

Case No.

167

Application, Transcript,
Small Exhibits, Etc.

February 4, 1949

Mr. Glenn Staley
Lea County Operators Committee
Drawer Eye
Hobbs, New Mexico

Dear Mr. Staley:

We enclose herewith, signed copy of Case No. 167, Order No. 810, dated January 26, 1949, for your records.

Very truly yours,

R. R. Spurrier
Secretary and Director

bsv
enal.

February 4, 1949

Mr. J. O. Seth
111 E. San Francisco Street
Santa Fe, New Mexico

Dear Sir:

We enclose herewith, signed copy of Case No. 167, Order No. 810, dated January 26, 1949, for your records.

Very truly yours,

R. R. Spurrier
Secretary and Director

baw
enal.

February 4, 1949

Oil Conservation Commission
205 Booker Building
Artesia, New Mexico

Gentlemen:

We enclose herewith, copy of Case No. 167, Order No. 810, dated January 26, 1949, for your records.

Very truly yours,

R. R. Spurrler
Secretary and Director

hew
encl.

February 4, 1949

Oil Conservation Commission
P. O. Box 1545
Hobbs, New Mexico

Gentlemen:

We enclose herewith, copy of Case No. 167, Order No. 810, dated January 26, 1949, for your records.

Very truly yours,

R.R. Spurrier
Secretary and Director

baw
encl.

Re: Case 167

December 7, 1948

The Amerada Petroleum Corporation requests permission to dual complete State L M T Well # 1, Langlie-Mattix Field, Lea County, New Mexico.

The well at present is producing oil from the Stuart Sand from 3500' to 3607' and the operator proposes to produce gas from the Yates and Seven Rivers Sands from 2900' to 3400' through the same well bore. The two zones will be kept separate so that the fluids from the two zones will not be intermingled nor allowed to pass from one zone to the other.

The Stuart Sand has a bottom hole pressure of 570 psi after a 24 hour shut in period. The Yates and Seven Rivers Sands have a bottom hole pressure of about 1300 psi. The higher pressure of the upper sand will require the use of mud in the well when it is perforated. A packer with a standing valve will be used between the two zones to keep the mud off the lower zone during completion, and to assure that the higher pressure zone does not pass any fluid to the lower pressure zone.

The data pertaining to the well and a brief description of the proposed dual completion method will be found on the following pages.

AMERADA PETROLEUM CORPORATION

By J. C. Blackwood
J. C. Blackwood
District Engineer

Exhibit B, Case No. 167

Re: Case 167

December 7, 1948

WELL DATA

Amerada Petroleum Corporation State L M T Well #1

Located: Langlie-Mattix Field, Lea County, New Mexico
1980' from north line, 660' from west line of
Section 36, T 23-S, R 36-E

Completed: March 24, 1946

Total Depth: 3607'

Casing Record: 13 3/8" at 504'
8 5/8" at 3450'

Producing from: Stuart Sand from 3500' to 3607'

Initial Production: Flowed 68 bbls. oil per day through
1/2" choke, Gas-Oil ratio 19,000
CP 500 TP 250, Oil gravity 34.8 API

Geological Information: Elevation - 3332'

Top Brown Lime - 2800'

First Yates Sand - 2910'

Top Zone 1 - 2940

Top Stuart Sand - 3500'

Present Status: The present allowable is 15 bbls. per day,
and the present production is 15 bbls./day

Re: Case 167

December 7, 1948

If permission is granted to dual complete the State L M T Well #1 the Amerada Petroleum Corporation proposes to take the following steps in the completion:

1. Shoot with explosives and clean out the present producing formation from 3500' to 3607' to increase its productive ability. The well will then be loaded with oil to kill the formation.
2. Set a Baker Model D Retainer Production packer at 3435' in the 8 5/8" casing. This packer has a smooth bore through the center approximately 3 1/2" in diameter, and after the packer is set in place it cannot be moved either up or down. The tubing will be released from the packer and pulled out. Then tools will be made up together and run in the following order:
 - (a) 125 ft. of 2" tubing as tail pipe which will pass through the bore of the packer and extend from the bottom of the packer to 3560' or 47' off bottom.
 - (b) A standing valve sub and Type F Otis standing valve which will prevent the passage of any fluid downward through the tubing from above the packer to the lower producing zone.
 - (c) Two Baker Multi-7 tubing seals which will be positioned in the bore of the packer and will seal off between the packer bore and the tubing.
 - (d) A Baker No Left Turn Latching Sub which will set down on top of the packer body and latch into it, positioning the tubing seals in the bore of the packer and preventing movement of the seals either up or down.
 - (e) A tubing seal recepticle which is a tube with a smooth bore of 3 1/2" in diameter.
 - (f) A setting tool which is attached to the top of the tubing seal recepticle by means of shear pins, so when the No Left Turn Latching Sub sets down on the packer the weight of the tubing will shear the pins leaving the tools in place.

Re: Case 167

December 7, 1948

3. With the tubing picked up off the tools mud will be pumped into the well replacing the oil, then the tubing will be withdrawn.

4. Gun perforate the Yates and Seven Rivers Sands from 2900' to 3400'.

5. Run the tubing guide shoe, tubing seal nipples, a retrieving tool, and an Otis Type L Side Door Choke nipple on the tubing. The tubing guide shoe and the tubing seal nipples will go down into the tubing seal receptacle. The Christmas tree will be connected up and the mud in the well replaced with oil, circulating through the ports in the Side Door Choke nipple. The upper gas sand will be brought in and produced until it has cleaned up, then the Otis Side Door Choke will be run on a wire line under pressure to seal off the ports in the nipple and separate the two zones. The lower zone will be produced through the tubing and the upper zone will be produced through the annulus between the tubing and the casing.

A drawing showing the details of the packer setting is attached.

AFFIDAVIT OF PUBLICATION

State of New Mexico,
County of Lea

I, Robert L. Summers

Of the Hobbs Daily News-Sun, a daily newspaper published at Hobbs, New Mexico, do solemnly swear that the clipping attached hereto was published once a week in the regular and entire issue of said paper, and not in a supplement thereof for a

period of _____

One Issue weeks.

beginning with the issue dated _____

November 22, 1948

and ending with the issue dated _____

Robert L. Summers, 19
Publisher.

Sworn and subscribed to before me

this 3rd. day of _____

December, 1948.

Nellie Jones
Notary Public.

My commission expires _____

January 7, 1951
(Seal)

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937, and payment of fees for said publication has been made.

Nov. 22, 1948
LEGAL NOTICE

**NOTICE OF PUBLICATION
STATE OF NEW MEXICO
OIL CONSERVATION
COMMISSION**

The State of New Mexico by its Oil Conservation Commission hereby gives notice, pursuant to law, of the following public hearing to be held December 7, 1948, beginning at 10:00 o'clock A. M. on that day in the City of Santa Fe, New Mexico, in Senate Chambers.

STATE OF NEW MEXICO TO:

All named parties in the following cases, and notice to the public:

CASE 167.

In the matter of the application of Amerada Petroleum Corporation for an order granting permission to dually complete their "State LMT well No. 1," Langlie-Mattix pool SWNW Section 36, Township 23 South, Range 36 East, N.M.P.M., Lea County, New Mexico.

Given under the seal of the Oil Conservation Commission of New Mexico at Santa Fe, New Mexico, on November 17, 1948.
**STATE OF NEW MEXICO
OIL CONSERVATION
COMMISSION**
By
R. R. SPURRIER, Secretary.

BEFORE THE
OIL CONSERVATION COMMISSION
STATE OF NEW MEXICO

The following proceedings came on to be heard before
the Oil Conservation Commission of the State of New Mexico
at Santa Fe at 10:00 A. M. on December 7, 1948.

NOTICE OF PUBLICATION
STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

The State of New Mexico by its Oil Conservation Commission
hereby gives notice, pursuant to law, of the following public
hearing to be held December 7, 1948, beginning at 10:00 A. M.
o'clock on that day in the City of Santa Fe, New Mexico, in
Senate Chambers.

STATE OF NEW MEXICO TO:

All named parties in the following
cases, and notice to the public:

CASE 166

In the matter of the application of Tide Water Associated
Oil Company for an order granting permission for an
unorthodox location designated as well Mariano Dome #1,
described as N^WS^WSE 118 feet east of the centerline
and 1249 feet north of the south line of Section 8,
Township 15 North, Range 13 West N.M.P.M. McKinley
County, New Mexico.

CASE 167

In the matter of the application of Amerada Petroleum
Corporation for an order granting permission to dually
complete their "State LMT Well #1", Langlie-Mattix
pool SWNW Section 36, Township 23 South, Range 36 East,
N.M. P.M., Lea County, New Mexico.

CASE 168

In the matter of the application of Clary and Ruther
for an order granting permission for an unorthodox
location designated as Clary and Ruther State No. 1,
described as N^WN^WN^W, 106.3 feet from the north and 43.9
from the west lines of Section 36, Township 23 South,
Range 2 East, N.M.P.M., Dona Ana County, New Mexico.

Given under the seal of the Oil Conservation Commission of
New Mexico at Santa Fe, New Mexico on November 17, 1948.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

(SEAL)

By /s/ R. R. Spurrier
R. R. SPURRIER, Secretary

BEFORE: Hon. R. R. Spurrier, Secretary

REGISTER:

Frank C. Barnes, Santa Fe, New Mexico; Roy O. Yarbrough,
Hobbs, New Mexico; George Graham, Santa Fe, New Mexico.

For the Oil Conservation Commission.

J. C. Blackwood, Midland, Texas; J.O. Seth, Santa Fe,
New Mexico.

For Amerada Petroleum Corporation.

Guy Shepard, Santa Fe, New Mexico.

For the Land Commissioner.

Frank R. Lovering, Hobbs, New Mexico.

For Shell Oil Company.

Paul C. Evans, Hobbs, New Mexico.

For Gulf Oil Corporation.

Ralph W. Casey, 1412 Magnolia Building, Dallas, Texas;
H. A. King, Oklahoma City, Okla.

For D. D. Drilling Company.

G. H. Gray, Midland, Texas.

For Repollo Oil Company.

Glenn Staley, Hobbs, New Mexico.

For Lea County Operators

M. Mears, P. O. Box 811, Ventura, Calif.

For Tide Water Associated Oil Company.

W. M. McKim, El Rancho Hotel, Gallup, New Mexico

For himself.

R. E. Canfield, Roswell, N. M.

For United States Geological Survey

E. C. Anderson, Socorro, New Mexico.

For the State Bureau of Mines.

COMMISSIONER SPURRIER: Gentlemen, let's open the meeting. As some of you may know, Governor Mabry is in California and former Governor Miles is sick in the hospital. So I have been instructed, as the minutes of the Commission will show, to again take the record of the cases to be heard today. There will be no decisions made. All cases will be taken under advisement. And the other members of the Commission will pass on the record before the orders are signed.

Mr. Graham, will you read the advertisement for the first case, please?

(Reads the notice of publication in Case No. 166)

MR. MEARS: I am drilling superintendent for the western division of the Tide Water Associated Oil Company. I would like to appear as representative and witness.

COMMISSIONER SPURRIER: You have a witness?

MR. MEARS: I do not.

COMMISSIONER SPURRIER: You are the witness?

MR. MEARS: Yes.

COMMISSIONER SPURRIER: We will swear you as the witness.

(Mr. Mears sworn)

COMMISSIONER SPURRIER: The Tide Water has presented a statement here. I will be glad to read it. Since Mr. Mears is appearing as their only representative and witness, you may ask or cross-examine him as you care to. I would like to read this statement that they have entered as an exhibit. (Reads the statement) Now, Mr. Mears, if you would like to add anything to this, you may do so.

MR. MEARS: Well, Mr. Spurrier, as far as I know the stick for the location of the well was placed there on the best geological information available. And, of course, in my position with the company I cannot furnish any other reason why it was put in that particular place. But I do believe, as stated in the statement that you read, that the party that placed the stick wasn't familiar with the laws and did not place it there other than for geological purposes.

COMMISSIONER SPURRIER: Does anyone care to question the witness? Well, I should like to make a little summary here. The well has been located, drilled, and found non-productive and plugged. So it may seem rather useless to have a hearing before this Commission to approve an unorthodox location. The well was located on Federal land, I believe?

MR. MEARS: That's right.

COMMISSIONER SPURRIER: Indian land. Now, as a matter of practice, we don't concern ourselves too much with exact locations on Federal land because we know that Mr. Canfield's crew on Federal land are usually on the job and they are allowed some discretion. We also realize that there is no producing field. There is no offset problem. But I think the point I would like to make here is that it should go without saying any company operating in the state should acquaint themselves with the rules and regulations. If they should like to take exception, there is a way it can be very simply done. But to go ahead and do something like this, and then find out what the regulations are is just inconvenient for them and us too. Now, we are not placing-- this is not a personal chastisement because Mr. Mears wasn't personally responsible for this at all. And there has been

no harm done. But if the Commission doesn't enforce its rules and regulations, then it might as well not have rules and regulations. We feel that Tide Water has handled the case very well since it came to our attention. And I could personally say that I think an order will be issued approving this. However, we will have to wait for the Commission to pass on it.

I think if no one has anything further, and if you have nothing further, Mr. Mears, that we will call the case ended.

MR. MEARS: O. K., Mr. Spurrier. I might add that since talking with Mr. Barnes yesterday with regard to these samples I now find that they were delivered to Socorro yesterday. They are already there.

COMMISSIONER SPURRIER: Fine. Thank you very much.

Read the advertisement for the next case, please.

(Reads the notice of publication in Case No. 167)

MR. SETH: I appear for Amerada. I would like to have Mr. Blackwood sworn.

J. C. BLACKWOOD, having been first duly sworn, testified as follows:

DIRECT EXAMINATION BY MR. SETH:

Q. Please state your name.

A. J. C. Blackwood.

Q. By whom are you employed?

A. Amerada Petroleum Corporation.

Q. In what capacity?

A. District engineer, west Texas and New Mexico district.

Q. Will you please state briefly your educational qualifications and experience in the oil business?

A. Well, I was educated at Texas A. & M. College in petro-

leum engineering in 1936. Since that time I have been employed by the Amerada Petroleum Corporation except for a four-year period with the Army.

Q. Are you familiar with the well described in the notice, I believe in the SWNW of Section 36, Township 23 South, Range 36 East?

A. Yes, I am.

Q. When, approximately, was this well completed?

A. It was completed in March 1946.

Q. At what approximate depth?

A. It was completed at 3,607 feet.

Q. And is it now producing?

A. Yes, it is producing oil, about fifteen barrels a day.

Q. From what sand?

A. That is the Stuart sand. Queens formation.

Q. Would you give the casing of the well?

A. The casing record is 13-3/8 set at 504 feet, 8-5/8 set at 3,450 feet.

Q. Now, you desire to dually--to make the well produce from an additional sand?

A. Yes, that's right. We wish to produce from the Yates and Seven Rivers sands which generally is gas productive in the area and ranges in depth from 2900 to 3,400.

Q. This Yates sand, what does that produce, gas only?

A. That's right.

Q. Just state briefly the manner in which you propose to handle this if the permission is granted by the Commission.

A. Well, the first step we propose is to shoot with explosives the present producing formation to increase its productivity. The second step is we will set a Baker Model D

Retainer Production Packer at 3,435 in the 8-5/8 casing. This packer has a smooth bore through the center of it about 3 1/4 inches in diameter. And once the packer is set in place it cannot be moved either up or down. The tools--the tubing will then be released from this packer and withdrawn from the well. Then we will make up tools in the following order: 125 feet of 2 inch tubing as tail pipe, which will extend through the packer from the bottom of the packer down to about 3,560 feet or 47 feet off bottom. Immediately above the 2 inch tail pipe is a standing valve sub and Type F Otis standing valve. The purpose of this is to prevent the passage of any fluid down through the valve--the packer--to the lower producing formation. Above the standing valve sub are two Baker Multi-V tubing seals which will be positioned in the smooth bore of the packer and seal off between the casing and the packer. Above that is a Baker No Left Turn Latching Sub, which is a device which will latch in the top of the packer body and prevent the moving of the tubing seals either up or down. Above that is a tubing seal receptacle, which is a tube with a smooth bore of 3 1/4 inch in diameter. And a setting tool above that which will be attached to the tubing seal receptacle by means of shear pins. The tools then are run in on the casing and when the latching sub sets and latches on top of the packer, the weight of the tubing will shear the pins of the setting tools and leave the tools positioned in place. The object of all this packer and standing valve arrangement is to prevent mud fluid from getting down on the lower producing formation. The Yates is a high-pressure gas sand. It has a bottomhole pressure of from 1,300 pounds in the area,

and to perforate it sufficiently it will be necessary to float the hole with mud, and we don't want to get mud on the lower formation. That is the reason for this packer and standing valve arrangement. After the tools are positioned in the packer, we will circulate mud into the well and withdrawn the tubing and gun perforate the Yates and Seven Rivers sands. We give the depth of the perforation point as 2,900 to 3,400. Actually, before we select the actual perforation point, we will run a radio activity log to determine the effective point. After the gas sand is perforated, we will run in a tubing guide shoe, tubing seal nipples, retrieving tool, and Otis Type L Side Door Choke nipple. The tubing guide shoe and tubing seal nipples pass down into the tubing seal receptacle to affect the seal. Actually, what happens is we rejoin the tubing back to the packer. We will then circulate the mud out with oil through the ports in the Otis Side Door Choke nipple and bring in the gas sand. After it is produced enough to clean it up, we run on a wire line under pressure the Otis Side Door Choke which will seal off the ports in the Side Door Choke nipple. That makes the operation complete between these two points.

Q. Do you believe this arrangement you have testified about will effectively separate the two pays?

A. Yes, it will.

Q. Prevent the high pressure gas from getting into the low pressure oil at the bottom of the well?

A. Yes.

Q. The well is not producing at all at this time from the upper gas pay is it?

A. No, it is not.

Q. Do you believe the gas upper pay, the Yates sand, and the Stuart are separate strata, entirely separate?

A. Yes. There is an impervious strata between them and the pressure difference indicates there is separation between them.

Q. What is the pressure in the oil producing strata at the bottom of the well?

A. The bottom hole pressure after a twenty-four hour shut in period is 570 pounds in the Stuart sand.

Q. Have you a market for the gas when you produce it?

A. Yes, there is a market. El Paso Natural Gas Company has a line laid to the lease.

Q. And they will take the gas?

A. Yes.

Q. Is there any other way to get the gas from the Yates sand without drilling an additional well?

A. No.

Q. Is gas being produced from the Yates sand all around you?

A. Yes, there is. Our State LMT lease is the N $\frac{1}{4}$ of Section 36. In the S $\frac{1}{4}$ of Section 36 there are two wells dually completed. They are producing gas from the Yates. And in the S $\frac{1}{4}$ of Section 25 to the north there are two wells producing gas from the Yates.

Q. There are two dually completed wells immediately offsetting there already?

A. Yes.

Q. And do you believe this process you have outlined will result in that recovery of the gas that otherwise would not be recovered?

A. Yes, that is correct.

Q. Would it be feasible or economically feasible to drill a well for that gas?

A. Well, not very economically feasible because of the shortage of casing. We don't like to drill wells that are doubtful from an economic standpoint.

Q. The well will continue to produce oil through the tubing, whatever its allowable may turn out to be, after it is shot?

A. Yes, that is correct.

MR. SETH: I would like to offer in evidence this drawing showing the method of dually completing, and this statement covering to a large extent what Mr. Blackwood has already testified to.

Q. Do you believe the allowance of this application for the dual completion contemplated will result in the ultimate recovery of more oil and gas from the field?

A. Yes, it will.

MR. SETH: That is all we have.

MR. GRAHAM: Are you familiar with the discussions surrounding the Gulf application for dual completions?

A. No, sir.

MR. SETH: What field was that?

MR. GRAHAM: Hobbs.

A. No, sir.

MR. GRAHAM: The discussion in that case, as I remember, was as to the corrosiveness of the oil. Is it sulphur? And the gas, is that sweet gas?

A. That is sweet gas.

MR. GRAHAM: And its corrosive properties would be?

A. As a gas it wouldn't be corrosive. The oil might be slightly corrosive.

MR. GRAHAM: At that time, the Commission felt that there was some question about the effectiveness of the mechanical packer. What is your opinion on this arrangement you have? Will it

prevent the mixture?

A. Yes, it will prevent mixture. Of course, in the case of severe corrosion it might have to be replaced.

MR. SETH: But in your view, it would prevent the intermingling of the oil and gas?

A. Yes.

MR. GRAHAM: Could you identify those two wells to the south of you?

A. Ralph Lowe Shell State C No. 2. And the other one is Skelly Oil Company New Mexico D.

MR. GRAHAM: Are they offset wells?

A. They are not exactly offsets. The leases adjoin and they are in the S $\frac{1}{4}$. They are within the same section. They are not exactly offsets.

COMMISSIONER SPURRIER: Does anyone care to cross-examine the witness?

BY MR. LOVERING:

Q. I would like to make a statement for the record and ask one or two questions. As to the corrosiveness of the fluids in the well, I think you will find that that oil is somewhat corrosive, but also the fact remains that there will be considerable water produced from that horizon.

A. There hasn't been any indication of it so far.

Q. Well, I believe that there will be water. I don't know in what quantities. Waters in the vicinity are generally corrosive. But that is neither here or there. What I wanted to state was with regard to the completion of the well. Do you have a record of how much cement was used in the oil string? Any idea where the cement column is behind the casing at the present time?

A. I don't believe I have that with me. But there was a cement test made and the top of the cement was well above the Yates. If I remember correctly, it was about 1,500 feet.

Q. Then in handling the fluids at the surface, how do you propose to handle the fluids or gases after they reach the surface?

A. The oil from the lower formation will be produced into a low pressure separator and the present tank battery as it is now being produced. The Yates gases we propose to produce through a high pressure separator that is connected only into the El Paso Natural Gas line.

Q. The gases from the Yates then will be metered separately before they enter the same line with the other gases from the tank battery?

A. Yes, that's right. As a matter of fact, we propose to put the Yates in the El Paso main which carries a pressure of 750 pounds in the area. The lower formation won't go into that line.

Q. Then they go into two separate lines?

A. That's right.

MR. LOVERING: That is all.

COMMISSIONER SPURRIER: Anyone else care to examine the witness?

MR. GRAHAM: Do you have any figures on costs of digging a well down to the shallow sands as compared to this arrangement?

A. No, I don't have any figures with me on that.

MR. SETH: There would be a wide discrepancy?

A. There would be, yes.

COMMISSIONER SPURRIER: Do you have anything further, Judge?

MR. SETH: No, that is all.

COMMISSIONER SPURRIER: If no one has anything further, the witness is excused. Read the next case, please.

(Reads the notice of publication in Case No. 168)

COMMISSIONER SPURRIER: This case we will ask the Commission to continue to a definite date for the reason that the principals in the case were unable to be here this morning. We were notified by telephone and confirmed by telegram late yesterday that they would be unable to attend.

If no one has anything further, the meeting is adjourned.

STATE OF NEW MEXICO)
 : ss
COUNTY OF SANTA FE)

I, E. E. Greeson, notary public, hereby certify that the foregoing transcript of proceedings before the Oil Conservation Commission of the State of New Mexico in Santa Fe on December 7, 1948, is a true record of the same to the best of my knowledge, skill, and ability.

DATED at Santa Fe, New Mexico, this 13th day of December, 1948.


Notary Public

My Commission Expires 8-4-52.

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE NO. 167
ORDER NO. 810

IN THE MATTER OF THE APPLICATION OF
AMERADA PETROLEUM CORPORATION FOR AN
ORDER GRANTING PERMISSION TO DUALY
COMPLETE ITS "STATE LMT WELL #1",
SW $\frac{1}{4}$ NW $\frac{1}{4}$ OF SECTION 36, TOWNSHIP
23 SOUTH, RANGE 36 EAST, N.M.P.M.,
IN THE LANGLEIE-MATTIX POOL, LEA
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 10:00 A. M. on December 7, 1948, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission".

NOW, on this 26th day of January, 1949, the Commission having before it for consideration the testimony and other evidence adduced at the hearing of said cause together with the application of the petitioner and being fully advised in the premises;

FINDS:

1. That due public notice of hearing upon said application having been given fixing the date of said hearing as December 7, 1948, at Santa Fe, New Mexico, the Commission has jurisdiction of the case;
2. That in previous dual completion cases before the Commission, and in this case, there remains a question as to the absolute efficiency of packers and mechanical devices to absolutely prevent comingling of gas and fluid hydrocarbons from two or more different strata through a single well bore;
3. That the subject well sought to be dually produced is in the near vicinity of other wells being dually produced under the authority of Commission Orders Nos. 750 and 801 in the Langlie-Mattix pool, Lea County, New Mexico;
4. That the dual completion of this well will add to information previously gained as to the efficiency of mechanical packers in the prevention of comingling of gas and fluid hydrocarbons in two or more different producing horizons.

IT IS THEREFORE ORDERED that effective December 7, 1948, Amerada Petroleum Corporation be and it hereby is granted permission to dually complete and produce its State LMT No. 1 well, in the Langlie-Mattix pool, Lea County, New Mexico, in such manner that gas and/or fluid hydrocarbons may be produced through the tubing from the Queen formation (Stuart sand), the 3500 foot to 3607 foot zone and that gas well gas may be produced through the annular space between the casing and tubing from the Yates sand, that is, from the 2900 foot to 3400 foot zone, provided, however, that said State LMT No. 1 well shall be dually completed and produced in such a manner that there is absolutely no comingling within the bore of the well of gas well gas or fluid hydrocarbons produced from each of the separate productive stratum encountered therein.

In order to prevent comingling of gas well gas, gas or fluid hydrocarbons within said well bore the dual completion thereof shall be made substantially as follows: the well having been completed to the 3607 foot horizon

(Queen formation) through appropriate casing perforations at the proper depth; the upper zone in like manner may be produced by casing perforations at the 2900 foot to 3400 foot zone (Yates-Seven Rivers) and each zone or formation carefully tested. Such tests and subsequent tests should be witnessed by an agent of the Commission and by representatives of any offset operation, if any there be. In event intercommunication between the zones behind the casing is indicated by formation tests corrective measures shall be applied and such tests continued and corrective measures applied until it is known that no intercommunication between the respective zones behind the casing exists. Should the test or tests establish the absence of intercommunication between the horizons outside of the casing, the Amerada Petroleum Corporation may proceed with the dual completion of said well as follows: a suitable packer of the type approved by applicant's consulting engineer, as indicated in applicant's petition, shall be so set as to effectively prevent migration of reservoir gas and fluid hydrocarbons from one horizon to the other inside the casing; the well shall be tubed through the packer; provided further, however, that it shall not be necessary for the petitioner to install a circulating choke above the packer if the upper horizon (Yates) sand reflects only gas production; however, should fluid hydrocarbons be encountered in the upper Yates-Seven Rivers formation, such corrective measures shall be undertaken as may be proper in the premises and as the conditions may require and provided further that any packer installed in said well between the separate horizons shall be properly tested for leakage at the time of the dual completion and shall be carefully retested at six month intervals thereafter. The original and all subsequent tests shall be witnessed by a representative of the Commission and by representatives of offset operations if any there be, and the results of each test properly attested to by the petitioner and all the witnesses and shall be filed with the Commission within ten days after the actual completion of each such test.

It is further provided that in event intercommunication between the zones is found or is suspected by any witness as the result of any test, the well shall be immediately shut in, the Commission notified and prompt and immediate action shall be taken by the petitioner to stop such intercommunication; following which a retest for leakage shall be made forthwith and witnessed aforesaid; provided further that intercommunication tests between the zones required by this order shall be made as follows: both zones shall be simultaneously closed in and kept closed a sufficient length of time to reach stabilization as determined by a dead weight tester. A recording depth pressure gauge shall then be run at the maximum depth possible; the zone (Yates-Seven Rivers) open to the annulus shall be produced at a maximum safe rate until stabilized flow conditions are obtained. In the event a significant decrease in pressure is shown by the recording pressure gauge, intercommunication shall be deemed to exist.

The Amerada Petroleum Corporation, the petitioner herein, shall submit in writing any changes in procedure in the actual completion of said well. Upon final completion of said dual completion of said well, the petitioner shall file with the Commission a report of the step by step procedure followed in producing each zone and an expository statement of the merits and/or demerits of the actual performance of equipment and mechanical devices used and employed to effect the separation of the productive horizons and the respective production from each zone.

It is further ordered that upon failure of the petitioner herein to comply with any provision or provisions of this order, that the authority granted hereunder shall immediately terminate.

It is further ordered that this case is held open on the docket for such order or orders as may seem necessary to the Commission, is not to be taken as being a precedent for dual completions except in the Langlie-Mattix pool.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

Thomas J. Mabry
THOMAS J. MABRY, CHAIRMAN

Guy Shepard
GUY SHEPARD, MEMBER

R. R. Spurrer
R. R. SPURRER, SECRETARY

OFFICE OF THE SECRETARY OF
THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

The State of New Mexico by its Oil Conservation Commission hereby gives notice, pursuant to law, of the following public hearing to be held December 7, 1948, beginning at 10:00 o'clock A.M. on that day in the City of Santa Fe, New Mexico, in Senate Chambers.

STATE OF NEW MEXICO TO:

All named parties in the following
cases, and notice to the public:

CASE 167

In the matter of the application of Amerada Petroleum Corporation for an order granting permission to dually complete their "State LRI Well #1", Langlie-Mattix pool SW1/4 Section 36, Township 22 South, Range 36 East, N.M.P.M., Lea County, New Mexico.

Given under the seal of the Oil Conservation Commission of New Mexico at Santa Fe, New Mexico on November 17, 1948.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

By R. R. Spurrer
R. R. SPURRER, SECRETARY

STATE OF NEW MEXICO
OFFICE OF STATE GEOLOGIST
SANTA FE, NEW MEXICO

18 November 1948

The Hobbs News Sun
Hobbs, New Mexico

RE: Case 167 - Notice of Publication

Gentlemen:

Please publish the enclosed notice once, immediately. Please proof-read the notice carefully and send a copy of the paper carrying such notice.

UPON COMPLETION OF THE PUBLICATION, PLEASE SEND PUBLISHER'S AFFIDAVIT IN DUPLICATE.

For payment please submit statement in duplicate, accompanied by voucher executed in duplicate. The necessary blanks are enclosed.

Very truly yours,

RRS:bsp

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STATE OF NEW MEXICO
OFFICE OF STATE GEOLOGIST
SANTA FE, NEW MEXICO

18 November 1948

The Hobbs News Sun
Hobbs, New Mexico

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Very truly yours,

RES:bap

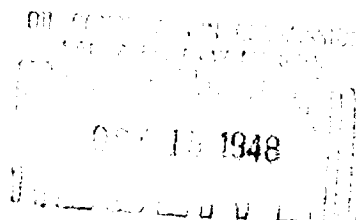
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AMERADA PETROLEUM CORPORATION
P. O. BOX 2040
TULSA, OKLAHOMA



Monument, New Mexico
October 13, 1948

Case #
~~Langlie-Mattix Field~~
New Mexico Oil Conservation Commission
Santa Fe, New Mexico

Dear Sirs:

We would like to file application to dual complete our State LMT Well #1, Langlie-Mattix Field; 1980' FNL, 660' FWL of Section 36-T23S-R36E, Lea County, New Mexico.

This well was completed March 24, 1946 at a total depth of 3607' and is producing from the section 3500' - 3607'. There is 13-3/8" Casing set at 554'; 8-5/8" Casing set at 3450' and 2-3/8" OD, EUE Tubing set at 3598'.

We would like to produce gas from the Yates and 7-Rivers Sands from 2930' to 3400'. We would also like to produce oil from the Stuart Sand from 3500' to 3607'. The well will be completed in such a way that there will be no communication in the well between the two zones.

We request that this petition be presented to the Commission at its next meeting.

Very truly yours,
Amerada Pet. Corp.

Don Topper
Don Topper,
Asst. Dist. Supt.

Copy (photo stat sent to Staley)
October — , '48