Case No.

315

Application, Transcript,
Small Exhibits, Etc.

BEFORE THE

OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

Santa Fe, New Mexico

TRANSCRIPT OF PROCEEDINGS

CASE NO. 249 & 315

Regular Hearing

April 15, 1952

ADA DEARNLEY & ASSOCIATES
COURT REPORTERS
ROOM 12, CROMWELL BLDG.
PHONES 7-9645 AND 5-9546
ALBUQUERQUE, NEW MEXICO

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

Santa Fe, New Mexico.

April 15, 1952.

IN THE MATTER OF:

The application of the Amerada Petroleum Corporation for an order establishing proration units and uniform spacing of wells for the Bagley-Siluro Devonian Pool, Lea County, New Mexico.

CASE No.: 249 & 315

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MR. KELLOUGH: My name is Booth Kellough, lawyer for the Amerada Petroleum Corporation at Tulsa. We have three 80-acre spacing cases set this morning. The Bagley, the Knowles and the Hightower. Each of these cases, as you know, has rather a long history. In order to expedite the matter and in order to keep the record straight in each one of these cases we have prepared a written statement which contains the statement of the background of the particular case together with our version of the issues which are now probably before the Commission and also a summary of the testimony that the witnesses will present.

If the Commission would like to follow this statement as we present our case, I think it will help considerably in keeping each one separate and eliminating confusion and saving time. We have also prepared all our exhibits and we have them in a folder to be kept with each one of these cases so they may be kept separate.

The Case 249 and the Case also No. 315 which is fourth on the docket are the Bagley case.

In August, 1949, Amerada filed its application to establish 80-acre proration units and uniform spacing of wells for the Bagley-Siluro-Devonian pool in Lea County, New Mexico. (Case No. 191)

The discovery well, known as State BTA #1 (located in NW/4 SE/4 Sec. 2-12S-33E) had been completed in the Devonian formation at a depth of 10,770 to 11,000.

Caudle #1 (SE/4 NE/4 Sec. 10-12S-33E) had been drilled as a dry hole in the Devonian. Amerada, Mid-Continent Petroleum Corporation and Texas Pacific Coal and Oil Company were each then drilling a well in the area asked to be spaced.

The application asked that the spacing order cover an area comprising 3040 acres.

It was requested that all wells be located in the NW and SE quarter of each governmental quarter-section.

An exception was asked for the Mid-Continent well (SW/4 NW/4 Sec. 1-12S-33E) then drilling.

The case was first set on September 8, 1949 and then continued to December 20, 1949.

1. FIRST HEARING

The case was first heard on December 20, 1949. Texas Pacific appeared to protest the application. At that time Amerada had three completed Devonian wells and one drilling. Texas Pacific had one completed and one drilling. There were two Devonian dry holes, one of which was the Mid-Continent well.

Evidence was presented by both sides. Amerada filed a brief in support of its application.

On January 23, 1950, the Commission entered its order denying the application of Amerada on the ground that the evidence was insufficient to prove that one well on each 80-acre tract would efficiently drain the recoverable oil from the pool. Exhibit 1 is a copy of this Order R-2.

2. REHEARING

Amerada filed its application for rehearing together with another brief. The rehearing was denied February 8, 1950. Exhibit 2 is a copy of Order R-8.

3. APPEAL

An appeal was taken by Amerada to the District Court of Lea

County, New Mexico. The case was docketed as No. 8485 and service was made. The attorneys for protestant, Texas Pacific Coal and Oil Company, requested that the court hold a pre-trial conference for the purpose of considering the nature and scope of review by the court, including the question of what evidence may be presented.

After the pre-trial conference both parties filed briefs presenting their respective views as to what evidence could be presented on appeal and the jurisdiction of the District Court.

The District Court entered an order on the pre-trial conference in which it found that the review would be confined to the existence of substantial evidence before the Commission to support the order. Amerada's contention that it was entitled to a trial de novo as provided in the statute was denied.

On December 27, 1950, after the pre-trial conference order, Amerada voluntarily dismissed its appeal with prejudice.

4. TEMPORARY ORDER

In December, 1950, Amerada filed a new application for a temporary order to establish 80-acre proration units for a period of one year. The well location pattern was the same as previously requested.

Since the entry of the original order denying the application, 13 additional producing Devonian wells had been drilled.

There had been 18 wells to the Devonian formation drilled at the time of the second application.

The new application was based upon change of conditions and additional information obtained by subsequent development and also the critical shortage of tubular materials necessary for drilling operations.

The application for the temporary order was docketed No. 249. It was set for January 25, 1951, and continued to April 24, 1951.

Texas Pacific Coal and Oil Company concurred in the request for a temporary order provided the allowable was fixed at 1½ times the normal top unit allowable.

On May 1, 1951, the Commission entered its Order R-69 establishing 80-acre proration units for a period of one year from that date. Exhibit 3 is a copy of Order R-69.

5. EXCEPTION

In December, 1950, Amerada filed an application to force pool two 40-acre tracts comprising an 80-acre unit.

However, one of the 40-acre tracts, belonging to the U. S. Government, was located so that an exception would be required in any event. Consequently on June 15, 1951, Amerada dismissed the pooling application and filed an application for an exception to Order R-69 so as to make NE/4 NE/4 Sec. 3-12S-33E a fractional

40-acre unit. The exception was granted and Caudle #5 was drilled on this tract.

6. MOTION TO SHOW CAUSE

The Commission on its own motion set the case for hearing on October 23, 1951, under Case No. 315, directing Amerada, Texas Pacific and other interested operators to show cause why temporary 80-acre spacing order R-69 should be continued. Exhibit 4 is a copy of the notice.

The hearing on the Commission's motion has been continued to this date. Technically, that motion is now moot, since Order R-69 expires by its own terms on May 1, 1952.

7. APPLICATION FOR EXTENSION

On March 24, 1952, Amerada filed its application for an extension of Order R-69 in all of its particulars for an additional period of one year from May 1, 1952. Notice for this application has been properly given.

8. ISSUES INVOLVED IN PRESENT HEARING

The issues are not the same as if the case was being presented to the Commission for the first time. The Commission has already found that the evidence justified a temporary order for one year. If no waste is being committed and conditions have not changed then the order is justified for another year.

Therefore the issues properly now before the Commission

are as follows:

(1) Is any waste now being committed;

(2) Do the same considerations impelling the granting of the temporary order still apply to justify an extension;

(3) Are pressure maintenance operations necessary or feasible at this time.

I now offer into evidence Exhibit Number 1 which is Order No. R-2, Exhibit No. 2 which is Order R-8, Exhibit No. 3 Order No. R-69 temporary spacing order and Exhibit No. 4 which is the notice of the Commission, with respect to this hearing.

MR. SPURRIER: Without objection they will be received.

MR. ADAIR: Eugene Adair representing Texas Pacific Coal and Oil. In order that there be no misunderstanding and so that it may be expedited, may we obtain a ruling that Case 249 and 315 are consolidated, or that 315 is not now before the Commission, so that we can meet those two notices with one series of witnesses.

MR. SPURRIER: Yes, the Commission will so rule.

JOHN A. VEEDER,

having been first duly sworn, testified as follows:

DIRECT EXAMINATION

By MR. KELLOUGH:

MR. KELLOUGH: I wish to make it plain that the evidence we are now presenting is in support of our application for a one

year extension of the temporary 80-acre order which is now in effect and also in response to the notice or motion of the Commission.

Q Will you please state your name?

A John A. Veeder.

Q Where do you live?

A Midland, Texas.

Q By whom are you employed?

A Amerada Petroleum Corporation.

Q What capacity?

A District Geologist.

Q You have previously testified before this Commission in your capacity as geologist or expert witness?

A That is right.

MR. KELLOUGH: Are the qualifications acceptable?

MR. SPURRIER: They are.

Q I hand you, Mr. Veeder, what has been marked as Exhibit No. 5 and ask you to state please what that is?

A This is a map of the Bagley-Devonian field showing with red outline the probable limits of production of the Devonian.

Q The red line area shows the area which is asked to be spaced in the application for the extension?

A That is right.

Q And it shows all the Devonian wells to date?

A That is right.

MR. KELLOUGH: We offer Exhibit No. 5 in evidence.

Q How many producing wells are now completed in the Bagley-Devonian reservoir?

A There are 19 producing oil wells to date. Amerada has completed 15, Texas Pacific has completed 4.

Q Mr. Veeder, I hand you what has been marked Exhibit No. 6 and ask you to state what that is?

A This is Schlumberger electrical log on the Amerada No. 5 Caudle, this is completed to Devonian producer.

Q I hand you Exhibit 7.

A This is Schlumberger electrical log on Amerada No. 1 Mathers "A".

Q Exhibit 8?

A Schlumberger on the Amerada No. 2 Mathers "A".

Q Exhibit 9?

A Schlumberger on the Amerada No. 1 State BTM.

Q Exhibit 10?

A Schlumberger on the Amerada No. 1 State BTK.

Q Exhibit 11?

A Schlumberger on the Amerada No. 1 State BTL.

Q Exhibit 12?

Schlumberger on the Amerada No. 1 C. R. Turner.

MR. KELLOUGH: We offer Exhibits No. 6 to 12 inclusive into evidence.

Q With these exhibits there has now been presented to the Commission, Schlumberger logs of all wells which have been drilled in the Bagley-Devonian Pool?

A That is right.

Q Mr. Veeder, I hand you Exhibit 13 and ask you to state what that exhibit is?

A Exhibit No. 13 is the production data sheet of all Bagley-Devonian wells. On these sheets we have attempted to show, we have shown rather the well number, the top of the Devonian and the datum on top of the Devonian, top of the Devonian pay and also the Devonian, the datum on top of the Devonian pay the Devonian cap and the Devonian completion data.

Q On the right hand column you have the completion data with reference to the casing and the depth and the manner in which the wells were completed?

A That is right, it shows all that data besides the completion information, that is the API, gas oil ratio, gravity and also the spud-in and completion date.

Q That is as to all wells in the Bagley-Devonian Pool, Amerada and Texas Pacific as well?

A That is right.

MR. KELLOUGH: We offer into evidence Exhibit 13.

Q I hand you now Exhibit 14 and ask you to state what that is?

A Exhibit 14 is structure map contoured on top of the Devonian of the Bagley field. Contour interval 50 feet.

Q I hand you what has been marked Exhibit No. 15 and ask you to state what that is?

A No. 15 is a structure map contoured on top of the Devonian pay. Contour intervals 50 feet.

Q Will you state why you considered it necessary and advisable to prepare the two structure maps?

A Two structure maps were drawn up and contoured because there is anpresence of an impervious cap on top of the Devonian. The map contoured on top of the Devonian pay shows a true structural position of the Devonian reservoir.

Q In other words, in order to properly evaluate the geology of the Bagley-Devonian Pool it was necessary to prepare two structure maps, is that right?

A That is right.

MR. KELLOUGH: We offer in evidence Exhibits No. 14 and 15.

MR. SPURRIER: Without objection they will be received.

Q Mr. Veeder, considering all of the evidence which is

available to you to date what is your opinion as to the probable productive area of the Bagley-Devonian Pool which you would recommend to be covered by the spacing order?

A The probable productive limits of the Bagley Pool to date would be included within the red outline. This area covers approximately 2,400 acres.

Q Have you examined all of the samples in the wells at the Bagley?

A I have.

Q Have you made a visual examination of the cores which have been taken from the wells which have been cored by Amerada at Bagley?

A That is right.

Q Concerning the information which you have obtained from your examination of samples and the examination of cores, study of the Schlumberger logs which you offered into evidence, what is your opinion as to the porosity at Bagley?

A The Bagley-Devonian reservoir is very good vugular and fractured type porosity which is connected and continuous throughout the reservoir.

Q By that you do not mean uniform or regular?

A That is right.

Q You mean even though it may be irregular it nevertheless

is in your opinion one continuous portion?

A That is right.

Q Mr. Veeder, from the geological information which has been obtained during the previous years development does that in your opinion show any change in condition from a geological standpoint which should prevent the extension of the 80-acre spacing order for another year?

A There has been no change whatsoever.

Q You have read the statement, the written statement which has been prepared in connection with this Bagley Case, have you?

A That is right.

Q Are the statement of facts therein contained true and correct insofar as your knowledge and information is concerned?

A That is right.

MR. KELLOUGH: That is all.

MR. SPURRIER: Does anyone have any questions of this witness? If not the witness may be excused.

(Witness excused)

R. S. CHRISTIE,

having been first duly sworn, testified as follows:

DIRECT EXAMINATION

By MR. KELLOUGH:

Q Would you please state your name to the Commission?

A R. S. Christie.

Q Where do you live?

A Tulsa, Oklahoma.

Q By whom employed?

A Amerada Petroleum Corporation.

Q In what capacity?

A Petroleum Engineer.

Q You have previously testified before this Commission in your capacity as a petroleum engineer or expert witness?

A Yes, sir.

MR. KELLOUGH: Are the qualifications of this witness acceptable?

MR. SPURRIER: They are.

Q What is the average gas-oil ratio for all wells in the Bagley-Devonian Pool, Mr. Christie?

A Average gas-oil ratio for all wells in the Devonian, Bagley-Devonian is 30 cu. ft. per barrel of oil.

Q What is the gravity of the oil?

A The gravity of the oil is approximately 44 to 46 degrees API.

Q I hand you what has been marked as Exhibit No. 16 and ask that you please state what that exhibit is?

A Exhibit 16 is a graph showing the monthly water production,

the total number of wells completed, the cumulative production, the monthly oil production and the bottom hole pressure history of the Bagley-Siluro-Devonian Pool.

Q Will you briefly summarize for the Commission what information is shown on that exhibit?

A The data ---

Q (Interrupting) In other words, -- go ahead.

A The data indicates normal development for an oil pool with the monthly production continuing to increase as new wells are brought in. You will note about May of 1951 the allowable was increased in the pool which showed substantial increase in the monthly oil production. At that time the bottom hole pressures in the reservoir decreased at an accelerated rate over and above the previous pressure history.

Q Would you please show that to the Commissioners as you testify? You can stand around where you can see it.

A I have another copy.

Q You were referring to the accelerated production and the drop in pressure during what month in 1951?

A In April or May of 1951.

Q What happened to the pressures after that time?

A Well after the reservoir reached a more or less static condition again after increasing the allowable, the pressures

leveled off again and remained more or less uniform without any appreciable drop until the last survey which has just been completed. I would like to point out that there was an error in one well in the last survey and the red line shows that correction so that the average pressure as of the first of April is 4213 pounds per square inch or 8 pounds above the pressure taken six months previous.

Q Then in the last six months there has actually been an increase in pressure at Bagley?

A Yes, sir, average increase.

Q What was the original reservoir bottom hole pressure as shown in that exhibit?

A The original was approximately 4285.

Q I mean the first pressure that you have shown on that exhibit?

A Approximately 4285.

Q And what did you say the present pressure shown on that exhibit was?

A 4213.

Q How many barrels of oil have been produced during that interval?

A From the beginning of production until April 1st the total production has been 2,573,171 barrels.

Q What has been the drop in pressure, total?

A I will correct that original bottom hole pressure that I attempted to read. It was actually 4273 pounds which shows a total pressure drop from the beginning to April 1st, 1952 of 87 pounds.

Q There has been during the last six months an increase in pressure?

A Yes, sir.

Q Does the pressure and production information which you have depicted on Exhibit No. 16 indicate anything to you with reference to the type of energy found at Bagley?

A In my opinion we definitely have a very active water drive and the pressure history and also the productivity index tests together with our production tests, completion production tests indicate the reservoir of reasonably good permeability.

MR. KELLOUGH: We offer into evidence Exhibit No. 16.

MR. SPURRIER: Without objection they are received.

Q From your production experience, have the wells at Bagley had a high and reasonably uniform capacity to produce, would you say that from your experience as a petroleum engineer?

A Yes, I think they have.

Q Will you briefly state to the Commission for their information the situation that exists under the present 40-acre spacing

order where wells are permitted to be drilled 330 feet from the boundary line of the section and also compare that with the situation which exists with reference to the application for the extension of 80-acre spacing as it pertains to and relates to the drainage area of one well?

A Under the present rules of the Oil Conservation Commission, wells may be drilled 330 feet from the boundary lines of the 40-acre tract. This would authorize the drilling of wells from 330 feet from the lines from each corner of a quarter section and would result in a distance of 1980 feet between wells. Such locations are permitted under the statewide rule of the Oil Conservation Commission and is commonly referred to as 40-acre spacing. Assuming that the statewide 40-acre spacing rule presumes efficient drainage of any reservoir spaced under the authority of that rule, that is a distance of 1980 feet, the result is that the present rule recognizes that efficient drainage does occur for a distance of over 990 feet from a well, or over an area equivalent to 90 acres. 80-acre spacing as requested by Amerada Petroleum Corporation for the Bagley-Siluro-Devonian pool, is on a uniform spacing pattern which would result in a distance of 1866 feet between wells or the efficient drainage of an area of 80 acres in a form of a square. The 80 acre spacing proposal would require each well to drain from a distance of only 933 feet, which is 57 feet less than is permitted

under statewide so-called 40-acre spacing. There are many pools in New Mexico in which many wells have been drilled in the corner of 40-acre tracts instead of the center. This is authorized under the statewide order commonly referred to as 40-acre spacing. Many of these wells, which, as authorized, are presumed to drain an area of 90 acres are producing from reservoirs that are not under an effective water drive and do not have other conditions which are conducive to a large drainage area as exists in the Bagley-Siluro-Devonian Pool.

Q What has been the average well cost of the Amerada producing completed wells at Bagley?

A The average cost of all the Amerada Devonian producing wells at Bagley has been approximately $220,000 per well.

Q Mr. Christie, in your opinion will one well in the Bagley-Siluro-Devonian pool effectively, and efficiently and economically drain an area of 80-acres?

A In my opinion it will.

Q What, in your opinion, should the allowable be if the application for the extension is granted?

A Under the present allowable of 1½ times the normal unit allowable there does not appear to be any waste occuring and I would recommend the same allowable be continued.

Q You recommend the same allowable as contained in Order R-69?

A Yes, sir.

Q In your opinion is there any waste now being committed at Bagley or any inequity existing toward any operators or royalty owners?

A No, I don't believe there is.

Q Is the shortage of steel still critical?

A As far as our Company is concerned, it is as critical as it was a year ago.

Q The conditions in that respect have not changed materially?

A No, sir.

Q What is the amount of steel for the average well of all wells drilled by Amerada during the past year?

A Approximately 75 tons per well.

Q Approximately how many tons of steel does it take to drill one well at the Bagley?

A Approximately 175 tons to 180 tons.

Q And it requires about 2½ times more tonnage of steel to drill a well at Bagley than it has the average well drilled by Amerada during the last year?

A That is correct, yes, sir. I think another thing might be pointed out here in connection with the shortage of steel. It seems to me that it would be well to try and distribute that

as well as we could over not only this State but other States as well, in order to increase our reserves. In that connection I would like to read into the record, if I may, a statement by General Thompson at North Texas Oil and Gas Association Meeting in Wichita Falls several weeks ago.

MR. SPURRIER: Very well.

A The General states, "by the year 1975 the United States will require 12 to 14 million barrels of oil per day." The Texas Commissioner said, "which is about double our present oil requirements. Today we are producing 6,165,000 barrels per day. We have now in addition about 500,000 barrels daily reserve producing ability for domestic wells."

That is not very much reserve - half a million barrels. This is at a rate that we call most efficient, the rate that will most fully utilize the reservoir energy and do no harm to wells.

In 1951 we fully met the greatest demand in history and added to our reserves more than any year before. I think it is well to keep that in mind and try to, instead of drilling unnecessary wells and pools where we have discovered it be better to spread it around and try to discover some new reserves.

Q You mean, Mr. Christie, that the steel and materials which can be saved at Bagley could be used for further development in other areas in New Mexico?

A In New Mexico, primarily in any state as a matter of fact.

Q Amerada is the larger operator in New Mexico?

A Yes, sir.

Q We have other interests and other leases in the State of New Mexico in which we are vitally interested?

A We do.

Q And Amerada contemplates as much exploratory and development work in New Mexico as it possibly can, as can be justified? Is that right?

A That is correct.

Q Will the saving of the materials which would otherwise be wasted in unnecessary wells, could that be employed in the further development and carrying out of the Amerada's exploratory program in the State of New Mexico?

A It could and I am sure it will be.

Q In your opinion has there been any change in condition during the past year which you would say, as a petroleum engineer, should justify or require a denial of the application for the extension?

A Will you state that again, please?

Q Has there been any changed condition, in your opinion, which you think should prevent the application for extension

from being granted?

A No, I believe not.

Q Has Amerada had under consideration the question of whether or not pressure maintenance or secondary recovery operations are advisable or feasible or necessary at Bagley?

A Yes, sir, we have considered it at this time, with the minor drop in bottom hole pressure we doubt whether it would be feasible or necessary at this time. It may be later on that it would be advisable to do that but at the present time it doesn't seem to be advisable.

Q In the event at any future time should it become, indicate that it would become necessary, it would be considered by Amerada would it not?

A Yes, sir, it would.

Q But at the time, in your opinion, in view of the pressure and production history it is not necessary, is that right or feasible?

A That is correct. Yes.

Q Mr. Christie, you are familiar with the work of the Committee of Inter-State Oil Compact Commission in your studies on well spacing?

A Yes, sir, I am. To a certain extent.

Q Are there certain conclusions expressed which conform to

your views which are pertinent to this particular matter? If so, would you read those statements to the Commission?

A I think there are two or three short statements in here that agree with my conclusions if I can find them readily.

I am now quoting from the well spacing report published and distributed by the Interstate Compact Commission of which the State of New Mexico is a member.

"With respect to complete water drive fields Muskat-Aquafier, states and refers to the page in this report or at least in his report, "In complete water drive fields the well density should be only so great as will provide the allowed field withdrawals. The latter, if feasible should be limited to the capacity of the acre to replace the withdrawals without continued and excessive pressure declines." I think that fits the Bagley-Devonian field very well.

Page 53, Paragraph 4. "In water drive reservoirs the energy available for removing oil from remote locations in a reservoir is limited or inherently qualified primarily by time. The efficiency with which this energy may be expended is dependent upon the type of porosity, percentage of porosity and permeability and structural relativity and conformations but not on well spacing."

The report in summarizing has several suggestions for close spacing and several for wide spacing. I would like to quote one

or two under the wider spacing pattern which they suggest.

From Page 55 bottom, number 1. "When reservoirs have considerable structural rolativity and high porosity and effective permeability resulting in high productivity indices, which in turn permit high individual well allowables with low producing bottom hole pressure draw down." That is one condition where they recommend wide spacing.

Another is number 4, page 56. "When deep well pays result in high drilling and high operating costs per well, requiring a greater return per well to insure reasonable return on inveatment."

"When deep well pays indicate low ultimate reservoir recovery, and olose drilling is not economically justifiable."

I believe that is all.

Q Mr. Christie, Amerada is interested in producing oil?

A Yes, sir.

Q They don't want to leave it in the ground any more than anybody else?

A That is true.

Q Have you read the prepared statement which has been prepared for this Bagley case?

A Yes, I have.

Q Are the statements of facts which is contained therein true and correct to the best of your knowledge and information and belief?

A Yes, sir.

MR. KELLOUGH: That is all from this witness.

MR. SPURRIER: Does anyone have a question of this witness?

MR. ADAIR: I have a few questions, please.

CROSS EXAMINATION

By. MR. ADAIR:

Q You have been testifying solely thus far about the Bagley-Siluro-Devonian reservoir have you not?

A Yes, sir.

Q As an engineer in determining whether or not waste will take place, in determining whether or not a reservoir will support 80-acre spacing, or making any other determinations with reference to that reservoir, you should be confined of course to the facts relating to that reservoir, should you not?

A That is correct.

Q Will you refer back, if you will please, to the pressure that you found in April, 1951 when the, just prior to the time that the 80-acre allowable was placed into effect in this pool?

A My records show that the pressure on April 1, 1951, the average pressure per field was 4,258 pounds.

Q What is the present pressure?

A Present pressure as of April 1, 1952 is 4,213 pounds.

Q Which is a drop of only approximately what?

A 45 pounds.

Q And during that period of time do you have the figures

on how much oil has been withdrawn from the reservoir?

A To April 1, 1951 the cumulative production was 951,127 barrels.

Q So that during the year prior from April, 1951 until April, 1951 with a drop of only 45 pounds, you produced in excess of 1,700,000 barrels of oil?

A That is correct. 1,722,000.

Q As an engineer do you not consider this a reservoir of unusual quality?

A I think it shows very good performance.

Q During the past six months your pressure decline has not only been arrested but you have had an increase in pressure, have you not?

A Yes, sir.

Q So from the standpoint of pressure maintenance and operations the feasibility of instituting pressure maintenance operations, that is not necessary. Nature is maintaining pressure in this reservoir?

A That is correct.

Q How many rigs does Amerada have running in the field at the present time?

A I believe we are drilling just one well to the Devonian.

Q But also you are drilling one well to the Pennsylvanian,

are you not?

A Yes, sir.

Q Most of the Devonian reservoir is overlaid with the Pennsylvanian productive formation, isn't it?

A That is correct.

Q So that the operators in this particular field are in fact drilling one well to 40 surface acres at the present time, are they not?

A Yes, sir.

Q By drilling one well to the Devonian and one well to the Pennsylvanian?

A That is correct, substantially correct.

Q Do you know whether or not it is true that Texas Pacific has two rigs running in the field at the present time?

A I do not know. I understood they had one going to the Devonian and one to the Pennsylvanian.

Q That is correct. So that from June 1949 when the original well was drilled up until the present time, a period of almost three years, would you or would you not say that the operators in that field have diligently developed the field?

A I would say they had, yes, sir.

Q They have maintained rigs running in the field at all times, have they not?

A That is correct. I think they probably kept them as busy as they would be able to get pipe for them.

Q So that from the standpoint of correlative rights and standpoint of the producers and the royalty owners getting their fair share of the state allowable oil production they will get more oil during the coming year on the 80-acre spacing program that has been in effect and which is here requested to be continued for one year, they will get more oil that way than if they go to 40-acres at the present time, as far as spacing is concerned, will they not?

A In considering reservoirs?

Q Yes,

A Well, --

Q (Interrupting) The reason for that of course being that they will get an allowable and a half for the 80-acre spacing even if they went to 40-acre spacing during the year in question, they could not drill in 40-acre spacing, isn't that true?

A That is true, yes, sir. It would take them some time to make up that half an allowable if they went to 40-acres.

Q It would take some three to four months to drill a well?

A Yes, sir.

Q In that field. If you have trouble it takes sometimes 6 to 8 months to complete it, doesn't it?

A That is correct.

MR. ADAIR: I believe that is all I have.

MR. SPURRIER: Anyone else have a question?

By MR. WHITE:

Q As to the bottom hole pressures referred to in Exhibit 16, how many wells were these bottom hole pressures taken?

A Generally speaking they were taken in all wells that they could get in conveniently. In most cases I would say 90 to 95 percent of them.

Q Were individual bottom hole pressures of each well uniform or was there a large variance?

A In my opinion they are rather uniform. We had --

Q (Interrupting) You have the figures as to the greatest variance between the wells?

A We had one edge well that had a lower pressure than the other wells.

Q What was that?

A Examination of that well, Amerada State BTD No. 3, showed a bottom hole pressure of 3993.

Q When was that bottom hole pressure taken?

A That was taken as of April 1, 1952.

Q What was the bottom hole pressure prior to that time?

A Of that particular well?

Q Yes, sir.

A You are speaking of the individual well?

Q Yes, sir.

A That particular well showed a decline of 179 pounds over a six month period.

Q Is that the last six months?

A The last six months. That is an edge well incidentally. With the exception of that one particular well the other wells varied from 4178 pounds to 4245 pounds.

Q Does that exhibit show the individual pressure, bottom hole pressure?

A Exhibit 16 does not.

Q Just the average?

A Just the average.

Q Have the exterior limits of the pool been reasonably determined?

A Yes, sir, I think they have.

Q Did you say that there is any possibility or likelihood of the wells coning on an 80-acre spacing or not?

A No, I don't believe they will under 1½ times the normal unit allowable.

Q To what do you attribute the pressure increase about the same time as an increase in production?

A Well, at no time in the history of the field have we had any material increase in the bottom hole pressure with increase in production. With the exception of that period that was pointed out earlier, between March 1951 and October 1951 where the allowable was substantially increased and the bottom hole pressure decreased, the reservoir has been under a rather static condition.

Q Could you furnish us the actual bottom hole pressures per well?

A Yes, sir.

MR. WHITE: That is all I have.

MR. SPURRIER: Anyone else?

MR. ADAIR: One more question.

By MR. ADAIR:

Q Mr. Christie, even though the area limits of the field have been fairly well delineated it is true is it not that the field has as yet not been developed to one well to 80-acres?

A That is correct, yes, sir. There is a possibility of other locations or other wells but from our contouring I believe we have pretty well established the limits of the field.

Q But those wells with one exception, but those wells that have been drilled in the field have been drilled on pattern and there has been only one exception asked for and granted so far

as productive wells are concerned, is that not true?

A I believe that is correct.

Q So, following your idea that each field should stand on its own merits insofar as reservoir information is concerned and insofar as spacing and any orders that the Commission may issue with respect to the firel, this is one field that is not, where the Commissions problem is not complicated by reason of a large number of exceptions either granted or requested.

A That is correct, yes, sir.

MR. ADAIR: That is all.

MR. SPURRIER: Anyone else?

By MR. MACEY:

Q Mr. Christie, on your bottom hole pressure curve, Exhibit 16, what was the shutin time of the bottom hole pressures?

A 48 hours.

Q In every case they were 48 hours?

A Well, essentially 48 hours. It may have been a few minutes one way or another.

Q In your survey that was taken in October, 1951, according to the sheet here, you show a total of -- were all the wells taken on that survey, or almost all of them?

A Almost all of them.

Q The curve that you show as a number of wells, that is

the number of producing wells?

A Yes, sir, that is the number of producing wells.

Q You are going to submit complete bottom hole pressure information?

A Yes, sir, I would be glad to do that.

Q (By MR. WHITE) Was that report from which you read of the Interstate Oil Compact, was that report based on the Bagley-Siluro-Devonian Pool?

A Well, I am not sure what fields are included in the analysis of this report but I'm sure they have considered a large number of fields, both water drive and solution gas drive fields.

MR. WHITE: That is all.

MR. SPURRIER: Anyone else?

MR. KELLOUGH: Mr. Christie, do you have with you at this time a tabulation of the bottom hole pressures prepared in the form requested by Mr. Macey and Mr. White that you could offer into evidence at this time? Or would it be helpful to the Commission to prepare especially a tabulation as to each well?

A I can do it either way. Which ever they prefer. I could read these into the record individually right now if you would like to have them.

MR. SPURRIER: How many are there?

A 16.

MR. SPURRIER: Go ahead.

A These are all static pressures taken at a datum of minus 6700 feet, shut in time approximately 48 hours. I will read first all Amerada wells.

Amerada State BTA No. 1, 4224 pounds also give change plus 4 over the last period.

BTC No. 1, 4234 plus 8 pounds.

State BTC No. 3, 4245 pounds plus 34 pounds.

State BTD No. 1, 4205, plus 41 pounds.

State BTD No. 3, 3996 pounds, decrease 179 pounds.

State BTI No. 1, 4236 pounds, plus 14 pounds.

State BTL No. 1, 4206 pounds, plus 46 pounds.

Caudle No. 2, 4181, plus 15 pounds.

Caudle No. 5, 4222 which is the initial pressure.

I might interject here in passing, that the Caudle No. 5, which is the last well completed, had a pressure approximately the same as other wells in the field which to me shows very good drainage.

Mathers No. 1, 4187 pounds, plus 9 pounds.

Mathers "A" No. 1, 4178, minus 20 pounds.

Mathers "A" 2, 4213, which was initial pressure.

That again is, reflects a very good drainage, I believe it

happens to be the average for all the pressures.

Now, going to the Texas Pacific Coal and Oil Company well tests; their State B No. 1, 4240 pounds, minus 18 pounds.

State C No. 1, 4205, minus 23 pounds.

State C No. 2, 4200, minus 37 pounds.

State C No. 3, 4212, minus 18.

Q (By MR. KELLOUGH:) The second figure that you gave in each case, minus or plus, referred to either the drop or the rise in pressures as between what dates?

A Between October 1, 1951 and April 1, 1952, six months period.

Q I wish to say to the Commission at this time, if there is further pressure information in any form which you desire, we would be glad to prepare and furnish the Commission with anything further they wish in that connection.

By MR. MACEY:

Q Would it be possible, Mr. Christie for you to furnish us with a complete pressure history in tabular form?

A Not only possible, but we will do it.

Q One thing I wanted to ask you, Mr. Christie, in Section 3, the SE of the NE the No. 1 Mathers, what was the pressure on that well?

A 4187.

Q What was the pressure on the No. 5 Caudle in the 40-acre unit to the North?

A 4222.

MR. MACEY: All right.

MR. SPURRIER: Any other questions? If not the witness may be excused. Let's take a five minute brief recess.

(Recess)

MR. SPURRIER: Mr. Campbell, did you make a comment just as we recessed for the record?

MR. CAMPBELL: No, sir. I started to make a statement but he said there was going to be more testimony.

MR. KELLOUGH: I have one more question I would like to ask this witness. Will you please very briefly explain your opinion as to why the pressure has been maintained in Bagley in the manner in which it has?

A The pressure in the Bagley-Siluro-Devonian Pool has remained more or less static or slightly below the original bottom hole pressure because of the rate of withdrawals which have been approximately the same or at times a little less than the rate of influx of water from the surrounding aquafier. The explanation for the increase over the past six months is due to the rather accentuated decrease for the six months previous. Apparently what happened there, as soon as the pressure dropped

and by reason of the larger withdrawals and the reservoir became static again after the water influx caught up with the withdrawals, then the pressures started building up again. It is a good bit similar to hydraulic system or pipe line where you have pressure at one end and a valve at the other. As soon as you open the valve you get a slight drop and if you continue to maintain the pressure at the other end the decrease in pressure will finally be caught up with the pressure in the back. The same thing is more or less true with an Artesian well. If you open a valve on an Artesian well you all know it will flow without any additional artificial lift, it is caused by the head of water behind it.

This reservoir is under a hydraulic system and has a large body of water following the oil in, and any time you change those conditions why you change the conditions in the reservoir and it takes some time for the momentum to catch up to the withdrawals.

MR. KELLOUGH: That is all the testimony we have to offer except that I wish to now --

A (Interrupting) I might point out also that when you are talking about 8 pounds increase or decrease, you are talking about a very small percentage and it is very conceivable to have have that much of an error in your instruments. Where your decline or increase is of minor value it is questionable some-

times as to whether it is the exact figure or not. 8 pounds in 4200 would only be two tenths of one percent or in that neighborhood. But the fact that the increases were more or less consistent would lead us to believe that we actually had a slight increase on this last survey.

Q (By MR. KELLOUGH) That increase would not indicate that there weren't enough wells drilled out there would it?

A No, sir.

MR. KELLOUGH: I would like to offer into evidence the statements of fact which are contained in the written statement and the argument as submitted in memorandum brief.

MR. SPURRIER: Without objection they will be received. Does anyone have a question of this witness? If not the witness may be excused.

(Witness excused.)

MR. SPURRIER: Any one else to appear in this case?

MR. ADAIR: If the Commission please, purely for the purpose of supplementing the testimony given by Amerada, and incidentally let us say that we have all of the information that they put on, we have worked up on our own behalf to put before the Commission if it were needed. However, we believe that Amerada has made a very complete presentation. We have only some information with respect to our own wells that we would like to let the Commission

examine in order to determine whether or not we actually as we think we have a reservoir of very high quality. We will ask Mr. Peck Hardy to be sworn.

PECK HARDY,

having been first duly sworn, testified as follows:

DIRECT EXAMINATION

By MR. ADAIR:

Q Will you state your name to the Commission?

A Peck Hardy, Jr.

Q Where do you reside?

A Midland.

Q By whom employed?

A Texas Pacific Coal and Oil Company.

Q What capacity?

A Division Engineer.

Q Where were you educated?

A Graduate of Texas A & M College.

Q Do you hold a BS Degree in Petroleum Engineering from that School?

A Yes, sir.

Q How long have you been employed by Texas Pacific Coal and Oil Company?

A A little over four years.

MR. ADAIR: Are his qualifications as an expert acceptable?

MR. SPURRIER: They are.

Q Have you prepared, Mr. Hardy, or has there been prepared under your supervision a tabulation of certain productivity index tests run by Texas Pacific Coal and Oil Company on its wells in the Bagley-Devonian field?

A Yes, sir.

Q Is that the tabulation?

A Yes, sir.

MR. ADAIR: We offer that as Texas Pacific Coal and Oil Company Exhibit No. 1.

MR. SPURRIER: Without objection it will be received.

Q Will you briefly tell the Commission exactly what the tabulation shows and particularly with respect to producing rates at which the wells were tested and the PI's which you got as a result of those tests?

A Productive index shows the capacity of your wells to produce.

Q What was the PI on State B1 well?

A 16.56.

Q On State C1 what was the PI?

A 40.96.

Q At what rate of production per 24 hours?

A 1,556.6 barrels.

Q State C2 PI?

A 26.2.

Q Rate of production?

A 1,596 barrels per day.

Q State C3 PI?

A 6.54.

Q Rate of production?

A 1,026.7.

Q Do you consider those PI's very good or average?

A Very good.

Q Unusual in West Texas, Eastern New Mexico area?

A Yes, sir, I think they are.

Q I hand you a graph and ask you what that shows?

A This is a graph of the tabular data of the PI's taken on Texas Pacific Coal and Oil Company wells.

Q It shows the same wells that are shown on the tabulation?

A Yes, sir.

Q Only shows PI's graphically, is that correct?

A That is true.

MR. ADAIR: We offer that as Texas Pacific Exhibit No. 2.

MR. SPURRIER: Without objection it will be received.

MR. ADAIR: If the Commission please, Mr. Hardy has prepared

or had prepared under his supervision a tabulation of the arithmetic average bottom hole pressures surveys as we have recorded them. They show a slight difference from the tabulation of the surveys made by the Amerada but the result is the same. They show an increase in the last six months of 33 pounds instead of 8 pounds but we used the Engineering Committees Report for the October '51 survey rather than /figure used by Mr. Christie for Amerada purely for whatever help it will be to the Commission. We offer that in evidence as Texas Pacific's Exhibit No. 3.

MR. SPURRIER: Without objection it will be received.

MR. ADAIR: That is all I have, Mr. Spurrier.

MR. SPURRIER: Anyone have a question of this witness? If not the witness may be excused.

(Witness excused.)

MR. SPURRIER: Any more testimony in this case?

MR. ADAIR: That is all as far as Texas Pacific is concerned.

MR. SPURRIER: Any comments?

MR. CAMPBELL: I would like to make a statement on behalf of Texas Pacific Coal and Oil Company. Jack M. Campbell, Roswell, New Mexico. I will read this into the record.

It is an opinion of Texas Pacific Coal and Oil Company that each common source of supply must be considered by the Commission independently. As to the nature and use of the reservoir energy

the productive capacity of the wells, the spacing of those wells, and the protection of correlative rights. The evidence was obtained after three years experience in the drilling and production of 19 wells in the Bagley-Siluro-Devonian common source of supply. Indication was that the reservoir energy is a strong water drive which at the present rate of to approximately one and a half times the normal unit allowable has no decline to any depreciable degree.

The field has 19 wells in the Devonian and only one exception to the present spacing order. Rights are apparently being fully protected. The evidence shows that no waste is taking place. This common source of supply appears to be one which will justify the extension of the present order to make possible proper continued development for this pool.

MR. BOND: I would like to make a statement. L. H. Bond speaking for Stanolind Oil and Gas Company.

We have no material interest in the properties in this pool but we do have extensive drilling and producing operations in New Mexico, and feel that the decision that the Commission renders in this case might well effect our operations in the state.

Our data based on deep well drilling in New Mexico, bears out that the well costs figures that were submitted by Amerada are certainly reasonable for wells to this depth. We feel that our

operators will certainly be encouraged to make investments of almost a quarter of a million dollars per well if they can expecton proper showing to be granted reasonable unit sizes, such as 80 acres. Of course, this would be dependent upon showing the wells would drain 80-acres. In our opinion, wells will drain considerably in excess of that amount where the reservoirs are continuous. In some fields of low permeability, of course, the time required to drain that area might be excessive, but in a field such as Bagley where Mr. Hardy has testified that PI's ranged from 6 to as much as 40, that would not be the case. It seems to us that the ability of wells to drain large areas is being realized to an increasing extent in the industry.

I believe Mr. Christie referred to the Interstate Oil Compact Commission's Bulletin. I would mention one other recent publication. The book "Petroleum Conservation" published in 1951 by the American Institute of Mining and Metallurgical Engineers. In this book, well spacing is discussed for the various types of reservoir control and the conclusion of the article on well spacing is that if sufficient wells are drilled to permit the desired producing rate without undue pressure differentials, additional wells will have little or no effect on ultimate oil recovery.

The indications are that in most oil reservoirs developed to

date the total number of wells drilled has substantially exceeded the number actually required to obtain efficient oil recovery.

The other consideration is, of course, the conservation of materials. It has been testified that from 175 to 180 tons of steel are required to equip a well in this field. If 80-acre development is maintained as has been requested, this steel could be used in finding new oil reserves.

In conclusion, I would like to concur with the recommendations of Amerada and Texas Pacific that this 80-acre order be maintained in effect. Thank you.

MR. SPURRIER: Anyone else?

MR. WALKER: Dow Walker, Fort Worth, for Gulf. I have a statement here I will give you in a minute although I don't feel we can add anything to the testimony that has been given, we would like to go on record with a statement and say that Gulf does have acreage within the productive limits of the pool and consequently are vitally interested in the case.

We have not at this time available detailed information regarding the Bagley-Siluro-Devonian reservoir but we too have examined the reservoir pressure performance and find that natural sources of reservoir energy are maintaining the pressure very close to that originally existing. We find no justification at this time for the institution of pressure maintenance or second-

ary recovery operations in the field.

Gulf does not now have information available which would conclusively show whether one well is capable of draining 80 acres in this reservoir. However, there is certainly no indication to the contrary at this time, and it is respectfully recommended that the Commission grant an extension to the present order until there is sufficient evidence to determine whether or not the reservoir is being adequately drained by 80 acres.

We would like to concur with recommendations of Texas Pacific and Amerada in this case.

MR. SPURRIER: Anyone else?

MR. FOSTER: Foster for Phillip Petroleum Company. We don't have any acreage in this field under consideration, but many of the facts that have been presented here we are in sympathy with. We are in favor of 80-acre spacing wherever the reservoir conditions permit. We want to go on record as favoring generally 80-acre spacing. We think it is sound in principle and that eventually the Commission here is going to recognize, more and more in this State, the principles back of 80-acre spacing.

MR. SPURRIER: Anyone else? If not the cases will be taken under advisement. The next cases on the docket which are consolidated for the purpose of the hearing, Case 314 and 319.

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

I, ADA DEARNLEY, Notary Public and Court Reporter do hereby certify that the foregoing and attached Transcript of Proceedings in Case Nos. 249 & 315, before the Oil Conservation Commission, State of New Mexico, at Santa Fe, on April 15, 1952, to be a true and correct record to the best of my knowledge, skill and ability.

DATED at Albuquerque, New Mexico, this 22nd day of April, 1952.

Ada Dearnley
REPORTER

My Commission Expires:
June 19, 1955

ADA DEARNLEY & ASSOCIATES
COURT REPORTERS
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SEPTEMBER 28 1953

MR C P DIXIE
PHILLIPS PETROLEUM COMPANY
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ADVERTISEMENTS ALREADY ISSUED ON OCTOBER 29 HEARING INCLUDING PRESSURE MAINTENANCE CASES 314 and 315. YOUR TELEGRAM WILL BE ENTERED AS REQUEST FOR CONTINUANCE WHICH WILL PROBABLY BE GRANTED.

JASON KELLAHIN, ATTORNEY
N M OIL CONSERVATION COMMISSION

cc: Case 314
Case 315

Case # 315
Amerada

40-acre spacing in Bagley (Siluro-Devonian) Pool in Lea County.
(order R-2, R-8, R-49, R-69)

150 mo. Jan 1951 Feb. March April May June July Aug

14

130,000

12

110,000

10

90,000

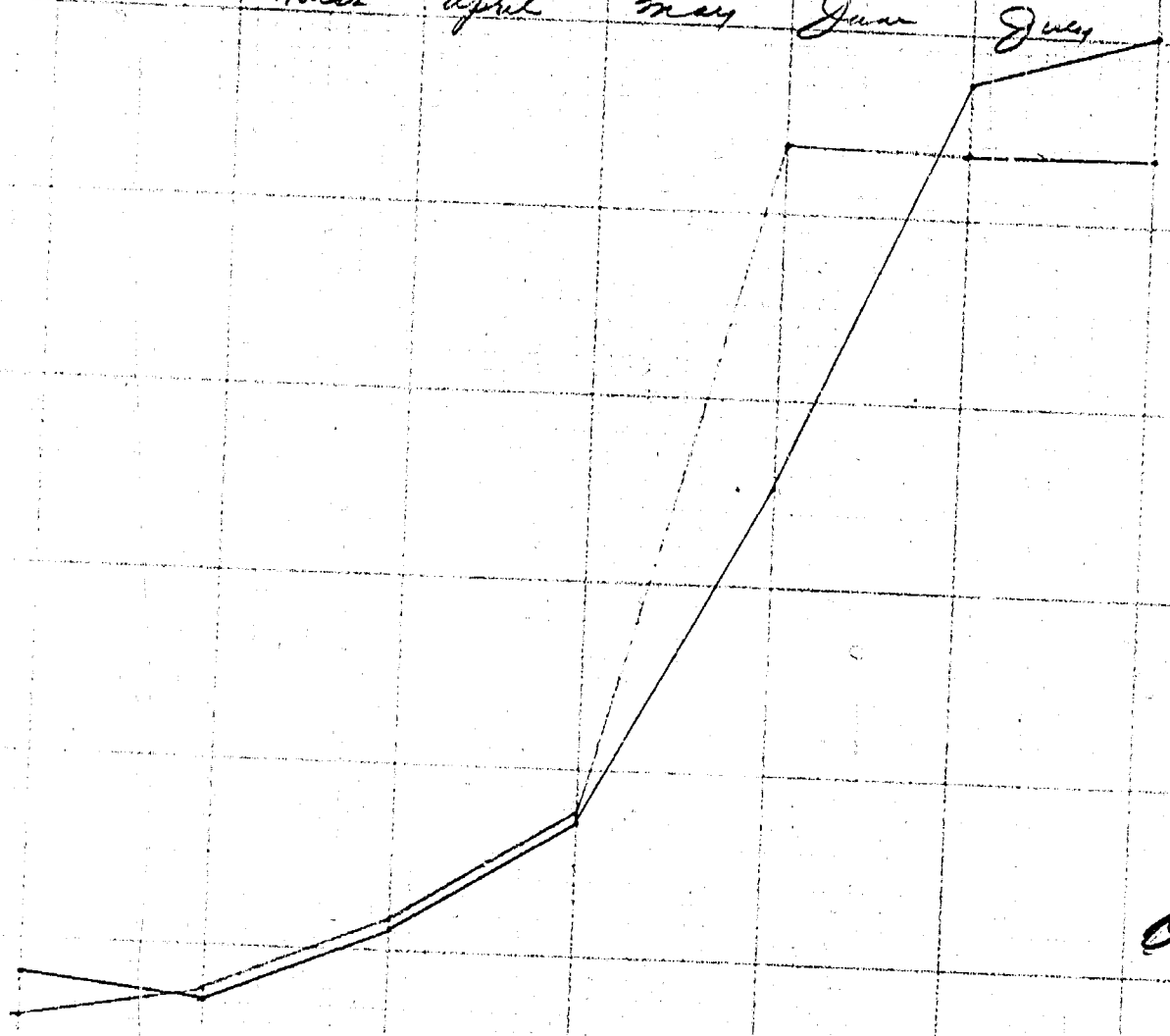
8

70,000

6

50,000

30,000



one & one half allowables
372 bbls

allowable —
Production —

Bagley-Sil-Der. 10-11,000 (4.67)
~~11-12,000~~

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:

CASES 249 AND 315
(Consolidated)
ORDER No. R-69-A

THE MATTER OF THE APPLICATION OF
AMERADA PETROLEUM CORPORATION
FOR AN ORDER ESTABLISHING PRORATION
UNITS AND UNIFORM SPACING OF WELLS
FOR THE BAGLEY-SILURO-DEVONIAN POOL,
LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at Santa Fe, New Mexico, on April 24, 1951 and again on April 15, 1952, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 29th day of April 1952, the Commission, a quorum being present, having considered the testimony adduced and the exhibits received at said hearings, and being fully advised in the premises,

FINDS:

(1) That due public notice has been given as required by law, and the Commission has jurisdiction of this cause and all the matters and things relating thereto.

(2) That heretofore, the Commission, by virtue of Order No R-69, to which reference is hereby made, established 80-acre proration units, establishing a spacing pattern, provided for an allowable equal to one and one-half times the top allowable for a 40-acre proration unit (with deep-pool adaptation), and provided for an exception to the 80-acre drilling pattern with adjustment of allowables.

(3) That Order No. 69, effective May 1, 1951, was a temporary Order, established for a period of one year.

(4) That geological and engineering data now available to the Commission indicates that one well apparently will drain 80 acres, and the Bagley-Siluro-Devonian pool should be developed on 80-acre proration units for a further period of one year.

(5) That information presented to the Commission indicates that the adoption of secondary-recovery methods at present is not necessary.

(6) That the operators in the Bagley-Siluro-Devonian pool should present to the Commission a monthly report showing complete production and reservoir information.

(7) That Order No. R-69 should be extended for a period of one year upon the conditions and limitations herein set forth.

IT IS THEREFORE ORDERED:

(1) That Order No. R-69, be, and it hereby is extended for a period of one year from the first day of May 1952, upon the following terms and conditions, to-wit:

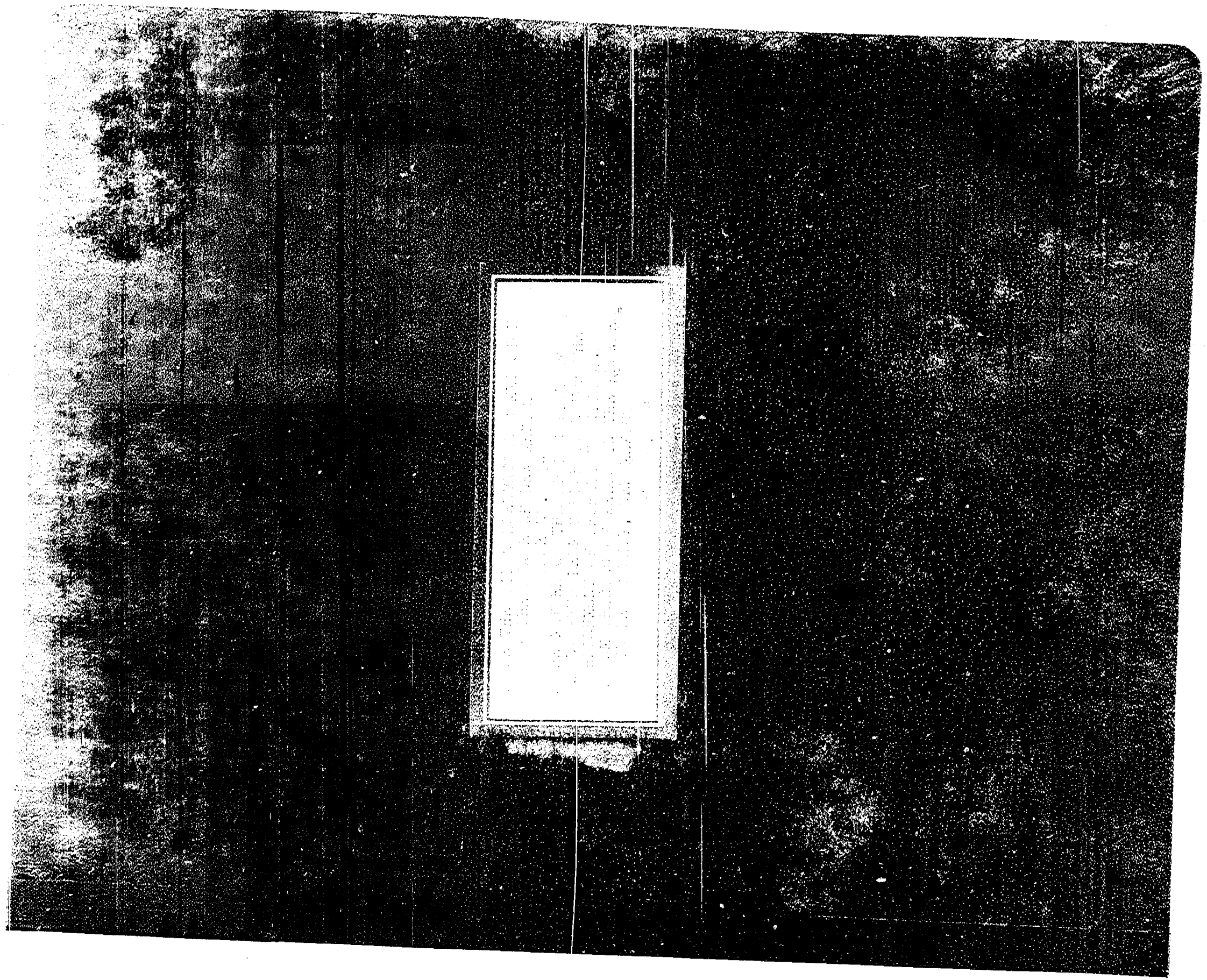
(a) That each operator in the Bagley-Siluro-Devonian pool shall file with the Commission office at Santa Fe, New Mexico, on or before the 15th day of each and every month, a monthly tabulated report for each well showing the allowable, the actual oil production, the oil runs, water production, gas production, cumulative oil production, cumulative water production, and cumulative gas production. This requirement is in addition to and supplementary to the other reports and surveys presently required by the Commission, and is not in substitution or in lieu thereof.

(b) That said operators shall cause a pool-wide bottom-hole pressure survey to be taken during the months of July 1952, November 1952, and March 1953, and the results thereof reflecting such pressures of each well shall be submitted in writing to the Commission on or before the fifth day of the following month. (Bottom-hole pressure tests shall be taken as prescribed by Rule 302 of the Commission's Rules and Regulations.)

(c) At the regular Commission hearing for the month of April in 1953, the operators shall show cause why said pool shall not be placed on a 40-acre spacing pattern with allowable adjustment.

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

OIL CONSERVATION COMMISSION - Signed by: Edwin L. Mechem, Chairman; Guy Shepard, Member; R. R. Spurrier, Secretary



BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION
OF AMERADA PETROLEUM CORPORATION
FOR THE ESTABLISHMENT OF PRORATION
UNITS AND UNIFORM SPACING OF WELLS
IN THE KNOWLES POOL IN LEA COUNTY,
NEW MEXICO.

CASE NO. 204

STATEMENT OF FACTS

September 9, 1948, Amerada commenced drilling the Hamilton #1 Well located in the NE/4 SW/4 Section 35-16S-38E. (Exhibit #1 is a map of the Knowles pool.) When the well reached the depth of about 6800 feet a show of oil was encountered, and a drillstem test was made indicating oil production from the Paddock zone at that depth. Amerada then continued with the drilling.

While still drilling the Hamilton well before it was subsequently completed in the Devonian formation, Amerada commenced the Stella Rose #1 Well to the North. (SE/4 NW/4 Sec. 35-16S-38E). This well was projected to the Paddock formation which had been discovered on the drillstem test of the Hamilton well. It was then the intention to develop the Paddock Zone on 40-acre spacing. However, when the Paddock Zone was reached it was found dry or absent, and the Stella Rose well was temporarily abandoned.

Then the Hamilton well was completed on May 4, 1949 in the Devonian formation at a plugged-back depth of 12,600 feet. It was a good well, flowing 935 barrels in 24 hours through a 1/2-inch choke. Amerada then determined that the Devonian formation should be developed on 80-acre spacing.

We were then faced with a dilemma. If we deepened the Stella Rose well to the Devonian, it would mean that either that well or the Hamilton well would have to be an exception on an 80-acre pattern. If we did not deepen the Stella

Rose well, but commenced a new well on the 80-acre pattern, then we would have to throw away 6800 feet of hole worth about $70,000.00. We elected to deepen the Stella Rose well and make the Hamilton well the exception. Then we commenced the Eaves #1 well to the south (SE/4 SW/4 Sec. 35-16S-38E) on the regular 80-acre pattern location. All three of these wells were completed in the Devonian.

Then on November 4, 1949, we started drilling the fourth well, the Eaves A (NW/4 NE/4 Sec. 2-17S-38E).

Shortly after the commencement of the fourth well in November, 1949, Amerada filed its application for 80-acre proration units and uniform spacing of wells. The spacing pattern called for a well in the southwest and northeast quarters of each Governmental Quarter Section, with the Hamilton well as an exception.

The 80-acre units proposed were the south half and north half of each Governmental Quarter Section, with a few exceptions to avoid pooling of separately owned tracts, but did not change the proposed location of any wells.

1. FIRST HEARING

The case was first tried on November 22, 1949. No one opposed the application. Magnolia Petroleum Company stated that it concurred.

Amerada presented the testimony of its geologist, Mr. John A. Veeder, and its engineer, Mr. R. S. Christie. There was also introduced into evidence the Schlumberger logs of

all wells drilled in the pool and a map showing the location of the proration units and spacing pattern requested.

Mr. Veeder testified that this pool had good vugular and vein porosity comparable to the Jones Ranch Field approximately 12 miles away which is being satisfactorily developed on 80 acres.

Mr. Christie testified that in his opinion this pool has an effective water drive, and that the productivity index indicates good permeability and good productivity.

Both the geologist and the engineer testified that in their opinion one well in this pool would effectively drain an area of at least 80 acres.

It was further shown that the discovery well cost $351,000 and future wells were estimated to cost approximately $260,000 to $270,000.

On January 11, 1950, the Commission entered its order R-3 finding Amerada's evidence insufficient, and denied the application. Exhibit 2 is a copy of Order R-3.

2. REHEARING

Amerada thereupon filed its application for rehearing and was joined in amicus curiae by Magnolia, Gulf, Sinclair and F. J. Danglade, being all of the lessees in the field.

The rehearing was granted and the case was set for trial again on February 21, 1950, but was continued to March 21, 1950.

A number of royalty owners in the area represented by their attorney, Mr. Rose of Hobbs, filed a protest stating:

"Whereas, the undersigned owners of mineral rights affected did not appear to resist said application for the reason that they had been under the belief that wells drilled in said area would be allotted a double allowable, which now appears to them not to be true."

At the hearing Mr. Rose, attorney for the royalty owners, stated:

"At the time the original hearing was held on the Knowles Field application, no royalty owner appeared to resist the same. Now it is the assertion of certain royalty owners who have signed the exhibit which I will hereafter seek to introduce into evidence to the effect that they did not appear for the reason they were under the impression that Amerada would be given double allowable on this proposed 80-acre spacing. The royalty owners did not know until the transcript came that Amerada was not seeking more than top unit allowable. Then the royalty owners came. That is why they were not here heretofore, at least not here to testify."

Also in this connection at the hearing Governor Mabry stated:

"This is under the protest of royalty holders who claim that they did not know that double allowable was not being sought at that first hearing. The protest will be considered for what it is worth--not too important."

All previous testimony and exhibits were again introduced

into evidence. At this time there were three producing wells and one drilling well in the field.

Mr. C. V. Millikan, Chief Engineer for Amerada, testified that in his opinion one well would drain an area of at least 80 acres. In justification of this conclusion he pointed to the evidence indicating an active water drive and open type porosity.

The geometry of spacing was explained with appropriate exhibits. It was pointed out that geometrically 80-acre spacing is in the form of a square in the same manner as is 40-acre spacing, where the wells are located in the center of the 40-acre tract. It was further pointed out that since the statewide 40-acre spacing rules permit off-center locations that they permit and recognize that one well will drain an area of 90 acres. This situation exists in about 75% of the wells in the Hobbs Pool and in about 30% at Monument.

The royalty owners offered the evidence of a petroleum engineer, Mr. Ralph Fitting. He did not deny that one well would drain 80 acres. On the contrary, he stated that it was reasonable to expect a water drive in the Knowles Pool. His testimony was, in substance, that the bypassing of oil in a water-drive pool and also coning would be aggravated on 80-acre spacing. He admitted on cross-examination that this situation would exist under any spacing and also regardless of spacing it would be affected by the rate of production.

At the time of this hearing the Eaves A Well was being drilled. We then advised the Commission that we were coring

that well and would furnish the Commission with a copy of the core analysis as soon as it was available. This was done.

3. TEMPORARY ORDER (R-23)

On June 14, 1950, the Commission entered Order No. R-23 establishing temporary 80-acre units. In the Order the Commission found:

> "Due to the relatively short history of the wells in the Knowles Pool and the lack of adequate geological and engineering data, it is impossible for the Commission to determine at this time if a spacing pattern of one well to an 80-acre tract will economically drain the oil within the common reservoir. It is in the interests of conservation that a drilling pattern of one well to an 80-acre tract be adhered to temporarily and until other wells are completed which will furnish more complete data on the characteristics of the common reservoir."

The allowable for each 80-acre unit was left at the regular 40-acre allowable for wells of that depth.

It was then ordered that the case be continued until December 20, 1950, when it would again be heard and a permanent spacing pattern then determined. Exhibit 3 is a copy of Order R-23.

4. PERMANENT ORDER (R-40)

On December 20, 1950, the case again came on for hearing before the Commission.

On December 20, 1950, the Commission entered its Order R-40 making 80-acre spacing permanent. In the Order the Commission found:

> "That it is in the interests of conservation that a drilling pattern of one well to an 80-acre tract be established."

The Order also provided for double allowable. Exhibit 4 is a copy of Order R-40.

5. EXCEPTION ORDER (R-52)

After the completion of the Eaves "A" Well Amerada drilled another well known as Cooper #1. (NW/4 NW/4 Sec. 2-17S-38E). This, however, resulted in a dry hole and the well was plugged and abandoned on October 16, 1950.

Amerada also drilled another dry hole known as Eaves #2 (SE/4 SE/4 Sec. 35-16S-38E) which was plugged and abandoned on January 25, 1951.

In December, 1950 Amerada filed its application for an exception to drill another well (Cooper #2, NE/4 NW/4 Sec. 2-17S-38E) in the same 80-acre unit in which the dry hole was located. This well was asked to be drilled on the other 40-acre tract. Amerada asked that the Commission set the allowable for the exception well.

On January 29, 1951, the Commission entered Order R-52 authorizing the drilling of the exception well known as Cooper #2. The evidence at the hearing disclosed that about 60% of the 80-acre unit was productive. The Commission set the

allowable for the exception well to be the normal 40-acre unit allowable with deep well adaptation. Exhibit 5 is a copy of Order R-52.

6. ISSUES INVOLVED IN PRESENT HEARING

The Commission has now, on its own motion, requested that Amerada show cause why the 80-acre spacing order now in effect for the Knowles Pool should be continued. Exhibit 6 is a copy of the notice of the present hearing.

In all of the previous hearings of this case, the conclusion that one well will adequately drain 80 acres remains undenied. The most that can be said against this conclusion is the testimony of Mr. Fitting to the effect that the by-passing of oil by water and coning around the well bores is aggravated by 80-acre spacing. But Mr. Fitting admitted that the same situation existed on 40-acre spacing and that, regardless of spacing, it was affected by the rate of production.

It has been established by competent, uncontradicted evidence in the many hearings of this case that one well will efficiently and economically drain 80 acres. It has also been established by competent uncontradicted evidence that the uniform spacing pattern proposed by Amerada protects the correlative rights of all interested parties.

The Commission can make exceptions and adjust the allowable to protect the equities in any situation where a disturbance of correlative rights is threatened. This was done in connection with the two Cooper wells.

The protest by the royalty owners was that not enough allowable had been authorized. The question of allowable for the Knowles Pool has at all times been left to the discretion of the Commission.

69-213, New Mexico Statutes 1941 provides:

"No owner of a property in a pool shall be required by the Commission, directly or indirectly, to drill more wells than are reasonably necessary to secure his proportionate part of the production. To avoid the drilling of unnecessary wells a proration unit for each well may be fixed, such being the area which may be efficiently and economically drained and developed by one well. The drilling of unnecessary wells creates fire and other hazards conducive to waste, and unnecessarily increases the production costs of oil or gas, or both, to the operator, and thus also unnecessarily increases the cost of the products to the ultimate consumer." (As amended by Section 13(b), Chap. 168, 1949 Session Laws.)

Where one well will drain 80 acres, the drilling of extra wells is unnecessary and under the Statute constitutes waste. On the testimony heretofore presented, the Commission properly followed the law in entering the 80-acre spacing order. The Commission having entered such order "in the interests of conservation" and the order having become final, the question now presented is upon what basis can such order be revoked and what evidence should be required to set it aside.

In Oklahoma the Supreme Court held that the Corporation

Commission has no authority to modify a spacing order which has become final unless there is presented some competent evidence showing a change in conditions or that waste is being committed. Application of Continental 178 Pac. (2d) 880, Carter Oil Company vs. State 238 P (2d) 300; Wood Oil Company vs. Corporation Commission 239 P. (2d) 1021.

In Mississippi the Supreme Court held that the Oil and Gas Board correctly dismissed an application to modify a spacing order where no new developments or change of condition was shown. State vs. Superior Oil Company 30 So. (2d) 589, The Court said:

> "Most assuredly, the statute does not contemplate that two hearings shall be had upon the same issue between the same parties and on the same evidence."

Therefore the question now before the Commission is whether any waste is now being committed and whether there has been any change in condition since the entry of the last order which authorizes or justifies the revocation of 80-acre spacing for the Knowles Pool.

There is the further question of whether the order should be amended to provide for a different allowable for the Knowles Pool.

Also, there is before the Commission the question of whether a pressure maintenance program is feasible at this time.

7. TESTIMONY OF JOHN A. VEEDER, GEOLOGIST

Mr. John A. Veeder is a Geologist for Amerada Petroleum Corporation and is qualified to testify as an expert witness. The substance of his testimony is as follows:

(1) At the time of the rehearing three producing wells had been drilled and one well was then being drilled.

(2) Exhibits 7, 8, 9 and 10, respectively, are Schlumberger logs of Eaves "A", Eaves #2, Cooper #1 and Cooper #2, being all of the wells drilled in the pool at the Devonian formation since the rehearing as follows:

7 - Eaves "A" #1
8 - Eaves #2
9 - Cooper #1
10 - Cooper #2

(3) Exhibit 11 is a tabulation of the pertinent drilling data for all wells in the Knowles Pool.

(4) Exhibit 12 is a structure map of the Knowles-Devonian Pool.

(5) The Eaves "A" well was cored, but at the time of the last hearing the core analyses had not yet been prepared. A copy was subsequently filed with the Commission. Exhibit 13 is the core analyses.

(6) I previously testified that the Knowles pool has vugular and good vein porosity. Additional geological information obtained from the drilling of Cooper #2 and the study of the core analyses confirms that opinion.

(7) It is now my opinion from a study of all presently existing geological information and by comparison with other

similar Devonian limestone reservoirs that this pool has good vugular and vein porosity.

(8) It is now my opinion that the porosity is continuous and connected throughout the reservoir.

(9) There has been no change of condition since the entry of the permanent 80-acre spacing order from a geological viewpoint that would justify a revocation of the order. On the contrary, the additional information confirms my previous opinions.

8. TESTIMONY OF R. S. CHRISTIE, PETROLEUM ENGINEER

Mr. R. S. Christie is a Petroleum Engineer for Amerada Petroleum Corporation and is qualified to testify as an expert witness. The substance of his testimony is as follows:

(1) The average gas-oil ratio of all wells in the Knowles Pool is 150 cu. ft.

(2) The gravity of the oil is 48° API.

(3) The P.I. test on Eaves "A" well was 3.0.

(4) The P.I. test on Cooper #2 was 2.3.

(5) Exhibit 14 is a graph showing the oil and water production by months, cumulative production and bottom hole pressure at Knowles to March 1, 1952.

(6) Exhibit 15 is a graph showing the monthly oil and water production by wells to March 1, 1952.

(7) The small decline in pressure for the amount of oil produced with a low gas-oil ratio confirms my previous opinion that this pool is under an effective water drive and that one well will effectively drain an area of eighty acres.

(8) The core analyses, the production history and all additional information obtained since the last hearing confirms my previous opinion that the Knowles pool has good permeability conducive to wide drainage.

(9) It is now my opinion that one well will efficiently and economically drain and develop an area of 80 acres.

(10) The average cost of Devonian producing wells at Knowles has been approximately $310,000 per well.

(11) The increase in water production is due to the fact that the initial completions were near the water table and because of the high permeability the water encroached rapidly with oil withdrawals.

(12) The decrease in oil production is due to the decrease in relative permeability caused by plugging of the pores by some foreign material. There is a black residue in the formation that appears to plug up the pores as fluids move toward the well bore.

(13) The increase in water production and the decrease in oil production is not caused by its wide spacing of wells and will not be corrected by revoking the 80-acre spacing order and changing the spacing to 40 acres. It is my opinion that the same result would have occurred for the same amount of production had the wells been located on 40-acre spacing.

(14) The allowable for each 80-acre proration unit in the Knowles Pool should be one top unit allowable for regular 40-acre unit with deep well adaptation.

(15) It is my opinion that no waste is now being com-

mitted. Therefore, no waste will be prevented by reducing the spacing from 80 acres to 40 acres.

(16) There has been no change of condition since the entry of the 80-acre spacing order, from the standpoint of reservoir performance, that would justify a revocation of the order. On the contrary, the additional information obtained by subsequent drilling and tests made establishes that this pool can be properly developed without waste on 80-acre spacing.

(17) It is my opinion that the correlative rights of all parties are being protected under the existing order and there is no unequal net drainage between tracts.

(18) In view of the natural effective water drive which is maintaining the reservoir pressure at a constant high level, it is my opinion that artificial pressure maintenance by water flooding would serve no useful purpose at this time, but would entail unnecessary expense without increasing the ultimate production.

9. CONCLUSION

The permanent 80-acre spacing order heretofore entered was fully justified by the evidence and the law. There has been no change in condition since the entry of that order which requires the revocation of that order. On the contrary, all of the new information obtained by additional drilling and additional testing confirms the correctness of the existing 80-acre spacing order.

The evidence at this time is sufficient to justify the entry of an 80-acre spacing order even if one had not been

heretofore entered.

There is no waste now being committed that could in any manner be corrected by the revocation of 80-acre spacing.

The allowable provisions of the existing order should be amended to provide for a regular 40-acre unit allowable with deep well adaptation for each 80-acre proration unit.

The natural effective water drive which is maintaining the reservoir pressure at a constant high level renders unnecessary any artificial pressure maintenance program at this time.

Respectfully Submitted

SETH & MONTGOMERY

By Justin T. Reid

Harry D. Page
Harry D. Page

Booth Kellough
Booth Kellough

ATTORNEYS FOR AMERADA
PETROLEUM CORPORATION

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO
CASE NO. 204
IN THE MATTER OF THE APPLICATION OF
AMERADA PETROLEUM CORPORATION FOR THE
ESTABLISHMENT OF PRORATION UNITS AND
UNIFORM SPACING OF WELLS IN THE KNOWLES
POOL IN LEA COUNTY, NEW MEXICO

EXHIBIT ... FILE ...

Amerada
Case 314

EXHIBIT NO. 2

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE NO. 204
ORDER NO. R-3

IN THE MATTER OF THE APPLICATION OF AMERADA PETROLEUM CORPORATION FOR THE ESTABLISHMENT OF PRORATION UNITS AND UNIFORM SPACING OF WELLS IN THE KNOWLES POOL IN LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This case came on for hearing before the Commission on November 2[illegible], 1949, on the application of Amerada Petroleum Corporation to establish proration units and uniform spacing of wells for the Knowles Pool, in Lea County, New Mexico.

The Commission having heard the evidence presented, the argument of counsel and being duly advised,

FINDS:

1. It has jurisdiction of this case and the parties thereof, due notice of hearing having been given.

2. The evidence is insufficient to prove that the proposed plan of spacing would avoid the drilling of unnecessary wells, secure the greatest ultimate recovery from the pool or protect correlative rights.

3. The evidence is insufficient to prove that one well drilled on each 80-acre tract would efficiently drain the recoverable oil from the pool.

4. The evidence is insufficient to prove that the proposed plan of spacing would prevent waste.

5. The evidence is insufficient to prove that the proposed plan is fair to the royalty owners in said pool.

IT IS THEREFORE ORDERED:

1. The application of Amerada Petroleum Corporation is denied.

2. Nothing contained herein shall be construed to require the drilling of one well on each 40-acre tract in the pool.

3. Nothing contained herein shall be construed to be a determination by the Commission as to what constitutes "reasonable development" of any lease in the pool in relation to the implied covenants of any such lease.

DONE at Santa Fe, New Mexico, on the 11th day of January, 1950.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

s/ Thomas J. Mabry
THOMAS J. MABRY, CHAIRMAN

s/ Guy Shepard
GUY SHEPARD, MEMBER

s/ R. R. Spurrier
R. R. SPURRIER, SECRETARY

Amerada
Case 314

EXHIBIT NO. 3

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE NO. 204
ORDER NO. R-23

IN THE MATTER OF THE APPLICATION OF AMERADA PETROLEUM CORPORATION FOR THE ESTABLISHMENT OF PRORATION UNITS AND UNIFORM SPACING OF WELLS IN THE KNOWLES POOL IN LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

This matter came on for hearing at Santa Fe, New Mexico, on March 21, 1950, pursuant to Order No. R-6, granting a rehearing, and pursuant to order of continuance entered in the minutes of the Commission on February 21, 1950. The applicant, Amerada Petroleum Corporation, was represented by the attorneys, Booth Kellough and Seth and Montgomery; Robert Childers, Alice L. Childers and other royalty owners were represented by U. M. Rose of Hobbs, New Mexico.

The Commission having considered the evidence introduced and the argument of counsel,

FINDS:

1. That due public notice having been given as required by law, the Commission has jurisdiction of the subject matter and of the interested parties.

2. The Amerada Petroleum Corporation drilled the discovery well in the Knowles Pool in Lea County, New Mexico, and has since completed two other wells, all of which produce from the Devonian formation at a depth of approximately 12,500 feet. The limits of the productive area surrounding said wells have not been determined, but will probably be

greater than the area now officially designated as the Knowles Pool and will probably embrace all the following lands:

Sections 34, 35 and 36, Township 16 South, Range 38 East, and Sections 1, 2 and 3, Township 17 South, Range 38 East, Lea County, New Mexico.

3. The cost of drilling additional wells in the above area to the Devonian formation is approximately $260,000.00 per well.

4. Due to the relatively short history of the wells in the Knowles Pool and the lack of adequate geological and engineering data, it is impossible for the Commission to determine at this time if a spacing pattern of one well to an 80-acre tract will economically drain the oil within the common reservoir. It is in the interests of conservation that a drilling pattern of one well to an 80-acre tract be adhered to temporarily and until other wells are completed which will furnish more complete data on the characteristics of the common reservoir.

IT IS THEREFORE ORDERED:

1. The drilling pattern proposed by Amerada Petroleum Corporation for the area described above is temporarily approved, and the following drilling pattern is hereby temporarily established;

a. Only two wells shall be drilled to each quarter section of approximately 160 acres, the locations to be in the center of the northwest and in the center of the southeast 40-acre tracts of each quarter section with a tolerance of 150 feet in any direction to avoid surface obstructions.

b. The Amerada-Hamilton No. 1 well located in the NE/4SW/4, Section 35, Township 16 South, Range 38 East, being a completed well is hereby allowed as an exception to the drilling pattern.

2. Each well now producing or hereafter completed as a producer in the common reservoir described above shall have a top unit allowable equivalent to that of a well drilled on a 40-acre proration unit to the same depth.

3. No wells shall be drilled in the area described above except in conformity to said drilling pattern, until the further order of the Commission.

4. As to all wells drilled in said area following the issuance of this order, the operators of such wells shall,

at their expense, gather as complete geological and engineering data as practicable, including cores, bottom hole pressure tests and other like data.

5. During the period this temporary order remains in effect no royalty owners or lease owners shall acquire any vested property rights to a continuance of the spacing pattern and this order shall be without prejudice to the right of the Commission to later change the spacing pattern to that of one well to 40 acres.

6. This case is hereby continued until December 20, 1950, at 10. a.m. at which time a further hearing will be held at the State Capitol Building, Santa Fe, New Mexico, to determine, on the basis of the evidence then submitted, a permanent spacing pattern.

DONE this 14th day of June, 1950.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

(SEAL)

THOMAS J. MABRY, CHAIRMAN

s/ Guy Shepard
GUY SHEPARD, MEMBER

s/ R. R. Spurrier
R. R. SPURRIER, SECRETARY

Amerada

Case 314

EXHIBIT NO. 4

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE NO. 204
ORDER NO. R-40

IN THE MATTER OF THE APPLICATION OF AMERADA PETROLEUM CORPORATION FOR THE ESTABLISHMENT OF PRORATION UNITS AND UNIFORM SPACING OF WELLS IN THE KNOWLES POOL IN LEA COUNTY, NEW MEXICO

ORDER OF THE COMMISSION

BY THE COMMISSION:

This matter came on for hearing at Santa Fe, New Mexico, on December 20, 1950, pursuant to Order No. R-23, and

The Commission having considered the matters and evidence presented; and, upon motion duly made:

FINDS:

1. That hearing was heretofore properly continued by order duly entered, setting down this place and date for hearing.

2. That it is in the interests of conservation that a drilling pattern of one well to an 80-acre tract be established.

IT IS THEREFORE ORDERED:

1. That the Order No. R-23 entered in Case No. 204, be and the same is hereby made permanent with the following amendments and deletions:

a. The provisions contained in Paragraph 2 of the order portion thereof are amended to read as follows:

"2. Each well now producing or hereafter completed as a producer in the common reservoir described above, shall have a top unit allowable to be fixed by the Commission, but not to exceed twice the top unit allowable for a 40-acre unit with deep well adaptation."

b. That Paragraphs 4, 5 and 6 of the Order portion are deleted from said Order R-23.

DONE the 20th day of December 1950 at Santa Fe, New Mexico.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

THOMAS J. MABRY, CHAIRMAN

s/ Guy Shepard
GUY SHEPARD, MEMBER

s/ R. R. Spurrier
R. R. SPURRIER, SECRETARY

E-5

Amerada
Case 314

EXHIBIT NO. 5

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE NO. 248
ORDER NO. R-52

IN THE MATTER OF THE APPLICATION
OF AMERADA PETROLEUM CORPORATION
FOR AN EXCEPTION TO THE SPACING
PATTERN HERETOFORE ESTABLISHED IN
THE KNOWLES POOL.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This case came on for hearing on 25 January, 1951, at Santa Fe, New Mexico, and the Commission having heard the evidence and the argument of counsel, and being duly advised finds:

1. It has jurisdiction of this case and of the parties interested therein, due notice of this hearing having been given.

2. Pursuant to Orders R-23 and R-40, heretofore entered an 80-acre spacing pattern has been established for the Knowles pool and proration units established therein. One of said proration units so established embraces the N/2 NW/4 Section 2, T.17S, R.38E, Lea County, New Mexico.

3. Amerada Petroleum Corporation has heretofore drilled and plugged on 16 October, 1950 a dry hole drilled to the Devonian formation and located in the center of the NW/4 NW/4 Section 2, T.17S, R.38E.

4. The structure of the Knowles pool is such that a well drilled in the center of the NE/4 NW/4 of said section would likely be productive of oil from the common reservoir.

5. In order to meet changed conditions, preclude inequities, and preserve correlative rights, applicants should

be granted an exception from Orders R-23 and R-40 so as to permit the drilling of a well in the NE/4 NW/4 of said section 2, and if said well is productive applicants should be granted a normal 40 acre unit allowable with deep pool adaptation.

IT IS THEREFORE ORDERED:

1. Amerada Petroleum Corporation is hereby granted permission to drill a well to the Devonian formation in the center of the NE/4 NW/4 section 2, T 17 S, R 38 E.

2. If said well be completed as a producing well, it shall have a normal 40-acre unit allowable with deep pool adaptation.

3. This order should be considered as an exception to Orders R-23 and R-40, but shall not otherwise affect said orders.

DONE at Santa Fe, New Mexico, this 29 day of January, 1951.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

s/ Edwin L. Mechem
EDWIN L. MECHEM, CHAIRMAN

s/ Guy Shepard
GUY SHEPARD, MEMBER

s/ R. R. Spurrier
R. R. SPURRIER, SECRETARY

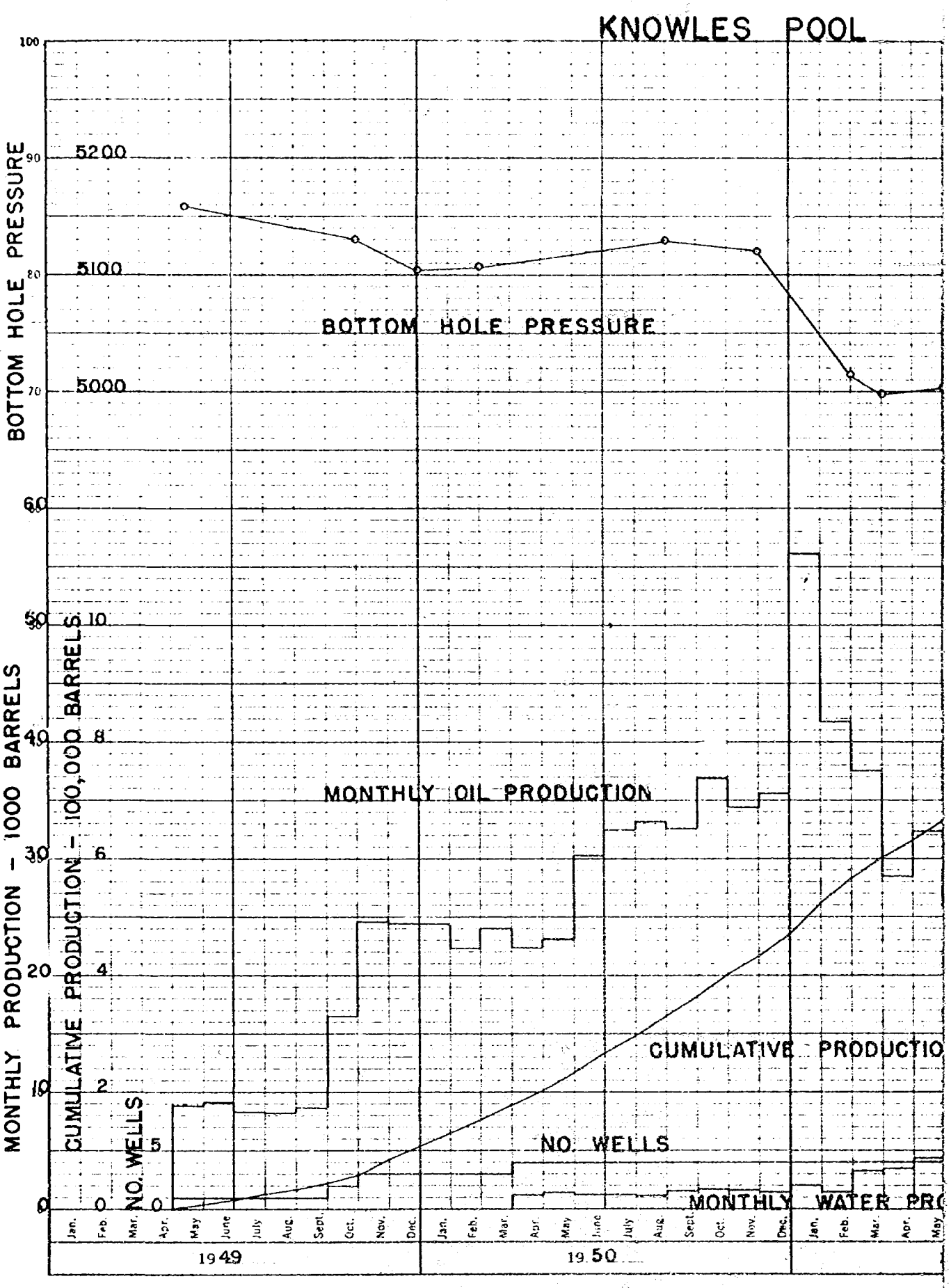
Amerada
Case 314

EXHIBIT NO. 6

NOTICE

In the matter of the application of the Oil Conservation Commission upon its own motion for an order directed to Amerada Petroleum Corporation and all other operators and persons having an interest in the subject matter hereof, directing that pressure maintenance or other secondary recovery projects be instituted in the Knowles (Devonian) Pool, In Lea County, New Mexico, within six months from October 23, 1951, or that 80-acre spacing as provided for in Commission Order R-23 as amended by Order R-40 be rescinded and 40-acre spacing be instituted for the prevention of waste and the protection of correlative rights, and directing Amerada Petroleum Corporation and all other operators or persons interested to show cause at Santa Fe, New Mexico, why such order should not be entered.

EXHIBIT NO



). 14 *Case 3 u/ [illegible]*

PRODUCTION DATA

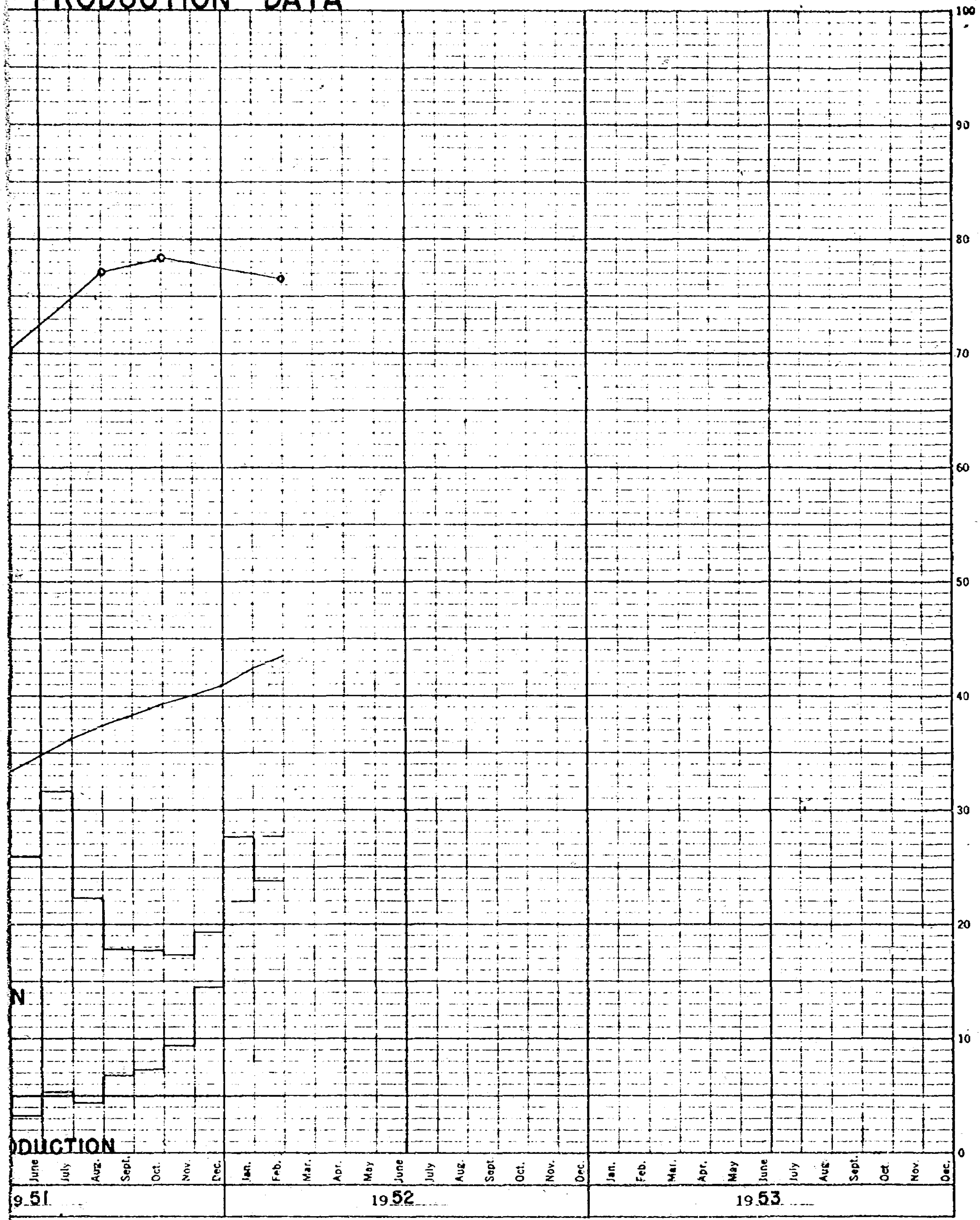


EXHIBIT NO. 11

Case 3104

4-15

KNOWLES POOL - LEA COUNTY, NEW MEXICO

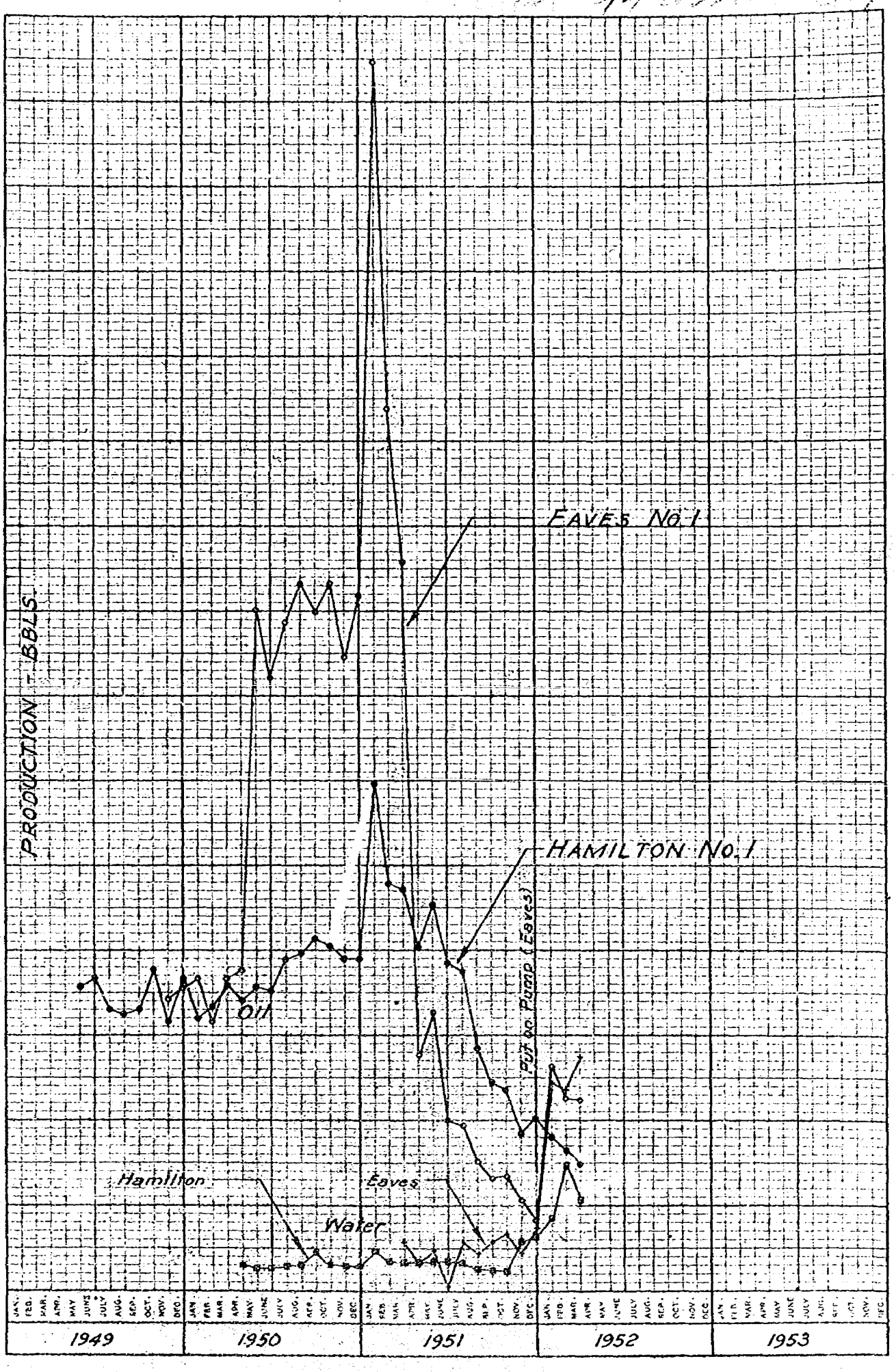
WELL & NO.	TOP DEVONIAN	TOP DEVONIAN Pay	DEVONIAN CAP	DEVONIAN COMPLETION		
HAMILTON #1	12451 (-8744)	12467 (-8760)	16'	TD 12656 (-8949)	PB 12600 (-8893)	5-1/2" Csg. @ 12518, PB 12600 (-8893) Trt. open hole 12518-12600 with 2000 gal. acid IP: F 935 BO 24 hrs. thru 1/2" ch. GOR 180-1, Grav. 46.9 Corr. Spud 10-4-48 Completed 5-4-49
EAVES #1	12336 (-8624)	12357 (-8645)	21'	TD 12575 (-8863)	PB 12573 (-8861)	7-5/8" Csg. @ 12574 Perf. 12550-573 Trt. with 2000 gals. acid thru perf. 12550-573 Perf. 12532-550 Trt. with 2000 gal. acid thru perfs. 12532-573 IP: F 883 BO 24 hrs. thru 3/4" ch. GOR 148-1 Grav. 47.9 Corr. Spud 5-27-49 Completed 10-29-49
ROSE #1	12542 (-8837)	12568 (-8863)	26'	TD 12607 (-8902)	No PB	5-1/2" Csg. @ 12596 Trt. open hole 12596-12607 with 2500 gals. acid. Perf. Csg. 12560-12596 Trt. with 500 gals. acid IP: F thru perf. & open hole 532 BOPD thru 1/2" ch. (Based on 16-hour test) GOR 132-1, Grav. 47.1 Corr. Spud: 12-26-48 Completed 10-3-49
EAVES #1-A	12477 (-8765	12481 (-8769)	4'	TD 12585 (-8873)	No PB	5-1/2" Csg. @ 12556 Trt. open hole 12556-12585 with 500 gals. acid. IP: F 1501 BO 24 hrs. thru 1/2" ch. GOR 175-1, Grav. 48.0 Corr. Spud: 11-16-49 Completed 4-19-50
EAVES #2	12618 (-8900)	12628 (-8910)	10'	TD 12706 (-8988)	D & A	8-5/8" Csg. @ 4812 DST 12640-706, open 4 hrs. Rec. 7462' salt water. N. S. Spud 7-15-50 Completed 1-25-51

KNOWLES POOL - LEA COUNTY, NEW MEXICO

WELL & NO.	TOP DEVONIAN	TOP DEVONIAN PAY	DEVONIAN CAP	DEVONIAN COMPLETION	
COOPER #1	12597 (-8885)	12602 (-8890)	5'	TD 12620 (-8908) No PB	5-1/2" Csg. @ 12598 Trt. open hole 12598-12620 with 1000 gal. acid. Perf. 5-1/2" Csg. 12593-598 and open hole 12598-12617 - Trt. perf. & open hole with 2000 gals. acid - D & A Spud 4-23-50 Completed 10-16-50; Swab 24 bbl. O plus 269 Bbl water - 24 hrs.
COOPER #2	12480 (-8771)	12514 (-8805)	34'	TD 12585 (-8876) No PB	5-1/2" Csg. @ 12,490 IP: F Nat. 728 BO plus 31 BW 24 hrs. thru 1/4" ch. GOR 178-1, Grav. 47.4 Corr. Spud 2-4-51 Completed 6-12-51

FIELD - (Water Minus 8908)

EXHIBIT NO. 15



15

CODEX BOOK COMPANY, INC. NORWOOD, MASSACHUSETTS

NO. 3122. FIVE YEARS BY MONTHS X 100 DIVISIONS

S. B. ROSE No. 1

PRODUCTION - BBLS.

10,000
7500
5000
2500
0

Oil
Water
Put on Pump

1949 1950 1951 1952 1953

EAVES "A" No. 1

PRODUCTION - BBLS.

10000
7500
5000
2500
0

Oil
Water
Put on Pump

JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEP. OCT. NOV. DEC.

1951 1952

COOPER 2

Oil
Water
Put on Pump

JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEP. OCT. NOV. DEC.

1951 1952

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION
OF AMERADA PETROLEUM CORPORATION
FOR THE ESTABLISHMENT OF PRORATION
UNITS AND UNIFORM SPACING OF WELLS
IN THE KNOWLES POOL IN LEA COUNTY,
NEW MEXICO.

CASE NO. 204

4/15/52

B. H. P.

5180
5166

STATEMENT OF FACTS

September 9, 1948, Amerada commenced drilling the Hamilton #1 Well located in the NE/4 SW/4 Section 35-16S-38E. (Exhibit #1 is a map of the Knowles pool.) When the well reached the depth of about 6800 feet a show of oil was encountered, and a drillstem test was made indicating oil production from the Paddock zone at that depth. Amerada then continued with the drilling.

While still drilling the Hamilton well before it was subsequently completed in the Devonian formation, Amerada commenced the Stella Rose #1 Well to the North. (SE/4 NW/4 Sec. 35-16S-38E). This well was projected to the Paddock formation which had been discovered on the drillstem test of the Hamilton well. It was then the intention to develop the Paddock Zone on 40-acre spacing. However, when the Paddock Zone was reached it was found dry or absent, and the Stella Rose well was temporarily abandoned.

Then the Hamilton well was completed on May 4, 1949 in the Devonian formation at a plugged-back depth of 12,600 feet. It was a good well, flowing 935 barrels in 24 hours through a 1/2-inch choke. Amerada then determined that the Devonian formation should be developed on 80-acre spacing.

We were then faced with a dilemma. If we deepened the Stella Rose well to the Devonian, it would mean that either that well or the Hamilton well would have to be an exception on an 80-acre pattern. If we did not deepen the Stella

Rose well, but commenced a new well on the 80-acre pattern, then we would have to throw away 6800 feet of hole worth about $70,000.00. We elected to deepen the Stella Rose well and make the Hamilton well the exception. Then we commenced the Raves #1 well to the south (SE/4 SW/4 Sec. 35-16S-38E) on the regular 80-acre pattern location. All three of these wells were completed in the Devonian.

Then on November 4, 1949, we started drilling the fourth well, the Raves A (NW/4 NE/4 Sec. 2-17S-38E).

Shortly after the commencement of the fourth well in November, 1949, Amerada filed its application for 80-acre proration units and uniform spacing of wells. The spacing pattern called for a well in the southwest and northeast quarters of each Governmental Quarter Section, with the Hamilton well as an exception.

The 80-acre units proposed were the south half and north half of each Governmental Quarter Section, with a few exceptions to avoid pooling of separately owned tracts, but did not change the proposed location of any wells.

1. FIRST HEARING

The case was first tried on November 22, 1949. No one opposed the application. Magnolia Petroleum Company stated that it concurred.

Amerada presented the testimony of its geologist, Mr. John A. Veeder, and its engineer, Mr. R. S. Christie. There was also introduced into evidence the Schlumberger logs of

all wells drilled in the pool and a map showing the location of the proration units and spacing pattern requested.

Mr. Veeder testified that this pool had good vugular and vein porosity comparable to the Jones Ranch Field approximately 12 miles away which is being satisfactorily developed on 80 acres.

Mr. Christie testified that in his opinion this pool has an effective water drive, and that the productivity index indicates good permeability and good productivity.

Both the geologist and the engineer testified that in their opinion one well in this pool would effectively drain an area of at least 80 acres.

It was further shown that the discovery well cost $351,000 and future wells were estimated to cost approximately $260,000 to $270,000.

On January 11, 1950, the Commission entered its order R-3 finding Amerada's evidence insufficient, and denied the application. Exhibit 2 is a copy of Order R-3.

2. REHEARING

Amerada thereupon filed its application for rehearing and was joined in amicus curiae by Magnolia, Gulf, Sinclair and F. J. Danglade, being all of the lessees in the field.

The rehearing was granted and the case was set for trial again on February 21, 1950, but was continued to March 21, 1950.

A number of royalty owners in the area represented by their attorney, Mr. Rose of Hobbs, filed a protest stating:

"Whereas, the undersigned owners of mineral rights affected did not appear to resist said application for the reason that they had been under the belief that wells drilled in said area would be allotted a double allowable, which now appears to them not to be true."

At the hearing Mr. Rose, attorney for the royalty owners, stated:

"At the time the original hearing was held on the Knowles Field application, no royalty owner appeared to resist the same. Now it is the assertion of certain royalty owners who have signed the exhibit which I will hereafter seek to introduce into evidence to the effect that they did not appear for the reason they were under the impression that Amerada would be given double allowable on this proposed 80-acre spacing. The royalty owners did not know until the transcript came that Amerada was not seeking more than top unit allowable. Then the royalty owners came. That is why they were not here heretofore, at least not here to testify."

Also in this connection at the hearing Governor Mabry stated:

"This is under the protest of royalty holders who claim that they did not know that double allowable was not being sought at that first hearing. The protest will be considered for what it is worth--not too important."

All previous testimony and exhibits were again introduced

into evidence. At this time there were three producing wells and one drilling well in the field.

Mr. C. V. Millikan, Chief Engineer for Amerada, testified that in his opinion one well would drain an area of at least 80 acres. In justification of this conclusion he pointed to the evidence indicating an active water drive and open type porosity.

The geometry of spacing was explained with appropriate exhibits. It was pointed out that geometrically 80-acre spacing is in the form of a square in the same manner as is 40-acre spacing, where the wells are located in the center of the 40-acre tract. It was further pointed out that since the statewide 40-acre spacing rules permit off-center locations that they permit and recognize that one well will drain an area of 90 acres. This situation exists in about 75% of the wells in the Hobbs Pool and in about 30% at Monument.

The royalty owners offered the evidence of a petroleum engineer, Mr. Ralph Fitting. He did not deny that one well would drain 80 acres. On the contrary, he stated that it was reasonable to expect a water drive in the Knowles Pool. His testimony was, in substance, that the bypassing of oil in a water-drive pool and also coning would be aggravated on 80-acre spacing. He admitted on cross-examination that this situation would exist under any spacing and also regardless of spacing it would be affected by the rate of production.

At the time of this hearing the Eaves A Well was being drilled. We then advised the Commission that we were coring

that well and would furnish the Commission with a copy of the core analysis as soon as it was available. This was done.

3. TEMPORARY ORDER (R-23)

On June 14, 1950, the Commission entered Order No. R-23 establishing temporary 80-acre units. In the Order the Commission found:

> "Due to the relatively short history of the wells in the Knowles Pool and the lack of adequate geological and engineering data, it is impossible for the Commission to determine at this time if a spacing pattern of one well to an 80-acre tract will economically drain the oil within the common reservoir. It is in the interests of conservation that a drilling pattern of one well to an 80-acre tract be adhered to temporarily and until other wells are completed which will furnish more complete data on the characteristics of the common reservoir."

The allowable for each 80-acre unit was left at the regular 40-acre allowable for wells of that depth.

It was then ordered that the case be continued until December 20, 1950, when it would again be heard and a permanent spacing pattern then determined. Exhibit 3 is a copy of Order R-23.

4. PERMANENT ORDER (R-40)

On December 20, 1950, the case again came on for hearing before the Commission.

On December 20, 1950, the Commission entered its Order R-40 making 80-acre spacing permanent. In the Order the Commission found:

> "That it is in the interests of conservation that a drilling pattern of one well to an 80-acre tract be established."

The Order also provided for double allowable. Exhibit 4 is a copy of Order R-40.

5. EXCEPTION ORDER (R-52)

After the completion of the Eaves "A" Well Amerada drilled another well known as Cooper #1. (NW/4 NW/4 Sec. 2-17S-38E). This, however, resulted in a dry hole and the well was plugged and abandoned on October 16, 1950.

Amerada also drilled another dry hole known as Eaves #2 (SE/4 SE/4 Sec. 35-16S-38E) which was plugged and abandoned on January 25, 1951.

In December, 1950 Amerada filed its application for an exception to drill another well (Cooper #2, NE/4 NW/4 Sec. 2-17S-38E) in the same 80-acre unit in which the dry hole was located. This well was asked to be drilled on the other 40-acre tract. Amerada asked that the Commission set the allowable for the exception well.

On January 29, 1951, the Commission entered Order R-52 authorizing the drilling of the exception well known as Cooper #2. The evidence at the hearing disclosed that about 60% of the 80-acre unit was productive. The Commission set the

allowable for the exception well to be the normal 40-acre unit allowable with deep well adaptation. Exhibit 5 is a copy of Order R-52.

6. ISSUES INVOLVED IN PRESENT HEARING

The Commission has now, on its own motion, requested that Amerada show cause why the 80-acre spacing order now in effect for the Knowles Pool should be continued. Exhibit 6 is a copy of the notice of the present hearing.

In all of the previous hearings of this case, the conclusion that one well will adequately drain 80 acres remains undenied. The most that can be said against this conclusion is the testimony of Mr. Fitting to the effect that the by-passing of oil by water and coning around the well bores is aggravated by 80-acre spacing. But Mr. Fitting admitted that the same situation existed on 40-acre spacing and that, regardless of spacing, it was affected by the rate of production.

It has been established by competent, uncontradicted evidence in the many hearings of this case that one well will efficiently and economically drain 80 acres. It has also been established by competent uncontradicted evidence that the uniform spacing pattern proposed by Amerada protects the correlative rights of all interested parties.

The Commission can make exceptions and adjust the allowable to protect the equities in any situation where a disturbance of correlative rights is threatened. This was done in connection with the two Cooper wells.

The protest by the royalty owners was that not enough allowable had been authorized. The question of allowable for the Knowles Pool has at all times been left to the discretion of the Commission.

69-213, New Mexico Statutes 1941 provides:

"No owner of a property in a pool shall be required by the Commission, directly or indirectly, to drill more wells than are reasonably necessary to secure his proportionate part of the production. To avoid the drilling of unnecessary wells a proration unit for each well may be fixed, such being the area which may be efficiently and economically drained and developed by one well. The drilling of unnecessary wells creates fire and other hazards conducive to waste, and unnecessarily increases the production costs of oil or gas, or both, to the operator, and thus also unnecessarily increases the cost of the products to the ultimate consumer." (As amended by Section 13(b), Chap. 168, 1949 Session Laws.)

Where one well will drain 80 acres, the drilling of extra wells is unnecessary and under the Statute constitutes waste. On the testimony heretofore presented, the Commission properly followed the law in entering the 80-acre spacing order. The Commission having entered such order "in the interests of conservation" and the order having become final, the question now presented is upon what basis can such order be revoked and what evidence should be required to set it aside.

In Oklahoma the Supreme Court held that the Corporation

Commission has no authority to modify a spacing order which has become final unless there is presented some competent evidence showing a change in conditions or that waste is being committed. Application of Continental 178 Pac. (2d) 880, Carter Oil Company vs. State 238 P (2d) 300; Wood Oil Company vs. Corporation Commission 239 P. (2d) 1021.

In Mississippi the Supreme Court held that the Oil and Gas Board correctly dismissed an application to modify a spacing order where no new developments or change of condition was shown. State vs. Superior Oil Company 30 So. (2d) 589, The Court said:

> "Most assuredly, the statute does not contemplate that two hearings shall be had upon the same issue between the same parties and on the same evidence."

Therefore the question now before the Commission is whether any waste is now being committed and whether there has been any change in condition since the entry of the last order which authorizes or justifies the revocation of 80-acre spacing for the Knowles Pool.

There is the further question of whether the order should be amended to provide for a different allowable for the Knowles Pool.

Also, there is before the Commission the question of whether a pressure maintenance program is feasible at this time.

7. TESTIMONY OF JOHN A. VEEDER, GEOLOGIST

Mr. John A. Veeder is a Geologist for Amerada Petroleum Corporation and is qualified to testify as an expert witness. The substance of his testimony is as follows:

(1) At the time of the rehearing three producing wells had been drilled and one well was then being drilled.

(2) Exhibits 7, 8, 9 and 10, respectively, are Schlumberger logs of Eaves "A", Eaves #2, Cooper #1 and Cooper #2, being all of the wells drilled in the pool at the Devonian formation since the rehearing as follows:

7 - Eaves "A" #1
8 - Eaves #2
9 - Cooper #1
10 - Cooper #2

(3) Exhibit 11 is a tabulation of the pertinent drilling data for all wells in the Knowles Pool.

(4) Exhibit 12 is a structure map of the Knowles-Devonian Pool.

(5) The Eaves "A" well was cored, but at the time of the last hearing the core analyses had not yet been prepared. A copy was subsequently filed with the Commission. Exhibit 13 is the core analyses.

(6) I previously testified that the Knowles pool has vugular and good vein porosity. Additional geological information obtained from the drilling of Cooper #2 and the study of the core analyses confirms that opinion.

(7) It is now my opinion from a study of all presently existing geological information and by comparison with other

similar Devonian limestone reservoirs that this pool has good vugular and vein porosity.

(8) It is now my opinion that the porosity is continuous and connected throughout the reservoir.

(9) There has been no change of condition since the entry of the permanent 80-acre spacing order from a geological viewpoint that would justify a revocation of the order. On the contrary, the additional information confirms my previous opinions.

8. TESTIMONY OF R. S. CHRISTIE, PETROLEUM ENGINEER

Mr. R. S. Christie is a Petroleum Engineer for Amerada Petroleum Corporation and is qualified to testify as an expert witness. The substance of his testimony is as follows:

(1) The average gas-oil ratio of all wells in the Knowles Pool is 150 cu. ft.

(2) The gravity of the oil is 48° API.

(3) The P.I. test on Eaves "A" well was 3.0.

(4) The P.I. test on Cooper #2 was 2.3.

(5) Exhibit 14 is a graph showing the oil and water production by months, cumulative production and bottom hole pressure at Knowles to March 1, 1952.

(6) Exhibit 15 is a graph showing the monthly oil and water production by wells to March 1, 1952.

(7) The small decline in pressure for the amount of oil produced with a low gas-oil ratio confirms my previous opinion that this pool is under an effective water drive and that one well will effectively drain an area of eighty acres.

(8) The core analyses, the production history and all additional information obtained since the last hearing confirms my previous opinion that the Knowles pool has good permeability conducive to wide drainage.

(9) It is now my opinion that one well will efficiently and economically drain and develop an area of 80 acres.

(10) The average cost of Devonian producing wells at Knowles has been approximately $310,000 per well.

(11) The increase in water production is due to the fact that the initial completions were near the water table and because of the high permeability the water encroached rapidly with oil withdrawals.

(12) The decrease in oil production is due to the decrease in relative permeability caused by plugging of the pores by some foreign material. There is a black residue in the formation that appears to plug up the pores as fluids move toward the well bore.

(13) The increase in water production and the decrease in oil production is not caused by its wide spacing of wells and will not be corrected by revoking the 80-acre spacing order and changing the spacing to 40 acres. It is my opinion that the same result would have occurred for the same amount of production had the wells been located on 40-acre spacing.

(14) The allowable for each 80-acre proration unit in the Knowles Pool should be one top unit allowable for regular 40-acre unit with deep well adaptation.

(15) It is my opinion that no waste is now being com-

mitted. Therefore, no waste will be prevented by reducing the spacing from 80 acres to 40 acres.

(16) There has been no change of condition since the entry of the 80-acre spacing order, from the standpoint of reservoir performance, that would justify a revocation of the order. On the contrary, the additional information obtained by subsequent drilling and tests made establishes that this pool can be properly developed without waste on 80-acre spacing.

(17) It is my opinion that the correlative rights of all parties are being protected under the existing order and there is no unequal net drainage between tracts.

(18) In view of the natural effective water drive which is maintaining the reservoir pressure at a constant high level, it is my opinion that artificial pressure maintenance by water flooding would serve no useful purpose at this time, but would entail unnecessary expense without increasing the ultimate production.

9. CONCLUSION

The permanent 80-acre spacing order heretofore entered was fully justified by the evidence and the law. There has been no change in condition since the entry of that order which requires the revocation of that order. On the contrary, all of the new information obtained by additional drilling and additional testing confirms the correctness of the existing 80-acre spacing order.

The evidence at this time is sufficient to justify the entry of an 80-acre spacing order even if one had not been

heretofore entered.

There is no waste now being committed that could in any manner be corrected by the revocation of 80-acre spacing.

The allowable provisions of the existing order should be amended to provide for a regular 40-acre unit allowable with deep well adaptation for each 80-acre proration unit.

The natural effective water drive which is maintaining the reservoir pressure at a constant high level renders unnecessary any artificial pressure maintenance program at this time.

Respectfully Submitted

SETH & MONTGOMERY

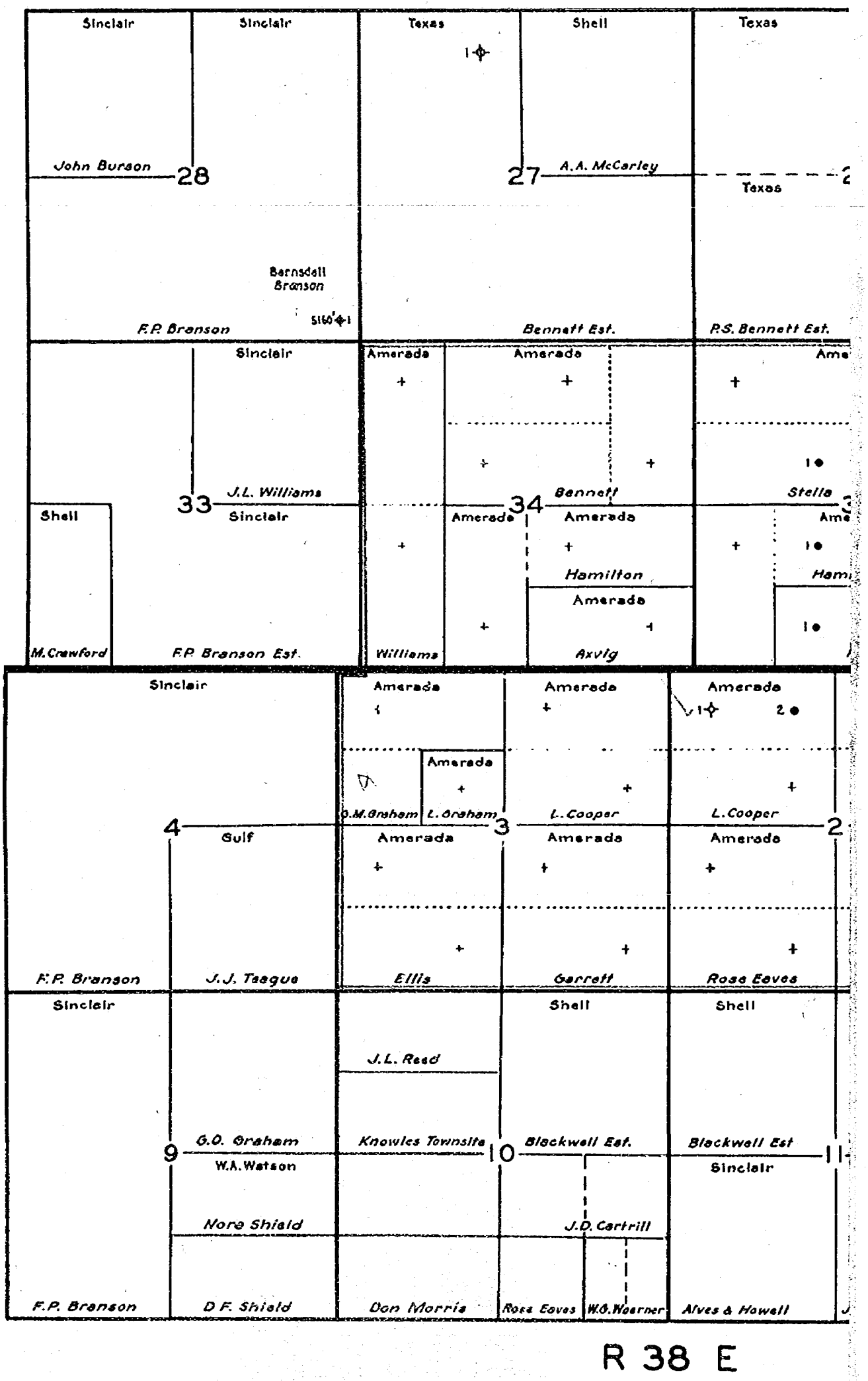
By_____

Harry D. Page

Booth Kellough

ATTORNEYS FOR AMERADA PETROLEUM CORPORATION

Directive in Case 14


Sinclair
Sinclair
Texas
Shell
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John Burson
28
27
A.A. McCarley
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Barnsdall
Branson
F.P. Branson
Bennett Est.
P.S. Bennett Est.
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Amerada
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33
J.L. Williams
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34
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Stella
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Hamilton
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M. Crawford
F.P. Branson Est.
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O.M. Graham
L. Graham
L. Cooper
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4
Gulf
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F.P. Branson
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Rose Eaves
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J.L. Read
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W.A. Watson
Knowles Townsite
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Blackwell Est.
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Nora Shield
J.D. Cartrill
F.P. Branson
D.F. Shield
Don Morris
Rose Eaves
W.G. Warner
Alves & Howell

R 38 E

C.B. Wrightsman

Texas Co.
Eaves
1 ◇ 14,845'
3697

J.H. Crosby

Western Gas Co.

26

Shell

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U.S.A.

L. Roberts

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Shell

E.M. Byers

Rose Eaves

Rose Eaves

Mary Hollebeke

Ora Lee Stephenson

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O.L. Stephenson

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J.F. Anton

P. Carter Sr.

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Rose Eaves

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Gulf

Reese Cleveland

W. Blackwell Est.

J.W. Blackwell Est.

W.F. Cone

W.F. Cone

R E Dixon

R. 23
R-40
R-52

R 39 E

KNOWLES FIELD

LEA COUNTY, NEW MEXICO

0 1/4 1/2 3/4 1 MI.

SCALE 1" = 2000'

C.B. Wrightsman

Texas Co.
Eaves
1 ◇ 16,685'
3651

J.H. Crosby

Western Gas Co.

6 — Shell — 25 — U.S.A. — L. Roberts — 30 — Shell — E.M. Byers

Rose Eaves | Rose Eaves | Mary Hollebeke | Ora Lee Stephenson

ada | Amerada | Amerada | Shell | E.M. Byers

5 — Rose ada — Amerada — 36 — A.A. DeKalb — 31

lton

Amerada

2

ose Eaves | State | O.L. Stephenson | Rose Eaves

T 16 S

Amerada | Amerada | Magnolia

1

Rose Eaves "A" | Danglade

Sinclair

6

Alves & Howell | F.J. Danglade | C.J. Canada etal | P. Carter | Rose Eaves

Sinclair | Sinclair | Reese Cleveland | P. Carter Jr.

Shell

Alves & Howell | L. Roberts | R.D. Holmes | 12 | J.F. Anton | P. Carter Sr. | 7 | Rose Eaves

C.H. Davis | C.H Davis | Gulf | Gulf | Reese Cleveland

W. Blackwell Est. | J.W. Blackwell Est. | W.F. Cone | W.F. Cone | R.E Dixon

T 17 S

R 39 E

KNOWLES FIELD

LEA COUNTY, NEW MEXICO

0 1/4 1/2 3/4 1 Mi.

SCALE 1" = 2000'

Amerada
Case 314

Sinclair | Sinclair | Texas | Shell | Texas

John Burson — 28 — 27 — A.A. McCarley — Texas — 2

Barnsdell Branson

F.P. Branson | 5160' | Bennett Est. | R.S. Bennett Est.

Sinclair | Amerada | Amerada | Amer

33 — J.L. Williams — Sinclair | Bennett | Stella — 3

Shell | Amerada | Amerada | Amerada | Amer

Hamilton | Haml

Amerada

M. Crawford | F.P Branson Est. | Williams | Axvig

Sinclair | Amerada | Amerada | Amerada

Amerada

S.M. Graham | L. Graham | L. Cooper | L. Cooper

4 — Gulf — 3 — 2

Amerada | Amerada | Amerada

F.P. Branson | J.J. Teague | Ellis | Garrett | Rose Eaves

Sinclair | Shell | Shell

J.L. Reed

G.O. Graham | Knowles Townsite | Blackwell Est. | Blackwell Est

9 — W.A. Watson — 10 — 11

Sinclair

Nora Shield | J.D. Cartrill

F.P. Branson | D.F. Shield | Don Morris | Rose Eaves | W.G. Woerner | Alves & Howell

R 38 E

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO.
RECEIVED
AUG 3 1953
ORIGINAL

(Form C-103)
(Revised 7/1/52)

NEW MEXICO OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

RECEIVED
JUL 29 1953
OIL CONSERVATION COMMISSION

MISCELLANEOUS REPORTS ON WELLS

Submit this report in TRIPLICATE to the District Office, Oil Conservation Commission, within 10 days after the work specified is completed. It should be signed and filed as a report on Beginning Drilling Operations, Results of test of casing shut-off, result of plugging of well, result of well repair, and other important operations, even though the work was witnessed by an agent of the Commission. See additional instructions in the Rules and Regulations of the Commission.

Indicate Nature of Report by Checking Below

REPORT ON BEGINNING DRILLING OPERATIONS		REPORT ON RESULT OF TEST OF CASING SHUT-OFF		REPORT ON REPAIRING WELL	
REPORT ON RESULT OF PLUGGING WELL		REPORT ON RECOMPLETION OPERATION		REPORT ON (Other) BHP SURVEY	

July 24, 1953 (Date) Tatum, NewxMexico (Place)

Following is a report on the work done and the results obtained under the heading noted above at the

Amerada Petroleum Corporation (Company or Operator) (Lease)

(Contractor), Well No. All in the ¼ ¼ of Sec.,

T., R., NMPM., Bagley Siluro-Devonian Pool, County.

The Dates of this work were as folows: July 1 & 2, 1953

Notice of intention to do the work (was) (was not) submitted on Form C-102 on (Cross out incorrect words), 19,

and approval of the proposed plan (was) (was not) obtained.

Subsea datum: -6700'
BHT @ datum: 178° F.

DETAILED ACCOUNT OF WORK DONE AND RESULTS OBTAINED

Lease	Well No.	Elev. df	Top of Prod. Form.	Date of Test	Shut In Time	Run Depth	BHP @ Rpm Depth	BHP @ Datum
State BT "I"	1	4250'	10,922'	7-1	48/04	10,940'	4193	4196
State BT "L"	1	4245'	10,840'	7-1	55/34	10,900'	4127	4142
State BT "M"	1	4255'	10,976'	7-2	50/52	10,955'	4149	4149
State BT "N"	1	4258'	10,850'	7-2	48/10	10,949'	4152	4155

Witnessed by Wm. M. Capps (Name) Amerada Petroleum Corporation (Company) Engineer (Title)

Approved:
OIL CONSERVATION COMMISSION
S. J. Stanley (Name)
Engineer District 1. JUL 29 1953
(Title) (Date)

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

Name K. V. Stephenson
Position Assistant District Superintendent
Representing Amerada Petroleum Corporation
Address Roswell Star Route, Tatum, New Mexico

(Form C-103)
(Revised 7/1/52)

RECEIVED
JUL 29 1953
OIL CONSERVATION COMMISSION
HOBBS, OFFICE

NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

MISCELLANEOUS REPORTS ON WELLS

Submit this report in TRIPLICATE to the District Office, Oil Conservation Commission, within 10 days after the work reported is completed. It should be signed and filed as a report on Beginning Drilling Operations, Results of test of casing shut-off, result of plugging of well, result of well repair, and other important operations, even though the work was witnessed by an agent of the Commission. See additional instructions in the Rules and Regulations of the Commission.

Indicate Nature of Report by Checking Below

REPORT ON BEGINNING DRILLING OPERATIONS		REPORT ON RESULT OF TEST OF CASING SHUT-OFF		REPORT ON REPAIRING WELL	
REPORT ON RESULT OF PLUGGING WELL		REPORT ON RECOMPLETION OPERATION		REPORT ON (Other) BHP SURVEY	

July 24, 1953 (Date) Tatum, New Mexico (Place)

Following is a report on the work done and the results obtained under the heading noted above at the

Amerada Petroleum Corporation (Company or Operator) (Lease)

(Contractor), Well No. All in the ¼ ¼ of Sec.,

T., R., NMPM., Bagley Siluro-Devonian Pool, Lea County.

The Dates of this work were as folows: July 1 & 2, 1953

Notice of intention to do the work (was) (was not) submitted on Form C-102 on, 19, (Cross out incorrect words)

and approval of the proposed plan (was) (was not) obtained.

Subsea datum: -6700'
BHT @ datum: 178° F

DETAILED ACCOUNT OF WORK DONE AND RESULTS OBTAINED

Lease	Well No.	Elev. df	Top of Prod. Form.	Date of Test	Shut In Time	Run Depth	BHP @ Run Depth	BHP @ Datum
Caudle	2	4266'	11,012'	7-2	51/20	10,966'	4084	4084
Caudle	5	4256'	10,860'	7-2	56/40	10,946'	4168	4173
Chambers	1	4250'	11,010'	7-2	58/05	10,950'	4097	4097
Mathers	1	4254'	10,934'	7-2	68/16	10,934'	4176	4185
Mathers "A"	1	4257'	10,938'	7-2	55/09	10,957'	4064	4064
Mathers "A"	2	4260'	10,960'	7-2	53/56	10,960'	4173	4173
State BT "A"	1	4246'	10,950'	7-1	50/31	10,926'	4173	4182
State BT "C"	1	4252'	10,959'	7-1	49/32	10,722'	4097	4173
State BT "C"	3	4252'	10,895'	7-1	48/26	10,942'	4176'	4179
State BT "D"	1	4250'	10,900'	7-1	57/09	10,950'	4124	4124
State BT "D"	2	4249'	10,699'	7-1	53/55	10,749'	3306	3394
State BT "D"	3	4247'	10,792'	7-1	54/59	10,527'	3928	4079

Witnessed by Wm. M. Capps (Name) Amerada Petroleum Corporation (Company) Engineer (Title)

Approved:
OIL CONSERVATION COMMISSION
S. J. Stanley (Name)
Engineer District 1 (Title)
JUL 29 1953 (Date)

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

Name K. V. Stephenson
Position Assistant District Superintendent
Representing Amerada Petroleum Corporation
Address Roswell Star Route, Tatum, New Mexico

(Form C-103)
(Revised 7/1/52)

ORIGINAL

NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

RECEIVED
APR 1 1953
OIL CONSERVATION COMMISSION
HOBBS, OFFICE

MISCELLANEOUS REPORTS ON WELLS

Submit this report in TRIPLICATE to the District Office, Oil Conservation Commission, within 10 days after the work is completed. It should be signed and filed as a report on Beginning Drilling Operations, Results of test of casing shut-off, Result of Plugging of well, result of well repair, and other important operations, even though the work was witnessed by an agent of the Commission. See additional instructions in the Rules and Regulations of the Commission.

Indicate Nature of Report by Checking Below

REPORT ON BEGINNING DRILLING OPERATIONS		REPORT ON RESULT OF TEST OF CASING SHUT-OFF		REPORT ON REPAIRING WELL	
REPORT ON RESULT OF PLUGGING WELL		REPORT ON RECOMPLETION OPERATION		REPORT ON (Other) BHP SURVEY	

March 31, 1953 (Date) Monument, New Mexico (Place)

Following is a report on the work done and the results obtained under the heading noted above at the

Amerada Petroleum Corporation (Company or Operator) (Lease)

(Contractor), Well No. All in the ¼ ¼ of Sec.,

T....., R....., NMPM., Bagley-Siluro-Devonian Pool, Lea County.

The Dates of this work were as folows:

Notice of intention to do the work (was) (was not) submitted on Form C-102 on (Cross out incorrect words), 19....,

and approval of the proposed plan (was) (was not) obtained.

Subseadatum: -6700'
BHT @ Datum: 178°F.

DETAILED ACCOUNT OF WORK DONE AND RESULTS OBTAINED

LEASE	WELL NO.	ELEV df	TOP OF PROD. FORM.	DATE OF TEST	SHUT IN TIME	RUN DEPTH	BHP@ RUN DEPTH	BHP : DATUM
Caudle	2	4266'	11,012'	3-13	49	10,966'	4087	4087
Caudle	5	4256'	10,860'	3-13	52	10,941'	4141	4146
Chambers	1	4250'	11,010'	3-14	51	10,950'	4101	4101
Mathers	1	4254'	10,934'	3-19	49	10,932'	4169	4176
Mathers "A"	1	4257'	10,938'	3-13	50	10,957'	4072	4072
Mathers "A"	2	4260'	10,960'	3-14	49	10,960'	4166	4166
State BT"A"	1	4246'	10,950'	3-13	50	10,926'	4186	4194
State BT"C"	1	4252'	10,959'	3-14	50	10,720'	4101	4191
State BT"C"	3	4252'	10,895'	3-13	50	10,940'	4209	4232

OIL CONSERVATION COMMISSION
APR 6 1953

Witnessed by W. G. Abbott (Name) Amerada Petroleum Corporation (Company) Petroleum Engineer (Title)

Approved:
OIL CONSERVATION COMMISSION
Roy Yarbrough (Name)
Oil & Gas Inspector (Title)
APR 1 1953 (Date)

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

Name
Position Assistant District Superintendent
Representing Amerada Petroleum Corporation
Address Drawer D, Monument, New Mexico

(Form C-103)
(Revised 7/1/52)

RECEIVED
APR 1 1953
OIL CONSERVATION COMMISSION

NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

MISCELLANEOUS REPORTS ON WELLS

Submit this report in TRIPLICATE to the District Office, Oil Conservation Commission, within 10 days after the work specified is completed. It should be signed and filed as a report on Beginning Drilling Operations, Results of test of casing shut-off, result of plugging of well, result of well repair, and other important operations, even though the work was witnessed by an agent of the Commission. See additional instructions in the Rules and Regulations of the Commission.

Indicate Nature of Report by Checking Below

REPORT ON BEGINNING DRILLING OPERATIONS		REPORT ON RESULT OF TEST OF CASING SHUT-OFF		REPORT ON REPAIRING WELL	
REPORT ON RESULT OF PLUGGING WELL		REPORT ON RECOMPLETION OPERATION		REPORT ON (Other) BHP SURVEY	

March 31, 1953 (Date) Monument, New Mexico (Place)

Following is a report on the work done and the results obtained under the heading noted above at the

Amerada Petroleum Corporation (Company or Operator) (Lease)

(Contractor), Well No. in the ¼ ¼ of Sec.,

T., R., NMPM., Bagley Siluro-Devonian Pool, Lea County.

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

The Dates of this work were as folows:

Notice of intention to do the work (was) (was not) submitted on Form C-102 on (Cross out incorrect words) APR 6 1953, 19,

and approval of the proposed plan (was) (was not) obtained.

DETAILED ACCOUNT OF WORK DONE AND RESULTS OBTAINED

LEASE	WELL NO.	ELEV. df	TOP OF PROD. FORM.	DATE OF TEST	SHUT IN TIME	RUN DEPTH	BHP @ RUN DEPTH	BHP @ DATUM
State BT"D"	1	4250'	10,900'	3-13	50	10,950'	4150	4150
State BT"D"	2	4249'	10,699'	3-13	50	10,749'	3427	3481
State BT"D"	3	4247'	10,792'	3-14	51	10,527'	3883	4038
State BT"I"	1	4250'	10,922'	3-13	50	10,940'	4158	4161
State BT"L"	1	4245'	10,840'	3-14	50	10,900'	4142	4155
State BT"M"	1	4255'	10,976'	3-13	49	10,955'	4194	4194
State BT"N"	1	4258'	10,850'	3-13	50	10,949'	4172	4174

Witnessed by W. G. Abbott (Name) Amerada Petroleum Corporation (Company) Petroleum Engineer (Title)

Approved:
OIL CONSERVATION COMMISSION

Roy Yarbrough (Name)

Oil & Gas Inspector (Title) APR 1 1953 (Date)

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

Name

Position Assistant District Superintendent

Representing Amerada Petroleum Corporation

Address Drawer D, Monument, New Mexico

Also being submitted are the results of the Bottom Hole Pressure tests @ -6700' taken in March, 1953.

Lease and Well	Shut In Time	BHP
State "B" a/c-1 Well #1	74 hrs.	4180
State "B" a/c-1 Well #2	58 "	4157
State "C" a/c-1 Well #1	52 "	4185
State "C" a/c-1 Well #2	72 "	4200
State "C" a/c-1 Well #3	56 "	4135

Very truly yours,

TEXAS PACIFIC COAL AND OIL CO.

John Yuronka

John Yuronka,
District Engineer

Form C-103

ORIGINAL

NEW MEXICO OIL CONSERVATION COMMISSION

RECEIVED
AUG 7 1952
OIL CONSERVATION COMMISSION
HOBBS, NEW MEXICO

MISCELLANEOUS REPORTS ON WELLS

Submit this report in triplicate to the Oil Conservation Commission District Office within ten days after the work specified is completed. It should be signed and filed as a report on beginning drilling operations, results of shooting well, results of test of casing shut off, result of plugging of well, and other important operations, even though the work was witnessed by an agent of the Commission. See additional instructions in the Rules and Regulations of the Commission.

Indicate nature of report by checking below.

REPORT ON BEGINNING DRILLING OPERATIONS		REPORT ON REPAIRING WELL	
REPORT ON RESULT OF SHOOTING OR CHEMICAL TREATMENT OF WELL		REPORT ON PULLING OR OTHERWISE ALTERING CASING	
REPORT ON RESULT OF TEST OF CASING SHUT-OFF		REPORT ON DEEPENING WELL	
REPORT ON RESULT OF PLUGGING OF WELL		Report on Bottom Hole Pressure Survey	

July 22, 1952 (Date) Monument, New Mexico (Place)

Following is a report on the work done and the results obtained under the heading noted above at the Amerada Petroleum Corporation (Company or Operator) Well No. 6 All (Lease) in the ..... of Sec. ....., T. ....., R. ....., N. M. P. M., Bagley-Siluro Devonian Pool Lea County.

The dates of this work were as follows: July 7th & 14th, 1952

Notice of intention to do the work was (was not) submitted on Form C-102 on ....., 19....., and approval of the proposed plan was (was not) obtained. (Cross out incorrect words.)

Subsea datum: -6700'
BHT @ datum: 178 F.

DETAILED ACCOUNT OF WORK DONE AND RESULTS OBTAINED

LEASE	WELL NO.	ELEV. df	TOP OF PROD. FORMATION	DATE TEST	SHUT-IN TIME	RUN DEPTH	BHP @ RUN DEPTH	BHP @ DATUM
Caudle	2-D	4266	11,012	7-7	54	10,966	4147	4147
Caudle	5	4256	10,860	7-14	53	10,941	4202	4208
Chambers	1	4250	11,010	7-14	53	10,950	4172	4172
Mathers	1	4254	10,934	7-14	49	10,932	4168	4178
Mathers "A"	1	4257	10,938	7-14	51	10,957	4140	4140
Mathers "A"	2	4260	10,960	7-7	53	10,960	4229	4229
State BTA	1	4246	10,950	7-14	50	10,926	4215	4221
State BTC	1	4252	10,959	7-7	55	10,720	4126	4206
State BTC	3	4252	10,895	7-7	55	10,940	4213	4217
State BTD	1	4250	10,900	7-14	53	10,950	4185	4185
State BTD	2	4249	10,699	7-7	53	10,835	3685	3729
State BTD	3	4247	10,792	7-7	52	10,530	3878	4030

Witnessed by W. G. Abbott (Name) Amerada Petroleum Corporation (Company) Petr. Engr. (Title)

APPROVED:
OIL CONSERVATION COMMISSION

Roy Yarbrough (Name)
Oil & Gas Inspector (Title)
AUG 8 1952 (Date), 19.

OIL CONSERVATION COMMISSION
HOBBS, NEW MEXICO
RECEIVED
AUG 11 1952

I hereby swear or affirm that the information given above is true and correct.

Name Dan Tripp

Position Assistant District Superintendent

Representing Amerada Petroleum Corporation (Company or Operator)

Address Drawer "D", Monument, New Mexico

Form C-103

ORIGINAL

NEW MEXICO OIL CONSERVATION COMMISSION

RECEIVED
AUG 7 1952
OIL CONSERVATION COMMISSION
HOBBS, NEW MEXICO

MISCELLANEOUS REPORTS ON WELLS

Submit this report in triplicate to the Oil Conservation Commission District Office within ten days after the work covered is completed. It should be signed and filed as a report on beginning drilling operations, results of shooting well, results of test of casing shut off, result of plugging of well, and other important operations, even though the work was witnessed by an agent of the Commission. See additional instructions in the Rules and Regulations of the Commission.

Indicate nature of report by checking below.

REPORT ON BEGINNING DRILLING OPERATIONS		REPORT ON REPAIRING WELL	
REPORT ON RESULT OF SHOOTING OR CHEMICAL TREATMENT OF WELL		REPORT ON PULLING OR OTHERWISE ALTERING CASING	
REPORT ON RESULT OF TEST OF CASING SHUT-OFF		REPORT ON DEEPENING WELL	
REPORT ON RESULT OF PLUGGING OF WELL		Report on Bottom Hole Pressure Survey	

July 22, 1952 (Date) Monument, New Mexico (Place)

Following is a report on the work done and the results obtained under the heading noted above at the Amerada Petroleum Corporation (Company or Operator) Well No. All (Lease) in the ____ of Sec. ____, T. ____, R. ____, N. M. P. M., Bagley-Siluro Devonian Pool Lea County.

The dates of this work were as follows: July 7th & 14th, 1952

Notice of intention to do the work was (was not) submitted on Form C-102 on ____ 19____, and approval of the proposed plan was (was not) obtained. (Cross out incorrect words.)

Subsea datum: -6700'
BHT @ datum: 178 F.

DETAILED ACCOUNT OF WORK DONE AND RESULTS OBTAINED

	LEASE	WELL NO.	ELEV. df	TOP OF PROD. FORMATION	DATE TEST	SHUT-IN TIME	RUN DEPTH	BHP @ RUN DEPTH	BHP @ DATUM
	State BTI	1	4250	10,922	7-14	51	10,936	4188	4193
	State BTL	1	4245	10,840	7-14	49	10,900	4161	4177
34-11-33	State BTM H	1	4255	10,976	7-7	56	10,955	4202	4202
"	State BTN P	1	4258	10,850	7-7	54	10949	4194	4197

OIL CONSERVATION COMMISSION SANTA FE, NEW MEXICO
AUG 11 1952

Witnessed by W. G. Abbott (Name) Amerada Petroleum Corporation (Company) Petr. Engr. (Title)

APPROVED:
OIL CONSERVATION COMMISSION
Roy Yarbrough
Name
Off. Gas Inspector
Title
AUG 8 1952
Date 19

I hereby swear or affirm that the information given above is true and correct.

Name D W Tapp
Position Assistant District Superintendent
Representing Amerada Petroleum Corporation (Company or Operator)
Address Drawer "D", Monument, New Mexico

(Form C-103)
(Revised 7/1/52)

NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

RECEIVED
DEC 18 1952

MISCELLANEOUS REPORTS ON WELLS

Submit this report in TRIPLICATE to the District Office, Oil Conservation Commission, within 10 days after the work specified is completed. It should be signed and filed as a report on Beginning Drilling Operations, Results of test of casing shut-off, result of plugging of well, result of well repair, and other important operations, even though the work was witnessed by an agent of the Commission. See additional instructions in the Rules and Regulations of the Commission.

Indicate Nature of Report by Checking Below

REPORT ON BEGINNING DRILLING OPERATIONS		REPORT ON RESULT OF TEST OF CASING SHUT-OFF		REPORT ON REPAIRING WELL	
REPORT ON RESULT OF PLUGGING WELL		REPORT ON RECOMPLETION OPERATION		REPORT ON (Other) BHP SURVEY	

December 15, 1952 (Date) Monument, New Mexico (Place)

Following is a report on the work done and the results obtained under the heading noted above at the

Amerada Petroleum Corporation (Company or Operator) (Lease)

(Contractor), Well No. ALL in the ¼ ¼ of Sec.,

T....., R....., NMPM., Bagley Siluro-Devonian Pool, Lea County.

The Dates of this work were as folows:

Notice of intention to do the work (was) (was not) submitted on Form C-102 on (Cross out incorrect words), 19....,

and approval of the proposed plan (was) (was not) obtained.

Subsea Datum - 6700
BHT @ Datum 178°F.

DETAILED ACCOUNT OF WORK DONE AND RESULTS OBTAINED

LEASE	Well No.	Elev. df	Top of Prod. formation	Date of Test	Shut In Time	Run Depth	BHP @ Run Depth	BHP @ Datum
~~Caudle~~	~~2~~	~~4266'~~	~~11,012'~~	~~11-3~~	~~50~~	~~10,966~~	~~4108~~	~~4108~~
Caudle	5	4256'	10,860'	11-3	53	10,946'	3977	3981
Chambers	1	4250'	11,010'	11-5	48	10,950'	4139	4139
Mathers	1	4254'	10,934	11-5	52	10,934'	4155'	4164
Mathers "A"	1	4257'	10,938'	11-3	51	10,957'	4114	4114
Mathers "A"	2	4260'	10,960'	11-5	50	10,960'	4210	4210
State BT"A"	1	4246	10,950'	11-5	51	10,926'	4206'	4213
State BT"C"	1	4252'	10,959'	11-3	51	10,722'	4122	4200
State BT "C"	3	4252	10,895'	11-3	54	10,942'	4207	4210

Witnessed by W. G. Abbott (Name) Amerada Petroleum Corporation (Company) Petroleum Engineer (Title)

Approved:
OIL CONSERVATION COMMISSION

(Name)

(Title) (Date)

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

Name D W Tapp

Position Assistant District Superintendent

Representing Amerada Petroleum Corporation

Address Drawer "D", Monument, New Mexico

TEXAS PACIFIC COAL AND OIL COMPANY

FIELD OFFICE

December 3, 1952

PLEASE ADDRESS REPLY TO COMPANY AT
P. O. Box 1688
Hobbs, New Mexico

Mr. W. B. Macey, Chief Engineer
Oil Conservation Commission
Box 871
Santa Fe, New Mexico

Dear Sir:

In accordance with Order No. R-69-A, the results of the Bottom Hole Pressure tests @ -6700' taken in November, 1952, on Texas Pacific Coal and Oil Company's wells in the Bagley Siluro/Devonian Pool, Lea County, N. M., are as follows:

Lease and Well	Shut In Time	BHP
State "B" a/c-1 Well #1	50 hrs.	4206
State "B" a/c-1 Well #2	51 "	4147
State "C" A/c-1 Well #1	54 "	4211
State "C" a/c-1 Well #2	56 "	4206
State "C" a/c-1 Well #3	58 "	4153
State "D" a/c-1 Well #1 - P - 2	80 "	4215

Very truly yours,

John Yuronka

John Yuronka,
District Ergineer

TEXAS PACIFIC COAL AND OIL COMPANY

FIELD OFFICE

August 4, 1952

OIL CONSERVATION COMMISSION
AUG -5 1952
HOBBS, N. MEX.

PLEASE ADDRESS REPLY TO COMPANY AT
P. O. Box 1688
Hobbs, New Mexico

Oil Consevation Commission
Santa Fe, New Mexico

Dear Sir:

In accordance with Order No. R-69-A, the results of the Bottom Hole Pressure tests @ -6700' taken in July, 1952, on Texas Pacific Coal and Oil Company's wells in the Bagley Siluro/Devonian Pool are as follows:

Lease and Well	Shut In Time	BHP
State "B" a/c-1, Well #1	72 hrs.	4283
State "B" a/c-1, Well #2	" "	4138
State "C" a/c-1, Well #1	" "	4291
State "C" a/c-1, Well #2	" "	4238
State "C" a/c-1, Well #3	" "	4218

Very truly yours,

John Yurohka

John Yurohka,
District Engineer

(Form C-103)
(Revised 7/1/52)

NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

RECEIVED
DEC 16 1952
OIL CONSERVATION COMMISSION

MISCELLANEOUS REPORTS ON WELLS

Submit this report in TRIPLICATE to the District Office, Oil Conservation Commission, within 10 days after the work specified is completed. It should be signed and filed as a report on Beginning Drilling Operations, Results of test of casing shut-off, result of plugging of well, result of well repair, and other important operations, even though the work was witnessed by an agent of the Commission. See additional instructions in the Rules and Regulations of the Commission.

Indicate Nature of Report by Checking Below

REPORT ON BEGINNING DRILLING OPERATIONS		REPORT ON RESULT OF TEST OF CASING SHUT-OFF		REPORT ON REPAIRING WELL	
REPORT ON RESULT OF PLUGGING WELL		REPORT ON RECOMPLETION OPERATION		REPORT ON (Other) BHP SURVEY	

December 15, 1952 (Date) Monument, New Mexico (Place)

Following is a report on the work done and the results obtained under the heading noted above at the

Amerada Petroleum Corporation (Company or Operator) (Lease)

(Contractor), Well No. in the ¼ ¼ of Sec.,

T., R., NMPM., Bagley Siluro-Devonian Pool, Lea County.

The Dates of this work were as folows:

Notice of intention to do the work (was) (was not) submitted on Form C-102 on (Cross out incorrect words), 19,

and approval of the proposed plan (was) (was not) obtained.

Subsea Datum - 6700
BHT @ Datum - 178°F.

DETAILED ACCOUNT OF WORK DONE AND RESULTS OBTAINED

LEASE	WELL NO.	ELEV. df	TOP OF PROD. FORM.	DATE OF TEST	SHUT IN TIME	RUN DEPTH	BHP @ RUN DEPTH	BHP @ DATUM
State BT"D"	1	4250'	10,900'	11-5	50	10,950	4169	4169
State BT"D"	2	4249'	10,699'	11-5	48	10,749	3430	3501
State BT"D"	3	4247'	10,792'	11-3	49	10,527	3939	4092
State BT"I"	1	4250'	10,922'	11-3	57	10,940	4195	4198
State BT"L"	1	4245	10,840'	11-5	53	10,900	4136	4151
State BT"M"	1	4255'	10,976'	11-3	52	10,955	4184	4184
State BT"N"	1	4258	10,850'	11-5	53	10,949	4180	4183

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO.
RECEIVED
DEC 17 1952

Witnessed by W. G. Abbott (Name) Amerada Petroleum Corporation (Company) Petroleum Engineer (Title)

Approved:
OIL CONSERVATION COMMISSION

(Name)

(Title) (Date)

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

Name Don Tapp

Position Assistant District Superintendent

Representing Amerada Petroleum Corporation

Address Drawer "D", Monument, New Mexico

BAGLEY SILURO-DEVONIAN BOTTOM HOLE PRESSURES
Pool Datum -6700' Nominal Shut-In Time 48 hrs.

COMPANY LEASE	WELL	UNIT	S.T.R.	ELEV.	DATE PRESS.	SHUT-IN TIME Hrs/min	GAUGE DEPTH	BHP @ GAUGE DEPTH	GRADIENT TUBING #/100'	BHP @ POOL DATUM
SURVEY OF NOVEMBER, 1949										
AMERADA										
State BTA	1	J	2-12-33	4246 df	11-9-49	56/00	10,946	4247	-	4247
State BTC	1	N	35-11-33	4252 df	11-8-49	48/00	10,943	4297	33.7	4300
									AVERAGE	4274
SURVEY OF APRIL, 1950										
AMERADA										
State BTA	1	J	2-12-33	4246 df	4-6-50	44/00	10,946	4275	-	4275
State BTC	1	N	35-11-33	4252 df	4-6-50	46/00	10,800	4218	31.0	4264
State BTD	1	N	2-12-33	4250 df	4-6-50	42/00	10,950	4280	-	4280
State BTD	2	J	35-11-33	4249 df	4-8-50	48/00	10,949	4273	-	4273
									AVERAGE	4273
SURVEY OF OCTOBER, 1950										
AMERADA										
State BTA	1	J	2-12-33	4246 df	10-16-50	54/00	10,946	4260	-	4260
State BTC	1	N	35-11-33	4252 df	10-16-50	52/00	10,787	4215	33.8	4269
State BTD	1	N	2-12-33	4250 df	10-5-50	48/00	10,950	4278	-	4278
State BTD	2	J	35-11-33	4249 df	10-5-50	50/00	10,949	4232	-	4232
State BTD	3	P	35-11-33	4247 df	10-5-50	52/00	10,947	4248	-	4248
TEXAS & PACIFIC										
State B	1	H	2-12-33		10-12-50	34/00	10,600	4110	35.0	4226
State C	1	B	2-12-33		10-11-50	24/00	10,800	4190	33.8	4235
State C	2	F	2-12-33		10-17-50	24/00	10,600	4144	32.0	4252
State C	3	L	2-12-33		10-16-50	24/00	10,800	4220	32.3	4266
									AVERAGE	4252
SURVEY OF APRIL, 1951										
AMERADA										
State BTA	1	J	2-12-33	4246 df	4-7-51	59/30	10,946	4281		4281
State BTC	1	N	35-11-33	4252 df	4-7-51	53/00	10,652	4187	35.0	4292
State BTD	1	N	2-12-33	4250 df	4-7-51	54/30	10,950	4240		4240
State BTD	2	J	35-11-33	4249 df	4-7-51	53/30	10,949	4255		4255
State BTD	3	P	35-11-33	4247 df	4-7-51	49/30	10,947	4249		4249
State BTI	1	D	2-12-33	4250 df	4-7-51	50/30	10,940	4275	33.4	4278

BAGLEY-SILURO DEVONIAN BOTTOM HOLE PRESSURES
Pool Datum -6700' Nominal Shut-In Time 48 hrs.

COMPANY LEASE	WELL	UNIT	S.T.R.	ELEV.	DATE PRESS.	SHUT-IN TIME Hrs/min	GAUGE DEPTH	BHP @ GAUGE DEPTH	GRADIENT TUBING #/100'	BHP @ POOL DATUM
SURVEY OF APRIL, 1951 (CONT'D)										
AMERADA										
Caudle	2	D	3-12-33	4266 df	4-7-51	56/30	10,966	4229	-	4229
Mathers	1	H	3-12-33	4254 df	4-7-51	51/00	9,154	3653	31.4	4220
TEXAS & PACIFIC										
State B	1	H	2-12-33		4-7-51	48/00	10,911	4265	35.1	4272
State C	1	B	2-12-33		4-7-51	48/00	10,827	4232	35.1	4276
State C	2	F	2-12-33		4-7-51	48/00	10,944	4265	33.4	4263
State C	3	L	2-12-33		4-7-51	48/00	11,023	4286	36.8	4256
									AVERAGE	4259
SURVEY OF OCTOBER, 1951										
AMERADA										
State BTA	1	J	2-12-33	4246 df	10-18-51	49/00	10,926	4212	34.8	4220
State BTC	1	N	35-11-33	4252 df	10-18-51	50/00	10,725	4147	34.7	4226
State BTC	3	L	35-11-33	4252 df	10-2-51	49/00	10,940	4207	34.5	4211
State BTD	1	N	2-12-33	4250 df	10-19-51	48/00	10,950	4164	35.0	4164
State BTD	2	J	35-11-33	4249 df	10-11-51	65/00	10,775	3561	40.3	3631
State BTD	3	P	35-11-33	4247 df	10-11-51	67/00	10,570	4018	41.6	4175
State BTI	1	D	2-12-33	4250 df	10-19-51	48/00	10,936	4217	35.5	4222
State BTL	1	P	2-12-33	4245 df	10-3-51	69/00	10,900	4145	33.8	4160
Caudle	2	D	3-12-33	4266 df	10-2-51	49/30	10,966	4166	44.8	4166
Mathers	1	H	3-12-33	4254 df	10-20-51	77/00	10,660	4078	33.8	4177
Mathers "A"	1	B	3-12-33	4257 df	10-18-51	51/00	10,957	4198	34.3	4198
TEXAS & PACIFIC										
State B	1	H	2-12-33	4230 df	10-3-51	40/00	10,872	4238	35.2	4258
State C	1	B	2-12-33	4232 df	10-3-51	40/00	10,818	4192	31.3	4228
State C	2	F	2-12-33	4238 df	10-3-51	40/00	10,908	4230	24.7	4237
State C	3	L	2-12-33	4242 df	10-3-51	40/00	10,942	4230	46.0	4230
									AVERAGE	4167
SURVEY OF APRIL, 1952										
AMERADA										
State STA	1	J	2-12-33	4146 df	4-7-52	48/54	10,946	4224	-	4224
State BTC	1	N	35-11-33	4252 df	4-9-52	45/00	10,725	4156	34.3	4234
State BTC	3	L	35-11-33	4252 df	4-9-52	46/30	10,940	4241	34.8	4245

BAGLEY-SILURO DEVONIAN POOL BOTTOM HOLE PRESSURES
Pool Datum -6700' Nominal Shut-In Time 48 hrs.

COMPANY LEASE	WELL	UNIT	S.T.R.	ELEV.	DATE PRESS.	SHUT-IN TIME Hrs/min	GAUGE DEPTH	BHP @ GAUGE DEPTH	GRADIENT TUBING #/100'	BHP @ POOL DATUM
				SURVEY OF APRIL, 1952 (CONT'D)						
AMERADA										
State BTD	1	N	2-12-33	4250 df	4-7-52	46/54	10,950	4205	-	4205
State BTD	2	J	35-11-33	4249 df						
State BTD	3	P	35-11-33	4247 df	4-9-52	46/15	10,570	3901	49.0	4086
State BTI	1	D	2-12-33	4250 df	4-7-52	49/00	10,940	4233	34.5	4236
State BTL	1	P	2-12-33	4245 df	4-8-52	44/30	10,900	4191	34.5	4206
Caudle	2	D	3-12-33	4266 df	4-9-52	46/30	10,966	4181	-	4181
Caudle	5	A	3-12-33	4254 df	4-8-52	44/15	10,946	4219	36.7	4222
Mathers	1	H	3-12-33	4254 df	4-8-52	45/45	10,654	4076	37.1	4187
Mathers "A"	1	B	3-12-33	4257 df	4-8-52	43/45	10,957	4178	-	4178
Mathers "A"	2	F	3-12-33	4260 df	4-7-52	50/30	10,960	4213	-	4213
TEXAS & PACIFIC										
State B	1	H	2-12-33	4230 df						4240
State C	1	B	2-12-33	4243 df						4205
State C	2	F	2-12-33	4238 df						4200
State C	3	L	2-12-33	4242 df						4212
								AVERAGE		4205

BAGLEY SILURO-DEVONIAN BOTTOM HOLE PRESSURES
Pool Datum -6700' Nominal Shut-In Time 48 hrs.

COMPANY LEASE	WELL	UNIT	S.T.R.	ELEV.	DATE PRESS.	SHUT-IN TIME Hrs/min	GAUGE DEPTH	BHP @ GAUGE DEPTH	GRADIENT TUBING #/100'	BHP @ POOL DATUM
SURVEY OF JULY, 1952										
AMERADA										
State BTA	1	J	2-12-33	4246	df 7-14	50	10,926	4215		4221
State BTC	1	N	35-11-33	4252	df 7-7	55	10,720	4126		4206
State BTC	3	L	35-11-33	4252	df 7-7	55	10,940	4213		4217
State BtD	1	N	2-12-33	4250	df 7-14	53	10,950	4185		4185
State BTD	2	J	35-11-33	4249	df 7-7	53	10,835	3685		3729
State BTD	3	P	35-11-33	4247	df 7-7	52	10,530	3878		4030
State BTI	1	D	2-12-33	4250	df 7-14	51	10,936	4188		4193
State BTL	1	P	2-12-33	4245	df 7-14	49	10,900	4161		4177
State BTM	1	H	34-11-33	4255	df 7-7	56	10,955	4202		4202
State BTN	1	P	34-11-33	4258	df 7-7	54	10,949	4194		4197
Caudle	2	D	3-12-33	4266	df 7-7	54	10,966	4147		4147
Caudle	5	A	3-12-33	4256	df 7-14	53	10,944	4202		4208
Chambers	1	F	11-12-33	4250	df 7-14	53	10,950	4172		4172
Mathers	1	H	3-12-33	4254	df 7-14	49	10,932	4168		4178
Mathers "A"	1	B	3-12-33	4257	df 7-14	51	10,957	4140		4140
Mathers "A"	2	F	3-12-33	4260	df 7-7	53	10,960	4229		4229
TEXAS & PACIFIC										
State B	1	H	2-12-33			72				4283
State B	2	B	11-12-33			72				4138
State C	1	B	2-12-33			72				4291
State C	2	F	2-12-33			72				4238
State C	3	L	2-12-33			72				4218

BAGLEY SILURO-DEVONIAN BOTTOM HOLE PRESSURES

Pool Datum -5700' Nominal Shit-In Time 48 Hrs.

COMPANY LEASE	WELL	UNIT	S.T.R.	ELEV.	DATE PRESS.	SHUT-IN TIME Hrs/min	GAUGE DEPTH	BHP @ GAUGE DEPTH	GRADIENT TUBING #/100'	BHP@ POOL DATUM
SURVEY OF NOVEMBER, 1952										
AMERADA										
State BTA	1	J	2-12-33	4246'	df 11-5	51	10,926'	4206'		4213
State BTC	1	N	35-11-33	4252'	df 11-3	51	10,722'	4122		4200
State BTC	3	L	35-11-33	4252'	df 11-3	54	10,942'	4207		4210
State BTD	1	N	2-12-33	4250'	df 11-5	50	10,950'	4169		4169
State BTD	2	J	35-11-33	4249'	df 11-5	48	10,749	3430		3501
State BTD	3	P	35-11-33	4247'	df 11-3	49	10,527	3939		4092
State BTI	1	D	2-12-33	4250'	df 11-3	57	10,940	4195		4198
State BTL	1	P	2-12-33	4245'	df 11-5	53	10,900	4136		4151
State BTM	1	H	34-11-33	4255'	df 11-3	52	10,955	4184		4184
State BTN	1	P	34-11-33	4258'	df 11-5	53	10,949	4180		4183
Caudle	2	D	3-12-33	4266'	df 11-3	50	10,966	4108		4108
Caudle	5	A	3-12-33	4256'	df 11-3	53	10,946	3977		3981
Chambers	1	F	11-12-33	4250'	df 11-5	48	10,950	4139		4139
Mathers	1	H	3-12-33	4254'	df 11-5	52	10,934	4155		4164
Mathers "A"	1	B	3-12-33	4257'	df 11-3	51	10,957	4114		4114
Mathers "A"	2	F	3-12-33	4260'	df 11-5	50	10,960	4210		4210
TEXAS & PACIFIC										
State B	1	H	2-12-33			50				4206
State B	2	B	11-12-33			51				4147
State C	1	N	2-12-33			54				4211
State C	2	F	2-12-33			56				4206
State C	3	L	2-12-33			58				4153
State D	1	A	2-12-33			80				4215

Exhibit No. 13

CHEMICAL & GEOLOGICAL LABORATORIES

CHEMISTS GEOLOGISTS ENGINEERS

P. O. BOX 279
CASPER, WYOMING

AMERADA PETROLEUM CORPORATION

WELL NO. 1-A EAVES

DEVONION

KNOWLES FIELD, NEW MEXICO

CORE ANALYSIS REPORT

CHEMICAL & GEOLOGICAL LABORATORIES

CHEMISTS GEOLOGISTS ENGINEERS

P. O. BOX 2176
CASPER, WYOMING

August 10, 1950

In re: Eaves A-1
Knowles Field, New Mexico

Amerada Petroleum Corporation
Beacon Building
P. O. Box 2040
Tulsa, Oklahoma

Gentlemen:

The entire core of 22⅓ feet, representing 25 feet of formation, was analyzed by full diameter methods. Results show that 17 feet are capable of oil production,--sections at 12,555-12,562, and 12,570-12,580.

The summary of results (page 10) show that there are 19 feet of formation with a permeability of 1 millidarcy and greater, and 9 feet of formation with a permeability of 100 millidarcys or greater. This latter footage will be the flush or initial production.

The 19 feet of formation with 1 millidarcy permeability or greater has a weighted average porosity of 8.38%. The 100 millidarcy or greater footage has a weighted average porosity of 10.60%.

The weighted mean true density of the analyzed sections is 2.84 which indicates dolomite, and this was confirmed by geological examination.

S_A (specific surface area in square centimeters per cubic centimeter of pore space) is a measure of type of pore space. The high S_A of 13,765 indicates intergranular porosity that is unproducible. The figures of 6,200 and 4,907 show principally intergranular porosity with few small vugs. The decreasing S_A from 805 and lower indicates vuggy and fractured conditions with the vugs becoming larger and more communicating as S_A decreases to its minimum of 49.

The formation factors seem to be in line with the physical characteristics of the formation, with the exception of samples 27 and 30. These two seemed low, but they were checked two or three times with the same result.

Very truly yours,

CHEMICAL & GEOLOGICAL LABORATORIES

J. G. Crawford
Chemical Engineer

JGC:avc

AMERADA PETROLEUM CORPORATION

WELL NO. RAVES A-1

KNOWLES FIELD, NEW MEXICO

DEVONIAN

Formation Water Analysis
Full Diameter Corestudy from 12,555 to 12,580
Formation Resistivity Factors from 12,509 to 12,533

Core analysis began July 13, 1950
Core analysis ended July 31, 1950

Amerada Petroleum Corporation
Well No. Eaves A-1
Knowles Field, New Mexico
Lab. No. 4139 & 4140

I N D E X

CHEMICAL & GEOLOGICAL LABORATORIES

521 South Center St. P. O. Box 279
Casper, Wyoming

WATER ANALYSIS REPORT

Field.. Knowles, New Mexico Well No.. A-1 Eaves

Operator.. Amerada Petroleum Corporation Location..

Sampled by.. Date..

Formation.. Devonian Depths.. How sampled..

Other pertinent data..

Analyzed by.. R. L. Brown Date.. July 14, 1950 Lab. No.. 4140

PARTS PER MILLION (MILLIGRAMS PER LITER)

Na & K	Ca	Mg	Fe	SO_4	Cl	CO_3	HCO_3	OH	H_2S
13,113	1,801	326		1,646	22,800		605		

MILLIGRAM EQUIVALENTS

570.45	89.87		34.24	642.96	9.92

MILLIGRAM EQUIVALENTS IN PERCENT

41.51	6.54	1.95	2.49	46.79	0.72

Total Solids in Parts per Million

By evaporation 43,016
After ignition 39,594
Calculated 39,984

Observed pH 6.6

Specific Resistivity

at 68 °F

19 ohms cm^3

0.19 ohms/m^3

Properties of Reaction in Percent

Primary salinity 83.02
Secondary salinity 15.54
Primary alkalinity 0.00
Secondary alkalinity 1.44
Chloride salinity 94.95
Sulfate salinity 5.05

Remarks and conclusions Formation water.

FORMATION RESISTIVITY FACTORS

Depth
12,509 to 12,533

SAMPLE NUMBER	FORMATION RESISTIVITY FACTOR*	
J-26	295	4.93
J-27	170	3.83
J-28	141	
J-45	348	5.68
J-47-A	589	
J-47-B	499	
J-47-C	145	8.42
J-51-A	168	
J-51-B	420	4.88
J-52	145	3.73
J-55	308	6.39
J-56	166	5.71
J-56-A	153	7.76
J-58-B	106	
J-59	159	4.59
J-62	382	3.73
J-64	83	

NOTE: Cores saturated 100% with formation water Lab. No. 4140.
Specific Resistivity of water @ 68° F --- 0.19 ohms/m^3.
* formation resistivity factors in ohms/m^3.

AMERADA PETROLEUM CORPORATION
Eaves A-1
Knowles Field, New Mexico
Devonian
(12,555-12,580)

Lab. No. 4139

LITHOLOGY

Our Sample No.	
1	Dolomite, light gray, sucrose crystalline, black oil in vugs.
2	Dolomite, light gray, sucrose crystalline with inclusions anhydrite, vugular, dead oil in vugs and small fractures.
3	Dolomite, light gray, sucrose crystalline, vugular with dead oil in vugs and small fractures.
4	Dolomite, light gray, sucrose crystalline, vugular with dead oil in vugs and small fractures.
4 A	Dolomite, light gray, sucrose crystalline, vugular with dead oil in vugs and small fractures.
5	Dolomite, light gray, sucrose crystalline, vugular with dead oil in vugs.
5 A	Dolomite, light gray, sucrose crystalline, tight.
6	Dolomite, light gray-tan, sucrose crystalline, tight with few minute vugs.
7	Dolomite, light gray, sucrose crystalline, vugular with dead oil in vugs.
8	Dolomite, light gray, sucrose crystalline, vugular with dead oil in vugs.
9	Dolomite, light gray, sucrose crystalline, vugular with dead oil in vugs.
10	Dolomite, light gray, sucrose crystalline, vugular with dead oil in vugs.
11	Dolomite, light gray, sucrose crystalline, vugular with dead oil in vugs and small fractures.
12	Dolomite, light gray-tan, sucrose crystalline, slightly vugular with dead oil in vugs and small fractures.
13	Dolomite, light gray-tan, sucrose crystalline, vugular with dead oil in vugs and small fractures.
14	Dolomite, light gray-tan, sucrose crystalline, vugular with dead oil in vugs.
15	Dolomite, light gray-tan, sucrose crystalline with few scattered vugs containing dead oil.
16	Dolomite, light gray-tan, sucrose crystalline, with dead oil in fractures.
17	Dolomite, light gray-tan, sucrose crystalline with few minute vugs and fractures containing dead oil.

Amerada Petroleum Corporation, Eaves A-1

Our Sample No.

18	Dolomite, light gray-tan, sucrose crystalline with few scattered minute vugs and fractures containing dead oil.
19	Dolomite, light gray-tan, sucrose crystalline with few scattered minute vugs and fractures containing dead oil.
20	Dolomite, light gray-tan, sucrose crystalline with few scattered minute vugs, some of which contain dead oil.
21	Dolomite, light gray-tan, sucrose crystalline, vugular with dead oil in vugs.
22	Dolomite, light gray-tan, sucrose crystalline with few scattered minute vugs, some of which contain dead oil.
23	Dolomite, light gray-tan, sucrose crystalline with few vugs containing dead oil.
24	Dolomite, tan, sucrose crystalline, very fine, vugular, containing dead oil.
25	Dolomite, light gray, sucrose crystalline, minutely vugular with dead oil in vugs.
26	Dolomite, light gray, sucrose crystalline, minutely vugular with dead oil in vugs and inclusions tan, finely sucrose dolomite.
27	Dolomite, light gray-tan, sucrose crystalline, minutely vugular with dead oil in vugs.
28	Dolomite, light gray-tan, sucrose crystalline with few scattered vugs and small fractures containing dead oil.
29	Dolomite, light gray-tan, sucrose crystalline with few scattered vugs and small fractures containing dead oil.
30	Dolomite, light gray to tan mottled, finely sucrose to sucrose crystalline with minute vugs containing dead oil.
31	Dolomite, light tan, sucrose crystalline, minutely vugular with dead oil in vugs and small fractures.
32	Dolomite, light gray-tan, sucrose crystalline, very fine, vugular with dead oil in vugs.
33	Dolomite, light gray-tan, sucrose crystalline, very fine, vugular with dead oil in vugs.
34	Dolomite, light gray-tan, sucrose crystalline, very fine, vugular with dead oil in vugs.
35	Dolomite, tan, sucrose crystalline with few scattered vugs containing dead oil.
36	Dolomite, tan, sucrose crystalline with few scattered vugs containing dead oil.
37	Dolomite, tan, sucrose crystalline with few scattered vugs containing dead oil.
38	Dolomite, light gray-tan, sucrose crystalline, vugular with dead oil in vugs.

Amerada Petroleum Corporation, Eaves A-1

Our Sample No.	
39	Dolomite, light gray-tan, sucrose crystalline, vugular with dead oil in vugs.
40	Dolomite, tan, sucrose crystalline with few scattered vugs containing dead oil.
41	Dolomite, light gray-tan, sucrose crystalline with few scattered minute vugs, some of which contain dead oil.
42	Dolomite, light gray, sucrose crystalline, vugular with dead oil in vugs.
43	Dolomite, light gray, sucrose crystalline with few scattered vugs containing dead oil.
44	Dolomite, light gray, sucrose crystalline, vugular with dead oil in vugs.
45	Dolomite, light gray, sucrose crystalline, vugular with dead oil in vugs.
46	Dolomite, light gray, sucrose crystalline, vugular with dead oil in vugs.
47	Dolomite, light gray-tan, sucrose crystalline, vugular with dead oil in vugs.
48	Dolomite, light gray-tan, sucrose crystalline, vugular with dead oil in vugs.
49	Dolomite, light gray-tan, sucrose crystalline, vugular with dead oil in vugs.
50	Dolomite, light gray, sucrose crystalline, vugular with dead oil in vugs.
51	Dolomite, light gray, sucrose crystalline, vugular with dead oil in vugs.
52	Dolomite, light gray, sucrose crystalline, minutely vugular with dead oil in vugs.
53	Dolomite, light gray, sucrose crystalline, very fine, vugular with dead oil in vugs.
54	Dolomite, light gray, sucrose crystalline, very fine, vugular with dead oil in vugs.
55	Dolomite, light gray-tan, sucrose crystalline, very fine, vugular with dead oil in vugs.
56	Dolomite, light gray-tan, sucrose crystalline, very fine, vugular with dead oil in vugs.
57	Dolomite, light gray, sucrose crystalline, very fine, vugular with dead oil in vugs.
58	Dolomite, light gray, sucrose crystalline, very fine, vugular with dead oil in vugs.
59	Dolomite, tan, sucrose crystalline with few scattered small vugs and fractures containing dead oil.
60	Dolomite, light gray-tan, sucrose crystalline with few scattered minute vugs and small fractures containing dead oil.

Amerada Petroleum Corporation, Eaves A-1

Our Sample No.

61	Dolomite, light gray-tan, sucrose crystalline with few scattered vugs and small fractures containing dead oil.
62	Dolomite, light gray, sucrose crystalline with few scattered small vugs (no dead oil) and small fractures containing dead oil.
63	Dolomite, light gray-tan, sucrose crystalline, vugular with dead oil in vugs.
64	Dolomite, light gray-tan, sucrose crystalline, vugular with dead oil in vugs.
65	Dolomite, light gray-tan, sucrose crystalline, vugular with dead oil in vugs.
66	Dolomite, tan, sucrose crystalline, vugular with dead oil in vugs.
67	Dolomite, light gray, sucrose crystalline, fine, vugular with dead oil in vugs.
68	Dolomite, tan, sucrose crystalline, minutely vugular with dead oil in vugs.
69	Dolomite, tan, sucrose crystalline, minutely vugular with dead oil in vugs.
70	Dolomite, light tan, sucrose crystalline, minutely vugular with dead oil in vugs.

KEY TO DESCRIPTION OF SAMPLES

A - Large Vugs
B - Vugs
C - Cracks
D - Fine Pores
E - Impermeable

...IVITY ...TION ...OR ...Ω/m3	DESCRIPTION	YOUR SAMPLE NUMBER	OUR SAMPLE NUMBER	REPRESENTATIVE OF FEET	FOOTAGE REPRESENTED	RADIAL PERMEABILITY MD.	EFFECTIVE POROSITY	DENSITIES BULK	DENSITIES MATRIX	KOZENY EQUATION S_A	RESISTIVITY FORMATION FACTOR ohms/m3	DESCRIPTION
[illegible]	A	J-76	35	12565-12570	0.35	86	6.33	2.68	2.86	193	195	B, C
6	A	J-77	36	12565-12570	0.35	35	6.63	2.66	2.85	315	211	B
2	B	J-77	37	12565-12570	0.35	4.74	7.64	2.66	2.88	865	332	B
7	B	J-77	38	12565-12570	0.35	48	5.56	2.68	2.83	243	218	B
8	B, C	J-77	39	12565-12570	0.35	2.16	7.32	2.67	2.88	1290	200	B
8	A	J-78	40	12570-12571	0.33	7.34	2.11	2.76	2.82	378	449	B, C
3	E	J-78	41	12570-12571	0.34	5.00	4.06	2.74	2.86	610	372	B, C
9	C, E	J-78	42	12570-12571	0.33	2483	10.10	2.60	2.89	47	142	B
0	B, C	J-79	43	12571-12572	0.34	23	2.98	2.72	2.80	254	328	B
5	B	J-79	44	12571-12572	0.33	133	4.62	2.70	2.83	119	200	B, C
7	B, C	J-79	45	12571-12572	0.33	2227	12.04	2.49	2.82	56	170	A, C
5	B, C	J-80	46	12572-12573	0.25	1859	17.35	2.31	2.79	76	101	A
2	B	J-80	47	12572-12573	0.25	2284	19.18	2.27	2.80	66	91	A
9	A, C	J-80	48	12572-12573	0.25	109	12.10	2.49	2.83	237	155	A
1	B, C	J-80	49	12572-12573	0.25	2360	19.78	2.27	2.84	64	72	A
1	A, C	J-80	50	12573-12574	0.33	599	12.64	2.41	2.81	104	126	A
9	B, C	J-80	51	12573-12574	0.33	352	12.97	2.48	2.85	137	154	B
4	E	J-80	52	12573-12574	0.34	90	12.99	2.49	2.86	270	109	A
0	C, E	J-81	53	12574-12575	0.33	274	12.35	2.49	2.84	150	137	A
9	C, E	J-81	54	12574-12575	0.34	69	14.45	2.49	2.85	320	125	A
9	C, E	J-82	55	12574-12575	0.33	36	9.06	2.53	2.78	356	147	B
6	B	J-82	56	12575-12580	0.20	57	4.63	2.70	2.83	200	268	B, C
8	B	J-82	57	12575-12580	0.20	7.41	6.73	2.62	2.82	670	291	B
1	C, E	J-82	58	12575-12580	0.20	239	1.97	2.68	2.79	64	381	B, C
9	B, E	J-82	59	12575-12580	0.20	152	4.06	2.74	2.83	115	370	C, E
4	E	J-83	60	12575-12580	0.20	4874	3.82	2.71	2.81	20	157	C, E
7	B, E	J-83	61	12575-12580	0.34	-0.01	3.36	2.67	2.76	12300	615	B, C
1	B	J-83	62	12575-12580	0.33	0.09	2.58	2.74	2.80	3600	360	B, C
4	B	J-84	63	12575-12580	0.33	2.74	4.21	2.71	2.83	860	632	B, C
2	B	J-85	64	12575-12580	0.25	461	15.59	2.37	2.80	132	86	A
6	B, C	J-85	65	12575-12580	0.25	306	16.06	2.37	2.82	164	93	A
8	C	J-85	66	12575-12580	0.25	261	15.54	2.42	2.83	175	85	A
0	B	J-85	67	12575-12580	0.25	113	13.78	2.43	2.81	245	61	B
3	B, C	J-86	68	12575-12580	0.33	13	5.45	2.61	2.81	456	198	A
7	B	J-86	69	12575-12580	0.33	110	8.47	2.57	2.81	193	195	E
6	B, C	J-86	70	12575-12580	0.34	48	7.49	2.62	2.83	278	362	A

CHEMICAL & GEOLOGICAL LABORATORIES
521 South Center St. P O Box 279
Casper, Wyoming

FULL DIAMETER CORESTUDY

FIELD	Knowles, New Mexico	WELL NO.	Eaves A-1
OPERATOR	Amerada Petroleum Corporation	LOCATION	
FORMATION	Devonian	DEPTHS	12,555 to 12,580
ANALYZED BY	Chemical & Geological Laboratories	DATE	July 27, 1950

YOUR SAMPLE NUMBER	OUR SAMPLE NUMBER	REPRESENTATIVE OF FEET	FOOTAGE REPRESENTED	RADIAL PERMEABILITY MD.	EFFECTIVE POROSITY	DENSITIES BULK	DENSITIES MATRIX	KOZENY EQUATION S_A	RESISTIVITY FORMATION FACTOR ohms/m^3	DESCRIPTION	YOUR SAMPLE NUMBER	OUR SAMPLE NUMBER
J-66	1	12555-12555½	0.25	2386	19.03	2.29	2.82	66	119	A	J-76	
J-66	2	12555½-12555 3/4	0.50	96	14.63	2.45	2.87	280	206	A	J-77	
J-67	3	12555 3/4-12556	0.25	2304	9.93	2.52	2.80	47	212	B	J-77	
J-67	4	12556-12556½	0.25	2232	11.56	2.50	2.82	51	317	B	J-77	
J-67	4-A	12556-12556½	0.25	2458	8.40	2.59	2.83	42	289	B, C	J-77	
J-68	5	12556½-12557	0.25	688	12.02	2.46	2.80	93	238	A	J-78	
J-68	5-A	12556½-12557	0.25	1.63	0.20	2.81	2.82	240	883	E	J-78	
J-68	6	12557-12557½	0.50	36	0.28	2.80	2.81	61	869	C, E	J-78	
J-69	7	12557½-12558	0.50	3184	9.92	2.58	2.86	41	320	B, C	J-79	
J-69	8	12558-12558 1/6	0.20	961	10.16	2.55	2.84	73	205	B	J-79	
J-69	9	12558 1/6-58 1/3	0.15	6471	7.87	2.63	2.85	25	377	B, C	J-79	
J-69	10	12558 1/3-58 2/3	0.30	1500	8.97	2.59	2.85	52	215	B, C	J-80	
J-69	11	12558 2/3-12559	0.35	56	7.10	2.62	2.82	260	292	B	J-80	
J-70	12	12559-12559¼	0.25	1383	7.87	2.63	2.85	25	199	A, C	J-80	
J-70	13	12559¼-12559½	0.25	2256	7.10	2.63	2.83	45	211	B, C	J-80	
J-70	14	12559½-12559 3/4	0.25	1876	8.38	2.59	2.82	47	361	A, C	J-80	
J-70	15	12559 3/4-12560	0.25	211	4.06	2.75	2.88	98	519	B, C	J-80	
J-71	16	12560-12560 1/3	0.33	1.15	2.04	2.79	2.85	900	514	E	J-80	
J-71	17	12560 1/3-60 2/3	0.33	25	1.66	2.81	2.85	845	430	C, E	J-81	
J-71	18	12560 2/3-12561	0.34	702	3.96	2.71	2.83	54	349	C, E	J-81	
J-72	19	12561-12562	0.33	11	2.10	2.80	2.87	308	469	C, E	J-82	
J-72	20	12561-12562	0.34	283	7.45	2.66	2.87	117	256	B	J-82	
J-72	21	12561-12562	0.33	67	6.06	2.74	2.92	215	688	B	J-82	
J-72	22	12562-12563	0.34	-0.01	3.28	2.74	2.84	12000	421	C, E	J-82	
J-73	23	12562-12563	0.33	-0.01	3.18	2.73	2.82	11700	2049	B, E	J-82	
J-73	24	12562-12563	0.33	-0.01	4.12	2.68	2.80	13500	1754	E	J-83	
J-73	25	12563-12564	0.33	0.09	8.01	2.63	2.86	6300	797	B, E	J-83	
J-74	26	12563-12564	0.33	0.09	10.44	2.59	2.89	8700	261	B	J-83	
J-74	27	12563-12564	0.34	0.13	10.21	2.58	2.87	6200	444 ✓	B	J-84	
J-74	28	12564-12565	0.50	0.01	6.98	2.63	2.83	17500	1432	B	J-85	
J-74	29	12564-12565	0.50	12	7.70	2.66	2.88	560	126	B, C	J-85	
J-75	30	12565-12570	0.35	0.35	9.96	2.66	2.96	3650	139 ✓	C	J-85	
J-75	31	12565-12570	0.35	7.63	7.29	2.65	2.86	755	300	B	J-85	
J-75	32	12565-12570	0.35	11	6.89	2.67	2.86	560	383	B, C	J-86	
J-75	33	12565-12570	0.35	51	6.82	2.65	2.84	258	377	B	J-86	
J-76	34	12565-12570	0.35	2.68	8.20	2.66	2.90	1240	276	B, C	J-86	

Amerada Petroleum Corporation
Well No. Eaves A-1
Knowles Field, New Mexico
Lab. No. 4139

POROSITY DISTRIBUTION BY R

Porosity Range	Median (M)	0.00 - 0.01 Feet (F)	%	Cum. %	F x M	0.011 - 0.1 Feet (F)	%	Cum. %	F x M	0.11 - 1.0 Feet (F)	%	Cum. %	F x M
0 - 0.99	0.5												
1 - 1.99	1.5												
2 - 2.99	2.5					0.33	33.33	33.33	.825				
3 - 3.99	3.5	1.01	54.89	54.89	3.535								
4 - 4.99	4.5	0.33	17.94	72.83	1.485								
5 - 5.99	5.5												
6 - 6.99	6.5	0.50	27.17	100.00	3.250								
7 - 7.99	7.5												
8 - 8.99	8.5					0.33	33.33	66.66	2.805				
9 - 9.99	9.5									0.35	50.72	50.72	3.325
10 - 10.99	10.5					0.33	33.34	100.00	3.465	0.34	49.28	100.00	3.570
11 - 11.99	11.5												
12 - 12.99	12.5												
13 - 13.99	13.5												
14 - 14.99	14.5												
15 - 15.99	15.5												
16 - 16.99	16.5												
17 - 17.99	17.5												
18 - 18.99	18.5												
19 - 19.99	19.5												
20 - 20.99	20.5												
21 - 21.99	21.5												
22 - 22.99	22.5												
23 - 23.99	23.5												
24 - 24.99	24.5												
25 - 25.99	25.5												
26 - 26.99	26.5												
27 - 27.99	27.5												
28 - 28.99	28.5												
29 - 29.99	29.5												
30 - 31.99	31.0												
32 - 33.99	33.0												
34 - 35.99	35.0												
36 - 37.99	37.0												
38 - +	+												
Totals		1.84	100.00		8.270	0.99	100.00		7.095	0.69	100.00		6.895
Weighted Mean Porosity					4.49%				7.17%				9.99%

RADIAL PERMEABILITY RANGES

1.01 - 10				10.1 - 100				100.1 - 1000				
Feet (F)	%	Cum. %	F x M	Feet (F)	%	Cum. %	F x M	Feet (F)	%	Cum. %	F x M	Feet (F)
0.25	7.86	7.86	.125	0.50	7.34	7.34	.250					
				0.33	4.85	12.19	.495	0.20	4.27	4.27	.300	
0.66	20.75	28.61	1.650	0.67	9.84	22.03	1.675					
								0.34	7.26	11.53	1.190	0.2
0.67	21.07	49.68	3.015	0.20	2.94	24.97	.900	0.78	16.67	28.20	3.510	
				0.68	9.99	34.96	3.740					
0.20	6.29	55.97	1.300	1.73	25.40	60.36	11.245					
1.05	33.02	88.99	7.875	1.19	17.47	77.83	8.925	0.34	7.26	35.46	2.550	0.6
0.35	11.01	100.00	2.975					0.33	7.05	42.51	2.805	0.8
				0.33	4.85	82.68	3.135					0.7
								0.20	4.27	46.78	2.100	0.3
												0.2
				0.34	4.99	87.67	4.250	1.49	31.84	78.62	18.625	0.3
								0.25	5.35	83.97	3.375	
				0.84	12.33	100.00	12.180					
								0.50	10.68	94.65	7.750	
								0.25	5.35	100.00	4.125	
												0.2
												0.7
3.18	100.00		16.940	6.81	100.00		46.795	4.68	100.00		46.330	4.3
			5.33%				6.87%				9.90%	

Amerada Petroleum Corporation
Well No. Eaves A-1
Knowles Field, New Mexico
Lab. No. 4139

DENSITY DISTRIBUTION

True Density (D) @ Gm./cc.	Total Feet (F)	Per cent Footage	Cum. per cent Footage	D x F
2.76	0.34	1.51	1.51	0.94
2.78	0.33	1.47	2.98	0.92
2.79	0.45	2.00	4.98	1.26
2.80	2.00	8.89	13.87	5.60
2.81	1.94	8.62	22.49	5.45
2.82	2.79	12.40	34.89	7.87
2.83	3.59	15.95	50.84	10.16
2.84	1.47	6.53	57.37	4.17
2.85	2.38	10.58	67.95	6.78
2.86	2.56	11.38	79.33	7.32
2.87	1.51	6.71	86.04	4.33
2.88	1.45	6.44	92.48	4.18
2.89	0.66	2.93	95.41	1.91
2.90	0.35	1.56	96.97	1.02
2.92	0.33	1.47	98.44	0.96
2.96	0.35	1.56	100.00	1.04
Total	22.50	100.00		63.91

Weighted Mean Density 2.84 gm./cc.

Amerada Petroleum Corporation
Well No. Eaves A-1
Knowles Field, New Mexico
Lab. No. 4139 & 4140

SUMMARY OF REPORT

Footage Cored:- 12,509 to 12,533 & 12,555 to 12,580

No. of Samples:- 89

Large Cores:

Porosity	72
Radial Permeability	72
Bulk Density	72
Matrix Density	72
S_A	72
Resistivity Factors	72

Other Analysis:

Resistivity Factors	17
Water Analysis	1

Summary of Results

DISTRIBUTION BY PERMEABILITY RANGES

Range Permeability	Footage	Porosity	S_A	Formation Resistivity Factor ohms/m³
0.00 - 0.01	1.84	4.49%	13,765	1,263
0.011 - 0.1	0.99	7.17%	6,200	473
0.11 - 1.0	0.69	9.99%	4,907	289
1.01 - 10	3.18	5.33%	805	415
10.1 - 100	6.81	6.87%	328	322
100.1 - 1000	4.68	9.90%	134	208
1000+	4.31	11.36%	49	211
Total Tested	22.50	8.06%	1,799	373
0.01+	20.66	8.37%	733	293
0.1+	19.67	8.44%	458	284
1.0+	18.98	8.38%	297	284
10.0+	15.80	8.99%	193	258
100+	8.99	10.60%	93	209
1000+	4.31	11.36%	49	211

"True" Mean Density 2.84

Specific Resistivity of Water Analysis 0.19 ohms/m³

Formation resistivity factors, 12,509 to 12,533 average 253 ohms/m³

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. 249
(Consolidated with Case No. 315)
Order No. R-69-D

THE MATTER OF THE APPLICATION OF
THE OIL CONSERVATION COMMISSION
UPON ITS OWN MOTION FOR AN ORDER
DIRECTED TO THE OPERATORS IN THE
BAGLEY-SILURO-DEVONIAN POOL, LEA
COUNTY, NEW MEXICO, TO SHOW CAUSE
WHY SAID POOL SHOULD NOT BE PLACED
ON 40-ACRE SPACING WITH ALLOWABLE
ADJUSTMENT, UPON EXPIRATION OF
TEMPORARY ORDER.

[redacted] ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing on May 19, 1954, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," ~~upon order to show cause why the Bagley-Siluro-Devonian Pool should not be placed upon 40-acre spacing with allowable adjustment resulting from expiration of Temporary Order R-69-C~~.

NOW, on this July day of ~~June~~, 1954, the Commission, a quorum being present, having considered the testimony adduced and exhibits received at said hearings, and being fully advised in the premises,

FINDS:

(1) That due notice having been given and proper service had upon the operators in said pool as required by law, ~~and appearances being made,~~ the Commission has jurisdiction of this cause.

(2) That originally the Commission issued Temporary Order R-69, effective May 1, 1951, to and including May 1, 1952, authorizing the development and production of the Bagley-Siluro-Devonian Pool on an 80-acre spacing pattern with 80-acre proration units, ~~upon the theory that~~ in such ~~pool one well would effectively drain 80 acres, and for the further reason of the then existing shortage of tubular goods.~~

(3) That thereafter and prior to the expiration of Order R-69, the Commission after due notice and hearing issued Order R-69-A, which granted an extension of Order R-69, as modified, for a period of one year from and after May 1, 1952.

(4) That thereafter and prior to the expiration of Order R-69-A as modified by Order R-69-B, the Commission after due notice and hearing

issued Order R-69-C, effective June 1, 1953, to and including June 1, 1954 which authorized the development and production of the Bagley-Siluro-

How about substituting following for (5) ?

Insert

(5) That for the prevention of waste and in the interest of conservation, the provisions of said Commission Temporary Order R-69-C, as (hereinafter) modified and set forth, should be made Permanent.

be, and the same is hereby authorized; such proration units to consist of the E/2 and the W/2 respectively of each governmental survey quarter section therein and the well location thereon shall be in the center (permissive tolerance 150 feet) of the northwest and southeast quarter sections thereof.

PROVIDED, HOWEVER, that the following described units do, and shall constitute permissible exceptions to the spacing and proration unit plan aforesaid:

Township 11 South, Range 33 East, NMPM
N/2 NW/4 of Section 35; S/2 NW/4 of Section 35

Township 12 South, Range 33 East, NMPM
N/2 NW/4 of Section 3; S/2 NW/4 of Section 3;
N/2 NE/4 of Section 2; SW/4 NE/4 and NW/4 SE/4 of Section 2; SE/4 NE/4 and NE/4 SE/4 of Section 2;
S/2 SE/4 of Section 2;
N/2 NE/4 of Section 11

(b) That no well shall be drilled or produced in said pool except it be in conformity with the spacing and proration unit pattern hereinabove authorized unless, after notice and hearing, a special order of authorization is had and obtained from the Commission.

(c) That should any well be drilled off-pattern, under authority of any special order, then, and in that event, the same shall be entitled only to an allowable equal to that of a standard 40-acre proration unit with deep pool adaptation as provided by Commission rules. Nothing contained in this order shall be construed as requiring by the Commission the drilling of any wells at any location.

IT IS FURTHER ORDERED, That the Bagley-Siluro-Devonian Pool and the 80-acre proration units therein, hereby established and confirmed, be and the same hereby are granted an allowable equal to the top allowable for wells in the Bagley-Siluro-Devonian depth range, calculated by the use of the 80-acre proportional factor as provided for in Rule 505 of the Rules and

Regulations of this Commission, together with the acreage factor, if any there be;

PROVIDED, HOWEVER, that no well in such pool will be assigned an allowable greater than the amount of oil produced on official gas-oil ratio tests during a 24-hour period in compliance with Rule 301 of the said Rules and Regulations.

IT IS FURTHER ORDERED:

(a) That each operator in said pool shall take or cause to be taken bottom-hole pressure tests of each producing well operated by him in said pool during the months of July of each calendar year; the results of such tests shall be tabulated, and reflect the pressure of each well; the same shall be filed on or before the 5th day of August, of each calendar year, with the Commission at Santa Fe, New Mexico (with copy to Hobbs office); it is further provided, that such bottom-hole pressure tests shall be taken in conformity with the requirements of Rule 302 of the Commission's Rules and Regulations as revised.

This order supersedes all previous temporary orders and interlocutory orders heretofore issued in this case.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

EDWIN L. MECHEM, Chairman

E. S. WALKER, Member

R. R. SPURRIER, Secretary and Member

S E A L

TEXAS PACIFIC COALAND OIL COMPANY

FIELD OFFICE

OCT 6 1953

October 5, 1953

PLEASE ADDRESS REPLY TO COMPANY AT
P. O. Box 1688
Hobbs, New Mexico

Mr. W. B. Macey, Chief Engineer
Oil Conservation Commission
Box 871
Santa Fe, New Mexico

Dear Sir:

In accordance with Order No. R-69-C, the following information on Texas Pacific Coal and Oil Company's wells in the Bagley Siluro Devonian Pool, Lea County, N. M., is submitted:

September, 1953

Lease and Well	Allowable	Oil	Runs	Gas	Water
State "B" a/c-1 Well #1	7680	7745		162	1
State "B" a/c-1 Well #2	7680	7746		93	2
State "B" a/c-1 Lease	15360	15491	15374	255	3
State "C" a/c-1 Well #1	7680	7684		108	331
State "C" a/c-1 Well #2	7680	7684		138	3
State "C" a/c-1 Well #3	7680	7684		85	414
State "C" a/c-1 Lease	23040	23052	22808	331	748

Cumulative Production

Lease and Well	Oil	Gas	Water
State "B" a/c-1 Well #1	398284	6307.5	384
State "B" a/c-1 Well #2	147702	3250.0	96
State "C" a/c-1 Well #1	369854	7552.0	514
State "C" a/c-1 Well #2	359682	6251.0	16
State "C" a/c-1 Well #3	344824	6914.0	711

Very truly yours,

TEXAS PACIFIC COAL & OIL CO.

John Yuronka

John Yuronka,
District Engineer

TEXAS PACIFIC COAL AND OIL COMPANY

FIELD OFFICE

September 14, 1953

PLEASE ADDRESS REPLY TO COMPANY AT
P. O. Box 1688
Hobbs, New Mexico

Mr. W. B. Macey, Chief Engineer
Oil Conservation Commission
Box 871
Santa Fe, New Mexico

Dear Sir:

In accordance with Order No. R-69-C, the following information on Texas Pacific Coal and Oil Company's wells in the Bagley Siluro/Devonian Pool, Lea County, N. M., is submitted:

August, 1953

Lease and Well	Allowable	Oil	Runs	Gas	Water
State "B" a/c-1 Well #1	7936	7810		164	1
State "B" a/c-1 Well #2	7936	7810		94	2
State "B" a/c-1 Lease	15872	15620	15894	258	3
State "C" a/c-1 Well #1	7936	7964		112	171
State "C" a/c-1 Well #2	7936	7965		143	1
State "C" a/c-1 Well #3	7936	7964		88	256
State "C" a/c-1 Lease	23808	23893	24248	343	428

Cumulative Production

Lease and Well	Oil	Gas	Water
State "B" a/c-1 Well #1	390539	6145.5	383
State "B" a/c-1 Well #2	139956	3157.0	94
State "C" a/c-1 Well #1	362170	7444.0	183
State "C" a/c-1 Well #2	351998	6113.0	13
State "C" a/c-1 Well #3	337140	6829.0	297

Very truly yours,

TEXAS PACIFIC COAL & OIL CO.

John Yuronka

John Yuronka,
District Engineer

TEXAS PACIFIC COAL AND OIL COMPANY

FIELD OFFICE

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO.
RECEIVED
AUG 17 1953

August 12, 1953

PLEASE ADDRESS REPLY TO COMPANY AT
P. O. Box 1688
Hobbs, New Mexico

Mr. W. B. Macey, Chief Engineer
Oil Conservation Commission
Box 871
Santa Fe, New Mexico

Dear Sir:

In accordance with Order No. R-69-C, the following information on Texas Pacific Coal and Oil Company's wells in the Bagley Siluro Devonian Pool, Lea County, N. M., is submitted:

July, 1953

Lease and Well	Allowable	Oil	Runs	Gas	Water
State "B" a/c-1 Well #1	7936	8022		168	1
State "B" a/c-1 Well #2	7936	8022		96	7
State "B" a/c-1 Lease	15872	16044	15838	264	8
State "C" a/c-1 Well #1	7936	8036		113	1
State "C" a/c-1 Well #2	7936	8037		145	1
State "C" a/c-1 Well #3	7936	8036		88	16
State "C" a/c-1 Lease	23808	24109	23777	346	18

Cumulative Production

Lease and Well	Oil	Gas	Water
State "B" a/c-1 Well #1	382729	5981.5	382
State "B" a/c-1 Well #2	132146	3063.0	92
State "C" a/c-1 Well #1	354206	7332.0	12
State "C" a/c-1 Well #2	344033	5970.0	12
State "C" a/c-1 Well #3	329176	6741.0	41

Also being submitted are the results of the Bottom Hole Pressure tests @ -6700' taken in July, 1953.

Lease and Well	Shut In Time	BHP
State "B" a/c-1 Well #1	48 hrs.	4229
State "B" a/c-1 Well #2	56 "	4125
State "C" a/c-1 Well #1	50 "	4220
State "C" a/c-1 Well #2	52 "	4200
State "C" a/c-1 Well #3	54 "	4133

Very truly yours,

TEXAS PACIFIC COAL & OIL CO.

John Yuronka

John Yuronka,
District Engineer

TEXAS PACIFIC COAL AND OIL COMPANY

FIELD OFFICE

July 9, 1953

PLEASE ADDRESS REPLY TO COMPANY AT
P. O. Box 1688
Hobbs, New Mexico

Mr. W. B. Macey, Chief Engineer
Oil Conservation Commission
Box 871
Santa Fe, New Mexico

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO.
RECEIVED
JUL 13 1953

Dear Sir:

In accordance with Order No. R-69-C, the following information on Texas Pacific Coal and Oil Company's wells in the Bagley Siluro Devonian Pool, Lea County, N. M., is submitted:

June, 1953

Lease and Well	Allowable	Oil	Runs	Gas	Water
State "B" a/c-1 Well #1	7680	7533		158	1
State "B" a/c-1 Well #2	7680	7534		166	6
State "B" a/c-1 Lease	15360	15067	15531	324	7
State "C" a/c-1 Well #1	7680	7368		162	1
State "C" a/c-1 Well #2	7680	7368		147	1
State "C" a/c-1 Well #3	7680	7368		155	15
State "C" a/c-1 Lease	23040	22104	22729	464	17

Cumulative Production

Lease and Well	Oil	Gas	Water
State "B" a/c-1 Well #1	374707	5813.5	381
State "B" a/c-1 Well #2	124124	2967.0	85
State "C" a/c-1 Well #1	346170	7219.0	11
State "C" a/c-1 Well #2	335996	5825.0	11
State "C" a/c-1 Well #3	321140	6653.0	25

Very truly yours,

TEXAS PACIFIC COAL & OIL CO.

John Yuronka

John Yuronka,
District Engineer

TEXAS PACIFIC COAL AND OIL COMPANY

FIELD OFFICE

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO.
RECEIVED
JUN 10 1953

June 8, 1953

PLEASE ADDRESS REPLY TO COMPANY AT
P. O. Box 1688
Hobbs, New Mexico

Mr. W. B. Macey, Chief Engineer
Oil Conservation Commission
Box 871
Santa Fe, New Mexico

Dear Sir:

In accordance with Order No. R-69-A, the following information on Texas Pacific Coal and Oil Company's wells in the Bagley Siluro-Devonian Pool, Lea County, N. M., is submitted:

May, 1953

Lease and Well	Allowable	Oil	Runs	Gas	Water
State "B" a/c-1, Well #1	9827	9614		202	1
State "B" a/c-1, Well #2	9827	9615		212	6
State "B" a/c-1 Lease	19654	19229	19749	414	7
State "C" a/c-1, Well #1	9827	9806		216	1
State "C" a/c-1, Well #2	9827	9806		196	1
State "C" a/c-1, Well #3	9827	9807		206	1
State "C" a/c-1 Lease	29481	29419	29724	618	3

Cumulative Production

Lease and Well	Oil	Gas	Water
State "B" a/c-1, Well #1	367174	5655.5	380
State "B" a/c-1, Well #2	116590	2801.0	79
State "C" a/c-1, Well #1	338802	7057.0	10
State "C" a/c-1, Well #2	328628	5678.0	10
State "C" a/c-1, Well #3	313772	6498.0	10

Very truly yours,

TEXAS PACIFIC COAL & OIL CO.

John Yuronka

John Yuronka,
District Engineer

TEXAS PACIFIC COAL AND OIL COMPANY

FIELD OFFICE

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO.
MAY 14 1953

May 11, 1953

PLEASE ADDRESS REPLY TO COMPANY AT
P. O. Box 1688
Hobbs, New Mexico

Mr. W. B. Macey, Chief Engineer
Oil Conservation Commission
Box 871
Santa Fe, New Mexico

Dear Sir:

In accordance with Order No. R-69-A, the following information on Texas Pacific Coal and Oil Company's wells in the Bagley Siluro-Devonian Pool, Lea County, N.M., is submitted:

April, 1953

Lease and Well	Allowable	Oil	Runs	Gas	Water
State "B" a/c-1 Well #1	9510	9542		200	1
State "B" a/c-1 Well #2	9510	9542		210	6
State "B" a/c-1 Lease	19020	19084	18797	410	7
State "C" a/c-1 Well #1	9510	9169		202	1
State "C" a/c-1 Well #2	9510	9169		183	1
State "C" a/c-1 Well #3	9510	9169		193	1
State "C" a/c-1 Lease	28530	27507	28292	578	3

Cumulative Production

Lease and Well	Oil	Gas	Water
State "B" a/c-1 Well #1	357560	5453.5	379
State "B" a/c-1 Well #2	106975	2589.0	73
State "C" a/c-1 Well #1	328996	6841.0	9
State "C" a/c-1 Well #2	318822	5482.0	9
State "C" a/c-1 Well #3	303965	6292.0	9

Very truly yours,

TEXAS PACIFIC COAL AND OIL CO.

John Yuronka

John Yuronka,
District Engineer

TEXAS PACIFIC COAL AND OIL COMPANY

FIELD OFFICE

April 7, 1953

PLEASE ADDRESS REPLY TO COMPANY AT
P. O. Box 1688
Hobbs, New Mexico

Mr. W. B. Macey, Chief Engineer
Oil Conservation Commission
Box 871
Santa Fe, New Mexico

Dear Sir:

In accordance with Order No. R-69-A, the following information on Texas Pacific Coal and Oil Company's wells in the Bagley Siluro-Devonian Pool, Lea County, N. M., is submitted:

March, 1953

Lease and Well	Allowable	Oil	Runs	Gas	Water
State "B" a/c-1 Well #1	9827	9706		204	1
State "B" a/c-1 Well #2	9827	9706		214	7
State "B" a/c-1 Lease	19654	19412	19471	418	8
State "C" a/c-1 Well #1	9827	9898		218	1
State "C" a/c-1 Well #2	9827	9898		198	1
State "C" a/c-1 Well #3	9827	9897		208	1
State "C" a/c-1 Lease	29481	29693	29357	624	3

Cumulative Production

Lease and Well	Oil	Gas	Water
State "B" a/c-1 Well #1	348018	5253.5	378
State "B" a/c-1 Well #2	97433	2379.0	67
State "C" a/c-1 Well #1	319827	6639.0	8
State "C" a/c-1 Well #2	309653	5299.0	8
State "C" a/c-1 Well #3	294796	6099.0	8

TEXAS PACIFIC COAL AND OIL COMPANY

FIELD OFFICE

March 16, 1953

PLEASE ADDRESS REPLY TO COMPANY AT
P. O. Box 1688
Hobbs, New Mexico

Mr. W. B. Macey, Chief Engineer
Oil Conservation Commission
Box 871
Santa Fe, New Mexico

Dear Sir:

In accordance with Order No. R-69-A, the following information on Texas Pacific Coal and Oil Company's wells in the Bagley Siluro/Devonian Pool, Lea County, N. M., is submitted:

February, 1953

Lease and Well	Allowable	Oil	Runs	Gas	Water
State "B" a/c-1 Well #1	8876	9229		194	1
State "B" a/c-1 Well #2	8876	9229		203	6
State "B" a/c-1 Lease	17752	18458	18042	397	7
State "C" a/c-1 Well #1	8876	9109		200	1
State "C" a/c-1 Well #2	8876	9108		182	1
State "C" a/c-1 Well #3	8876	9108		191	1
State "C" a/c-1 Lease	26628	27325	26487	573	3

Cumulative Production

Lease and Well	Oil	Gas	Water
State "B" a/c-1 Well #1	338312	5049.5	377
State "B" a/c-1 Well #2	87727	2165.0	60
State "C" a/c-1 Well #1	309929	6421.0	7
State "C" a/c-1 Well #2	299755	5101.0	7
State "C" a/c-1 Well #3	284898	5891.0	7

Very truly yours,

John Yuronka

John Yuronka,
District Engineer

TEXAS PACIFIC COAL AND OIL COMPANY

FIELD OFFICE

February 17, 1953

PLEASE ADDRESS REPLY TO COMPANY AT
P. O. Box 1688
Hobbs, New Mexico

Mr. W. B. Macey, Chief Engineer
Oil Conservation Commission
Box 871
Santa Fe, New Mexico

Dear Sir:

In accordance with Order No. R-69-A, the following information on Texas Pacific Coal and Oil Company's wells in the Bagley Siluro/Devonian Pool, Lea County, N. M., is submitted:

January, 1953

Lease and Well	Allowable	Oil	Runs	Gas	Water
State "B" a/c-1 Well #1	9827	9755		205	1
State "B" a/c-1 Well #2	9827	9756		215	7
State "B" a/c-1 Lease	19654	19511	19461	420	8
State "C" a/c-1 Well #1	9827	10071		222	1
State "C" a/c-1 Well #2	9827	10072		201	1
State "C" a/c-1 Well #3	9827	10072		212	1
State "C" a/c-1 Lease	29481	30215	29432	635	3

Cumulative Production

Lease and Well	Oil	Gas	Water
State "B" a/c-1 Well #1	329083	4855.5	376
State "B" a/c-1 Well #2	78498	1962.0	54
State "C" a/c-1 Well #1	300820	6221.0	6
State "C" a/c-1 Well #2	290647	4919.0	6
State "C" a/c-1 Well #3	275790	5700.0	6

Very truly yours,

John Yuronka

John Yuronka,
District Engineer

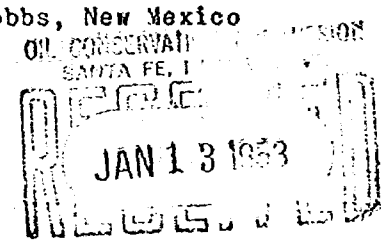
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
FEB 2 1953

TEXAS PACIFIC COAL AND OIL COMPANY

FIELD OFFICE

January 10,1953

PLEASE ADDRESS REPLY TO COMPANY AT
P. O. Box 1688
Hobbs, New Mexico



Mr. W. B. Macey, Chief Engineer
Oil Conservation Commission
Box 871
Santa Fe, New Mexico

Dear Sir:

In accordance with Order No. R-69-A, the following information on Texas Pacific Coal and Oil Company's wells in the Bagley Siluro/Devonian Pool, Lea County, N. M., is submitted:

December, 1952

Lease and Well	Allowable	Oil	Runs	Gas	Water
State "B" a/c-1 Well #1	9827	10114		212	1
State "B" A/c-1 Well #2	9827	10114		222	7
State "B" a/c-1 Lease	19654	20228	19800	434	8
State "C" a/c-1 Well #1	9827	9729		214	1
State "C" a/c-1 Well #2	9827	9728		195	1
State "C" a/c-1 Well #3	9827	9728		204	1
State "C" a/c-1 Lease	29481	29185	29431	613	3

49,413

Cumulative Production

Lease and Well	Oil	Gas	Water
State "B" a/c-1 Well #1	319328	4650.5	375
State "B" a/c-1 Well #2	68742	1747.0	47
State "C" a/c-1 Well #1	290749	5999.0	5
State "C" a/c-1 Well #2	280575	4718.0	5
State "C" a/c-1 Well #3	265718	5488.0	5

1,225,112

19413
1,131,556
1,180,968

Very truly yours,

John Yuronka

John Yuronka,
District Engineer

RS

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
RECEIVED
DEC 10 1952

TEXAS PACIFIC COAL AND OIL COMPANY

FIELD OFFICE

December 8, 1952

PLEASE ADDRESS REPLY TO COMPANY AT
P. O. Box 1688
Hobbs, New Mexico

Mr. W. B. Macey, Chief Engineer
Oil Conservation Commission
Box 871
Santa Fe, New Mexico

Dear Sir:

In accordance with Order No. R-69-A, the following information on Texas Pacific Coal and Oil Company's wells in the Bagley Siluro/Devonian Pool, Lea County, N.M., is submitted:

November, 1952

Lease and Well	Allowable	Oil	Runs	Gas	Water
State "B" a/c-1 Well #1	9510	8828		185	1
State "B" a/c-1 Well #2	9510	8829		194	6
State "B" Lease	19020	17657	18684	379	7
State "C" a/c-1 Well #1	9510	8820		194	1
State "C" a/c-1 Well #2	9510	8821		176	1
State "C" a/c-1 Well #3	9510	8820		185	1
State "C" Lease	28530	26461	28059	555	3

44118

Cumulative Production

Lease and Well	Oil	Gas	Water
State "B" a/c-1 Well#1	309214	4438.5	374
State "B" a/c-1 Well #2	58628	1525.0	40
State "C" a/c-1 Well #1	281020	5785.0	4
State "C" a/c-1 Well #2	270847	4523.0	4
State "C" a/c-1 Well #3	255990	5284.0	4

Very truly yours,

John Yuronka

John Yuronka,
District Engineer

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TEXAS PACIFIC COAL AND OIL COMPANY

FIELD OFFICE

November 11, 1952

PLEASE ADDRESS REPLY TO COMPANY AT
P. O. Box 1688
Hobbs, New Mexico

Mr. W. B. Macey, Chief Engineer
Oil Conservation Commission
Box 871
Santa Fe, New Mexico

Dear Sir:

In accordance with Order No. R-69-A, the following information on Texas Pacific Coal and Oil Company's wells in the Bagley Siluro-Devonian Pool, Lea County, N. M., is submitted:

October, 1952

Lease and Well	Allowable	Oil	Runs	Gas	Water
State "B" a/c-1 Well #1	9827	10416		219	1
State "B" a/c-1 Well #2	9827	10417		229	7
State "B" a/c-1 Lease	19654	20833	19405	448	8
State "C" a/c-1 Well #1	9827	10738		236	1
State "C" a/c-1 Well #2	9827	10738		215	1
State "C" a/c-1 Well #3	9827	10737		225	1
State "C" a/c-1 Lease	29481	32213	29279	676	3

Cumulative Production

Lease and Well	Oil	Gas	Water
State "B" a/c-1 Well #1	300386	4253.5	373
State "B" a/c-1 Well #2	49799	1331.0	34
State "C" a/c-1 Well #1	272200	5591.0	3
State "C" a/c-1 Well #2	262026	4347.0	3
State "C" a/c-1 Well #3	247170	5099.0	3
	1131581		

Very truly yours,

John Yuronka

John Yuronka,
District Engineer

TEXAS PACIFIC COAL AND OIL COMPANY

FIELD OFFICE

October 14, 1952

PLEASE ADDRESS REPLY TO COMPANY AT
P. O. Box 1688
Hobbs, New Mexico

Mr. W. B. Macey, Chief Engineer
Oil Conservation Commission
Box 871
Santa Fe, New Mexico

Dear Sir:

In accordance with Order No. R-69-A, the following information on Texas Pacific Coal and Oil Company's wells in the Bagley Siluro-Devonian Pool, Lea County, N.M., is submitted:

September, 1952

Lease and Well	Allowable	Oil	Runs	Gas	Water
State "B" A/c 1, Well #1	9510	9512		200	1
State "B" A/c 1, Well #2	9510	9512		209	7
State "B" A/c 1 Lease	19020	19024	19728	409	8
State "C" A/c 1, Well #1	9510	9552		210	1
State "C" A/c 1, Well #2	9510	9552		191	1
State "C" A/c 1, Well #3	9510	9552		201	1
State "C" A/c 1, Lease	28530	28656	30141	602	3

Cumulative Production

Lease and Well	Oil	G's	Water
State "B" A/c 1, Well #1	289970	4034.5	372
State "B" A/c 1, Well #2	39382	1102.0	27
State "C" A/c 1, Well #1	261462	5355.0	2
State "C" A/c 1, Well #2	251288	4132.0	2
State "C" A/c 1, Well #3	236433	4874.0	2

Very Truly Yours,

John Yuronka

John Yuronka,
District Engineer

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO.
RECEIVED
OCT 16 1952

TEXAS PACIFIC COAL AND OIL COMPANY

FIELD OFFICE

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO.
RECEIVED
SEP 15 1952

September 13, 1952

PLEASE ADDRESS REPLY TO COMPANY AT
P. O. Box 1688
Hobbs, New Mexico

Mr. W. B. Macey, Chief Engineer
Oil Conservation Commission
Box 871
Santa Fe, New Mexico

Dear Sir:

In accordance with Order No. R-69-A, the following information on Texas Pacific Coal and Oil Company's wells in the Bagley Siluro/Devonian Pool, Lea County, N. M., is submitted:

August, 1952

Lease and Well	Allowable	Oil	Runs	Gas	Water
State "B" a/c-1 Well #1	9362	9279		167	1
State "B" a/c-1 Well #2	9362	9280		316	6
State "B" Lease	18724	18559	18868	483	7
State "C" a/c-1 Well #1	9362	9319		205	1
State "C" a/c-1 Well #2	9362	9319		149	1
State "C" a/c-1 Well #3	9362	9320		149	1
State "C" Lease	28086	27958	28093	503	3

Cumulative Production

Lease and Well	Oil	Gas	Water
State "B" a/c-1 Well #1	280458	3834.5	371
State "B" a/c-1 Well #2	29870	893.0	20
State "C" a/c-1 Well #1	251910	5145.0	1
State "C" a/c-1 Well #2	241736	3941.0	1
State "C" a/c-1 Well #3	226881	4673.0	1

Very truly yours,

John Yuronka

John Yuronka,
District Engineer

TEXAS PACIFIC COAL AND OIL COMPANY

FIELD OFFICE

August 12, 1952

PLEASE ADDRESS REPLY TO COMPANY AT
P. O. Box 1688
Hobbs, New Mexico

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO.
RECEIVED
AUG 14 1952

Mr. W. B. Macey, Chief Engineer
Oil Conservation Commission
Box 871
Santa Fe, New Mexico

Dear Sir:

In accordance with Order No. R-69-A, the following information on Texas Pacific Coal and Oil Company's wells in the Bagley Siluro/Devonian Pool, Lea County, N. M., is submitted:

July, 1952

Lease and Well	Allowable	Oil	Runs	Gas	Water
State "B" a/c-1 Well #1	9362	9941		179	74
State "B" a/c-1 Well #2	9362	9942		249	7
State "B" Lease	18724	19883	18687	428	81
State "C" a/c-1 Well #1	9362	9725		214	-
State "C" a/c-1 Well #2	9362	9725		156	-
State "C" a/c-1 Well #3	9362	9727		156	-
State "C" Lease	28086	29177	28152	526	-

Cumulative Production

Lease and Well	Oil	Gas	Water
State "B" a/c-1 Well #1	271179	3667.5	370
State "B" a/c-1 Well #2	20590	577.0	14
State "C" a/c-1 Well #1	242591	4940.0	-
State "C" a/c-1 Well #2	232417	3792.0	-
State "C" a/c-1 Well #3	217561	4524.0	-

Very truly yours,

John Yuronka

John Yuronka,
District Engineer

TEXAS PACIFIC COAL AND OIL COMPANY

FIELD OFFICE

August 1, 1952

PLEASE ADDRESS REPLY TO COMPANY AT
P. O. Box 1688
Hobbs, New Mexico

Oil Conservation Commission
Santa Fe, New Mexico

Dear Sir:

In accordance with Order No. R-69-A, the following information on Texas Pacific Coal and Oil Company's wells in the Bagley Siluro/Devonian Pool is submitted:

June, 1952

Lease and Well	Allowable	Oil	Runs	Gas	Water
State "B" a/c-1 Well #1	10140	9595		173	74
State "B" a/c-1 Well #2	10140	9596		240	7
State "B" Lease	20280	19191	21156	413	81
State "C" a/c-1 Well #1	10140	10071		222	-
State "C" a/c-1 Well #2	10140	10071		161	-
State "C" a/c-1 Well #3	10140	10073		161	-
State "C" Lease	30420	30125	31506	544	-

Cumulative Production

Lease and Well	Oil	Gas	Water
State "B" a/c-1 Well #1	261238	3488.5	296
State "B" a/c-1 Well #2	10648	328.0	7
State "C" a/c-1 Well #1	232866	4726.0	-
State "C" a/c-1 Well #2	222692	3636.0	-
State "C" a/c-1 Well #3	207834	4368.0	-

Very truly yours,
John Yuronka
John Yuronka,
District Engineer

TEXAS PACIFIC COAL AND OIL COMPANY

FIELD OFFICE

August 5, 1952

PLEASE ADDRESS REPLY TO COMPANY AT
P. O. Box 1688
Hobbs, New Mexico

Mr. W. B. Macey, Chief Engineer
Oil Conservation Commission
Box 871
Santa Fe, New Mexico

Dear Sir:

Per your request and in accordance with Order No. R-69-A, the following information on Texas Pacific Coal and Oil Company's wells in the Bagley Siluro/Devonian Pool, Lea County, N. M., is submitted:

May, 1952

Lease and Well	Allowable	Oil	Runs	Gas	Water
State "B" a/c-1 Well #1	10881	2723	2723	68	74
State "B" a/c-1 Well #2	4732	1052		88	-
State "B" Lease	15613	3775	2723	156	74
State "C" a/c-1 Well #1	10881	2383	2704	52	-
State "C" a/c-1 Well #2	10881	2383	2704	38	-
State "C" a/c-1 Well #3	10881	2383	2704	38	-
State "C" Lease	32643	7149	8112	128	-

Cumulative Production

Lease and Well	Oil	Gas	Water
State "B" a/c-1 Well #1	251643	3315.5	222
State "B" a/c-1 Well #2	1052	88.0	-
State "C" a/c-1 Well #1	222795	4504.0	-
State "C" a/c-1 Well #2	212621	3475.0	-
State "C" a/c-1 Well #3	197761	4207.0	-

Very truly yours,

John Yuronka

John Yuronka,
District Engineer

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. 249
(Consolidated with Case No. 315)
Order No. R-69-D

THE MATTER OF THE APPLICATION OF
THE OIL CONSERVATION COMMISSION
UPON ITS OWN MOTION FOR AN ORDER
DIRECTED TO THE OPERATORS IN THE
BAGLEY-SILURO-DEVONIAN POOL, LEA
COUNTY, NEW MEXICO, TO SHOW CAUSE
WHY SAID POOL SHOULD NOT BE PLACED
ON 40-ACRE SPACING WITH ALLOWABLE
ADJUSTMENT, UPON EXPIRATION OF
TEMPORARY ORDER.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing on May 19, 1954, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission".

NOW, on this 30th day of June, 1954, the Commission, a quorum being present, having considered the testimony adduced and exhibits received at said hearings, and being fully advised in the premises,

FINDS:

(1) That due notice having been given and proper service had upon the operators in said pool as required by law, the Commission has jurisdiction of this cause.

(2) That originally the Commission issued Temporary Order R-69, effective May 1, 1951, to and including May 1, 1952, authorizing the development and production of the Bagley-Siluro-Devonian Pool on an 80-acre spacing pattern with 80-acre proration units.

(3) That thereafter and prior to the expiration of Order R-69, the Commission after due notice and hearing issued Order R-69-A, which granted an extension of Order R-69, as modified, for a period of one year from and after May 1, 1952.

(4) That thereafter and prior to the expiration of Order R-69-A as modified by Order R-69-B, the Commission after due notice and hearing issued Order R-69-C, effective June 1, 1953, to and including June 1, 1954, which authorized the development and production of the Bagley-Siluro-Devonian Pool on an 80-acre spacing pattern with 80-acre proration units.

(5) That for the prevention of waste and in the interests of conservation, the provisions of said Commission Temporary Order R-69-C, as hereinafter modified and set forth, should be made permanent.

IT IS THEREFORE ORDERED:

(a) That 80-acre spacing of wells and establishment of 80-acre proration units in the Bagley-Siluro-Devonian Pool, Lea County, New Mexico, described as:

Township 11 South, Range 33 East, NMPM
All Section 34; NW/4 and S/2 Section 35

Township 12 South, Range 33 East, NMPM
N/2 and SE/4 of Section 3; all of Section 2;
E/2 NW/4 and N/2 NE/4 of Section 11

be, and the same is hereby authorized; such proration units to consist of the E/2 and the W/2 respectively of each governmental survey quarter section therein and the well location thereon shall be in the center (permissive tolerance 150 feet) of the northwest and southeast quarter sections thereof.

PROVIDED, HOWEVER, that the following described units do, and shall constitute permissible exceptions to the spacing and proration unit plan aforesaid:

Township 11 South, Range 33 East, NMPM
N/2 NW/4 of Section 35; S/2 NW/4 of Section 35

Township 12 South, Range 33 East, NMPM
N/2 NW/4 of Section 3; S/2 NW/4 of Section 3;
N/2 NE/4 of Section 2; SW/4 NE/4 and NW/4 SE/4 of Section 2; SE/4 NE/4 and NE/4 SE/4 of Section 2;
S/2 SE/4 of Section 2;
N/2 NE/4 of Section 11

(b) That no well shall be drilled or produced in said pool except it be in conformity with the spacing and proration unit pattern hereinabove authorized unless, after notice and hearing, a special order of authorization is had and obtained from the Commission.

(c) That should any well be drilled off-pattern, under authority of any special order, then, and in that event, the same shall be entitled only to an allowable equal to that of a standard 40-acre proration unit with deep pool adaptation as provided by Commission rules. Nothing contained in this order shall be construed as requiring by the Commission the drilling of any wells at any location.

IT IS FURTHER ORDERED: That the Bagley-Siluro-Devonian Pool and the 80-acre proration units therein, hereby established and confirmed, be and the same hereby are granted an allowable equal to the top allowable for wells in the Bagley-Siluro-Devonian depth range, calculated by the use of the 80-acre proportional factor as provided for in Rule 505 of the Rules and Regulations of this Commission, together with the acreage factor, if any there be;

PROVIDED HOWEVER, that no well in such pool will be assigned an allowable greater than the amount of oil produced on official gas-oil ratio tests during a 24-hour period in compliance with Rule 301 of the said Rules and Regulations.

IT IS FURTHER ORDERED:

(a) That each operator in said pool shall take or cause to be taken bottom-hole pressure tests of each producing well operated by him in said pool during the months of July of each calendar year; the results of such tests shall be tabulated, and reflect the pressure of each well; the same shall be filed on or before the 5th day of August, of each calendar year, with the Commission at Santa Fe, New Mexico (with copy to Hobbs office); it is further provided, that such bottom-hole pressure tests shall be taken in conformity with the requirements of Rule 302 of the Commission's Rules and Regulations as revised.

This order supersedes all previous temporary orders and interlocutory orders heretofore issued in this case.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

EDWIN L. MECHEM, Chairman

E. S. WALKER, Member

R. R. SPURRIER, Secretary and Member

SEAL

BAGLEY SILURO — DEVON
PRODUCTION DATA

BOTTOM HOLE PRESSURE

MONTHLY PRODUCTION - 1000 BBLS.

4500
4000
3500
250
200
150
100
50
0

MONTHLY OIL PRODUCTION

CUMULAT

NO. OF WELLS

MONTHLY WATER PRODUCTIO

DEC. JAN. FEB. MAR. APR. MAY JUN. JUL. AUG. SEP. OCT. NOV. DEC.

1949 | 1950 | 1951 | 1952 | 1953

JIAN POOL

4142

VE OIL PRODUCTION

122,000

70,000

NO. OF WELLS CUMULATIVE PRODUCTION - 1,000,000 BBLS

100
90
80
70
60
50
40
30
20
10

6
5
4
3
2
1

DEC. JAN. FEB. MAR. APR. MAY JUN. JUL. AUG. SEP. OCT. NOV. DEC.

1954	1955	19	19	19

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
Amerada EXHIBIT No. 1
CASE 319

OIL CONSERVATION COMMISSION
P. O. BOX 871
SANTA FE, NEW MEXICO

July 2, 1954

Amerada Petroleum Corporation
Box 2040
TULSA, OKLAHOMA

Attention: Mr. John Woodward, Legal Department

Gentlemen:

For your information, we enclose two copies of Order No. R-69-D issued by the Commission in Case 249 (consolidated with Case 315) relating to the Bagley-Siluro-Devonian Pool.

Very truly yours,

W. B. Macey
Chief Engineer

WBM:nr

Encl.

COPY

OIL CONSERVATION COMMISSION
P. O. BOX 871
SANTA FE, NEW MEXICO

July 2, 1954

COPY

Mr. Eugene Adair
Texas Pacific Coal and Oil Company
Box 2110
FORT WORTH TEXAS

Dear Sir:

We enclose copy of Order R-69-D issued by the Commission on June 30, 1954, in Case 249 (combined with Case 315).

Very truly yours,

W. B. Macey
Chief Engineer

WBM:nr
Encl

TEXAS PACIFIC COAL AND OIL COMPANY

FIELD OFFICE

November 12, 1953

NOV 16 1953

PLEASE ADDRESS REPLY TO COMPANY AT
P. O. Box 1688
Hobbs, New Mexico

Mr. W. B. Macey, Chief Engineer
Oil Conservation Commission
Box 871
Santa Fe, New Mexico

Dear Sir:

In accordance with Order No. R-69-C, the following information on Texas Pacific Coal and Oil Company's wells in the Bagley Siluro/Devonian Pool, Lea County, N. M., is submitted:

October, 1953

Lease and Well	Allowable	Oil	Runs	Gas	Water
State "B" a/c-1 Well #1	7750	7663		161	1
State "B" a/c-1 Well #2	7750	7663		92	2
State "B" a/c-1 Lease	15500	15326	15493	253	3
State "C" a/c-1 Well #1	7750	7761		109	2
State "C" a/c-1 Well #2	7750	7762		140	1
State "C" a/c-1 Well #3	7750	7761		85	855
State "C" a/c-1 Lease	23250	23284	23399	334	858

Cumulative Production

Lease and Well	Oil	Gas	Water
State "B" a/c-1 Well #1	405947	6468.5	385
State "B" a/c-1 Well #2	155365	3342.0	98
State "C" a/c-1 Well #1	377616	7661.0	516
State "C" a/c-1 Well #2	367444	6391.0	17
State "C" a/c-1 Well #3	352585	6999.0	1566

Very truly yours,

TEXAS PACIFIC COAL & OIL CO.

John Yuronka

John Yuronka,
District Engineer

Amerada #3 BTD

TD 10957
PB 10870
Ret @ 10885 15' cem. bu. top
Perf Csg 10728-805
w/308 slots
Treated 500 gals
Would't flow
Ran flow valves
Wells flowed 370.30 bbls
w/ 1/10 1% BS no water
on 3/4 TP 100
700# input gas.
9-14-51

BAGLEY-SILURO DEVONIAN POOL
OIL PRODUCTION

COMPANY LEASE	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTAL
1952													
Amerada													
State BTA #1	10,265	11,652	11,359										
State BTC #1	10,429	11,488	11,035										
State BTD #1	11,129	10,788	10,927										
State BTD #2	3,548	6,826	6,955										
Chambers #1	2,104	2,030	1,901										
State BTD #3	9,587	7,841	8,115										
State BTI #1	11,129	10,788	11,571										
Caudle #2	4,122	4,964	5,615										
Mathers #1	6,000	5,800	8,789										
State BTC #3	10,429	11,488	11,035										
State BTL #1	11,129	10,788	11,495										
Mathers "A" #1	11,129	7,807	10,540										
State BTM #1	461	650	810										
Caudle #5	8,938	7,192	7,213										
Mathers "A" #2	975	7,808	10,540										
TOTAL	111,374	117,910	127,900										
CUMULATIVE	1,507,334	1,625,244	1,753,144										
Texas & Pacific													
State B #1	11,231	10,791	11,540										
State C #1	11,162	10,852	11,595										
State C #2	11,162	10,852	11,594										
State C #3	11,161	10,852	11,594										
TOTAL	44,716	43,347	46,323										
CUMULATIVE	740,576	783,923	830,246										
Field													
TOTAL	156,090	161,257	174,223										
CUMULATIVE	2,247,910	2,409,167	2,583,390										

BAGLEY-SILURO DEVONIAN POOL
OIL PRODUCTION

COMPANY LEASE	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTAL
1951													
Amerada													
State BTA #1	6,975	6,552	7,533	7,290	11,280	10,950	11,315	11,060	11,160	10,653	10,770	11,129	116,667
State BTC #1	6,879	6,108	7,700	7,290	10,735	10,950	11,315	11,017	11,570	11,532	10,770	11,129	116,995
State BTD #1	4,912	3,159	6,371	7,594	10,524	11,960	14,975	11,315	11,160	11,532	10,770	11,129	115,401
State BTD #2	8,008	7,374	7,533	7,138	8,541	7,956	5,356	6,829	3,390	6,400	3,931	3,594	76,590
Chambers #1	946	1,008	1,472	1,657	1,717	1,997	3,410	2,325	2,293	2,635	1,994	1,782	23,236
State BTD #3	8,009	7,375	7,533	7,138	8,540	7,956	5,356	744	7,840	7,781	9,854	10,048	88,174
State BTI #1	6,975	7,015	7,029	7,440	11,315	10,950	11,315	11,315	11,261	11,532	10,770	11,129	118,0[illegible]
Caudle #2	1,058	10,711	8,877	7,292	11,315	10,950	7,893	6,149	3,507	10,049	6,175	8,292	92,26[illegible]
Mathers #1		5,850	7,575	7,290	11,308	10,950	11,315	11,315	8,531	7,005	9,000	6,424	96,563
State BTC #3				4,876	10,736	10,950	11,315	11,018	11,571	11,532	10,770	11,129	93,897
State BTL #1								941	11,160	11,874	10,770	11,129	45,874
Mathers "A" #1										6,091	11,327	13,082	30,500
State BTM #1										332	622	65	1,019
TOTAL	43,762	55,152	61,623	65,005	96,011	95,569	93,565	84,028	93,983	108,948	107,523	110,061	1,015,230
CUMULATIVE	424,492	479,644	541,267	606,272	702,283	797,852	891,417	975,445	1,069,428	1,178,376	1285,899	1,395,960	1,395,960
Texas & Pacific													
State B #1	6,714	7,004	7,506	7,331	10,785	10,709	11,436	11,492	10,948	12,034	10,786	11,146	117,891
State C #1	6,815	6,767	7,598	7,322	11,017	10,747	11,141	11,229	11,141	12,001	10,799	11,055	117,632
State C #2	6,814	6,766	7,598	7,323	11,018	10,748	11,141	11,228	11,141	12,000	10,798	11,055	117,630
State C #3	6,814	6,766	7,597	7,323	11,018	10,748	11,141	11,229	11,141	12,000	10,798	11,055	117,630
TOTAL	27,157	27,303	30,299	29,299	43,838	42,952	44,859	45,178	44,371	48,035	43,181	44,311	470,7[illegible]
CUMULATIVE	252,234	279,537	309,836	339,135	382,973	425,925	470,784	515,962	560,333	608,368	651,549	695,860	695,860
Field													
TOTAL	70,919	82,455	91,922	94,304	139,849	138,521	138,424	129,206	138,354	156,983	150,704	154,372	1,486,013
CUMULATIVE	676,726	759,181	851,103	945,407	1085,256	1223,777	1362,201	1491,407	1,629,761	1,786,744	1937,448	2,091,820	2,091,820

BAGLEY-SILURO DEVONIAN POOL
OIL PRODUCTION

COMPANY LEASE	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTAL
1950													
Amerada													
State BTA #1	6,055	5,684	6,465	5,943	6,074	6,330	6,820	7,099	7,020	6,980	6,750	6,975	78,195
State BTC #1	6,236	5,874	6,468	5,877	6,107	6,327	6,762	6,853	7,222	6,715	6,750	6,975	78,166
State BTD #1	6,282	4,711	6,671	6,577	6,107	6,331	6,820	5,285	5,122	4,776	3,969	4,014	66,665
State BTD #2			1,427	6,802	5,128	5,979	7,170	6,979	7,140	6,967	6,750	7,185	61,527
Chambers #1								2,389	2,029	1,763	1,403	1,069	8,653
State BTD #3									5,382	6,967	6,750	7,186	26,285
State BTI #1												6,792	6,792
TOTAL	18,573	16,269	21,031	25,199	23,416	24,967	27,572	28,605	33,915	34,168	32,372	40,196	326,283
CUMULATIVE	73,020	89,289	110,320	135,519	158,935	183,902	211,474	240,079	273,994	308,162	340,534	380,730	380,730
Texas & Pacific													
State B #1	6,098	6,058	5,888	6,613	6,055	6,247	6,732	7,134	6,931	6,886	6,783	6,953	78,378
State C #1				3,145	6,180	6,451	6,875	7,184	7,187	7,007	6,827	7,148	58,004
State C #2						5,606	6,875	7,184	7,187	7,007	6,826	7,148	47,833
State C #3								4,809	7,186	7,006	6,826	7,148	32,975
TOTAL	6,098	6,058	5,888	9,758	12,235	18,304	20,482	26,311	28,491	27,906	27,262	28,397	217,190
CUMULATIVE	13,985	20,043	25,931	35,689	47,924	66,228	86,710	113,021	141,512	169,418	196,680	225,077	225,077
Field													
TOTAL	24,671	22,327	26,919	34,957	35,651	43,271	48,054	54,916	62,406	62,074	59,634	68,593	543,473
CUMULATIVE	87,005	109,332	136,251	171,208	206,859	250,130	298,184	353,100	415,506	477,580	537,214	605,807	605,807

BAGLEY-SILURO DEVONIAN POOL
OIL PRODUCTION

COMPANY LEASE	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTAL
1949													
Amerada													
State BTA #1							2,406	7,011	6,145	5,741	6,334	6,383	34,020
State BTC #1										943	6,853	6,758	14,554
State BTD #1												5,873	5,873
TOTAL							2,406	7,011	6,145	6,684	13,187	19,014	54,447
CUMULATIVE							2,406	9,417	15,562	22,246	35,433	54,447	54,447
Texas & Pacific													
State B #1											1,576	6,311	7,887
TOTAL											1,576	6,311	7,887
CUMULATIVE											1,576	7,887	7,887
Field													
TOTAL							2,406	7,011	6,145	6,684	14,763	25,325	62,334
CUMULATIVE							2,406	9,417	15,562	22,246	37,009	62,334	62,334

AMERADA PETROLEUM CORPORATION
P. O. BOX 2040
TULSA 2, OKLAHOMA

Tatum, New Mexico
April 7, 1954

Oil Conservation Commission
Santa Fe, New Mexico

Gentlemen:

In compliance with your order No. R-69-C, dated May 21, 1953, concerning the Bagley Siluro-Devonian Pool, Lea County, New Mexico we are submitting the attached tabulation of production data for the month of March 1954.

Contained in the tabulation is the monthly report for each well showing the allowable, the actual oil produced, the oil runs, water production, gas production, cummulative oil production, cummulative water production, and cummulative gas production.

Yours very truly,

Amerada Petroleum Corporation

K. V. Stephenson
Assistant District Superintendent

KVS/hlw

cc: Oil Conservation Commission, Hobbs
Mr. W. B. Macey
Mr. R. S. Christie
Mr. R. E. Seifert
Mr. J. C. Blackwood
Mr. D. C. Capps
Mr. W. G. Abbott
File

BAGLEY SILURO-DEVONIAN POOL

PRODUCTION DATA

MARCH 1954

LEASE & WELL	ALLOWABLE BBLS	ACTUAL OIL BBLS	OIL RUNS BBLS	WATER BBLS	GAS CU.FT.	CUMMULATIVE OIL BBLS	CUMMULATIVE WATER BBLS	CUMMULATIVE GAS CU. FT.
STATE B T "A" #1	7,037	6,994	8,505	3,934	223,808	464,596	14,612	14,867,072
STATE B T "C" #1	7,037	6,908	7,033	0	221,056	445,188	0	14,246,016
STATE B T "C" #3	7,037	6,907	7,033	0	221,024	329,368	0	10,539,776
STATE B T "D" #1	7,037	7,040	7,165	0	225,280	425,026	110,195	13,600,832
STATE B T "D" #2	7,037	7,040	7,165	1,871	225,280	342,382	50,838	10,956,224
STATE B T "D" #3	7,037	7,040	7,166	0	225,280	330,448	16,744	10,574,336
STATE B T "I" #1	6,944	6,944	7,249	0	222,208	357,401	0	11,436,832
STATE B T "L" #1	7,037	6,955	7,145	0	222,560	281,664	0	9,013,248
STATE B T "M" #1	1,057	1,057	959	14,043	33,824	23,594	230,237	755,009
STATE B T "N" #1	7,037	6,949	7,209	948	222,368	179,406	7,494	5,740,992
J. T. CAUDLE #2	2,635	1,880	1,449	6,294	60,160	174,334	192,222	5,578,688
J. T. CAUDLE #5	3,317	3,012	2,876	6,704	96,384	129,528	79,334	4,144,896
L. H. CHAMBERS #1	1,798	1,339	1,440	7,030	42,848	69,432	145,109	2,221,824
W. E. MATHERS #1	7,037	6,989	7,020	4,105	223,648	307,635	50,531	9,844,320
W. E. MATHERS "A" #1	7,037	7,037	7,037	3,162	225,184	259,808	26,804	8,313,856
W. E. MATHERS "A" #2	4,185	3,214	3,252	21,509	102,848	147,073	265,793	4,706,336
TOTALS	90,306	87,305	89,703	69,600	2,793,760	4,266,883	1,189,913	136,540,257

EXHIBIT NO. 13 Case 249 (and 215)

Amended 4-15-52

BAGLEY FIELD - LEA COUNTY, NEW MEXICO:

WELL & NO.	TOP DEVONIAN	TOP DEVONIAN PAY	DEVONIAN CAP	DEVONIAN COMPLETION	
BTA #1	10,730 (-6484)	10,760 (-6514)	30'	TD 11,766 (-7520) PB 10,965 (-6719) Bottom of Perfs - 10,965 (-6719)	5-1/2" Csg. @ 11,200 with 600 sacks. PB 10,965 (-6719). Perf. 10,960-65 with 60 holes. Wash with 250 gals. acid. IP: F 1744 BOPD thru 1/2" ch. (Based on 5½ hr. test. of 400 BO) GOR 28-1, Grav. 44.4 Corr. Spud 11-25-48 Completed 7-16-49. 4241
BTC #1	10,662 (-6410)	10,699 (-6447)	37'	TD 10,980 (-6728) No PB Bottom of Perfs: 10,979 (-6727)	7-5/8" Csg. @ 10,980. Perf. 10,959-979 with 80 holes. IP: F Nat. 1137 BOPD thru 1/2" ch. (Based on 17-3/4 hr. test of 841 BO) GOR 33-1, Grav. 46.2 Corr. 4252 Spud 6-5-49 Completed 10-23-49
BTC #2	11,603 (-7357)	11,657 (-7411)	54'	TD 11,715 (-7469) D & A	8-5/8" Csg. @ 3896'. Spud 3-27-50 Completed 8-11-50 4246
BTC #3	10,722 (-6470)	10,767 (-6515)	45'	TD 10,965 (-6713) No PB open hole	5-1/2" Csg. @ 10,895 with 660 sacks. Trtd. open hole 10,895-10,965 with 500 gals. acid. IP: F 2112 BO 24 hrs. thru 1/2" ch. Gas Vol. 65,400 CFGPD, GOR 32-1, Grav. 46.0 Corr. Spud 12-15-50 Completed 4-8-51
BTD #1	10,870 (-6620)	10,924 (-6674)	54'	TD 10,995 (-6745) No PB open hole PB - 10,978 Perf 10958-76 Bottom of Perf (-6726)	5-1/2" Csg. @ 10,980'. Trt. open hole 10,980-995 with 500 gals. acid. IP: F 929 BO 24 hrs. thru 1/2" ch. GOR 32, Grav. 45.5 Corr. Spud 8-8-49 Completed 12-5-49. 4250

PAGE #2 BAGLEY FIELD - LEA COUNTY, NEW MEXICO

WELL & NO.	TOP DEVONIAN	TOP DEVONIAN PAY	DEVONIAN CAP	D E V O N I A N C O M P L E T I O N	
BTD #2	10,670 (-6421)	10,720 (-6471)	50'	TD 10,975 (-6726) No PB open hole	5-1/2" Csg. @ 10,960. Trt. open hole 10,960-975 with 2500 gals. acid. IP: F 539 BO 24 hrs. thru 1/2" ch. GOR 34-1, Grav. 46.8 Corr. Spud 11-7-49 Completed 3-31-50
BTD #3	10,712 (-6465)	10,777 (-6530)	65'	TD 10,957 (-6710) No PB open hole PB-10825 10728-805. Perfs Bottom of Perfs -6558	5-1/2" Csg. @ 10,897. Wash open hole 10,897-10,957 with 500 gals. acid. IP: F 1130 BO plus 2.26 Bbls. BS 24 hrs. thru 1/2" ch. GOR 33-1, Grav. 45.8 Corr. Spud 5-17-50 Completed 9-8-50.
BTI #1	10,762 (-6512)	10,799 (-6549)	37'	TD 10,960 (-6710) No PB open hole	5-1/2" Csg. @ 10,922. Wash open hole 10,922-10,960 with 500 gals. acid. IP: F 1597 BO plus 3.20 Bbls BS 24 hrs. thru 1/2" ch. GOR 26-1, Grav. 46.0 Corr. Spud 8-14-50 Completed 12-5-50
BTJ #1	10,965 (-6722)	11,066 (-6823)	101'	TD 11,140 (-6897) D & A	TD 11,140'. Spud 9-16-50 Completed 1-17-51
BTK #1	10,997 (-6732)	11,047 (-6782)	50'	TD 11,060 (-6795) PB 9435 (-5178)	5-1/2" Csg. @ 9915 PB 9435 (-5175) Perf. 9045-63, 9290-9308, 9320-75, 9390-9435. Trt. 4000 gals. acid thru perf. 9045-63. Trt. 3000 gals. acid thru perf. 9320-75. Trt. 1000 gals. acid thru perf. 9290-9308. Total 8000 gals. acid. Set pkr. @ 9246. IP: F 313 BO 24 hrs. thru 24/64" ch. Gas Vol. 1,673,327 CFGPD, GOR 5349-1, Grav. 49.9 Corr. Spud 2-9-51 Completed 6-9-51

PAGE #3 EAGLEY FIELD - LEA COUNTY, NEW MEXICO

WELL & NO.	TOP DEVONIAN	TOP DEVONIAN PAY	DEVONIAN CAP	D E V O N I A N C O M P L E T I O N	
BTL #1 ✓	10,824 (-6579)	10,838 (-6593)	14'	TD 10,970 (-6725) PB 10,952 (-6707) Bottom of Perfs 10,952 (-6707)	5-1/2" Csg. @ 10,970 PB 10,952. Perf. 10,840-10,888 & 10,928-10,952. Trt. perf. with 2000 acid. IP: F 733 BO 24 hrs. thru 1/4" ch., GOR 49-1, Grav. 45.5 Corr. Spud 5-17-51 Completed 8-28-51
BTM #1	10,960 (-6705)	10,984 (-6729)	24'	TD 11,040 (-6785) PB 11,006 (-6751) Bottom of Perfs. 11,006 (-6751)	5-1/2" Csg. 11,040 PB 11,006. Perf. 10,976-11,006. Trt. 1000 acid. Re-trt. 1000 acid. IP: F 65 BO plus 374 BW 24 hrs. thru 3/4" ch. on input gas. Grav. 45.9 Corr. Spud 7-18-51 Completed 10-25-51
BTN #1					Drilling. Spud 3-4-52.
CAUDLE #1	11,008 (-6752)	11,081 (-6825)	73'	TD 11,083 (-6827) PB 9045 (-4789)	5-1/2" Csg. @ 9522, PB 9045 (-4789). Perf. 9040-9045, 8920-8980, 9001-9020, 9028-40. Trt. 250 gals. acid thru perf. 9040-45; Trt. 500 gals. acid thru perf. 8920-80; Trt. 3500 gals. acid thru perf. 9001-20; Trt. with 2000 gals. acid thru perf. 9001-20 and 9028-40. Total 6250 gal. acid. IP: F 285 BO plus 7 BW 24 hrs. thru 1/2" ch. GOR 1176-1, Grav. 46.8 Corr. Spud 3-27-49 Completed 8-12-49

PAGE #4 BAGLEY FIELD - LEA COUNTY, NEW MEXICO

WELL & NO.	TOP DEVONIAN	TOP DEVONIAN PAY	DEVONIAN CAP	DEVONIAN COMPLETION	
CAUDLE #2	11,010 (-6744)	11,017 (-6751)	7'	TD 11,084 (-6817) DO 11,055 (-6789) Bottom of Perfs 11,045-(6779)	5-1/2" Csg. @ 11,083, DO 11,055. Perf. 11,012-11,045 with 132 jet shots. Trt. total 4500 gals. acid thru perf. 11,012-11,045. IP: F 458 BO plus 1.16 B BS plus 6 BW 24 hrs. thru 1/2" ch. Gas Vol. 16,810 CFGPD, GOR 37.1 Grav. 44.3 Corr. Spud 9-20-50 Completed 1-19-51
CAUDLE #5	10,844 (-6588)	10,866 (-6610)	22'	TD 10,966 (-6710) No PB open hole	5-1/2" Csg. @ 10,860. Trt. open hole 10,860-10,966 with 6000 acid. IP: F 403 BO 24 hrs. thru 3/4" ch. on input Gas. Grav. 44.8 Corr. Spud 9-4-51 Completed 12-15-51
CHAMEERS #1	10,928 (-6678)	11,016 (-6766)	88'	TD 11,040 (-6790) PB 11,026 (-6776) Bottom of Perfs 11,026 (-6776)	5-1/2" Csg. @ 11,040, PB 11,026 (-6776). Perf. 11,010-26. Trtd. 250 gals. acid. IP: F 159 BO plus 23 BW 24 hrs. thru 1" ch. on gas lift. Spud 4-21-50 Completed 8-16-50
CHAMEERS #2	10,890 (-6641)	10,979 (-6730)	89'	TD 11,000 (-6751) PB 9033 (-4784)	5-1/2" Csg. @ 11,000 PB 9033 (-4784) Perf. Csg. 9005-9033 with 112 holes. Trt. perf. with 500 gals. acid. IP: F 846 BO plus 1 B BS thru 20/64" ch. Gas Vol. 1,312,000 CFGPD, GOR 1550-1, Grav. 42.5 Corr. Spud 2-10-51 Completed 5-11-51

PAGE #5 BAGLEY FIELD - LEA COUNTY, NEW MEXICO

WELL & No.	TOP DEVONIAN	TOP DEVONIAN PAY	DEVONIAN CAP	D E V O N I A N C O M P L E T I O N	
MATHERS #1	10,860 (-6606)	10,876 (-6622)	16'	TD 10,964 (-6710) No PB open hole	5-1/2" Csg. @ 10934. Trt. open hole 10,934-10,964 with 500 gals. acid. Perf. 5-1/2" Csg. 10,920-10,935 with 60 jet shots. Trt. open hole & perf. with 2000 gals. acid. IP: F 381 BO plus 1/2 B BS plus 7 B AW 24 hrs. thru 1/2" ch. Gas Vol. 12,000 CFGPD, GOR 31-1 Grav. 45.6 Corr. Spud 10-26-50 Completed 2-8-51
MATHERS #1-A	10,922 (-6665)	10,940 (-6683)	18'	TD 10,995 (-6738) PB 10,966 (-6709) Bottom of Devo 10,966 (-6709)	5-1/2" Csg. @ 10,995 PB 10,966 Perf. 10,938-10,966 Trt. perf. with 2500 gals. acid. IP: F 384 BO 24 hrs. thru 3/4" ch. GOR 35-1, Grav. 45.0 Corr. Spud 6-23-51 Completed 9-7-51
MATHERS #2-A	10,982 (-6722)	11,002 (-6742)	20'	TD 11,030 (6770) No PB open hole	5-1/2" Csg. @ 11,000. Wash open hole 11,000-11,030 W/500 acid. IP: F 1342 BOPD thru 1/2" ch. (Based on 8 hr. test) GOR 18-1, Grav. 44.5 Corr. Spud 10-10-51 Completed 1-19-52
SIMMONS #1	10,952 (-6699)	11,025 (-6772)	73'	TD 11,046 (-6793) PB 9040 (-4787)	5-1/2" Csg. @ 9450, PB 9040 (-4787. Perf. 9000-9040. Trt. with 4500 gals. acid. IP: F 292 BO plus 172 BW 24 hrs. thru 1/2" ch., GOR 1847-1, Grav. 45.3 Corr. Spud 12-9-49 Completed 4-28-50
TURNER #1	11,000 (-6746)	11,096 (-6842)	96'	TD 11,115 (-6861) No PB	TD 11,115 (-6861) D & A Spud 4-15-51 Completed 7-14-51

PAGE #6 - BAGLEY FIELD - LEA COUNTY, NEW MEXICO

WELL & NO.	TOP DEVONIAN	TOP DEVONIAN PAY	DEVONIAN CAP	DEVONIAN COMPLETION	
SHELL #1-A	11,040 (-6766)	Est. 11,062 (-6788)	22'	TD 11,075 (-6801) PB 9815 (-5541)	5-1/2" Csg. @ 9890 PB 9815. Perf. Csg. 9805-9815. Trt. perf. W/2000 acid. IP: F 11,000,000 CFGPD thru 24/64" ch., SI Spud 6-29-51 Completed 10-26-51
T&P #1-B ✓	10,722 (-6479)	10,795 (-6552)	73'	TD 10,914 (-6671) ✓ No PB open hole	7-5/8" Csg. @ 10,765. Trt. open hole 10,765-10,914 with 5500 gal. acid. IP: F 2460 BOPD thru open 2-1/2" tbg. (based on 2 hr. test) GCR 12-1, Grav. 46.6 Corr. Spud 6-30-49 Completed 12-9-49
T&P #2-B					Drilling Spud 10-30-51.
T&P #1-C ✓	10,563 (-6317)	10,660 (-6414)	97'	TD 10,822 (-6576) ✓ No PB open hole	5-1/2" Csg. @ 10,650. Wash open hole 10,650-10,822 with 500 gals. acid. IP: F 1566 BOPD thru 3/8" ch. (Based on 4 hr. test, GOR 29-1, Grav. 46.1 Corr. Spud 12-2-49 Completed 4-21-50
T&P #2-C ✓	10,739 (-6491)	10,760 (-6512)	21'	TD 10,949 (-6701) ✓ No PB open hole	7" Csg. @ 10,778. Wash open hole 10,778-10,949 with 500 gals. acid. IP: F 1104 BO 24 hrs. thru 16/64" ch. GOR 27-1, Grav. 45.7. Spud 2-17-50 Completed 6-9-50

PAGE #7 - BAGLEY FIELD - LEA COUNTY, NEW MEXICO

WELL & NO.	TOP DEVONIAN	TOP DEVONIAN PAY	DEVONIAN CAP	DEVONIAN COMPLETION
T&P #3-C	10,848 (-6594)	10,920 (-6666)	72'	TD 11,034 (-6780) PB 10,994 (-6740) Perfs - 10,994 (-6740)
T&P #4-C	10,916 (-6662)	10,960 (-6706)	44'	TD 11,019 (-6765) PB 9034 (-4780)

5-1/2" Csg. @ 11,034', PB 10,994 (-6740)
Perf. 10,907-994. Trt. 500 gals. acid.
IP: F 1080 BO 24 hrs. thru 24/64" ch. 42.54
GOR 25-1, Grav. 45.6 Corr.
Spud 4-22-50 Completed 8-18-50

7" Csg. 11,018 PB 9034.
Perf. 8986-9034. 42.54
Wash perf. W/500 acid.
Trt. perf W/1500 acid.
IP: F 312 BOPD thru 1/2" ch. (Based on 15 hr test) GOR 1809-1, Grav. 48.0 Corr.
Spud 6-21-51 Completed 11-9-51

Well No	Top Devonian Prod	Top Dev Prod	Devonian Cap	Completion Devonian	Remarks	
BTN #1 P-34-N-33				TD 10970 (-6712) no PB	5½" @ 10,850 w/550 ~~no~~ PB Spud 3-4-52 Comp 5-29-52	el. 4258
T. P. State B-2 B-11-12-33	10863 (-6616) el 4247			TD 11,033 (-6786) no PB Bottom of Perfs 10987 (-6710)	5½ @ 11,020/822 Perf 10,936 – 10987 w/4 shots/ft.	el 4247
T. P State B-3 I-12-33	10,766 el 4243			TD 11,060 (-6817) PB 11046 (-6803) Bottom of Perfs ~~11,060~~ ~~(-6831)~~ (10975) (-6732)	7" @ 11,059 w/250 Perf 10785-9571, (10970-75)	4243
T. P State D-1 A 2-12-33	10,510 -6309 el 4241			TD 11066 PB 11042 (-) Bottom of Perfs 10916 (-6675)	5½ @ 11,066 w/2890 Perf (10578-842) (10860-9161	check log 4241

TEXAS PACIFIC COAL AND OIL COMPANY

FIELD OFFICE

December 10, 1953

PLEASE ADDRESS REPLY TO COMPANY AT
P. O. Box 1688
Hobbs, New Mexico

Mr. W. B. Macey, Chief Engineer
Oil Conservation Commission
P.O. Box 871
Santa Fe, New Mexico

Dear Sir:

In accordance with Order No. R-69-C, the following information on Texas Pacific Coal and Oil Company's wells in the Bagley Siluro-Devonian Pool, Lea County, N.M., is submitted:

November, 1953

Lease and Well	Allowable	Oil	Runs	Gas	Water
State "B" A/c 1, Well#1	6810	7040		148	1
State "B" A/c 1, Well#2	6810	7039		85	2
State "B" A/c 1 Lease	13620	14079	13583	233	3
State "C" A/c 1, Well#1	6810	6891		96	1
State "C" A/c 1, Well#2	6810	6891		124	1
State "C" A/c 1, Well#3	6810	6890		76	745
State "C" A/c 1, Lease	20430	20672	20573	296	747

Cumulative Production

Lease and Well	Oil	Gas	Water
State "B" A/c 1, Well #1	412987	6,616.5	386
State "B" A/c 1, Well #2	162404	3,427.0	100
State "C" A/c 1, Well #1	384507	7,757.0	517
State "C" A/c 1, Well #2	374335	6,515.0	18
State "C" A/c 1, Well #3	359475	7,075.0	2311

Very Truly Yours,

TEXAS PACIFIC COAL AND OIL CO.

John Yuronka

John Yuronka
District Engineer

TEXAS PACIFIC COAL AND OIL COMPANY

FIELD OFFICE

March 8, 1954

PLEASE ADDRESS REPLY TO COMPANY AT
P. O. Box 1688
Hobbs, New Mexico

Mr. W. B. Macey, Chief Engineer
Oil Conservation Commission
Box 871
Santa Fe, New Mexico

Dear Sir:

In accordance with Order No. R-69-C, the following information on Texas Pacific Coal and Oil Company's wells in the Bagley Siluro/Devonian Pool, Lea County, New Mexico, is submitted:

February, 1954

Lease and Well	Allowable	Oil	Runs	Gas	Water
State "B" a/c-1 Well #1	6356	6285		132	1
State "B" a/c-1 Well #2	6356	6285		75	2
State "B" a/c-1 Lease	12712	12570	12656	207	3
State "C" a/c-1 Well #1	6356	6364		89	1
State "C" a/c-1 Well #2	6356	6363		112	1
State "C" a/c-1 Well #3	6356	6363		70	1390
State "C" a/c-1 Lease	19068	19090	19126	271	1392

Cumulative Production

Lease and Well	Oil	Gas	Water
State "B" a/c-1 Well #1	433566	7048.5	389
State "B" a/c-1 Well #2	182982	3674.0	106
State "C" a/c-1 Well #1	404909	8043.0	521
State "C" a/c-1 Well #2	394736	6879.0	21
State "C" a/c-1 Well #3	379875	7300.0	4724

An error was made in the cumulative oil production figure reported last month on State "C" a/c-1 Well #2. The corrected figure is 388,373 instead of the reported 287,652.

Very truly yours,

TEXAS PACIFIC COAL & OIL CO.

John Yuronka

John Yuronka,
District Engineer

AMERADA PETROLEUM CORPORATION
P. O. BOX 2040
TULSA 2, OKLAHOMA

K3

MAR 8 1954

Tatum, New Mexico
March 5, 1954

Oil Conservation Commission
Santa Fe, New Mexico

Gentlemen:

In compliance with your order No. R-69-C, dated May 21, 1953, concerning the Bagley Siluro-Devonian Pool, Lea County, New Mexico we are submitting the attached tabulation of production data for the month of February 1954.

Contained in the tabulation is the monthly report for each well showing the allowable, the actual oil produced, the oil runs, water production, gas production, cumulative oil production, cumulative water production, and cumulative gas production.

Yours very truly,

Amerada Petroleum Corporation

K. V. Stephenson

K. V. Stephenson
Assistant District Superintendent

KVS/hlw

cc: Oil Conservation Commission, Hobbs
Mr. W. B. Macey
Mr. R. S. Christie
Mr. R. E. Seifert
Mr. J. C. Blackwood
Mr. D. C. Capps
Mr. W. G. Abbott
File

BAGLEY SILURO-DEVONIAN POOL

PRODUCTION DATA

FEBRUARY 1954

LEASE & WELL	ALLOWABLE BBLS	ACTUAL OIL BBLS	OIL RUNS BBLS	WATER BBLS	GAS CU.FT.	CUMMULATIVE OIL BBLS	CUMMULATIVE WATER BBLS	CUMMULATIVE GAS CU. FT.
STATE B T "A" #1	6,356	6,356	4,798	2,119	203,392	457,602	10,678	14,643,264
STATE B T "C" #1	6,356	6,356	6,291	0	203,392	438,280	0	14,024,960
STATE B T "C" #3	6,356	6,356	6,292	0	203,392	322,461	0	10,318,752
STATE B T "D" #1	6,356	6,043	6,379	0	193,376	417,986	110,195	13,375,552
STATE B T "D" #2	6,356	6,043	6,379	1,704	193,376	335,342	48,967	10,730,944
STATE B T "D" #3	6,356	6,043	6,380	0	193,376	323,408	16,744	10,349,056
STATE B T "I" #1	6,272	6,272	6,296	0	200,704	350,457	0	11,214,624
STATE B T "L" #1	6,356	6,356	6,268	0	203,392	274,709	0	8,790,688
STATE B T "M" #1	756	756	960	10,044	24,192	22,537	216,194	721,185
STATE B T "N" #1	6,356	6,356	6,285	651	203,392	172,457	6,546	5,518,624
J. T. CAUDLE #2	2,380	1,905	1,905	6,378	60,960	172,454	185,928	5,518,528
J. T. CAUDLE #5	2,996	2,687	2,890	5,981	85,984	126,516	72,630	4,048,512
L. H. CHAMBERS #1	1,624	1,624	1,442	7,398	51,968	68,093	136,079	2,178,976
W. E. MATHERS #1	6,356	6,356	6,485	3,422	203,392	300,646	46,426	9,620,672
W. E. MATHERS "A" #1	6,356	6,356	6,356	2,856	203,392	252,771	23,642	8,088,672
W. E. MATHERS "A" #2	3,780	2,844	2833	17,470	91,008	143,859	244,284	4,603,488
TOTALS	81,368	78,709	78,239	58,023	2,518,688	4,179,578	1,120,313	133,746,497

AMERADA PETROLEUM CORPORATION
P. O. BOX 2040
TULSA 2, OKLAHOMA

Tatum, New Mexico
February 8, 1954

Oil Conservation Commission
Santa Fe, New Mexico

Gentlemen:

In compliance with your order No. R-69-C, dated May 21, 1953, concerning the Bagley Siluro-Devonian Pool, Lea County, New Mexico we are submitting the attached tabulation of production data for the month of January 1954.

Contained in the tabulation is the monthly report ofr each well showing the allowable, the actual oil produced, the oil, runs, water production, gas production, and cumulative gas production.

Yours very truly,

Amerada Petroleum Corporation,

K. V. Stephenson,
Ass't District Supt.

KVS/acm

cc: Oil Conservation Commission, Hobbs
Mr. W.B. Macey
Mr. R.S. Christie
Mr. R.E. Seifert
Mr. J.C. Blackwood
Mr. D.C. Capps
Mr. W.G. Abbott
File

BAGLEY SILURO-DEVONIAN POOL

PRODUCTION DATA

JANUARY 1954

LEASE	ALLOW-ABLE BBLS.	ACTUAL OIL BBLS.	OIL RUN BBLS.	WATER BBLS.	GAS CU.FT.	CUMULATIVE OIL BBLS.	CUMULATIVE WATER BBLS	CUMULATIVE GAS CU.FT.
State BT"A" #1	7,037	7,037	6,769	960	225,184	451,246	8,559	14,439,872
State BT"C" #1	7,037	7,037	6,946	0	225,184	431,924	0	13,821,568
State BT"C" #3	7,037	7,037	6,946	0	225,184	316,105	0	10,115,360
State BT"D" #1	7,037	7,037	7,015	0	225,184	411,943	110,195	13,182,176
State BT"D" #2	7,037	7,037	7,015	1,871	225,184	329,299	47,263	10,537,568
State BT"D" #3	7,037	7,037	7,014	0	225,184	317,365	16,744	10,155,680
State BT"I" #1	6,944	6,944	6,771	0	222,208	344,185	0	11,013,920
State BT"L" #1	7,037	7,037	7,175	0	225,184	268,353	0	8,587,296
State BT"M" #1	1,147	886	485	8,958	28,353	21,781	206,150	696,993
State BT"N" #1	7,037	7,037	7,168	696	225,184	166,101	5,895	5,315,232
J.T.Caudle # 2	2,635	2,047	2,387	7,258	65,504	170,549	179,550	5,457,568
J.T.Caudle # 5	3,317	2,782	2,882	6,491	89,024	123,829	66,649	3,962,528
L.H.Chambers#1	1,798	1,798	1,934	6,764	57,536	66,469	130,681	2,127,008
W.E.Mathers #1	7,037	7,037	7,193	2,874	225,184	294,290	43,004	9,417,280
Mathers "A" #1	7,037	7,037	7,037	1,545	225,184	246,415	20,786	7,885,280
Mathers "A" #1	4,185	2,982	2,704	19,965	95,424	141,015	226,814	4,512,480
TOTALS	90,396	87,809	87,441	57,382	2,809,889	4,100,869	1,062,290	131,227,809

TEXAS PACIFIC COAL AND OIL COMPANY

FIELD OFFICE

February 10, 1954

PLEASE ADDRESS REPLY TO COMPANY AT
P. O. Box 1688
Hobbs, New Mexico

Mr. W. B. Macey, Chief Engineer
Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Dear Sir:

In accordance with Order No. R-69-C, The following information on Texas Pacific Coal and Oil Company's wells in the Bagley Siluro / Devonian Pool, Lea County, New Mexico, is sumitted:

January 1954

Lease and Well	Allowable	Oil	Runs	Gas	Water
State "B" A/c 1, Well #1	7,037	7,129		150	1
State "B" A/c 1, Well #2	7,037	7,128		86	2
State "B" A/c 1 Lease	14,074	14,257	14,093	236	3
State "C" A/c 1, Well #1	7,037	7,077		99	1
State "C" A/c 1, Well #2	7,037	7,077		127	1
State "C" A/c 1, Well #3	7,037	7,076		78	510
State "C" A/c 1 Lease	21,111	21,230	20,838	304	512

Cumulative Production

S Lease and Well	Oil	Gas	Water
State "B" A/c 1, Well #1	427,281	6,916.5	388
State "B" A/c 1, Well #2	176,697	3,599.0	104
State "C" A/c 1, Well #1	398,545	7,954.0	520
State "C" A/c 1, Well #2	287,652	6,767.0	20
State "C" A/c 1, Well #3	373,512	7,230.0	3334

Yours very truly,

TEXAS PACIFIC COAL AND OIL COMPANY

John Yuronka

John Yuronka
District Engineer

Case 661

GREAT WESTERN PRODUCERS, INC.
FIDELITY UNION BUILDING
509 NORTH LORAINE
MIDLAND, TEXAS

February 10, 1954

New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Gentlemen:

We request a continuation of Case No. 661,"Great Western Producers, Inc. application for approval of unorthodox gas proration unit of 160 acres in Eumont Gas Pool: N/2 of NW/4 and SE/4 NW/4 33-19S-37E, and SE/4 SW/4 28-19S-37E."

This case was called for hearing on February 17, 1954. We request the continuation to your next regularly scheduled hearing date.

Yours very truly,

GREAT WESTERN PRODUCERS, INC.

M. B. Wilson
M. B. Wilson
Chief Engineer

MBW:cv

BAGLEY SILURO-DEVONIAN POOL

PRODUCTION DATA

NOVEMBER, 1953

LEASE	ALLOW-ABLE BBLS.	ACTUAL OIL BBLS.	OIL RUN BBLS.	WATER BBLS.	GAS CU.FT.	CUMULATIVE OIL BBLS.	CUMULATIVE WATER BBLS.	CUMULATIVE GAS CU.FT.
State BT"A" #1	6,810	6,810	6,670	929	217,920	437,145	6,636	13,988,640
State BT"C" #1	6,810	6,810	6,732	0	217,920	417,850	0	13,371,200
State BT"C" #3	6,810	6,810	6,732	0	217,920	302,031	0	9,664,992
State BT"D" #1	6,810	6,810	6,877	0	217,920	397,869	110,195	12,731,808
State BT"D" #2	6,810	6,810	6,877	1,810	217,920	315,225	431521	10,087,200
State BT"D" #3	6,810	6,810	6,877	0	217,920	303,291	16,744	9,705,312
State BT"I" #1	6,720	6,778	7,173	0	216,896	330,297	0	10,569,504
State BT"L" #1	6,810	6,810	6,793	0	217,920	254,279	0	8,136,928
State BT"M" #1	1,110	1,110	942	11,223	35,520	20,652	194,735	660,864
State BT"N" #1	6,810	6,810	7,161	674	217,920	152,027	4,503	4,864,864
Caudle #2	2,550	1,625	1,442	5,761	52,000	166,599	165,545	5,331,168
Caudle #5	3,210	2,799	2,876	6,531	89,568	118,109	53,303	3,779,488
Chambers #1	1,740	1,740	1,441	6,546	55,680	62,873	117,153	2,011,936
Mathers #1	6,810	6,810	7,478	2,782	217,920	280,216	37,256	8,966,912
Mathers "A" #1	6,810	6,810	7,015	1,495	217,920	232,341	17,696	7,434,912
Mathers "A" #2	2,940	2,940	3,029	19,675	94,080	134,734	184,771	4,311,488
TOTALS	86,370	85,092	86,116	57,426	2,722,944	3,925,538	952,058	125,617,216

MAIN OFFICE OCC

1954 APR 14 AM 8:37

TEXAS PACIFIC COAL AND OIL COMPANY

FIELD OFFICE

April 12, 1954

PLEASE ADDRESS REPLY TO COMPANY AT
P. O. Box 1688
Hobbs, New Mexico

MR. W. B. Macey, Chief Engineer
Oil Conservation Commission
Box 871
Santa Fe, New Mexico

Dear Sir:

In accordance with Order No. R-69-C, the following information on Texas Pacific Coal and Oil Company's wells in the Bagley Siluro/Devonian Pool, Lea County, New Mexico, is submitted:

March, 1954

Lease and Well	Allowable	Oil	Runs	Gas	Water
State "B" a/c-1 Well #1	7037	7142		150	2
State "B" a/c-1 Well #2	7037	7141		86	2
State "B" a/c-1 Lease	14074	14283	14228	236	4
State "C" a/c-1 Well #1	7037	7074		99	1
State "C" a/c-1 Well #2	7037	7074		127	1
State "C" a/c-1 Well #3	7037	667074		78	1197
State "C" a/c-1 Lease	21111	21222	21089	304	1199

Cumulative Production

Lease and Well	Oil	Gas	Water
State "B" a/c-1 Well #1	440708	7198.5	391
State "B" a/c-1 Well #2	190123	3760.0	108
State "C" a/c-1 Well #1	411983	8142.0	522
State "C" a/c-1 Well #2	401810	7006.0	22
State "C" a/c-1 Well #3	386949	7378.0	5921

John Yuronka

TEXAS PACIFIC COAL AND OIL COMPANY

FIELD OFFICE

July 13, 1954

PLEASE ADDRESS REPLY TO COMPANY AT
P. O. Box 1688
Hobbs, New Mexico

Mr. W. B. Macey, Chief Engineer
Oil Conservation Commission
Box 871
Santa Fe, New Mexico

Dear Sir:

In accordance with Order No. R-69-C, the following information on Texas Pacific Coal and Oil Company's wells in the Bagley Siluro-Devonian Pool, Lea County, New Mexico, is submitted:

June, 1954

Lease and Well	Allowable	Oil	Runs	Gas	Water
State "B" a/c-1 Well #1	6810	6616		139	2
State "B" a/c-1 Well #2	6810	6615		79	2
State "B" a/c-1 Lease	13620	13231	13439	218	4
State "C" a/c-1 Well #1	6810	6753		95	2
State "C" a/c-1 Well #2	6810	6754		122	1
State "C" a/c-1 Well #3	6810	6753		74	1377
State "C" a/c-1 Lease	20430	20260	20344	291	1380

Cumulative Production

Lease and Well	Oil	Gas	Water
State "B" a/c-1 Well #1	461163	7627.5	397
State "B" a/c-1 Well #2	210576	4005.0	114
State "C" a/c-1 Well #1	432444	8428.0	528
State "C" a/c-1 Well #2	422271	7375.0	26
State "C" a/c-1 Well #3	407408	7602.0	9990

Very truly yours,

TEXAS PACIFIC COAL & OIL CO.

John Yuronka

John Yuronka,
District Engineer

TEXAS PACIFIC COAL AND OIL COMPANY

FIELD OFFICE

January 14, 1954

PLEASE ADDRESS REPLY TO COMPANY AT
P. O. Box 1688
Hobbs, New Mexico

Mr. W. B. Macey, Chief Engineer
Oil Conservation Commission
P.O. Box 871
Santa Fe, New Mexico

Dear Sir:

In accordance with Order No. R-69-C, the following information on Texas Pacific Coal and Oil Company's wells in the Bagley Siluro/Devonian Pool, Lea County, N.M., is submitted:

December,1953

Lease and Well	Allowable	Oil	Runs	Gas	Water
State "B" A/c 1,Well#1	7037	7165		150	1
State "B" A/c 1,Well#2	7037	7165		86	2
State "B" A/c 1 Lease	14074	14330	14049	236	3
State "C" A/c 1,Well#1	7037	6961		98	2
State "C" A/c 1,Well#2	7037	6962		125	1
State "C" A/c 1,Well#3	7037	6961		77	513
State "C" A/c 1 Lease	21111	20884	21098	300	516

Cumulative Production

Lease and Well	Oil	Gas	Water
State "B" A/c 1, Well #1	420152	6,766.5	387
State "B" A/c 1, Well #2	169569	3,513.0	102
State "C" A/c 1, Well #1	391468	7,855.0	519
State "C" A/c 1, Well #2	381296	6,640.0	19
State "C" A/c 1, Well #3	366436	7,152.0	2824

Very Truly Yours,

TEXAS PACIFIC COAL AND OIL COMPANY

John Yuronka

John Yuronka
District Engineer

AMERADA PETROLEUM CORPORATION
P. O. BOX 2040
TULSA 2, OKLAHOMA

Tatum, New Mexico
August 5, 1954

Oil Conservation Commission
Santa Fe, New Mexico

Gentlemen:

In compliance with your order no. R-69-C dated May 21, 1953, concerning the Bagley Siluro-Devonian Pool, Lea County, New Mexico, we are submitting the attached tabulation of production data for the month of July 1954.

Contained in the tabulation is a monthly report for each well showing the allowable, the actual oil produced, the oil runs, water production, gas production, cumulative oil production, cumulative water production, and cumulative gas production.

Yours very truly,

K.V. Stephenson

KVS/arc
cc: Oil Conservation Commission, Hobbs, New Mexico
W.B. Macey
R.S. Christie
R.E. Seifert
J.C. Blackwood
D.C. Capps
W.G. Abbott
Tatum File

BAGLEY SILURO-DEVONIAN POOL

PRODUCTION DATA

JULY 1954

LEASE & WELL	ALLOWABLE BBLS.	ACTUAL OIL BBLS	OIL RUN BBLS	WATER BBLS	GAS CU. FT.	CUMULATIVE OIL BBLS	CUMULATIVE WATER BBLS	CUMULATIVE GAS CU. FT.
State B.T."A" #1	7037	7037	6210	5529	225,184	492,290	29,880	15,753,280
State B.T."C" #1	7037	7235	7390	None	231,520	473,080	None	15,138,560
State B.T."C" #3	7037	7235	7390	None	231,520	357,260	None	11,432,320
State B.T."D" #1	7037	7037	6914	None	225,184	452,710	110,195	14,486,720
State B.T."D" #2	7037	7037	6914	1759	225,184	370,066	56,914	11,842,112
State B.T."D" #3	7037	7037	6914	None	225,184	358,131	16,744	11,460,192
State B.T."I" #1	6944	6944	6840	None	222,208	384,729	None	12,311,328
State B.T."L" #1	7037	7052	7109	None	225,664	309,307	None	9,897,824
State B.T."M" #1	1178	909	951	12,077	29,088	27,428	277,240	877,696
State B.T."N" #1	7037	703 7	7157	1545	225,184	207095	13,981	6,627,040
J.T. Caudle #2	2170	1849	1887	7396	59,168	182,000	223,404	5,824,000
J.T. Caudle #5	3100	2147	2389	8077	68,704	139,388	110,542	4,460,416
L.H. Chambers #1	1798	1216	1417	5184	38,912	74,221	170,540	2,375,072
W.E. Mathers #1	7037	7037	7190	3466	225,184	335,236	64,906	10,727,552
W.E. Mathers "A" #1	5570	5570	5416	3133	178,240	286,035	41,393	9,153,120
W.E. Mathers "A" #2	1718	1718	1670	11,497	54,976	154,009	306,860	4,928,288
TOTALS	85,811	84,097	83,758	59,663	2,691,104	4,602,985	1,422,599	147,295,520

AMERADA PETROLEUM CORPORATION
P. O. BOX 2040
TULSA 2, OKLAHOMA

TEXAS PACIFIC COAL AND OIL COMPANY

FIELD OFFICE

MAIN OFFICE OCC

1954 MAY 17 AM 10:04

May, 13, 1954

PLEASE ADDRESS REPLY TO COMPANY AT
P. O. Box 1688
Hobbs, New Mexico

Mr. W. B. Macey, Chief Engineer
Oil Conservation Commission
Box 871
Santa Fe, New Mexico

Dear Sir:

In accordance with Order No. R-69-C, the following information on Texas Pacific Coal and Oil Company's wells in the Bagley Siluro-Devonian Pool, Lea County, New Mexico, is submitted:

April, 1954

Lease and Well	Allowable	Oil	Runs	Gas	Water
State "B" a/c-1 Well #1	6810	6685		140	1
State "B" a/c-1 Well #2	6810	6685		80	2
State "B" a/c-1 Lease	13620	13370	13537	220	3
State "C" a/c-1 Well #1	6810	6678		93	2
State "C" a/c-1 Well #2	6810	6678		120	2
State "C" a/c-1 Well #3	6810	6677		73	1324
State "C" a/c-1 Lease	20430	20033	20353	286	1328

Cumulative Production

Lease and Well	Oil	Gas	Water
State "B" a/c-1 Well #1	447393	7338.5	393
State "B" a/c-1 Well #2	196808	3840.0	110
State "C" a/c-1 Well #1	418661	8235.0	524
State "C" a/c-1 Well #2	408488	7126.0	24
State "C" a/c-1 Well #3	393626	7451.0	7245

John Yuronka

John Yuronka,
District Engineer

AMERADA PETROLEUM CORPORATION
P. O. BOX 2040
TULSA 2, OKLAHOMA

Tatum, New Mexico
January 6, 1954

Oil Conservation Commission
Santa Fe, New Mexico

Gentlemen:

In compliance with your order No. R-69-C, dated May 21, 1953, concerning the Bagley Siluro-Devonian Pool, Lea County, New Mexico we are submitting the attached tabulation of production data for the month of December 1953.

Contained in the tabulation is the monthly report for each well showing the allowable, the actual oil produced, the oil runs, water production, gas production, and cumulative gas production.

Yours very truly,

Amerada Petroleum Corporation

K. V. Stephenson
Asst Dist. Supt.

KVS/hlw

cc: Oil Conservation Commission, Hobbs 2
Mr. W. B. Macey
Mr. R. S. Christie
Mr. R. E. Seifert
Mr. J. C. Blackwood
Mr. D. C. Capps
Mr. W. G. Abbott
File

AMERADA PETROLEUM CORPORATION
P. O. BOX 2040
TULSA 2, OKLAHOMA

BAGLEY SILURO-DEVONIAN POOL

PRODUCTION DATA

DECEMBER 1953

LEASE	ALLOWABLE BBLS.	ACTUAL OIL BBLS.	OIL RUN BBLS.	WATER BBLS.	GAS CU.FT.	CUMULATIVE OIL BBLS.	CUMULATIVE WATER BBLS.	CUMULATIVE GAS CU.FT.
State BT"A" #1	7,037	7,064	7,690	963	226,048	444,209	7,599	14,214,688
State BT"C" #1	7,037	7,037	7,233	0	225,184	424,887	0	13,596,384
State BT"C" #3	7,037	7,037	7,232	0	225,184	309,068	0	9,890,176
State BT"D" #1	7,037	7,037	7,019	0	225,184	404,906	110,195	12,956,992
State BT"D" #2	7,037	7,037	7,019	1,871	225,184	322,262	45,392	10,312,384
State BT"D" #3	7,037	7,037	7,019	0	225,184	310,328	16,744	9,930,496
State BT"I" #1	6,944	6,944	6,644	0	222,208	337,241	0	10,791,712
State BT"L" #1	7,037	7,037	7,283	0	225,184	261,316	0	8,362,112
State BT"M" #1	1,147	243	958	2,457	7,776	20,895	197,192	668,640
State BT"N" #1	7,037	7,037	6,750	696	225,184	159,064	5,199	5,090,048
Caudle #2	2,635	1,903	1,923	6,747	60,896	168,502	172,292	5,392,064
Caudle #5	3,317	2,938	2,882	6,855	94,016	121,047	60,158	3,873,504
Chambers #1	1,798	1,798	1,930	6,764	57,536	64,671	123,917	2,069,472
Mathers #1	7,037	7,037	6,967	2,874	225,184	287,253	40,130	9,192,096
Mathers "A" #1	7,037	7,037	7,037	1,545	225,184	239,378	19,241	7,660,096
Mathers "A" #2	3,963	3,299	3,151	22,078	105,568	138,033	206,849	4,417,056
TOTALS	90,174	87,522	88,737	52,850	2800,704	4,013,060	1,004,908	128,417,920

TEXAS PACIFIC COAL AND OIL COMPANY

FIELD OFFICE

MAIN OFFICE OCC

1954 JUN 14 AM 9:25

June 12, 1954

PLEASE ADDRESS REPLY TO COMPANY AT
P. O. Box 1688
Hobbs, New Mexico

Mr. W. B. Macey, Chief Engineer
Oil Conservation Commission
Box 871
Santa Fe, New Mexico

Dear Sir:

In accordance with Order No. R-69-C, the following information on Texas Pacific Coal and Oil Company's wells in the Bagley Siluro-Devonian Pool, Lea County, New Mexico, is submitted:

May, 1954

Lease and Well	Allowable	Oil	Runs	Gas	Water
State "B" a/c-1 Well #1	7037	7154		150	2
State "B" a/c-1 Well #2	7037	7153		86	2
State "B" a/c-1 Lease	14074	14307	13981	236	4
State "C" a/c-1 Well #1	7037	7030		98	2
State "C" a/c-1 Well #2	7037	7029		127	1
State "C" a/c-1 Well #3	7037	7029		77	1368
State "C" a/c-1 Lease	21111	21088	20961	302	1371

Cumulative Production

Lease and Well	Oil	Gas	Water
State "B" a/c-1 Well #1	454547	7488.5	395
State "B" a/c-1 Well #2	203961	3926.0	112
State "C" a/c-1 Well #1	425691	8333.0	526
State "C" a/c-1 Well #2	415517	7253.0	25
State "C" a/c-1 Well #3	400655	7528.0	8613

Very truly yours,

TEXAS PACIFIC COAL & OIL CO.

John Yuronka

John Yuronka,
District Engineer

AMERADA PETROLEUM CORPORATION
P. O. BOX 2040
TULSA 2, OKLAHOMA

Tatum, New Mexico
June 8, 1953

Oil Conservation Commission
Santa Fe, New Mexico

Gentlemen:

In compliance with your order No. R 694, dated April 29, 1952, concerning the Bagley Siluro-Devonian Pool, Lea County, New Mexico, we are submitting the attached tabulation of production data for the month of May, 1953.

Contained in the tabulation is the monthly report for each well showing the allowable, the actual oil production, the oil runs, water production, gas production, cumulative oil production, cumulative water production, and cumulative gas production.

Yours very truly,

Amerada Petroleum Corporation

K. V. Stephenson

K. V. Stephenson
Ass't. Dist. Supt.

KVS/wmc

cc: Oil Conservation Commission, Hobbs
Mr. W. B. Macey
Mr. R. S. Christie
Mr. J. C. Blackwood
Mr. D. C. Capps
Mr. W. G. Abbott
file

BAGLEY SILURO-DEVONIAN POOL

PRODUCTION DATA

MAY, 1953

LEASE	ALLOW-ABLE BBLS.	ACTUAL OIL BBLS.	OIL RUN BBLS.	WATER BBLS.	GAS CU. FT.	CUMULATIVE OIL BBLS.	CUMULATIVE WATER BBLS.	CUMULATIVE GAS CU. FT.
State BT"A" #1	9827	9,827	10,007	1,215	314,464	391,353	1,509	12,523,296
State BT"C" #1	9,827	9,827	9,650	-	314,464	372,058	-	11,905,856
State BT"C" #3	9,827	9,827	9,651	-	314,464	256,239	-	8,199,648
State BT"D" #1	9,827	9,827	9,403	-	314,464	352,077	110,195	11,266,464
State BT"D" #2	9,827	9,827	9,403	2,771	314,464	269,433	32,858	8,621,856
State BT"D" #3	9,827	9,827	9,402	-	314,464	257,499	16,744	8,239,968
State BT"I" #1	9,610	9,610	9,408	-	307,520	284,996	-	9,119,872
State BT"L" #1	9,827	9,827	9,527	-	314,464	208,487	-	6,671,584
State BT"M" #1	775	662	477	6,694	n21,184	15,005	135,295	480,160
State BT"N" #1	9,827	9,827	9,961	517	314,464	106,235	517	3,399,520
Caudle #2	3,100	2,512	2,873	7,955	80,384	153,368	122,355	4,907,776
Caudle #5	6,386	3,763	3,843	4,266	121,056	99,523	18,295	3,184,736
Chambers #1	1,178	956	959	5,873	30,592	54,940	81,119	1,758,080
Mathers #1	9,827	9,948	10,035	3,316	318,336	234,424	20,207	7,501,568
Mathers "A" #1	9,827	9,827	9,993	972	314,464	186,549	9,193	5,969,568
Mathers "A" #2	5,580	2,772	2,819	7,495	88,704	113,973	87,542	3,647,136
TOTALS	124,899	118,686	117,411	41,074	3,797,952	3,356,159	635,829	107,397,088

AMERADA PETROLEUM CORPORATION
P. O. BOX 2040
TULSA 2, OKLAHOMA

Tatum, New Mexico
October 5, 1953

Oil Conservation Commission
Santa Fe, New Mexico

Gentlemen:

In compliance with your order No. R-69-C, dated May 21, 1953, concerning the Bagley Siluro-Devonian Pool, Lea County, New Mexico, we are submitting the attached tabulation of production data for the month of September, 1953.

Case 349

Contained in the tabulation is the monthly report for each well showing the allowable, the actual oil production, the oil runs, water production, gas production, cumulative oil production, cumulative water production, and cumulative gas production.

Yours very truly,

Amerada Petroleum Corporation

K. V. Stephenson

K. V. Stephenson
Asst. Dist. Supt.

KVS/wmc

cc: Oil Conservation Commission, Hobbs
Mr. W. B. Macey
Mr. R. S. Christie
Mr. R. E. Seifert
Mr. J. C. Blackwood
Mr. D. C. Capps
Mr. W. G. Abbott
file

BAGLEY SILURO-DEVONIAN POOL

PRODUCTION DATA

SEPTEMBER, 1953

LEASE	ALLOW-ABLE BBLS.	ACTUAL OIL BBLS.	OIL RUN BBLS.	WATER BBLS.	GAS CU. FT.	CUMULATIVE OIL BBLS.	CUMULATIVE WATER BBLS.	CUMULATIVE GAS CU. FT.
State BT"A" #1	7,680	7,680	7,542	1,047	245,760	422,585	4,650	13,522,720
State BT"C" #1	7,680	7,680	7,697	0	245,760	403,290	0	12,905,280
State BT"C" #3	7,680	7,680	7,697	0	245,760	287,471	0	9,199,072
State BT"D" #1	7,680	7,680	7,623	0	245,760	383,309	110,195	12,265,888
State BT"D" #2	7,680	7,680	7,623	1,920	245,760	300,665	40,010	9,621,280
State BT"D" #3	7,680	7,680	7,622	0	245,760	288,731	16,744	9,239,392
State BT"I" #1	7,590	7,590	7,416	0	242,880	315,862	0	10,107,584
State BT"L" #1	7,680	7,680	7,700	0	245,760	239,719	0	7,671,008
State BT"M" #1	1,110	1,110	948	11,223	35,520	18,395	171,915	588,640
State BT"N" #1	7,680	7,680	7,637	760	245,760	137,467	3,063	4,398,944
Caudle #2	3,000	2,245	2,387	6,070	71,840	162,661	151,583	5,205,152
Caudle #5	6,180	3,162	3,345	7,038	101,184	111,993	39,032	3,583,776
Chambers #1	1,140	1,140	952	4,860	36,480	59,335	101,167	1,898,720
Mathers #1	7,680	7,680	7,634	3,614	245,760	265,656	31,153	8,500,992
Mathers "A" #1	7,680	7,680	8,288	1,686	245,760	217,781	14,263	6,968,992
Mathers "A" #2	6,900	1,982	2,139	9,029	63,424	130,986	161,415	4,191,552
TOTALS	102,720	94,029	94,250	47,247	3,008,928	3,745,906	845,190	119,868,992

AMERADA PETROLEUM CORPORATION
P. O. BOX 2040
TULSA 2, OKLAHOMA

Tatum, New Mexico
July 5, 1954

Oil Conservation Commission
Santa Fe, New Mexico

Gentlemen:

In compliance with your order No. R-69-C dated May 21, 1953, concerning the Bagley Siluro-Devonian Pool, Lea County, New Mexico, we are submitting the attached tabulation of production data for the month of June, 1954.

Contained in the tabulation is a monthly report for each well showing the allowable, the actual oil produced, the oil runs, water production, gas production, cumulative oil production, cumulative water production, and cumulative gas production.

Yours very truly,

Amerada Petroleum Corporation

K. V. Stephenson
Assistant District Superintendent

KVS:rab

cc: Oil Conservation Commission, Hobbs
Mr. W. B. Macey
Mr. R. S. Christie
Mr. R. E. Seifert
Mr. J. C. Blackwood
Mr. D. C. Capps
Mr. W. G. Abbott
File

BAGLEY SILURO-DEVONIAN POOL

PRODUCTION DATA

JUNE 1954

LEASE & WELL	ALLOWABLE BBLS.	ACTUAL OIL BBLS	OIL RUNS BBLS	WATER BBLS.	GAS CU. FT.	CUMULATIVE OIL BBLS.	CUMULATIVE WATER BBLS	CUMULATIVE GAS CU. FT.
STATE BT "A" #1	6,810	6,810	7,206	3,354	217,920	485,253	24,351	15,528,096
STATE BT "C" #1	6,810	6,810	6,742	0	217,920	465,845	0	14,907,040
STATE BT "C" #3	6,810	6,810	6,742	0	217,920	350,025	0	11,200,800
STATE BT "D" #1	6,810	6,810	6,887	0	217,920	445,673	110,195	14,261,536
STATE BT "D" #2	6,810	6,810	6,887	1,703	217,920	363,029	55,155	11,616,928
STATE BT "D" #3	6,810	6,810	6,888	0	217,920	351,094	16,744	11,235,008
STATE BT "I" #1	6,720	6,720	6,994	0	215,040	377,785	0	12,089,120
STATE BT "L" #1	6,810	6,810	7,133	0	217,920	302,255	0	9,672,160
STATE BT "M" #1	1,140	918	948	8,262	29,376	26,519	265,163	848,609
STATE BT "N" #1	6,810	6,810	6,638	1,703	217,920	200,058	12,436	6,401,856
J. T. CAUDLE #2	2,100	1,814	1,912	7,256	58,048	180,151	216,008	5,764,832
J. T. CAUDLE #5	3,000	2,271	2,387	6,813	72,672	137,241	102,465	4,391,712
L.HL CHAMBERS #1	1,740	1,169	955	6,624	37,408	73,005	165,356	2,336,160
W. E. MATHERS #1	6,810	6,810	6,617	3,667	217,920	328,199	61,440	10,502,368
W. E. MATHERS "A" #1	6,810	6,810	6,810	3,667	217,920	280,465	38,260	8,974,880
W. E. MATHERS "A" #2	2,100	1,288	1,710	7,300	41,216	152,291	295,363	4,873,312
TOTALS	84,900	82,280	83,456	50,349	2,632,960	4,518,888	1,362,936	144,604,417

Allowable 282,430.5

AMERADA PETROLEUM CORPORATION
P. O. BOX 2040
TULSA 2, OKLAHOMA

Case 249

Tatum, New Mexico
May 8, 1954

Oil Conservation Commission
Santa Fe, New Mexico

Gentlemen:

In compliance with your order No. R-69-C dated May 21, 1953, concerning the Bagley Siluro-Devonian Pool, Lea County, New Mexico we are submitting the attached tabulation of production data for the month of April 1954.

Contained in the tabulation is a monthly report for each well showing the allowable, the actual oil produced, the oil runs, water production, gas production, cumulative oil production, cumulative water production, and cummulative gas production.

Yours very truly,

Amerada Petroleum Corporation

K. V. Stephenson

K. V. Stephenson
Assistant District Superintendent

KVS/hlw

cc: Oil Conservation Commission, Hobbs
Mr. W. B. Macey
Mr. R. S. Christie
Mr. R. E. Seifert
Mr. J. C. Blackwood
Mr. D. C. Capps
Mr. W. G. Abbott
File

BAGLEY SILURO-DEVONIAN POOL

PRODUCTION DATA

APRIL 1954

LEASE & WELL	ALLOWABLE BBLS	ACTUAL OIL BBLS	OIL RUNS BBLS	WATER BBLS	GAS CU.FT.	CUMMULATIVE OIL BBLS	CUMULATIVE WATER BBLS	CUMULATIVE GAS CU.FT.
STATE B T "A" #1	6810	6,810	6,706	2,919	217,920	471,406	17,531	15,084,992
STATE B T "C" #1	6,810	6,810	6,753	0	217,920	451,998	0	14,463,936
STATE B T "C" #3	6,810	6,810	6,754	0	217,920	336,178	0	10,757,696
STATE B T "D" #1	6,810	6,800	6,504	0	217,600	431,826	110,195	13,818,432
STATE B T "D" #2	6,810	6,800	6,810	512	217,600	349,182	51,350	11,173,824
STATE B T "D" #3	6,810	6,799	6,810	0	217,568	337,247	16,744	10,791,904
STATE B T "I" #1	6720	6,720	6,680	0	215,040	364,121	0	11,651,872
STATE B T "L" #1	6,810	6,744	6,687	0	215,808	288,408	0	9,229,056
STATE B T "M" #1	1,140	1,047	955	13,910	33,504	24,641	244,147	788,513
STATE B T "N" #1	6,810	6,805	5,731	1,017	217,760	186,211	8,511	5,958,752
J. T. CAUDLE #2	2,550	2,036	2,405	8,144	65,152	176,370	200,366	5,643,840
J. T. CAUDLE #5	3,210	2,786	2,888	7,907	89,152	132,314	87,241	4,234,048
L. H. CHAMBERS #1	1,740	1,291	1,425	7,316	41,312	70,723	152,425	2,263,136
W. E. MATHERS #1	6,810	6,717	6,575	3,617	214,944	314,352	54,148	10,059,264
W. E. MATHERS "A" #1	6,810	6,810	6,810	3,831	217,920	266,618	30,635	8,531,776
W. E. MATHERS "A" #2	3,450	1,966	2,318	11,141	62,912	149,039	276,934	4,769,248
TOTALS	86,910	83,751	82,811	60,314	2,680,032	4,350,634	1,250,227	139,220,289

BAGLEY SILURO-DEVONIAN POOL

PRODUCTION DATA

OCTOBER, 1953

LEASE	ALLOW-ABLE BBLS.	ACTUAL OIL BBLS.	OIL RUN BBLS.	WATER BBLS.	GAS CU. FT.	CUMULATIVE OIL BBLS.	CUMULATIVE WATER BBLS.	CUMULATIVE GAS CU. FT.
State BT"A" #1	7,750	7,750	7,677	1,057	248,000	430,335	5,707	13,770,720
State BT"C" #1	7,750	7,750	7,716	0	248,000	411,040	0	13,153,280
State BT"C" #3	7,750	7,750	7,717	0	248,000	295,221	0	9,447,072
State BT"D" #1	7,750	7,750	7,639	0	248,000	391,059	110,195	12,513,888
State BTD #2	7,750	7,750	7,639	1,701	248,000	308,415	41,711	9,869,280
State BT"D" #3	7,750	7,750	7,638	0	248,000	296,481	16,744	9,487,392
State BT"I" #1	7,657	7,657	7,626	0	245,024	323,519	0	10,352,608
State BT"L" #1	7,750	7,750	7,674	0	248,000	247,469	0	7,919,008
State BT"M" #1	1,147	1,147	957	1a,597	36,704	19,542	183,512	625,344
State BT"N" #1	7,750	7,750	7,654	766	248,000	145,217	3,829	4,646,944
Caudle #2	2,635	2,313	2,397	8,201	74,016	164,974	159,784	5,279,168
Caudle #5	3,317	3,317	2,830	7,740	106,144	115,310	46,772	3,689,920
Chambers #1	1,798	1,798	1,907	9,440	57,536	61,133	110,607	1,956,256
Mathers #1	7,750	7,750	7,166	3,321	248,000	273,406	34,474	8,748,992
Mathers "A" #1	7,750	7,750	7,299	1,938	248,000	225,531	16,201	7,216,992
Mathers "A" #2	3,038	808	761	3,681	25,856	131,794	165,096	4,217,408
TOTALS	97,092	94,540	92,297	49,442	3,025,280	3,840,446	894,632	122,894,272

BAGLEY SILURO-DEVONIAN POOL

PRODUCTION DATA

SEPTEMBER, 1953

LEASE	ALLOW-ABLE BBLS.	ACTUAL OIL BBLS.	OIL RUN BBLS.	WATER BBLS.	GAS CU. FT.	CUMULATIVE OIL BBLS.	CUMULATIVE WATER BBLS.	CUMULATIVE GAS CU. FT.
State BT"A" #1	7,680	7,680	7,542	1,047	245,760	422,585	4,650	13,522,720
State BT"C" #1	7,680	7,680	7,697	0	245,760	403,290	0	12,905,280
State BT"C" #3	7,680	7,680	7,697	0	245,760	287,471	0	9,199,072
State BT"D" #1	7,680	7,680	7,623	0	245,760	383,309	110,195	12,265,888
State BT"D" #2	7,680	7,680	7,623	1,920	245,760	300,665	40,010	9,621,280
State BT"D" #3	7,680	7,680	7,622	0	245,760	288,731	16,744	9,239,392
State BT"I" #1	7,590	7,590	7,416	0	242,880	315,862	0	10,107,584
State BT"L" #1	7,680	7,680	7,700	0	245,760	239,719	0	7,671,008
State BT"M" #1	1,110	1,110	948	11,223	35,520	18,395	171,915	588,640
State BT"N" #1	7,680	7,680	7,637	760	245,760	137,467	3,063	4,398,944
Caudle #2	3,000	2,245	2,387	6,070	71,840	162,661	151,583	5,205,152
Caudle #5	6,180	3,162	3,345	7,038	101,184	111,993	39,032	3,583,776
Chambers #1	1,140	1,140	952	4,860	36,480	59,335	101,167	1,898,720
Mathers #1	7,680	7,680	7,634	3,614	245,760	265,656	31,153	8,500,992
Mathers "A" #1	7,680	7,680	8,288	1,686	245,760	217,781	14,263	6,968,992
Mathers "A" #2	6,900	1,982	2,139	9,029	63,424	130,986	161,415	4,191,552
TOTALS	102,720	94,029	94,250	47,247	3,008,928	3,745,906	845,190	119,868,992

AMERADA PETROLEUM CORPORATION
P. O. BOX 2040
TULSA 2, OKLAHOMA

BAGLEY SILURO-DEVONIAN POOL

PRODUCTION DATA

AUGUST 1953

LEASE	ALLOW-ABLE BBLS.	ACTUAL OIL BBLS.	OIL RUN BBLS.	WATER BBLS.	GAS CU. FT.	CUMULATIVE OIL BBLS.	CUMULATIVE WATER BBLS.	CUMULATIVE GAS CU. FT.
State BT "A" #1	7,936	7,936	7,657	727	253,952	414,905	3,603	13,276,960
State BT "C" #1	7,936	7,936	8,106	0	253,952	395,610	0	12,659,520
State BT "C" #3	7,936	7,936	8,106	0	253,952	279,791	0	8,953,312
State BT "D" #1	7,936	7,936	7,989	0	253,952	305,629	110,195	12,020,128
State BT "D" #2	7,936	7,936	7,989	1,984	253,952	292,985	38,090	9,375,520
State BT "D" #3	7,936	7,936	7,990	0	253,952	281,051	16,744	8,993,632
State BT "I" #1	7,843	7,843	7,950	0	250,976	308,272	0	9,864,704
State BT "L" #1	7,936	7,936	7,625	0	253,952	232,039	0	7,425,248
State BT "M" #1	907	907	946	10,431	29,024	17,285	160,692	553,120
State BT "N" #1	7,936	7,936	8,098	597	253,952	129,787	2,303	4,153,184
Caudle #2	3,100	2,354	1,901	6,365	75,328	160,416	145,513	5,133,312
Caudle #5	6,386	3,046	2,872	3,723	97,472	108,831	31,994	3,482,592
Chambers #1	1,178	1,190	1,357	4,477	38,080	58,195	96,307	1,862,240
Mathers #1	7,936	7,936	8,006	2,788	253,952	257,976	27,539	8,255,232
Mathers "A" #1	7,936	7,936	7,539	1,742	253,952	210,101	12,577	6,723,232
Mathers "A" #2	7,130	4,491	4,266	20,459	143,712	129,004	152,386	4,128,128
TOTALS	105,904	99,191	98,397	53,293	3,174,112	3,651,877	797,943	116,860,064

BAGLEY SILURO-DEVONIAN POOL

PRODUCTION DATA

JULY, 1953

LEASE	ALLOW-ABLE BBLS.	ACTUAL OIL BBLS.	OIL RUN BBLS.	WATER BBLS.	GAS CU. FT.	CUMULATIVE OIL BBLS.	CUMULATIVE WATER BBLS.	CUMULATIVE GAS CU. FT.
State BT"A" #1	7,936	7,936	8,658	218	253,952	406,969	2,876	13,023,008
State BT"C" #1	7,936	7,936	7,908	0	253,952	387,674	0	12,405,568
State BT"C" #3	7,936	7,936	7,909	0	253,952	271,855	0	8,699,360
State BT"D" #1	7,936	7,936	7,942	0	253,952	367,693	110,195	11,766,176
State BT"D" #2	7,936	7,936	7,942	1,082	253,952	285,049	36,106	9,121,568
State BT"D" #3	7,936	7,936	7,942	0	253,952	273,115	16,744	8,739,680
State BT"I" #1	7,843	7,843	7,595	0	250,976	300,429	0	9,613,728
State BT"L" #1	7,936	7,936	8,177	0	253,952	224,103	0	7,171,296
State BT"M" #1	775	780	948	8,970	24,960	16,378	150,261	524,096
State BT"N" #1	7,936	7,936	7,574	785	253,952	121,851	1,706	3,899,232
Caudle #2	3,100	2,314	2,387	9,256	74,048	158,062	139,148	5,057,984
Caudle #5	6,386	2,697	2,809	4,400	86,304	105,785	28,271	3,385,120
Chambers #1	1,178	988	950	3,503	31,616	57,005	91,830	1,824,160
Mathers #1	7,936	7,936	7,645	1,984	253,952	250,040	24,751	8,001,280
Mathers "A" #1	7,936	7,936	7,943	882	253,952	202,165	10,835	6,469,280
Mathers "A" #2	7,130	5,362	5,367	30,385	171,584	124,513	131,927	3,984,416
TOTALS	105,772	99,344	99,696	61,665	3,179,008	3,552,686	744,650	113,685,952

AMERADA PETROLEUM CORPORATION
P. O. BOX 2040
TULSA 2, OKLAHOMA

BAGLEY SILURO-DEVONIAN POOL

PRODUCTION DATA

JUNE, 1953

LEASE	ALLOW-ABLE BBLS.	ACTUAL OIL BBLS.	OIL RUN BBLS.	WATER BBLS.	GAS CU. FT.	CUMULATIVE OIL BBLS.	CUMULATIVE WATER BBLS.	CUMULATIVE GAS CU. FT.
State BT"A" #1	7,680	7,680	7,121	949	245,760	399,033	2,458	12,769,056
State BT"C" #1	7,680	7,680	7,699	0	245,760	379,738	0	12,151,616
State BT"C" #3	7,680	7,680	7,698	0	245,760	263,919	0	8,445,408
State BT"D" #1	7,680	7,680	8,079	0	245,760	359,757	110,195	11,512,224
State BT"D" #2	7,680	7,680	8,079	2,166	245,760	277,113	35,024	8,867,616
State BT"D" #3	7,680	7,680	8,080	0	245,760	265,179	16,744	8,485,728
State BT"I" #1	7,590	7,590	7,976	0	242,880	292,586	0	9,362,752
State BT"L" #1	7,680	7,680	7,709	0	245,760	216,167	0	6,917,344
State BT"M" #1	750	593	475	5,996	18,976	15,598	141,291	499,136
State BT"N" #1	7,680	7,680	7,652	404	245,760	113,915	921	3,645,280
Caudle #2	3,000	2,380	2,358	7,537	76,160	155,748	129,892	4,983,936
Caudle #5	6,180	3,565	3,809	5,576	114,080	103,088	23,871	3,298,816
Chambers #1	1,140	1,077	950	7,208	34,464	56,017	88,327	1,792,544
Mathers #1	7,680	7,680	7,533	2,560	245,760	242,104	22,767	7,747,328
Mathers "A" #1	7,680	7,680	7,604	760	245,760	194,229	9,953	6,215,328
Mathers "A" #2	5,400	5,178	5,126	14,000	165,696	119,151	101,542	3,812,832
TOTALS	100,860	97,183	97,948	47,156	3,109,856	3,453,342	682,985	110,506,944

BAGLEY SILURO-DEVONIAN POOL

PRODUCTION DATA

MAY, 1953

LEASE	ALLOW-ABLE BBLS.	ACTUAL OIL BBLS.	OIL RUN BBLS.	WATER BBLS.	GAS CU. FT.	CUMULATIVE OIL BBLS.	CUMULATIVE WATER BBLS.	CUMULATIVE GAS CU. FT.
State BT"A" #1	9827	9,827	10,007	1,215	314,464	391,353	1,509	12,523,296
State BT"C" #1	9,827	9,827	9,650	-	314,464	372,058	-	11,905,856
State BT"C" #3	9,827	9,827	9,651	-	314,464	256,239	-	8,199,648
State BT"D" #1	9,827	9,827	9,403	-	314,464	352,077	110,195	11,266,464
State BT"D" #2	9,827	9,827	9,403	2,971	314,464	269,433	32,858	8,621,856
State BT"D" #3	9,827	9,827	9,402	-	314,464	257,499	16,744	8,239,968
State BT"I" #1	9,610	9,610	9,408	-	307,520	284,996	-	9,119,872
State BT"L" #1	9,827	9,827	9,527	-	314,464	208,487	-	6,671,584
State BT"M" #1	775	662	477	6,694	21,184	15,005	135,295	480,160
State BT"N" #1	9,827	9,827	9,961	517	314,464	106,235	517	3,399,520
Caudle #2	3,100	2,512	2,873	7,955	80,384	153,368	122,355	4,907,776
Caudle #5	6,386	3,783	3,843	4,266	121,056	99,523	18,295	3,184,736
Chambers #1	1,178	956	959	5,873	30,592	54,940	81,119	1,758,080
Mathers #1	9,827	9,948	10,035	3,316	318,336	234,424	20,207	7,501,568
Mathers "A" #1	9,827	9,827	9,993	972	314,464	186,549	9,193	5,969,568
Mathers "A" #2	5,580	2,772	2,819	7,495	88,704	113,973	87,542	3,647,136
TOTALS	124,899	118,686	117,411	41,074	3,797,952	3,356,159	635,829	107,397,088

AMERADA PETROLEUM CORPORATION
P. O. BOX 2040
TULSA 2, OKLAHOMA

BAGLEY SILURO-DEVONIAN POOL

PRODUCTION DATA

APRIL, 1953

LEASE	ALLOW-ABLE BBLS.	ACTUAL OIL BBLS.	OIL RUN BBLS.	WATER BBLS.	GAS CU. FT.	CUMULATIVE OIL BBLS.	CUMULATIVE WATER BBLS.	CUMULATIVE GAS CU. FT.
State BT"A" #1	9,510	9,510	9,587	294	304,320	381,526	294	12,208,832
State BT"C" #1	9,510	9,510	9,420	-	304,320	362,231	-	11,591,392
State BT"C" #3	9,510	9,510	9,420	-	304,320	246,412	-	7,885,184
State BT"D" #1	9,510	9,510	9,589	-	304,320	342,250	110,195	10,952,000
State BT"D" #2	9,510	9,510	9,589	716	304,320	259,606	30,087	8,307,392
State BT"D" #3	9,510	9,510	9,590	-	304,320	247,672	16,744	n7,925,504
State BT"I" #1	9,300	9,300	9,593	-	297,600	275,386	-	8,812,352
State BT"L" #1	9,510	9,510	9,568	-	304,320	198,660	-	6,357,120
State BT"M" #1	1,350	760	955	10,097	24,320	14,343	128,601	458,976
State BT"N" #1	9,510	9,510	9,663	-	304,320	96,408	-	3,085,056
Caudle #2	4,200	2,628	2,410	7,884	84,096	150,856	114,400	4,827,392
Caudle #5	6,180	3,977	3,845	5,062	127,264	95,740	14,029	3,063,680
Chambers #1	1,650	1,034	1,420	3,102	33,088	53,984	75,246	1,727,488
Mathers #1	9,510	9,510	9,957	2,682	304,320	224,476	16,891	7,183,232
Mathers "A" #1	9,510	9,510	9,989	827	304,320	176,722	8,221	5,655,104
Mathers "A" #2	8,040	3,592	3,773	8,381	114,944	111,201	80,047	3,558,432
TOTALS	125,820	116,391	118,368	39,045	3,724,512	3,237,573	594,755	103,599,136

BAGLEY SILURO-DEVONIAN POOL

PRODUCTION DATA

MARCH, 1953

LEASE	ALLOW-ABLE BBLS.	ACTUAL OIL BBLS.	OIL RUN BBLS.	WATER BBLS.	GAS CU. FT.	CUMULATIVE OIL BBLS.	CUMULATIVE WATER BBLS.	CUMULATIVE GAS CU. FT.
State BT"A" #1	9,827	9,827	9,643	-	314,464	372,016	-	11,904,512
State BT"C" #1	9,827	9,873	9,872	-	315,936	352,721	-	11,287,072
State BT"C" #3	9,827	9,874	9,873	-	315,968	236,902	-	7,580,864
State BT"D" #1	9,827	9,827	9,763	-	314,464	332,740	110,195	10,647,680
State BT"D" #2	9,827	9,827	9,763	740	314,464	250,096	29,371	8,003,072
State BT"D" #3	9,827	9,827	9,763	-	314,464	238,162	16,744	7,621,184
State BT"I" #1	9,610	9,610	9,113	-	307,520	266,086	-	8,514,752
State BT"L" #1	9,827	9,827	10,053	-	314,464	189,150	-	6,052,800
State BT"M" #1	1,395	607	469	5,460	19,424	13,583	118,504	434,656
State BT "N"#1	9,827	9,827	9,755	-	314,464	86,898	-	2,780,736
Caudle #2	4,340	2,826	2,770	8,480	90,432	148,228	106,516	4,743,296
Caudle #5	6,386	3,412	3,785	8,343	109,184	91,763	8,967	2,936,416
Chambers #1	1,705	1,090	959	4,647	34,880	52,950	72,144	1,694,400
Mathers #1	9,827	9,828	9,477	517	314,496	214,966	14,209	6,878,912
Mathers"A" #1	9,827	9,827	6,796	628	314,464	167,212	7,394	5,350,784
Mathers"A" #2	8,308	3,938	6,797	10,468	126,016	107,609	71,666	3,443,488
TOTALS	130,014	119,847	118,651	35,283	3,835,104	3,121,082	555,710	99,874,624

CORRECTED COPY

BAGLEY SILURO- DEVONIAN POOL

PRODUCTION DATA

FEBRUARY, 1953

LEASE	ALLOW-ABLE BBLS.	ACTUAL OIL BBLS.	OIL RUN BBLS.	WATER BBLS.	GAS CU. FT.	CUMULATIVE OIL BBLS.	CUMULATIVE WATER BBLS.	CUMULATIVE GAS CU. FT.
State BT"A" #1	8,876	8,876	8,714	-	284,032	362,189	-	11,590,048
State BT"C" #1	8,876	8,935	8,929	-	285,920	342,848	-	10,971,136
State BT"C" #3	8,876	8,936	8,929	-	285,952	227,028	-	7,264,896
State BT"D" #1	8,876	8,876	9,099	-	284,032	322,913	110,195	10,333,216
State BT"D" #2	8,876	8,876	9,099	668	284,032	240,269	28,631	7,688,608
State BT"D" #3	8,876	8,876	9,098	-	284,032	228,335	16,744	7,306,720
State BT"I" #1	8,680	8,688	8,706	-	278,016	256,476	-	8,207,232
State BT"L" #1	8,876	8,876	8,731	-	284,032	179,323	-	5,738,336
State BT"M" #1	1,260	709	960	6,381	22,688	12,976	113,044	415,232
State BT"N" #1	8,876	8,876	8,673	-	284,032	77,071	-	2,466,272
Caudle #2	3,920	2,802	2,894	6,538	89,664	145,402	98,036	4,652,864
Caudle #5	5,768	5,768	5,741	1,442	184,576	88,351	4,624	2,827,232
Chambers #1	1,540	1,212	1,452	3,277	38,784	51,860	67,497	1,659,520
Mathers #1	8,876	8,876	9,480	2,959	284,032	205,138	13,692	6,564,416
Mathers "A" #1	8,876	8,876	8,876	986	284,032	157,385	6,766	5,036,320
Mathers "A" #2	7,504	3,961	3,880	7,356	126,752	103,671	61,198	3,317,472
TOTALS	117,432	112,019	113,261	29,607	3,584,608	3,001,235	520,427	96,039,520

CORRECTED COPY

AMERADA PETROLEUM CORPORATION
P. O. BOX 2040
TULSA 2, OKLAHOMA

BAGLEY SILURO-DEVONIAN POOL

PRODUCTION DATA

FEBRUARY 1953

LEASE	ALLOW-ABLE BBLS.	ACTUAL OIL BBLS.	OIL RUN BBLS.	WATER BBLS.	GAS CU. FT.	CUMULATIVE OIL BBLS.	CUMULATIVE WATER BBLS.	CUMULATIVE GAS CU. FT.
State BT"A" #1	8,876	8,876	8,714	-	284,032	362,189	-	11,590,048
State BT"C" #1	8,876	8,935	8,929	-	285,920	345,848	-	11,067,136
State BT"C" #3	8,876	8,936	8,929	-	285,952	227,028	-	7,264,896
State BT"D" #1	8,876	8,876	9,099	-	284,032	322,913	110,195	10,333,216
State BT"D" #2	8,876	8,876	9,099	668	284,032	240,269	28,631	7,688,608
State BT"D" #3	8,876	8,876	9,098	-	284,032	228,335	16,744	7,306,720
State BT"I" #1	8,680	8,842	8,904	-	282,944	256,630	-	8,212,160
State BT"L" #1	8,876	8,876	8,731	-	284,032	179,323	-	5,738,336
State BT"M" #1	1,260	709	960	6,381	22,688	12,976	113,074	415,232
State BT"N" #1	8,876	8,876	8,673	-	284,032	77,071	-	2,466,272
Caudle #2	3,920	2,802	2,894	6,538	89,664	145,402	98,036	4,652,864
Caudle #5	5,768	5,768	5,741	1,442	184,576	88,351	4,624	2,827,232
Chambers #1	1,540	1,212	1,452	3,277	38,784	51,860	67,497	1,659,520
Mathers #1	8,876	8,876	9,480	2,959	284,032	205,138	13,692	6,564,416
Mathers "A" #1	8,876	8,876	8,876	986	284,032	157,385	6,766	5,036,320
Mathers "A" #2	7,504	3,961	3,880	7,356	126,752	103,671	61,198	3,317,472
TOTALS	117,432	112,173	113,459	29,607	3,589,536	3,004,389	520,457	96,140,448

AMERADA PETROLEUM CORPORATION
P. O. BOX 2040
TULSA 2, OKLAHOMA

BAGLEY SILURO-DEVONIAN POOL

PRODUCTION DATA

JANUARY 1953

LEASE	ALLOW-ABLE BBLS.	ACTUAL OIL BBLS.	OIL RUN BBLS.	WATER BBLS.	GAS CU. FT.	CUMULATIVE OIL BBLS.	CUMULATIVE WATER BBLS.	CUMULATIVE GAS CU. FT.
State BT"A" #1	9,827	9,829	9,757	-	314,528	353,313	-	11,306,016
State BT"C" #1	9,827	9,835	9,860	-	314,720	336,913	-	10,781,216
State BT"C" #3	9,827	9,835	9,860	-	314,720	218,092	-	6,978,944
State BT"D" #1	9,827	9,829	9,755	-	314,528	314,037	110,195	10,049,184
State BT"D" #2	9,827	9,829	9,755	627	314,528	231,393	27,963	7,404,576
State BT"D" #3	9,827	9,828	9,754	-	314,496	219,459	16,744	7,022,688
State BT"I" #2	9,610	9,616	9,700	-	307,712	247,788	-	7,929,216
State BT"L" #1	9,827	9,830	9,750	-	314,560	170,447	-	5,454,304
State BT"M" #1	1,395	820	473	7,380	26,240	12,267	106,693	392,544
State BT"N" #1	9,827	9,837	10,186	-	314,784	68,195	-	2,182,240
Caudle #2	6,200	2,983	2,872	5,079	95,456	142,600	91,498	4,563,200
Caudle #5	6,386	6,393	5,758	1,128	204,576	82,583	3,182	2,642,656
Chambers #1	3,100	1,427	952	3,494	45,664	50,648	64,220	1,620,736
Mathers #1	9,827	9,832	9,938	1,215	314,624	196,262	10,733	6,280,384
Mathers "A" #1	9,827	9,827	9,827	1,092	314,464	148,509	5,780	4,752,288
Mathers "A" #2	9,827	5,835	6,592	11,327	186,720	99,710	53,842	3,190,720
TOTALS	134,788	125,385	124,789	31,342	4,012,320	2,892,216	490,850	92,550,912

AMERADA PETROLEUM CORPORATION
P. O. BOX 2040
TULSA 2, OKLAHOMA

BAGLEY SILURO-DEVONIAN POOL

PRODUCTION DATA

December 1952

LEASE	ALLOW-ABLE BBLS.	ACTUAL OIL BBLS.	OIL RUN BBLS.	WATER BBLS.	GAS CU. FT.	CUMULATIVE OIL BBLS.	CUMULATIVE WATER BBLS.	CUMULATIVE GAS CU. FT.
State BT"A" #1	9,827	9,832	10,168	-	314,624	343,484	-	10,991,488
State BT"C" #1	9,827	9,833	9,988	-	314,656	324,078	-	10,370,496
State BT"C" #3	9,827	9,832	9,988	-	314,624	208,257	-	6,664,224
State BT"D" #1	9,827	10,759	11,059	-	344,288	304,208	110,195	9,734,656
State BT"D" #2	9,827	9,828	9,248	627	314,496	221,564	27,336	7,090,048
State BT"D" #3	9,827	9,828	9,248	-	314,496	209,631	16,744	6,708,192
State BT"I" #2	9,610	9,610	9,714	-	307,520	238,172	-	7,621,504
State BT"L" #1	9,827	9,827	10,053	-	314,464	160,617	-	5,139,744
State BT"M" #1	1,395	877	954	8,930	28,064	11,447	99,313	366,304
State BT"N" #1	9,827	9,827	9,692	-	314,464	58,358	-	1,867,456
Caudle #2	6,200	3,951	4,273	5,928	126,432	139,617	86,419	4,467,744
Caudle #5	6,386	6,446	6,694	485	206,272	76,190	2,054	2,438,080
Chambers #1	3,100	1,309	1,393	3,709	41,696	49,221	60,726	1,575,072
Mathers #1	9,827	9,830	10,013	1,092	314,560	186,430	9,518	5,965,760
Mathers "A" #1	9,827	9,827	9,828	1,092	314,464	138,682	4,688	4,437,824
Mathers "A" #2	9,827	8,332	7,431	6,916	266,624	93,875	42,515	3,004,000
TOTALS	134,788	129,742	129,744	28,778	4,151,744	2,763,831	459,508	88,442,592

AMERADA PETROLEUM CORPORATION
P. O. BOX 2040
TULSA 2, OKLAHOMA

BAGLEY SILURO-DEVONIAN POOL

PRODUCTION DATA

November 1952

LEASE	ALLOW-ABLE BBLS.	ACTUAL OIL BBLS.	OIL RUN BBLS.	WATER BBLS.	GAS CU. FT.	CUMULATIVE OIL BBLS.	CUMULATIVE WATER BBLS.	CUMULATIVE GAS CU. FT.
State BTA #1	9510	9510	9402	-	304,320	333,652	-	10,676,864
State BTC #1	9510	9514	9613	-	304,448	314,245	-	10,055,840
State BTC #3	9510	9513	9612	-	304,416	198,425	-	6,349,600
State BTD #1	9510	9513	9504	-	304,416	293,449	110,195	9,390,368
State BTD #2	9510	6928	7117	442	221,696	211,736	26,709	6,775,552
State BTD #3	9510	9510	9828	-	304,320	199,803	16,744	6,393,696
State BTI #1	9300	9304	9219	-	297,728	228,562	-	7,313,984
State BTL #1	9510	9512	9495	-	304,384	150,790	-	4,825,280
State BTM #1	1350	899	943	8,091	28,768	10,570	90,383	338,240
State BTN #1	9510	9516	9459	-	304,512	48,631	-	1,552,992
Caudle #2	6000	3099	2891	5,509	99,168	135,666	80,492	4,341,312
Caudle #5	6180	6186	6241	687	197,952	69,744	1,569	2,231,808
Chambers #1	3000	1694	1901	4,147	54,208	47,918	57,017	1,533,376
Mathers #1	9510	9511	8513	1,421	304,352	176,600	8,426	5,651,200
Mathers "A" #1	9510	9510	9523	1,057	304,320	128,855	3,596	4,123,360
Mathers "A" #2	9510	6855	6896	13,918	219,360	85,543	35,599	2,737,376
TOTALS	130,440	120,574	120,167	35,272	3,858,368	2,634,089	430,730	84,290,848

AMERADA PETROLEUM CORPORATION
P. O. BOX 2040
TULSA 2, OKLAHOMA

BAGLEY SILURO-DEVONIAN POOL

PRODUCTION DATA

October (November) 1952

LEASE	ALLOW-ABLE BBLS.	ACTUAL OIL BBLS.	OIL RUN BBLS.	WATER BBLS.	GAS CU. FT.	CUMULATIVE OIL BBLS.	CUMULATIVE WATER BBLS.	CUMULATIVE GAS CU. FT.
State BTA #1	9,827	9,831	9,659	-	314,592	324,138	-	10,372,544
State BTC #1	9,827	9,832	9,671	-	314,624	304,731	-	9,751,392
State BTC #3	9,827	9,832	9,670	-	314,624	188,912	-	6,045,184
State BTD #1	9,827	9,830	9,533	-	314,560	283,936	110,195	9,085,952
State BTD #2	9,827	9,023	9,021	679	288,736	204,808	26,267	6,553,856
State BTD #3	9,827	9,023	9,022	-	288,736	190,293	16,744	6,089,376
State BTI #1	9,610	9,616	9,623	-	307,712	219,258	-	7,016,256
State BTL #1	9,827	9,831	9,628	-	314,592	141,278	-	4,520,896
State BTM #1	1,395	856	949	7,704	27,392	9,671	82,292	309,472
State BTN #1	9,827	9,835	9,640	-	314,720	39,015	-	1,248,480
Caudle #2	5,939	4,893	4,755	7,340	156,576	132,567	74,983	4,242,144
Caudle #5	6,386	6,394	6,243	556	204,608	63,558	882	2,033,856
Chambers #1	3,100	1,862	1,871	7,005	59,584	46,224	52,870	1,479,168
Mathers #1	9,827	9,832	9,899	972	314,624	167,089	7,005	5,346,848
Mathers "A" #1	9,827	9,307	9,233	1,034	297,824	119,345	2,539	3,819,040
Mathers "A" #2	9,827	9,307	9,232	8,253	297,824	78,688	21,681	2,518,016
TOTALS	134,527	129,104	127,649	33,543	4,131,328	2,513,515	395,428	80,432,480

AMERADA PETROLEUM CORPORATION
P. O. BOX 2040
TULSA 2, OKLAHOMA

BAGLEY SILURO-DEVONIAN POOL

PRODUCTION DATA

September 1952

LEASE	ALLOW-ABLE BBLS.	ACTUAL OIL BBLS.	OIL RUN BBLS.	WATER BBLS.	GAS CU. FT.	CUMULATIVE OIL BBLS.	CUMULATIVE WATER BBLS.	CUMULATIVE GAS CU. FT.
State BTA #1	9,510	9,515	9,495	-	304,480	314,311	-	10,057,952
State BTC #1	9,510	9,512	9,611	-	304,384	294,899	-	9,436,768
State BTC #3	9,510	9,511	9,611	-	304,352	179,080	-	5,730,560
State BTD #1	9,510	9,542	9,546	-	305,344	274,106	110,195	8,771,392
State BTD #2	9,510	8,926	8,776	570	285,632	195,785	25,588	6,265,120
State BTD #3	9,510	8,926	8,776	-	285,632	181,270	16,744	5,800,640
State BTI #1	9,300	9,308	9,140	-	297,856	209,642	-	6,708,544
State BTL #1	9,510	9,230	9,091	-	295,360	131,447	-	4,206,304
State BTM #1	1,350	1,326	1,426	10,729	42,432	8,815	74,558	282,080
State BTN #L	9,510	9,557	9,562	-	305,824	29,180	-	933,760
Caudle #2	5,130	3,460	3,355	7,701	110,720	127,674	67,643	4,085,568
Caudle #5	6,180	6,188	6,216	326	198,016	57,164	326	1,829,248
Chambers #1	2,100	1,588	1,431	3,705	50,816	44,362	45,865	1,419,584
Mathers #1	9,510	9,515	9,972	827	304,480	157,257	6,033	5,032,224
Mathers "A" #1	9,510	9,517	9,427	941	304,544	110,038	1,505	3,521,216
Mathers "A" #2	9,510	9,516	9,426	6,891	304,512	69,381	13,428	2,220,192
TOTALS	128,670	125,137	124,862	31,690	4,004,384	2,384,411	361,885	76,301,152

AMERADA PETROLEUM CORPORATION
P. O. BOX 2040
TULSA 2, OKLAHOMA

BAGLEY SILURO-DEVONIAN POOL

PRODUCTION DATA

August 1952

LEASE	ALLOW-ABLE BBLS.	ACTUAL OIL BBLS.	OIL RUN BBLS.	WATER BBLS.	GAS CU. FT.	CUMULATIVE OIL BBLS.	CUMULATIVE WATER BBLS.	CUMULATIVE GAS CU. FT.
State BTA #1	9,362	9,362	9,491	-	299,584	304,796	-	9,753,472
State BTC #1	9,362	9,362	9,328	-	299,584	285,387	-	9,132,384
State BTC #3	9,362	9,362	9,328	-	299,584	169,569	-	5,426,208
State BTD #1	9,362	9,600	9,776	-	307,200	264,564	110,195	8,466,048
State BTD #2	9,362	9,362	9,235	-	299,584	186,859	25,018	5,787,488
State BTD #3	9,362	9,362	9,236	-	299,584	172,344	16,744	5,515,008
State BTI #1	9,238	9,416	9,585	-	301,312	200,334	-	6,410,688
State BTL #1	9,362	9,781	9,907	-	312,992	122,217	-	3,910,944
State BTM #1	1,395	1,395	944	8,569	44,640	7,489	63,829	239,648
State BTN #1	9,362	9,384	9,533	-	300,288	19,623	-	627,936
Caudle #2	5,301	3,702	3,782	8,638	118,464	124,214	59,942	3,974,848
Caudle#5	6,076	6,076	5,962	-	194,432	50,976	-	1,631,232
Chambers #1	2,170	1,449	1,302	2,942	46,368	42,774	42,160	1,368,768
Mathers #1	9,362	9,362	8,933	1,040	299,584	147,742	5,206	4,727,744
Mathers "A" #1	9,362	9,362	9,449	493	299,584	100,521	564	3,216,672
Mathers "A" #2	9,362	9,362	9,450	3,121	299,584	59,865	6,537	1,915,680
TOTALS	127,162	125,699	125,241	24,803	4,022,368	2,259,274	330,195	72,296,768

AMERADA PETROLEUM CORPORATION
P. O. BOX 2040
TULSA 2, OKLAHOMA

BAGLEY SILURO-DEVONIAN POOL

PRODUCTION DATA

July 1952

LEASE	ALLOW-ABLE BBLS.	ACTUAL OIL BBLS.	OIL RUN BBLS.	WATER BBLS.	GAS CU. FT.	CUMULATIVE OIL BBLS.	CUMULATIVE WATER BBLS.	CUMULATIVE GAS CU. FT.
State BTA #1	9,362	9,344	9,354	-	299,008	295,434	-	9,453,888
State BTC #1	9,362	9,168	9,310	-	293,376	276,025	-	8,832,800
State BTC #3	9,362	9,168	9,309	-	293,376	160,207	-	5,126,624
State BTD #1	9,362	8,957	9,484	-	286,624	254,964	110,195	8,158,848
State BTD #2	9,362	7,662	7,905	-	245,184	177,497	25,018	5,679,904
State BTD #3	9,362	7,662	7,906	-	245,184	162,982	16,744	5,215,424
State BTI #1	9,238	8,992	9,316	-	287,744	190,918	-	6,109,376
State BTL #1	9,362	9,019	9,361	-	288,608	112,436	-	3,597,952
State BTM #1	1,395	827	934	7,443	26,464	6,094	55,260	195,008
State BTN #1	9,362	6,698	7,103	-	214,336	10,239	-	327,648
Caudle #2	5,301	3,033	3,326	4,744	97,056	120,512	51,304	3,856,384
Caudle #5	5,921	5,521	6,021	-	176,672	44,900	-	1,436,800
Chambers #1	2,170	938	950	2,088	30,016	41,325	39,218	1,322,400
Mathers #1	9,120	6,225	6,520	615	199,200	138,380	4,166	4,428,160
Mathers "A" #1	9,362	7,120	7,376	71	227,840	91,159	71	2,917,088
Mathers "A" #2	9,362	7,119	7,375	971	227,808	50,503	3,416	1,616,096
TOTALS	126,765	107,453	111,550	15,932	3,438,496	2,133,575	305,392	68,274,400

AMERADA PETROLEUM CORPORATION
P. O. BOX 2040
TULSA 2, OKLAHOMA

BAGLEY SILURO-DEVONIAN POOL

PRODUCTION DATA

June 1952

LEASE	ALLOW-ABLE BBLS.	ACTUAL OIL BBLS.	OIL RUN BBL.	WATER BBL.	GAS CU. FT.	CUMULATIVE OIL BBL.	CUMULATIVE WATER BBL.	CUMULATIVE GAS CU. FT.
AMERADA								
State BTA #1	10,140	9,714	10,504	-	310,848	286,090	-	9,154,880
State BTC #1	10,140	10,076	10,518	-	322,432	266,857	-	8,539,424
State BTC #3	10,140	10,076	10,518	-	322,432	151,039	-	4,833,248
State BTD #1	10,140	10,673	10,452	-	341,536	246,007	110,195	7,872,224
State BTD #2	10,140	8,819	8,979	-	282,208	169,835	25,018	5,434,720
State BTD #3	10,140	8,819	8,979	-	282,208	155,320	16,744	4,970,240
State BTI #1	10,020	9,448	9,909	-	302,336	181,926	-	5,821,632
State BTL #1	10,140	10,036	10,040	-	321,152	103,417	-	3,309,344
State BTM #1	1,112	599	1,419	5,391	19,168	5,267	47,817	168,544
State BTN #1	9,126	3,541	2,843	-	113,312	3,541	-	113,312
Caudle #2	5,130	3,815	4,279	5,723	122,080	117,479	46,560	3,759,328
Caudle #5	6,570	6,485	6,700	-	207,520	39,379	-	1,260,128
Chambers #1	2,100	974	938	2,273	31,168	40,387	37,130	1,292,384
Mathers #1	8,400	5,023	5,774	321	160,736	132,155	3,551	4,228,960
Mathers "A" #1	10,140	9,635	10,128	-	308,320	84,039	-	2,689,248
Mathers "A" #2	10,140	9,635	10,128	1,071	308,320	43,384	2,445	1,388,288
TOTALS	133,718	117,368	122,108	14,779	3,755,776	2,026,122	289,460	64,835,904

AMERADA PETROLEUM CORPORATION
P. O. BOX 2040
TULSA 2, OKLAHOMA

BAGLEY-SILURO DEVONIAN POOL

PRODUCTION DATA

May, 1952

LEASE	ALLOW-ABLE BBLS.	ACTUAL OIL BBLS.	OIL RUN BBL.	WATER BBL.	GAS CU FT	CUMULATIVE OIL BBL	CUMULATIVE WATER BBL	CUMULATIVE GAS CU. FT.
AMERADA								
State BTA #1	10,881	3,592	2,706	-	114,944	276,376	-	8,844,032
State BTC #1	10,881	2,870	2,655	-	91,840	256,781	-	8,216,992
State BTC #3	10,881	2,870	2,655	-	91,840	140,963	-	4,510,816
State BTD #1	10,881	2,756	2,841	-	88,192	235,334	110,195	7,530,688
State BTD #2	6,510	2,025	1,674	-	64,800	161,016	25,018	5,152,512
State BTD #3	7,595	2,363	1,954	-	75,616	146,501	16,744	4,688,032
State BTI #1	10,602	3,002	2,709	-	96,064	172,478	-	5,519,296
State BTL #1	10,881	2,594	2,743	-	83,008	93,381	-	2,988,192
State BTM #1	868	648	0	6,246	20,736	4,668	42,426	149,376
Caudle #2	5,301	2,087	1,424	3,131	66,784	113,664	40,827	3,637,248
Caudle #5	7,068	2,347	1,917	-	75,104	32,894	-	1,052,608
Chambers #1	2,170	27	469	82	864	39,413	34,857	1,261,216
Mathers #1	8,680	2,528	1,907	101	80,704	127,139	2,230	4,068,224
Mathers "A" #1	10,881	2,871	2,632	-	91,872	74,404	-	2,380,928
Mathers "A" #2	10,881	2,870	2,631	263	91,840	33,749	1,374	1,079,968
TOTALS	124,961	35,444	30,917	9,883	1134,208	1,908,754	274,681	61,080,128

AMERADA PETROLEUM CORPORATION
P. O. BOX 2040
TULSA 2, OKLAHOMA

BAGLEY-SILURO DEVONIAN POOL

PRODUCTION DATA

APRIL, 1952

LEASE	ALLOW-ABLE BBL.	ACTUAL OIL BBL.	OIL RUN BBL.	WATER BBL.	GAS CU. FT.	CUMULATIVE OIL BBL.	CUMULATIVE WATER BBL.	CUMULATIVE GAS CU. FT.
AMERADA								
State BTA #1	11,160	10,626	10,545	-	340,032	272,784	-	8,729,088
State BTC #1	11,160	11,244	10,815	-	346.080	253,911	-	8,125,152
State BTD #1	11,160	11,795	11,395	-	377,440	232,578	110,195	7,442,496
State BTD #2	6,300	3,545	3,540	-	113,440	158,991	25,018	5,087,712
Chambers #1	2,100	1,462	1,348	2,968	46,784	39,386	34,775	1,260,352
State BTD #3	7,350	4,136	4,130	-	132,352	144,138	16,744	4,612,416
State BTI #1	11,040	11,150	10,973	-	356,800	169,476	-	5,423,232
Caudle #2	5,130	4,608	4,770	6,912	147,456	111,577	37,706	3,570,464
Mathers #1	8,400	7,458	7,374	476	238,656	124,610	3,069	3,987,520
State BTC #3	11,160	11,244	10,815	-	359,808	138,093	-	4,418,976
State BTL #1	11,160	11,501	11,431	-	368,032	90,787	-	2,905,184
Mathers "A" #1	11,160	11,557	11,313	-	369,824	71,533	-	2,289,056
State BTM #1	600	1,080	955	9,720	34,560	4,020	36,180	128,640
Caudle #5	7,260	7,204	7,613	-	230,528	30,547	-	977,504
Mathers "A" #2	11,160	11,556	11,312	1,005	369,792	30,879	1,111	988,128
TOTALS	126,300	120,166	118,329	21,081	3,831,584	1,873,310	264,798	59,945,920

Tatum, New Mexico
March 5, 1954

Oil Conservation Commission
Santa Fe, New Mexico

Gentlemen:

In compliance with your order No. R-69-C, dated May 21, 1953, concerning the Bagley Siluro-Devonian Pool, Lea County, New Mexico we are submitting the attached tabulation of production data for the month of February 1954.

Contained in the tabulation is the monthly report for each well showing the allowable, the actual oil produced, the oil runs, water production, gas production, cumulative oil production, cumulative water production, and cumulative gas production.

Yours very truly,

Amerada Petroleum Corporation

K. V. Stephenson
Assistant District Superintendent

KVS/hlw

cc: Oil Conservation Commission, Hobbs
Mr. W. B. Macey
Mr. R. S. Christie
Mr. R. E. Seifert
Mr. J. C. Blackwood
Mr. D. C. Capps
Mr. W. G. Abbott
File

BAGLEY SILURO-DEVONIAN POOL

PRODUCTION DATA

FEBRUARY 1954

LEASE & WELL	ALLOWABLE BBLS	ACTUAL OIL BBLS	OIL RUNS BBLS	WATER BBLS	GAS CU.FT.	CUMMULATIVE OIL BBLS	CUMMULATIVE WATER BBLS	CUMMULATIVE GAS CU. FT.
STATE B T "A" #1	6,356	6,356	4,798	2,119	203,392	457,602	10,676	14,643,264
STATE B T "C" #1	6,356	6,356	6,291	0	203,392	438,280	0	14,024,960
STATE B T "C" #3	6,356	6,356	6,292	0	203,392	322,461	0	10,318,752
STATE B T "D" #1	6,356	6,043	6,379	0	193,376	417,986	110,195	13,375,552
STATE B T "D" #2	6,356	6,043	6,379	1,704	193,376	335,342	48,967	10,730,944
STATE B T "D" #3	6,356	6,043	6,380	0	193,376	323,408	16,744	10,349,056
STATE B T "I" #1	6,272	6,272	6,296	0	200,704	350,457	0	11,214,624
STATE B T "L" #1	6,356	6,356	6,268	0	203,392	274,709	0	8,790,688
STATE B T "M" #1	756	756	960	10,044	24,192	22,537	216,194	721,185
STATE B T "N" #1	6,356	6,356	6,285	651	203,392	172,457	6,546	5,518,624
J. T. GAUDLE #2	2,380	1,905	1,905	6,378	60,960	172,454	185,928	5,518,528
J. T. GAUDLE #5	2,996	2,687	2,890	5,981	85,984	126,516	72,630	4,048,512
L. H. CHAMBERS #1	1,624	1,624	1,442	7,398	51,968	68,093	138,079	2,178,976
W. E. MATHERS #1	6,356	6,356	6,485	3,422	203,392	300,646	46,426	9,620,672
W. E. MATHERS "A" #1	6,356	6,356	6,356	2,856	203,392	252,771	23,642	8,088,672
W. E. MATHERS "A" #2	3,780	2,844	2833	17,470	91,008	143,859	244,284	4,603,488
TOTALS	81,368	78,709	78,239	58,023	2,518,688	4,179,578	1,120,313	133,746,497