI Com. No. 2, proposed Morrow test. This letter confirms a telephone conversation between our attorney, Mr. A. J. Losee and Mr. George Hatch, Oil Conservation Commission counsel, pertaining to the change of location on our Hornbaker "BA" Com. No. 2 well from 1980 feet from the North line and 660 feet from the East line, Section 25, Township 18 South, Range 25 East to 600 feet from the North line and 620 feet from the East line of Section 25, Township 18 South, Range 25 East, Eddy County.

The reason for the change of location is that we have run into mechanical difficulties while drilling through the Pennsylvanian shales and we are unable to directionally drill into the target area.

Yours very truly,

YATES PETROLEUM CORPORATION

Eddie M. Mahfood
Petroleum Engineer

EMM:jg

Encl.

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SANTA FE		
FILE		
U.S.G.S.		
LAND OFFICE		
OPERATOR		

NEW MEXICO OIL CONSERVATION COMMISSION

OIL CONSERVATION
Santa Fe

Form C-101
Revised 1-1-65

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work: DRILL [XX] DEEPEN [ ] PLUG BACK [ ]

b. Type of Well: OIL WELL [ ] GAS WELL [XX] OTHER — SINGLE ZONE [X] MULTIPLE ZONE [ ]

2. Name of Operator: Yates Petroleum Corporation

3. Address of Operator: 207 So. 4th St., Artesia, New Mexico 88210

4. Location of Well: UNIT LETTER A LOCATED 600 FEET FROM THE North LINE AND 620 FEET FROM THE East LINE OF SEC. 25 TWP. 18S RGE. 25E NMPM

5A. Indicate Type of Lease: STATE [ ] FEE [X]

5. State Oil & Gas Lease No.:

7. Unit Agreement Name:

8. Farm or Lease Name: Kincaid BI Com.

9. Well No.: 2

10. Field and Pool, or Wildcat: Atoka West Morrow

12. County: Eddy

19. Proposed Depth: 9000'

19A. Formation: Morrow

20. Rotary or C.T.: Rotary

21. Elevations (Show whether DF, RT, etc.): 3438 GR

21A. Kind & Status Plug. Bond: Blanket

21B. Drilling Contractor: Ard Drlg. Co.

22. Approx. Date Work will start: 10-13-72

23. PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
17½	13-3/8	48#	400	Circ.	Surface
12¼	8-5/8	24#	1150	Circ.	Surface
7-7/8	4½	10.5 & 11.6#	9000	250	8100'

Unorthodox location approved in OCC Rule No. R-4391, Case No. 4803. Unable to sidetrack in Pennsylvania shales, obtained verbal approval to skid rig to above location and drill straight hole for Morrow test. If commercial, will run 4½" casing to total depth and cement with 250 sx cement. BOP's and prudent engineering practice will be employed throughout the drilling and completion procedure.

Note: This unorthodox location was previously named Yates-Hornbaker "BA" Com. No. 2 with surface location 1980/N and 660/E line of Sec. 25, 18S, 25E.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

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

Signed Eddie M. Hubbard Title Engineer Date 10-13-72

(This space for State Use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

NEW MEXICO OIL CONSERVATION COMMISSION

WELL LOCATION AND ACREAGE DEDICATION PLAT

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

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

OIL CONSERVATION COMM
Santa Fe

Operator	Lease	Well No.
Yates Petroleum Corporation	Kincaid BI Com.	2

Unit Letter	Section	Township	Range	County
A	25	18 South	25 East	Eddy

Actual Footage Location of Well:
600 feet from the North line and 620 feet from the East line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
3438	Morrow	W. Atoka	320 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

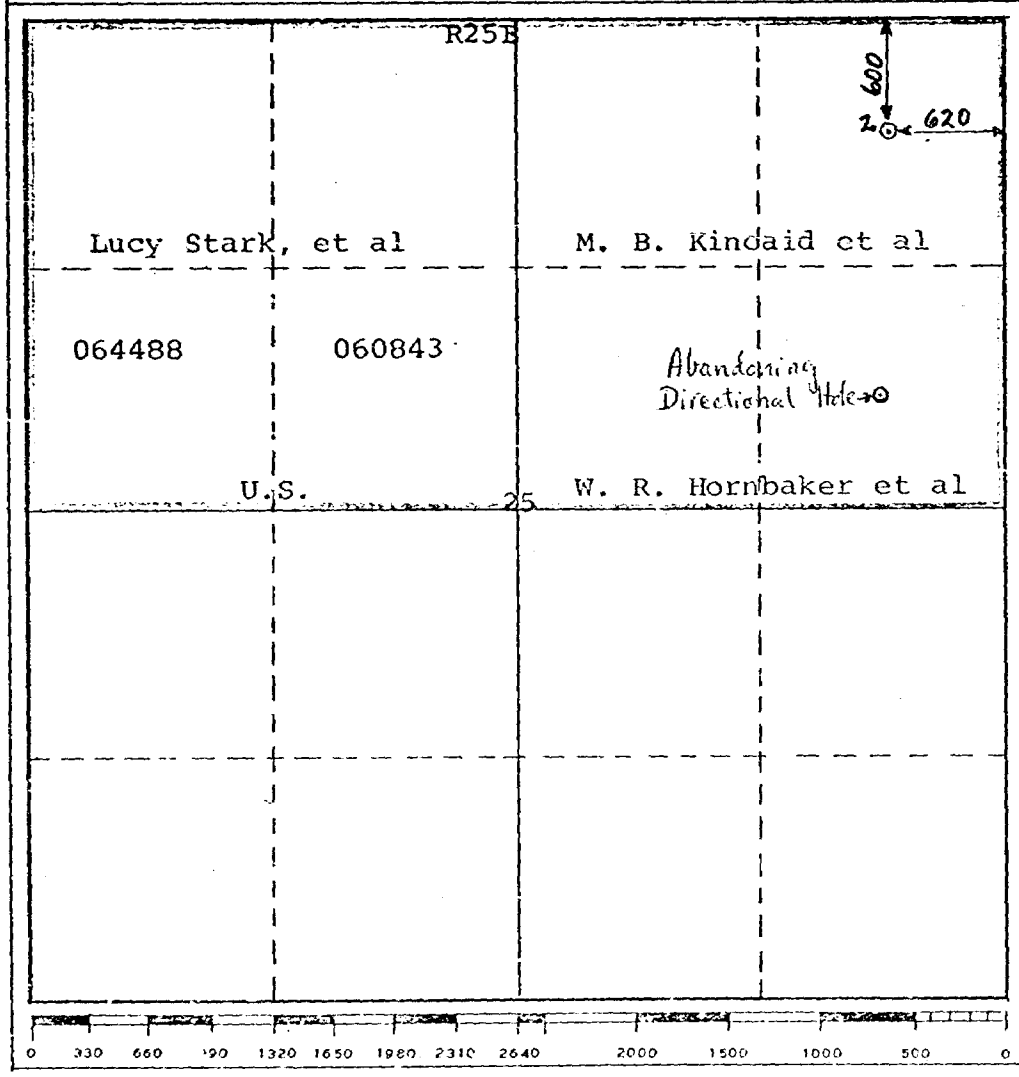
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling. etc?

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

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

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



CERTIFICATION

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

Eddie M. Mahfood

Name: Eddie M. Mahfood

Position: Engineer

Company: Yates Petroleum Corp.

Date: 10-12-72

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

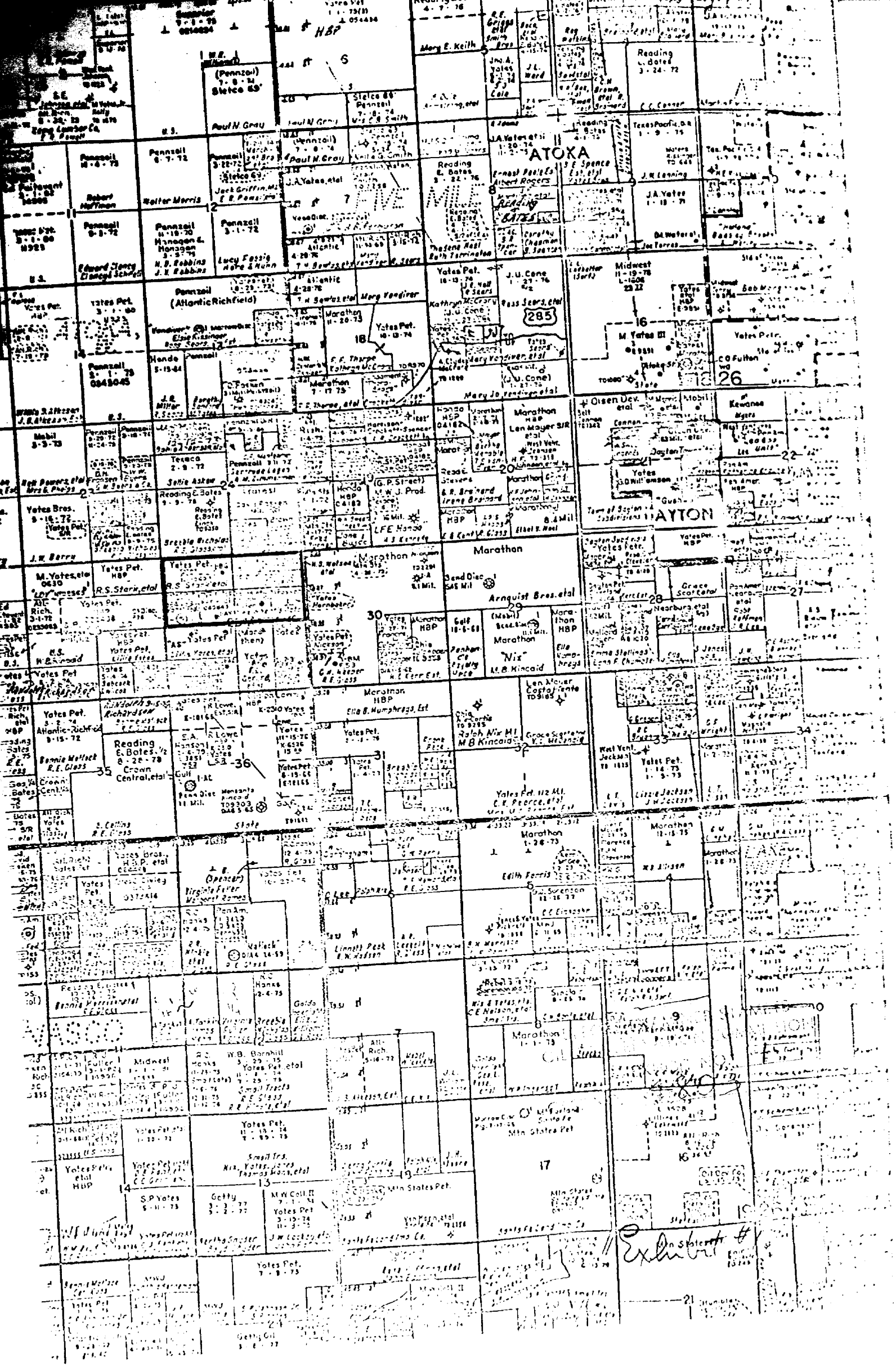
10-12-72

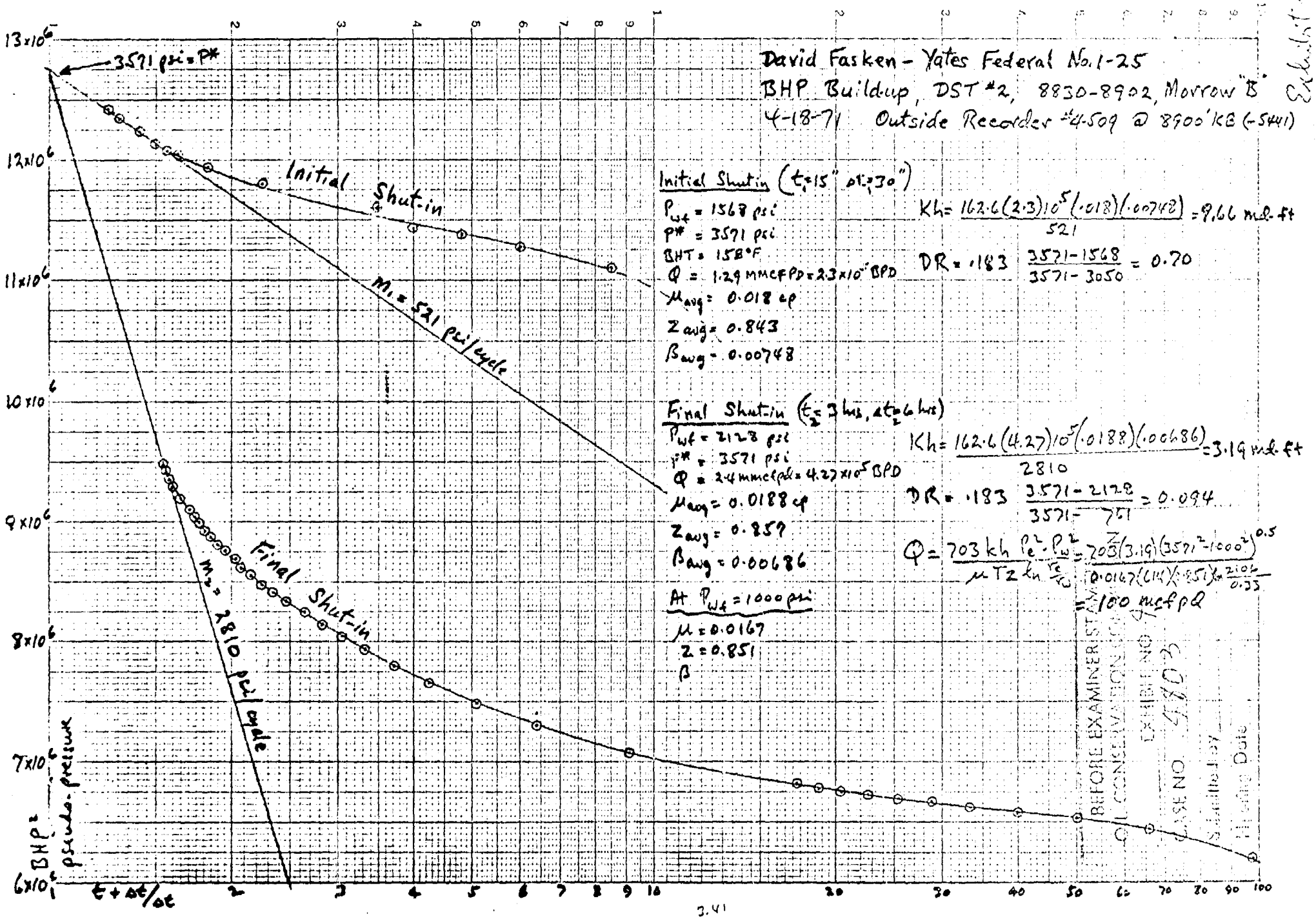
Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Eddie M. Mahfood

Certificate No. 4605


ATOKA
DAYTON
285
Marathon
Yates Pet.
Pennzoil
Reading & Bates
Midwest
Mobil
Texaco
Kewanee
Exhibit #



David Fasken - Yates Federal No. 1-25
BHP Build-up, DST #2, 8830-8902, Morrow "B"
4-18-71 Outside Recorder #4509 @ 8900' KB (-5441)

Exhibit #4

Initial Shut-in (t_1 = 15" at 30")

P_{wf} = 1568 psi
P^* = 3571 psi
BHT = 158°F
Q = 1.29 MMCFPD = 2.3×10^3 BPD
μ_{avg} = 0.018 cp
Z_{avg} = 0.843
β_{avg} = 0.00748

$$Kh = \frac{162.6(2.3)10^5(.018)(.00748)}{521} = 9.66 \text{ md-ft}$$

$$DR = .183 \quad \frac{3571-1568}{3571-3050} = 0.70$$

Final Shut-in (t_2 = 3 hrs, Δt_2 = 6 hrs)

P_{wf} = 2128 psi
P^* = 3571 psi
Q = 2.4 mmcfpd = 4.27×10^5 BPD
μ_{avg} = 0.0188 cp
Z_{avg} = 0.859
β_{avg} = 0.00686

At P_{wf} = 1000 psi
μ = 0.0167
Z = 0.851
β

$$Kh = \frac{162.6(4.27)10^5(.0188)(.00686)}{2810} = 3.19 \text{ md-ft}$$

$$DR = .183 \quad \frac{3571-2128}{3571-721} = 0.094$$

$$Q = \frac{703\,kh}{\mu Z \ln \frac{r_e}{r_w}} \cdot \frac{P_e^2 - P_w^2}{} = \frac{703(3.19)(3571^2-1000^2)^{0.5}}{0.0167(1.14)(.851)\ln\frac{2100}{0.33}} = 100 \text{ mcfpd}$$

BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
EXHIBIT NO. 4
CASE NO. 5180
Submitted by
Hearing Date

DRILL STEM TEST SERVICE REPORT 4-18-71

Field _____ Formation _____ Job No. 43-DST-174

Location Yates Fed #1025 Net Feet of Pay _____

County _____ State _____ Test Interval _____

Division _____ District _____ Type Test _____

Address _____ Customer's Representative _____

_____ Lynes' Representative _____

No. Reports To: _____

TESTING TIME

Started in hole at 6:00 AM

Initial flow 15 Mins. Initial shut-in 60 Mins.

Final flow 180 Mins. Final shut-in 120 Mins.

TEST DESCRIPTION	TIME
Opened tool for Initial First Flow	9:00 a
Closed tool for First Shut-In	9:15 a
Re-opened tool	10:15 a
-Closed tool for final shut-in	1:15 p
Onset	

MUD AND SAND DATA

Mud Type	Gel Base	Tool Packer OD	6 1/4
Weight	9.1	Set Packer OD	
Viscosity	32	Set Hole Choke Size	1/4
Water Loss	7.4	Set Hole Temp.	
Filter Cake	2/32	Caliper Hole Size	
Hole Size	7 7/8	Rat Hole Size	
Casing Size	8 5/8	Set At	312.0
Drill Pipe Size	4 1/2	16.60 Weight	
Drill Collar Size	6 1/2	90 Feet Run	2 1/2
Cushion	Water	Amount	Ft.

REMARKS

Blow: Blow began immediately.
200 PSI in 10 minutes. Gas to surface in
5 minutes. 320 PSI, increased 950 PSI in
35 minutes.

Sampler: 3000 cc
7 cub. feet gas
200 cc mud

TEST RECOVERY DATA

Flow

TIME	SURF. CHOKE	PSIG/INCHES	MCF/D
10:15a	1/4	320	
10:30	"	950	
10:45	"	1150	2000
11:15	"	1250	2400
11:30	"	1250	2400
11:45	"	1250	2400
12:00	"	1250	2400
12:15	"	1250	2400
12:30	"	1250	2400
12:45	"	1250	2400

RECOVERY Test was not reversed out

30 Ft. of Gas in Pipe, 100% Gas

150 Ft. of Gas cut Mud, 10% Gas

_____ Ft. of

_____ Ft. of

_____ Ft. of

Oil recovery °API _____ @ °F. Resistivity _____

Pit Chlorides _____ Mud Chlorides _____

PRESSURE READINGS

DESCRIPTION	Inside # 912 Cap. 7200 Hrs. Depth 9108		Outside # 1038 Cap. 8100 Hrs. Depth 9208		Cap. Hrs. Depth		Cap. Hrs. Depth	
1. Initial Hydrostatic	4246	p.s.i.	4278	p.s.i.		p.s.i.		p.s.i.
2. Initial First Flow	2000	p.s.i.	2000	p.s.i.		p.s.i.		p.s.i.
3. Final First Flow	2127	p.s.i.	2127	p.s.i.		p.s.i.		p.s.i.
4. First Shut-In	2150	p.s.i.	2150	p.s.i.		p.s.i.		p.s.i.
5. Initial Final Flow	2127	p.s.i.	2127	p.s.i.		p.s.i.		p.s.i.
6. Final Flow	2127	p.s.i.	2127	p.s.i.		p.s.i.		p.s.i.
7. Final Shut-In	2127	p.s.i.	2127	p.s.i.		p.s.i.		p.s.i.
8. Final Hydrostatic	4278	p.s.i.	4303	p.s.i.		p.s.i.		p.s.i.
		p.s.i.		p.s.i.		p.s.i.		p.s.i.
		p.s.i.		p.s.i.		p.s.i.		p.s.i.

FORM 13

#4

WELLS MERRICK # 1 - 25
Test No. 2

Job No. 13-307-271 Lynn 4-18-71

t_1=15 min. Q= 1.3 mmcfpd, increasing — t_2=180 min, Q= 2.4 mmcfpd (t = 15+180=195)

FINAL SHUT IN

PSI	TIME	$\frac{t+\Delta t}{\Delta t}$	PSI²	TIME		$\frac{t+\Delta t}{\Delta t}$
1568	0	∞		2236	0	∞
1788	1	16	5.0	2238	1	196
3332	2	8.5	6.20	2409	2	98
3356	3	6.0	6.44	2538	3	66
3372	4	4.8	6.53	2556	4	50
3391	5	4.0	6.58	2569	5	40
3403	6	3.5	6.62	2578	6	33.5
3435	12	2.25	6.67	2592	7	28.9
3455	18	1.83	6.69	2597	8	25.4
3471	24	1.63	6.73	2594	9	22.7
3484	30	1.50	6.75	2598	10	20.5
3498	36	1.42	6.78	2604	11	18.7
3504	42	1.36	6.82	2612	12	17.3
3513	48	1.31	7.07	2659	24	9.1
3520	54	1.28	7.30	2702	36	6.4
3525	60	1.25	7.49	2737	48	5.1
			7.67	2769	60	4.25
			7.80	2794	72	3.71
			7.93	2826	84	3.32
			8.04	2856	96	3.03
			8.14	2884	108	2.81
			8.23	2912	120	2.63
			8.31	2938	132	2.48
			8.41	2962	144	2.35
			8.49	2986	156	2.25
			8.55	3009	168	2.16
			8.61	3029	180	2.08
			8.69	3049	192	2.02
			8.76	3067	204	1.96
			8.81	3083	216	1.90
			8.86	3098	228	1.85

FINAL SHUT IN - CONTINUED

PSI²	TIME		$\frac{t+\Delta t}{\Delta t}$
8.93×10^6	2989	240	1.81
9.00	3000	252	1.77
9.04	3006	264	1.74
9.11	3018	276	1.71
9.16	3027	288	1.68
9.20	3033	300	1.65
9.25	3042	312	1.625
9.30	3049	324	1.60
9.35	3058	336	1.58
9.41	3067	348	1.56
9.49	3078	360	1.54

#4

DAVID PACKER ASSOCIATES

YATES PETROLEUM # 1 - 25
Test No. 2

Job No. 43-DST-174 hynes 4-18-71

INSIDE RECORDER #912

60 MIN. INITIAL SHUT IN

PSI	TIME
1577	0
1788	1
3364	2
3374	3
3381	4
3389	5
3397	6
3420	12
3441	18
3455	24
3467	30
3480	36
3490	42
3498	48
3504	54
3510	60

FINAL SHUT IN - CONTINUED

2867	252
2873	264
2880	276
2888	288
2892	300
2896	312
2901	324
2907	336
2913	348
2917	360

360 MIN. FINAL SHUT IN

PSI	TIME
2118	0
2228	1
2388	2
2517	3
2535	4
2542	5
2550	6
2554	7
2559	8
2564	9
2567	10
2568	11
2569	12
2606	24
2633	36
2660	48
2681	60
2699	72
2718	84
2735	96
2753	108
2764	120
2776	132
2788	144
2799	156
2811	168
2820	180
2830	192
2836	204
2851	216
2859	228

#4

David Fasken — Vista Fed Com #1-25
1650/W 1480/N Sec 25-18S-25E
Atoka Penn Eddy County, N.M. Elev-3459' KB
4-22-71
7⅞ Bit

8800

Morrow "A" Sd

20 18 16 14 12 10

"A" Shale

Morrow "B" Sd

DST #2

8900

"B" Shale

Morrow "C" Sd

9000

Caliper

GR

SONIC

Porosity

David Faskins – Yates Hornbaker No. 1
BHP Build-ups, Morrow "B" Sd.

3579 psi

3581 psi

DST #5, Deviated Hole, 8954 – 8982'
GTS – 6 min.
Q = 20 BWPH + 144 mcfpd
BHFP = 1491 psi

m = 83 psi/cycle

DST #1, Original Hole, 8816 – 8948
GTS – 18 min.
CF = 90 mcfpd, no fluid
BHFP = 137 psi

$$Kh = \frac{1626(1603)10^{3}(.018)(.0080)}{3485} = 0.1 \text{ md-ft}$$

$$DR = .183\left(\frac{3579-161}{3579-94}\right) = 0.18$$

BHP Squared, psi^2 (millions)

Dimensionless Time, $t + \Delta t / \Delta t$

BHP, psi

Exhibit #5

BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
CASE NO. 4803
EXHIBIT NO. 5

LYNES

DRILL STEM TEST SERVICE REPORT

Field _____ Formation Morrow
Location 10 mi. S. W. of Artesia
County Eddy State New Mexico
Division West Texas District Hobbs
Address Henry Engineering
807 First Nat'l. Bank Bldg., Midland
No. Reports To: 5 copies to above

Job No. 43-DST-206 Test No. 1 Customer Test No. 1
Net Feet of Pay _____ Elevation _____
Test Interval 8816 To 8948 T.D. 8948
Type Test Conventional DST
Customer's Representative Bob Agevine
Lynes' Representative Travis Webb

TESTING TIME

Started in hole at 1:00 AM
Initial flow 15 Mins. Initial shut-in 60 Mins.
Second flow 60 Mins. Second shut-in 120 Mins.
Third flow _____ Mins. Third shut-in _____ Mins.

TEST DESCRIPTION	TIME
Opened tool for Initial First Flow	5:40 a
Closed tool for First Shut-In	5:55 a
Re-opened tool for Second Flow	6:55 a
Closed tool for Second Shut-In	7:55 a
Opened for Third Flow	
Closed for Third Shut-In	
Unset	

MUD AND HOLE DATA

Mud Type		Top Packer OD	6 7/8
Weight	8.7	Bot Packer OD	6 7/8
Viscosity	77	Bot Hole Choke Size	3/4
Water Loss	10.2	Bot Hole Temp.	154°
Filter Cake	2/32	Caliper Hole Size	
Hole Size	7 7/8	Rat Hole Size	
Casing Size	8 5/8	Set At	1208
Drill Pipe Size	4½ EX	Weight	16.60 I.D.
Drill Collar Size	4½ EX 5H90	Feet Run	508 I.D. 2¼
Cushion	None	Amount	Feet

REMARKS

BLOW: Good blow of air to surface on first opening. Gas to surface in 18 minutes.

12.5 cu. ft. of gas in Sampler
2500 PSI No fluid

TEST RECOVERY DATA

Flow

TIME	SURF. CHOKE	PSIG/INCHES	AMOUNT
	½	3 PSI	90 mcfpd
	¾	3 PSI	90 mcfpd

RECOVERY Test was not reversed out
180 Ft. of Drilling mud
Ft. of
Ft. of
Ft. of
Ft. of
Oil recovery °API Resistivity
Pit Chlorides 18,000 PPM Test Chlorides

PRESSURE READINGS

DESCRIPTION	Inside # 942 Cap. 7700 Hrs. 24 Depth 8942	Outside # 705 Cap. 8400 Hrs. 24 Depth 8945	Cap. Hrs. Depth	Cap. Hrs. Depth
1. Initial Hydrostatic	4359 p.s.i.	4382 p.s.i.	p.s.i.	p.s.i.
2. Initial First Flow	117 p.s.i.	133 p.s.i.	p.s.i.	p.s.i.
3. Final First Flow	144 p.s.i.	161 p.s.i.	p.s.i.	p.s.i.
4. First Shut-In	3212 p.s.i.	3260 p.s.i.	p.s.i.	p.s.i.
5. Second Initial Flow	129 p.s.i.	142 p.s.i.	p.s.i.	p.s.i.
6. Second Final Flow	119 p.s.i.	137 p.s.i.	p.s.i.	p.s.i.
7. Second Shut-In	2950 p.s.i.	3006 p.s.i.	p.s.i.	p.s.i.
8. Final Hydrostatic	4303 p.s.i.	4335 p.s.i.	p.s.i.	p.s.i.
	p.s.i.	p.s.i.	p.s.i.	p.s.i.
	p.s.i.	p.s.i.	p.s.i.	p.s.i.
	p.s.i.	p.s.i.	p.s.i.	p.s.i.

FORM 13

COMPANY DAVID FASKEN ESTATE
LEASE AND WELL NO. YATES HORNBAKER #1
TEST NO. 1
DEPTH 8816 - 8948
DATE OF TEST April 5, 1972

#5

DAVID FASKEN ESTATE

YATES HORNBAKER #1
Test No. 1

Job No. 43-DST-206 hyner 4-5-72

OUTSIDE RECORDER # 705

$t_1 = 15$ min $t_2 = 60$ min $t = t_1 + t_2 = 75$ min

60 MIN. INITIAL SHUT IN

Psi^2	PSI	$\frac{t+\Delta t}{\Delta t}$	TIME
	161	∞	0
	202	16	1
	268	8.5	2
	363	6.0	3
	459	4.75	4
	562	4.0	5
	654	3.5	6
	755	3.14	7
.78	886	2.88	8
.95	976	2.67	9
1.18	1086	2.50	10
2.35	1532	2.00	15
4.45	2109	1.75	20
7.81	2794	1.50	30
9.70	3115	1.37	40
10.34	3215	1.30	50
10.63	3260	1.25	60
			70
			80
			90
			100
			110
			120

120 MIN. FINAL SHUT IN

Psi^2	PSI	$\frac{t+\Delta t}{\Delta t}$
	137	∞
	259	76
	401	38.5
	502	26.0
	618	19.75
	751	16.0
0.719	848	15.17
0.904	951	11.71
1.107	1052	10.37
1.37	1170	9.33
1.70	1303	8.50
3.16	1777	6.00
4.31	2076	4.75
5.57	2361	3.50
6.22	2494	2.87
6.71	2590	2.50
7.11	2666	2.25
7.47	2733	2.07
7.78	2790	1.94
8.13	2851	1.83
8.44	2905	1.75
8.75	2950	1.68
9.04	3006	1.625

#5

David Fasken - Yates, Hornaker #1
West Atoka - Original Hole - DNC Sonic
Sec - 34-25 KB

4-18-72

8800

DST #1

8900

9000

Morrow "A"

Morrow "B"

LYNES

DRILL STEM TEST SERVICE REPORT

Field West Atoka Formation Morrow
Location 8 mi. S. W. of Artesia
County Eddie State New Mexico
Division West Texas District Midland
Address Henry Engineering
807 First Nat. Bank Bldg. Midland
No. Reports To: 5 copies to above

Job No. 41-DST-448 Test No. 5 Customer Test No. 5
Net Feet of Pay _____ Elevation _____
Test Interval 8954 To 8982 T.D. 9070
Type Test Inflatable Straddle DST
Customer's Representative Jim Henry
Lynes' Representative Don Johnston

COMPANY DAVID FASKEN ESTATES
LEASE AND WELL NO. YATES HORNBAKER #1
TEST NO. 5
DEPTH 8954 - 8982
DATE OF TEST May 4, 1972

TESTING TIME

Started in hole at 12:30 AM
Initial flow 360 Mins. Initial shut-in 120 Mins.
Second flow _____ Mins. Second shut-in _____ Mins.
Third flow _____ Mins. Third shut-in _____ Mins.

TEST DESCRIPTION	TIME
Opened tool for Initial First Flow	4:28 a
Closed tool for First Shut-In	10:28 a
Re-opened tool for Second Flow	
Closed tool for Second Shut-In	
Opened for Third Flow	
Closed for Third Shut-In	
Unset	12:28 p

MUD AND HOLE DATA

Mud Type	Salt Gel 2% KCl	Top Packer OD	6 5/8
Weight	9.1	Bot Packer OD	6 5/8
Viscosity	55	Bot Hole Choke Size	3/4
Water Loss	12	Bot Hole Temp.	157°
Filter Cake	3/32	Caliper Hole Size	
Hole Size	7 7/8	Rat Hole Size	
Casing Size	8 5/8	Set At	1208
Drill Pipe Size	4½ XH	Weight	16.60 I.D.
Drill Collar Size	4½ XH	Feet Run	720 I.D. 2¼
Cushion	None	Amount	Feet

REMARKS

BLOW: Strong gas to surface in 6 minutes.

Mud to surface in 2 hours & 2 minutes.

710 PSI in sampler
2475 cc of water in sample chamber with 304 thousands of 1 cu. ft. of gas.

Sampler capacity 2650 cc

Est. gas and water to flare at 20 BOPH gas & 1,000 MCF/Day (JBH)

TEST RECOVERY DATA

Flow

TIME	SURF. CHOKE	PSIG/INCHES	AMOUNT
4:34 a	½	70	GTS - Flare
4:38 a	"	70	520 MCF
4:48 a	"	78	570 "
4:58 a	"	75	550 "
5:28 a	"	40	330 "
6:28 a	"	10	144 "
6:33 a	½&1	10	MTS - WTRTS
6:53 a	"	80	Gas & WTR. Est 20BPH
7:28 a	"	60	" "
8:28 a	"	70-120	" "
9:28 a	"	70-100	" "
10:28 a	"	60-180	" "

RECOVERY Test was not reversed out

10	Ft. of	Mud cut condensate
2700	Ft. of	Gas cut water
	Ft. of	
	Ft. of	
	Ft. of	

Oil recovery °API Resistivity
Pit Chlorides 18,000 PPM Test Chlorides 34,600 PPM

PRESSURE READINGS

DESCRIPTION	Inside # 2477 Cap. 5200 Hrs. 36 Depth 8960	Outside # 6851 Cap. 6200 Hrs. 18 Depth 8960	Cap. Hrs. Depth	Cap. Hrs. Depth
1. Initial Hydrostatic	4379 p.s.i.	4356 p.s.i.	p.s.i.	p.s.i.
2. Initial First Flow	489 p.s.i.	489 p.s.i.	p.s.i.	p.s.i.
3. Final First Flow	1491 p.s.i.	1482 p.s.i.	p.s.i.	p.s.i.
4. First Shut-In	3531 p.s.i.	3548 p.s.i.	p.s.i.	p.s.i.
5. Second Initial Flow	p.s.i.	p.s.i.	p.s.i.	p.s.i.
6. Second Final Flow	p.s.i.	p.s.i.	p.s.i.	p.s.i.
7. Second Shut-In	p.s.i.	p.s.i.	p.s.i.	p.s.i.
8. Final Hydrostatic	4370 p.s.i.	4366 p.s.i.	p.s.i.	p.s.i.
	p.s.i.	p.s.i.	p.s.i.	p.s.i.
	p.s.i.	p.s.i.	p.s.i.	p.s.i.
	p.s.i.	p.s.i.	p.s.i.	p.s.i.

FORM 13

4 5

DAVID FASKEN ESTATES

YATES HORNBAKER #1
Test No. 5

Job No. 41-DST-448 hymes 5-4-72

INSIDE RECORDER #2477

120 MIN. INITIAL SHUT IN

PSI	TIME	$\frac{t+\Delta t}{\Delta t}$
1491	0	
3452	1	361
3472	2	181
3490	3	121
3506	4	91
3510	5	73
3517	6	61
3526	7	52
3528	8	46.0
3532	9	41.0
3537	10	37.0
3550	15	25.0
3557	20	19.0
3563	30	13.0
3568	40	10.0
3572	50	8.2
3575	60	7.0
3577	70	6.14
3579	80	5.5
3579	90	5.0
3579	100	4.6
3579	110	4.27
3581	120	4.0

#5

David Fasken - Yates Hornbaker #1
West Ptola
8800
BHC Sonic
Elev - 3495 KB
12-72
Deviated Hole

Morrow "A"

"A" Shale

Morrow "B"

8960 Deviated Hole = 8902 KB

(-5427)

DST #5

GR

CALIPER

8900

9000

16 14 12 10 8

ϕ_s Δt

54

Test No. 1

Ref. No. 13-[illegible]-101 [illegible] 1-21-71

t_1 = 60 MIN. INITIAL SHUT IN t_2 = [illegible] MIN. FINAL SHUT IN

INSIDE PSI	$P_{(\Delta t)}$	$t+\Delta t$	Δt	$t/\Delta t$	OUTSIDE PSI	$P_{(\Delta t)}$	OUTSIDE PSI
879		897	0		2861		2861
994		1038	1		3185		3108
1500		1275	2		3572		3298
3334		1597	3		3582		3527
3580		2336	4		3588		3561
3597	12.936	3004	5		3591		3572
3602		3527	6		3593		3578
3605		3565	7		3595		3583
3608		3576	8		3596		3585
3610	13.032	3587	9		3597		3587
3611	13.039	3592	10		3597	"	3590
3613	13.054	3601	20		"		3594
3613	"	3600	30		"		"
3612	13.047	3599	40		"		"
3611	13.039	3599	50		"		"
3611	"	3599	60		"		"
			70		"		"
			80		"		3593
			90		3596		3592
			100		3595		"
			110		3594		"
			120		3594		"
			140		3593		3591
			160		3592		3590
			180		3591		"
			200		3590		"
			220		3589		"
			240		3588		"
			260		3588		"
			280		3587		"
			300		3587		"
			320		3586		"
			330				

[illegible] 6

9803

TEST TICKET NO. 2533

OFFICE NO.

DATE SEPTEMBER 23, 1970

COMPANY MOUNTAIN STATES PETR. CORP. LEASE MCCAW GAS COMM. WELL NO. 1

FIELD ATOKA PENN GAS COUNTY EDDY STATE NEW MEXICO TEST NO. 1

MAIL CHARTS TO AS DIRECTED

MAIL INVOICE TO MOUNTAIN STATES PETR. CORP., BOX 1936, ROSWELL, NEW MEXICO.

FORMATION TESTED MORROW SAND TOTAL DEPTH 9,000' MAIN HOLE 7 7/8 RAT HOLE -

INTERVAL TESTED FROM 8,700 TO 9,000 PACKER TYPE B-T SIZE 6 3/4 NUMBER 2

DRILL PIPE SIZE 4½" F.H. I.D. 3,826 DRILL COLLAR SIZE 4½" X.H. I.D. 2.25

TIME PACKER SET A.M. 9:40 P.M. PACKER SET 3 HRS. 50 MIN. PRE FLO TIME 20 MINS.

INITIAL FLOW MINS. 2ND FLOW MINS. FINAL FLOW 60 MINS.

INITIAL SHUT-IN 60 MINS. 2ND SHUT-IN MINS. FINAL SHUT-IN 90 MINS.

RECORDER TYPE AK-1 CAPACITY 9500# 8000# NUMBER: TOP 1645 BOTTOM 1261

TOP RECORDER DEPTH 8,715' BOTTOM RECORDER DEPTH 8,999'

MAX. TEMP. 128° TEMP. DEPTH 8,996' CHOKE SIZE: TOP 1" ADJ. BOTTOM 5/8

MUD TYPE OIL BASE MUD WEIGHT 8.8 VISCOSITY FILTER CAKE 2/32 WTR. LOSS 7.8

FLUID CUSHION TYPE - AMOUNT - REVERSED OUT YES X NO

CONVENTIONAL TEST YES STRADDLE TEST - CASING TEST - MISS RUN -

SECOND ASSEMBLY YES ROTARY JAR YES SAFETY JOINT YES

SAMPLER YES NO X FFE FLOW TOOL YES NO X CIRC. SUB YES X NO

SURFACE ACTION: INITIAL OPEN WITH WEAK TO STRONG BLOW, GAS TO SURFACE IN 5 MINUTES ON 1" CHOKE @ 9:50 WITH 220#. SHUT IN WITH 250# P.S.I. AT 9:55. FINAL OPEN GAS IMMEDIATE. OPENED ON ½" CHOKE WEAK TO STRONG BLOW OF GAS ON 1" CHOKE AT 11:00 P.M.

GAS TO SURFACE IN 5 MINUTES, FLUID IN 1o MINUTES ON FINAL FLOW.

RECOVERY: TEST ON 1" CHOKE- 35 MINUTES, ON ½" CHOKE 25 MINUTES. 11:00 P.M. 1" CHOKE 50#, 1750 MCF. 11:25 24/64 CHOKE 1100#, 342 MCF. 11:30 - 1" CHOKE 400# - 10,000 MCF. 11:45- ½" CHOKE, 800# -45,000 MCF. 12:00 - ½" CHOKE 800#- 45,000 MCF. 45 Mmcf

DRILL PIPE FULL GAS 8,650', REVERSED OUT GAS, NO FLUID. RECOVERED 180' HEAVY CONDENSATE CUT DRILLING MUD BELOW CIRCULATING SUB.

REMARKS: 20 MINUTES PRE FLOW TIME.
694' TOTAL DRILL COLLAR LENGTH.
300' PERFORATION LENGTH.

TESTER C. E. MCCORMICK TEST APPROVED BY K. C. HAVENOR

where are 2nd recorder results

	RECORDER NO. 1645		RECORDER NO.		RECORDER NO.	
A INITIAL HYDROSTATIC PRESSURE	4269	P.S.I.		P.S.I.		P.S.I.
B INITIAL SHUT IN PRESSURE	3600	P.S.I.	B-1	P.S.I.		P.S.I.
C INITIAL FLOW PRESSURE	1378	P.S.I.	C-1	P.S.I.		P.S.I.
D FINAL FLOW PRESSURE	1886	P.S.I.	D-1	P.S.I.		P.S.I.
E FINAL SHUT IN PRESSURE	3600	P.S.I.		P.S.I.		P.S.I.
F FINAL HYDROSTATIC PRESSURE	4065	P.S.I		P.S.I.		P.S.I.

BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION

4506

LAW OFFICES
LOSEE & CARSON
A. J. LOSEE
JOEL M. CARSON
300 AMERICAN HOME BUILDING
P. O. DRAWER 239
ARTESIA, NEW MEXICO 88210
AREA CODE 505
746-3508

16 August 1972

Case 4803

Mr. A. L. Porter, Jr., Secretary-Director
New Mexico Oil Conservation Commission
P.O. Box 2088
Santa Fe, New Mexico 87501

Re: Application of Yates Petroleum Corporation
Case No. 4803

Dear Mr. Porter:

Enclosed for filing, please find three (3) copies of the application of Yates Petroleum Corporation to directionally drill and for an unorthodox gas well location. This case has been set for hearing before an examiner on August 23, 1972.

Very truly yours,

LOSEE & CARSON

A. J. Losee

AJL:gh
Enclosures

cc: Yates Petroleum Corporation

BEFORE THE OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF YATES PETROLEUM CORPORATION TO DIRECTIONALLY DRILL AND FOR AN UNORTHODOX GAS WELL LOCATION, WEST ATOKA-MORROW GAS POOL, EDDY COUNTY, NEW MEXICO	:	Case No. 4803

APPLICATION

COMES YATES PETROLEUM CORPORATION by its attorneys, and in support hereof, respectfully states:

1. That applicant is the operator of the Pennsylvanian Formation underlying the North half of Section 25, Township 18 South, Range 25 East, N.M.P.M., Eddy County, New Mexico, and proposes to re-enter a dry hole at a surface location 1980 feet from the North line and 660 feet from the East line of said Section 25, and to directionally drill in such a manner as to bottom the well in the West Atoka-Morrow Gas Pool, at an unorthodox bottom hole location 500 feet from the North line and 600 feet from the East line of said Section 25.

2. Applicant seeks permission pursuant to Rule 111 (b) to intentially deviate the re-entry operation away from vertical so that it will be bottomed 500 feet from the North line and 600 feet from the East line of said Section 25.

3. Applicant seeks an exception to the well location requirements of Rule 104 C. II(a) of the Oil Conservation Commission of New Mexico to permit the bottoming of said well at an unorthodox location 500 feet from the North line and 600 feet from the East line of said Section 25.

4. That a standard 320-acre gas proration unit comprising the North half of said Section 25, should be dedicated to such well or such lesser portion of the North half of Section 25 as is reasonably shown to be presumed to be productive of gas from said pool should be dedicated to said well.

5. The names and addresses of the operators of the leases offsetting the North half of said Section 25 follow:

Reading & Bates, Inc.
11th Floor Philtower Bldg.
Tulsa, Oklahoma 74103

Mountain States Petroleum Corp.
Security National Bank Bldg.
Roswell, New Mexico

David Fasken
Attn. Mr. Richard S. Brooks
608 First National Bank Bldg.
Midland, Texas 79701

Marathon Oil Company
Box 552
Midland, Texas 79701

6. The approval of this application will afford applicant the opportunity to produce its just and equitable share of gas in the West Atoka-Morrow Gas Pool and will protect correlative rights.

WHEREFORE, applicant prays:

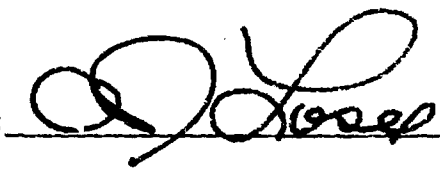
A. That this application be set for hearing before an examiner and that notice of said hearing be given as required by law.

B. That upon hearing the Commission enter its order granting to applicant permission to re-enter the dry hole at a surface location 1980 feet from the North line and 660 feet from the East line of said Section 25, to deviate said hole from

vertical by directionally drilling it in such a manner as to bottom the well in the West Atoka-Morrow Gas Pool at an unorthodox location 500 feet from the North line and 600 feet from the East line of said Section 25 and to dedicate that portion of the North half of said Section 25 which is reasonably presumed to be productive of gas from said pool.

C. And for such other relief as may be just in the premises.

YATES PETROLEUM CORPORATION

By: 

A. J. Losee for
LOSEE & CARSON
P.O. Box 239
Artesia, New Mexico 88210

Attorneys for Applicant

= Sec 23 —

Directional drilling and
unorthodox location —

— Jerry Lossee —

— Yates —

Recenter a dry hole (Forkum) Morrow
orthodox — directional drill to
an unorthodox —

Surface
1980 - FNL
660 FEL
Sec 25 - T18S - R25E

Bottom Hole - Morrow

500 FNL
600 FEL

N/2 dedicated

— Westates — No. Pool —

— Yates Petroleum —

DR

GMH/dr

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE NO. 4803

Order No. R-4391

APPLICATION OF YATES PETROLEUM
CORPORATION TO DIRECTIONALLY
DRILL AND AN UNORTHODOX LOCATION,
EDDY COUNTY, NEW MEXICO.

9-1-72

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on August 23, 1972, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this _____ day of August, 1972, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That the applicant, Yates Petroleum Corporation, has acquired and is the owner and operator of a well drilled at ~~an unorthodox~~ surface location 1980 feet from the North line and 660 feet from the East line of Section 25, Township 18 South, Range 25 East, NMPM, Eddy ~~Lea~~ County, New Mexico.

(3) That the applicant proposes to dedicate the north half of said Section 25 to the well and that with such dedication the well location will be unorthodox.

(4) That the subject well was drilled a total depth of 9150 feet into the West Atoka-Morrow Gas Pool, plugged back to a depth of approximately 7300 feet and directionally drilled to the east and south to a total depth of 9070 feet and was subsequently plugged back to a depth of 5200 feet.

(5) That the applicant now seeks, as exceptions to Rules 104 C II(a) and ~~III(b)~~ III(b), authority to re-enter and clean-out the subject well to a depth of approximately 5400 feet and to set a whipstock at said ~~depth~~ depth and directionally drill in such a manner as to bottom the well in the West Atoka-Morrow Gas Pool at an unorthodox bottom-hole location within 50 feet of a point 500 feet from the North line and 600 feet from the East line of said Section 25.

(6) That the applicant proposes to determine the sub-surface location of the whipstock point by means of a continuous multi-shot directional survey conducted prior to said directional drilling and in the same manner to determine the sub-surface location of the directionally drilled hole at its total depth.

(7) That the evidence indicates that the entire N/2 of said Section 25 is productive of gas from the West Atoka-Morrow Gas Pool

(8) That the entire N/2 of said Section 25 can be efficiently and economically drained and developed by the subject well.

(9) That there is evidence that a well at the proposed unorthodox location would penetrate a thicker and more productive pay section than a well at an orthodox location.

(10) That no offset operator or interest owner objected to the unorthodox location or directional drilling.

(11) That approval of the subject application will prevent the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Yates Petroleum Corporation, is hereby authorized to re-enter a dry hole having an unorthodox surface location 1980 feet from the North line and 660 feet from the East line of Section 25, Township 18 South, Range 25 East, NMPM, Eddy County, New Mexico, set a whipstock at approximately 5400 feet and directionally drill in such a manner as to bottom the well in the West Atoka-Morrow Gas Pool at an unorthodox bottom-hole location within 50 feet of a point 500 feet from the North line and 600 feet from the East line of said Section 25.

PROVIDED HOWEVER, that prior to commencing the aforesaid directional drilling, a continuous multi-shot directional survey shall be made of the well bore with shot points not more than 500 feet apart in order to determine the sub-surface location of the whipstock point; that the operator shall cause the surveying company to forward a copy of the survey report directly to the Santa Fe office of the Commission, Box 2088, Santa Fe, New Mexico; and that the operator shall notify the Commission's Artesia District Office of the date and time said survey is to be commenced. In the alternative, a copy of the directional survey run prior to the initial directional drilling shall be an acceptable substitute if said survey adequately locates the sub-surface whipstock point.

(2) That subsequent to the above-described directional drilling, a continuous multi-shot directional survey shall be made of the well bore from total depth to the whipstock point with shot points not more than 500 feet apart; that the operator shall cause the surveying company to forward a copy of the survey report directly to the Santa Fe Office of the Commission, Box 2088, Santa Fe, New Mexico, and that the operator shall notify the Commission's Artesia District Office of the date and time said survey is to be commenced.

(3) That Form C-105 shall be filed in accordance with Commission Rule 1108 and the operator shall indicate thereon true vertical depths in addition to measured depths.

(4) That the N/2 of said Section 25 shall be dedicated to the subject well.

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

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