

Case No.

1318

Application, Transcript,
Small Exhibits, Etc.

Case 1318
CASE 1318: Continental Oil Co. application
for approval of two 160-acre non-standard
gas proration units, Jalmat Gas Pool, Lea
County.

87

OIL CONSERVATION COMMISSION
P. O. BOX 871
SANTA FE, NEW MEXICO

October 11, 1957

C
O
P
Y

Mr. A. R. Ballou
Sun Oil Company
Rio Grande National Bldg.
Dallas 2, Texas

Dear Sir:

We enclose a copy of Order R-1064 issued October 9, 1957, by the
Oil Conservation Commission in Case 1318, which was heard on September
24th at Santa Fe.

Very truly yours,

A. L. Porter, Jr.
Secretary - Director

bp
Encl.

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

September 24, 1957

IN THE MATTER OF
CASE NO. 1318

TRANSCRIPT OF PROCEEDINGS

DEARNLEY - MEIER & ASSOCIATES
INCORPORATED
GENERAL LAW REPORTERS
ALBUQUERQUE - SANTA FE
3-6691 2-2211

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
September 24, 1957

IN THE MATTER OF:)

)
)
) Application of Continental Oil Company for)
) approval of two 160-acre non-standard gas)
) proration units in the Jalmat Gas Pool,)
) Lea County, New Mexico. Applicant, in the)
) above-styled cause, seeks an order estab-)
) lishing two 160-acre non-standard gas)
) proration units in the Jalmat Gas Pool,)
) one unit to consist of the N/2 N/2 of)
) Section 23, Township 22 South, Range)
) 36 East, Lea County, New Mexico, which)
) is to be dedicated to the applicant's)
) Meyer B-23 No. 1 Well located in the)
) NE/4 NW/4 of said Section 23; and the)
) other unit to consist of the S/2 N/2)
) of said Section 23 which is to be ded-)
) icated to the applicant's Meyer B-23)
) No. 3 Well located in the SW/4 NW/4)
) of said Section 23. The entire N/2)
) of said Section 23 is presently ded-)
) icated to the above-described Meyer B-23)
) No. 1 Well.)
)

CASE NO.

1318

BEFORE:

Daniel S. Nutter, Examiner.

TRANSCRIPT OF HEARING

MR. NUTTER: Next case this morning will be Case No. 1318.

MR. COOLEY: Case No. 1318. Application of Continental Oil Company for approval of two 160-acre non-standard gas proration units in the Jalmat Gas Pool, Lea County, New Mexico.

MR. KELLARIN: Jason, Kellahin and Fox, Santa Fe, New Mexico representing Continental Oil Company, and we have one witness,

Mr. Lyon.

MR. NUTTER: Are there any other witnesses in this case?

MR. KELLAHIN: No.

(Witness sworn.)

VICTOR T. LYON

called as a witness, having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Would you state your name, please?

A Victor T. Lyon, L-y-o-n.

Q By whom are you employed, Mr. Lyon?

A Continental Oil Company.

Q In what position? A District Engineer.

Q In what district?

A Eunice District, Eunice, New Mexico.

Q Is the subject matter of the present application located within the Eunice District? A Yes, sir.

Q Mr. Lyon, have you testified before the Oil Conservation Commission as an engineer and had your qualifications as an expert been accepted by this Commission? A I have.

MR. KELLAHIN: Are the witnesses' qualifications acceptable?

MR. NUTTER: They are.

MR. KELLAHIN: We have a number of exhibits which we would like to have marked at the present time?

Q (By Mr. Kellahin) Mr. Lyon, are you familiar with the application before the Commission in the present case?

A Yes, sir.

Q And what occasioned this application?

A The application was occasioned when Continental Oil Company was unable to make a South Eunice oil producer out of Well No. 3 drilled on the Meyer B-23 lease, in Section 23, Township 22 South, Range 36 East.

Q Now, was there already existing on the acreage involved a gas well?

A Yes, sir.

Q What was it completed in?

A Our Meyer B-23 Well No. 1 was completed as a Jalmat Gas Pool Well, and was assigned a 320-acre gas proration unit consisting of the North Half of aforementioned Section 23.

Q And then how was the Meyer B-23 Well No. 3 completed?

A Well No. 3 was drilled into the Queen formation anticipating a South Eunice completion. However, core analysis indicated that the South Eunice section was unproductive, and permission was requested of our management and subsequently granted to complete the well as a Jalmat Gas Well.

Q Now, referring to what has been marked for identification as Exhibit No. 1, would you state what that is?

A Exhibit No. 1 is a structural contour plat of the Jalmat Gas Pool in the vicinity of our Meyer B-23 lease. The contours reflect the top of the Yates formation. Our lease, the Meyer

5
B-23 lease is outlined in red and the two wells under consideration in this hearing are circled in red. Those are wells No. 1 and 3.

Q Would you give the location of the two wells, please?

A Well No. 1 is located 990 feet from the north and 650 feet from the West line of Section 23; Well No. 3 is located 1980 feet from the North line, 660 feet from the West line of that section.

MR. COOLEY: Would you correct the location of that well No. 1, please, Mr. Lyon?

Q I think you gave that wrong, Mr. Lyon? Repeat that.

A Well No. 1 is located 990 feet from the North and 1650 feet from the West line of Section 23.

Q Well No. 3, would you give that again, please, sir?

A Well No. 3 is located 1980 feet from the North, 660 feet from the West line of the section.

Q Now, in projecting a well in this particular field, is there any reference made to the contours of the Yates, what is the practice?

A Well, it is the practice in our company, and I believe in most companies, to interpret structural positions of the shallow formations on the basis of the top of the Yates formation.

Q Now, was there an attempt made to complete that well in the Queen formation in the South Eunice Pool? A No, sir.

Q For what reason?

A Well, the entire South Eunice interval which was expected

to be productive was cored, and the core analysis was received, and I would like to read a part into the record, why we did not attempt a completion there "Seven Rivers formation analyzed from 3575 to 3854 feet is interpreted to be water productive; however, no appreciable quantity of fluid production is expected due to the low permeability and low porosity.

Queen formation analyzed from 3868 to 3869 feet exhibited oil productive characteristics; however, due to the limited section, this one foot of the formation is of no commercial importance. The samples indicated by an asterisk in the probable production column of the Completion Coregraph are considered to represent water productive formation; however, no appreciable quantity of fluid production is expected due to the low permeability and low porosity. The remainder of the Queen sand analyzed between 3854 and 3885 feet exhibited permeability of less than 0.1 millidarcy, and is nonproductive."

It was because of this extremely unfavorable core analysis that we elected to attempt no completion in the South Eunice Pool. We did set pipe, five and a half inch casing at a total depth, but our perforations were at 3524 to 3538, and 3484 to 3496 which are above the interval that was cored. These zones tested gas at the rate of 1,863,000 cubic feet per day.

Q Were there some additional perforations made?

A Yes, sir, after we had found that the only productive zones were gas productive, we requested of our management and

subsequently received approval to perforate additional sections, which are 3312 to 3320, 3334 to 3376, 3381 to 3400, 3414 to 3420, 3428 to 3448, and 3454 to 3468.

Q How was the well completed, Mr. Lyon?

A The well was sand fractured, and open flow potential tested two million seven hundred fifty thousand cubic feet per day and had a deliverability against one hundred fifty pounds pressure of two million five hundred seventy thousand cubic feet per day and against six hundred pounds pressure of one million five hundred thirty-five thousand cubic feet per day.

Q Now, referring to Exhibit No. 2, would you state what that is?

A Exhibit No. 2 is a structural plat covering the same area as shown on Exhibit No. 1, but the contours are based on the top of the Queen formation. The Queen formation was chosen because it governs the limit of the South Eunice Oil Pool, we have circled in red on this Exhibit the wells which are completed in the South Eunice Oil Pool, and circled in green are the wells which are completed as Jalmat Oil wells.

Q Now, on the basis of this information, does that reflect, Mr. Lyon, that the location of the Meyer B-23 Well No. 3 has reasonably been anticipated to be oil productive?

A I believe that it does. The Queen formation was found to be unusually low in the No. 3 Well due to a slight thickening of the formation, so that the sink hole in which well No. 3 is

located is slightly deeper than it is found in the Yates. You can see by the South Eunice Oil Well completion that this is a unusual step out well. We had completely developed our Meyer B-22 lease to the South and West and this No. 3 Meyer B-23 Well was our next logical location in developing the South Eunice Pool.

Q Now, have you prepared an Exhibit which shows the results of your deliverability test and other information?

A Yes, sir. Exhibit No. 3 is the Commission's Form C-122 with attached graphs showing the four minute back pressure test taken on this well.

Q Now, referring to what has been marked as Exhibit No. 4, what is that exhibit?

A Exhibit No. 4 is an acreage allocation plat showing the well which have been completed as Jalmat Gas Wells and these wells are circled in green. Outlined in green are the appropriation units which are assigned to these wells. Also shown on Exhibit No. 4 are the proposed gas proration units which are requested in this application, and circled in red are the wells to which these units are requested to be assigned.

Q And what are the proposed units, what is the description of those proposed units?

A The unit for well No. 1 is requested to be the North Half of the North Half Section 23. The unit for No. 3 is requested to be the South Half of the North Half of Section 23.

Q Now, referring to Exhibit No. 5, what is that?

A Exhibit No. 5 is a copy of the radioactivity log which was run on the Meyer B-23 No. 1. This well was completed in open hole, and the open hole interval is indicated to be that between the total depth and the casing symbol sign, which is at approximately 3140.

Q Now, referring to Exhibit No. 6, what is that?

A Exhibit No. 6 is a copy of the radioactivity log run on Well No. 3. This exhibit also shows the section which is cored and the section which were perforated.

Q Now, have you made an investigation to determine if this Commission had approved similarly shaped units? A Yes, sir.

Q Have you made a list of those as Exhibit No. 7?

A I have.

Q Will you briefly describe that exhibit?

A Exhibit No. 7 is a very incomplete list of long 160-acre non-standard proration unit which have been approved by NSP Orders. These -- by long units I mean units which are approximately one mile long and one quarter of a mile wide.

Q Has Continental Oil Company ever had such a unit approved heretofore?

A Several.

Q Now, referring to Exhibit No. 8, what is that?

A Exhibit No. 8 is a list of wells wherein an alternative course of action was taken. Reviewing our situation here briefly, we have now two gas wells on what has been approved as a single gas proration unit. This has happened several times in the past,

and in several cases the operators have elected to just assign the additional well to that unit. Exhibit No. 8 is a list of those cases that I am aware of, there may be more. Order No. R-796 resulted from the application of the Ohio Oil Company wherein a 320-acre unit was set up in the Tubb Gas Pool for Well No. 9, and the operator subsequently completed Well No. 11 in the same quarter section as well No. 9, and the unit was jointly assigned to these two wells.

Q Would such an alternative be acceptable to Continental Oil Company in this case?

A Well, actually it would be more favorable to Continental than the manner in which we have proceeded.

Q Now, would failure to use the Meyer B-23 Well No. 3, as a gas well result in waste?

A Yes, it would.

Q For what reason?

A We have spent in excess of \$70,000.00 attempting to complete an oil well and we were unsuccessful due to conditions beyond our control, and there remains gas productive formations favorable to this well. Failure to utilize this well for the recovery of gas would, in my mind, result in economic waste.

Q Are you familiar with the provision of Rule 5A of Order No. R-520, Mr. Lyon?

A Yes, sir.

Q Do the proposed units conform reasonably to that unit?

A Yes, sir.

Q Do they consist entirely of contiguous quarter-quarter

sections?

A They do.

Q Do they lie wholly within a governmental section?

A They do.

Q May the entire area dedicated to each of the wells be reasonably presumed to be productive of gas?

A Yes, sir.

Q Does the unit exceed 5,280 feet in length or width?

A No.

Q Has notice been given of this application to operators whom notice is due under the provisions of the order?

A It has.

Q This application was originally filed as an application for administrative approval, is that not true?

A That is correct.

Q Now, in the event the Commission saw fit to approve this application for two non-standard units, would that impair the correlative rights of others offsetting this acreage?

A I don't believe it would.

Q Would production be the same from the acreage involved as though there were still one well on the acreage?

A Continental Oil Company will receive no more allowable from these two wells than it presently does from Well No. 1.

Q What is the closest distance of these two wells from the nearest well producing from the same pool?

A The nearest well is in the Sun Record unit, I believe it is No. 1, located in the Northeast Quarter of the Northeast Quarter of Section 22. The approximate distance of our No. 3 Well from

the Sun Record Well is 1867 feet; the distance No. 1 is from that well is 2,350 feet.

Q In your opinion, Mr. Lyon, is the spacing of wells in this pool critical?

A I don't believe it is.

Q Would any appreciable drainage, in your opinion, result from an uneven spacing?

A No, none.

Q On what do you base that conclusion?

A Well, I made an investigation of the most serious case that I know of wherein a well was, you might say, crowded by wells with larger units. This particular well that I investigated had a 160-acre allowable and was offset by a well at a distance of 2,380 feet which had a 320-acre allowable; another well at a distance of 2,513 feet with a 240-acre allowable, and another well at a distance of 1,818 feet with a 320-acre allowable, and another well at a distance of 3,131 feet with a 320-acre allowable. The trend of shut-in pressure during the last two years was observed, and the production during the same period was calculated, and it was found that the well produced more gas per pound drop in shut-in pressure than the acreage of the wells surrounding it, and was exceeded in production produced per pound reduction and shut-in pressure by only one well in the area, and based on this study, it is my opinion that the spacing of the wells is not critical, that the thing that is critical is the fact that allowable is based 100 percent on acreage.

Q What is the well on which you are referring, Mr. Lyon?

A That was the Amerada Stato Q No. 1. It's in the Eumont Pool in Section 16, 20 South, 37 East, I believe.

Q Now, Mr. Lyon, if you were going to drill for gas on this particular unit, would you have picked the location that was picked for the Meyer B-23 Well No. 3? A No, sir.

Q What location would you pick?

A I would have picked the location in the Northeast Quarter of Section 23, probably in the Southwest Quarter of the Northeast Quarter.

Q What is the present production status of well No. 1?

A Well No. 1 is overproduced to a slight degree, as are all of the wells shown on our exhibits. The Meyer B-23 No. 1, as of August 1st, was over produced 19,607 MCF.

MR. KELLAHIN: That's all the questions I have.

MR. NUTTER: Does anyone have any questions of the witness?
Mr. Ballow?

CROSS EXAMINATION

BY MR. BALLOW:

Q Mr. Lyon, Continental did not apply for a permit in the Jalmat Pool for its Meyer B-23 Well No. 3, did it?

A Our notice of intention to drill originally stated that the well was drilled with the objective as the South Eunice Pool.

Q And you could not have received a permit for the Jalmat Pool at that location with the well already on the Quarter Section could you? A I believe we could.

Q Do the Rules in New Mexico permit the reduction in the size of proration units, gas proration units?

A I am sure they do, we have done it several times.

Q Without a hearing? A Yes, sir.

MR. BALLOW: Do they permit that, Mr. Nutter, reduction of size of gas proration units once they have been established?

MR. NUTTER: There have been several cases of rededication of acreage, haven't there?

MR. COOLEY: They have been so interpreted.

A Our Lockhart B-31 lease has two wells, and one had a 160-acre unit and the other an 80-acre unit, and we swapped the acreage around to where one -- It was reversed, the one which had had the 80-acre unit now has 160.

MR. NUTTER: Was that done with a hearing or administrative?

A It was done administrative, I believe.

Q (By Mr. Ballow) Has there ever been a gas well located in the Southeast Quarter of that section?

A No, sir, not to my knowledge.

Q As engineer, which well, which of the two wells, the Meyer B-23 Well No. 1 or Well No. 3, would be the best located to drain the North Half of that section?

A Well, I believe the No. 1 would be possibly better located; however, I think either well would drain it.

Q Although there has never been a well located in the Northeast Quarter of the section? A That's correct.

Q I believe you stated that if this application is not granted, that waste would be committed?

A Yes, sir.

Q The waste that would be committed would be the waste of Continental's monies because they drilled a well that they couldn't produce, is that right?

A Primarily, at least at the present, that is what the waste would be. It is possibly that if the pressure declines, it may be necessary to assign an additional well to this 320-acres in order to protect our correlative rights and prevent waste of that nature.

Q That's assuming that the entire 320-acres is productive?

A Yes, sir, I think that is a reasonable assumption.

Q Are there any wells in this field located east of your Meyer B-23 well?

A Not directly due east. There is a well to the southeast; several wells to the southeast.

Q None to the Northeast? A Not directly, no.

Q Did you make any attempt to complete the Seven Rivers or Queen formation well in this Meyer B-23 Well No. 3?

A No, sir, and I don't believe that the Sun Oil Company would either, if they had the core analysis that we have.

Q You don't know whether it would produce or not, you just took the core analysis? You set pipe through the formation, did you not?

A Yes, sir. There was perhaps some consideration given to attempting a completion. The Shell Oil Company has been attempting

to make a completion in the well directly south of this. On Exhibit No. 2 that well is marked "T" or shut-in, for further study. They have spent, I don't know how much money, in several months attempting to get a completion out of that well, but to date, they have been unsuccessful.

Q Did that control Continental's thinking in any way?

A No, sir. However, I am glad we didn't try to attempt the completion.

Q Did you have a permit to complete the well in the Jalmat Pool at the time you made your completion?

A I don't know.

MR. BALLOW: That's all the questions I have.

MR. NUTTER: Does anyone else have any questions of the witness, Mr. Kellahin?

MR. KELLAHIN: I would like to offer at this time Exhibits 1 through 8 inclusive.

MR. NUTTER: Without objection, Continental's Exhibits 1 through 8 in Case No. 1318 will be received. Mr. Utz.

QUESTIONS BY MR. UTZ:

Q Mr. Lyon, are the perforations opened in your Meyer B-23 No. 1 and 3 within the vertical limits of the Jalmat Gas Pool as defined by the Commission?

A Yes, sir, however, the No. 1 is completed open hole, and the interval opened is within the Jalmat.

Q Now, your reason, as I understand it, for locating the

No. 3, 660, 1980 was to try to make an oil well in the South Eunice Pool, is that right? A Yes, sir.

Q What would be the reason it was located structurally low, would it not? A That's correct.

Q I believe you stated that if you had been trying to make a gas well you would have located it in the Northeast Quarter?

A Yes, sir.

Q But there are no wells offsetting this to the east which would tend to counter-drain that, that you know of?

A That's correct.

MR. UTZ: That is all I have.

MR. NUTTER: Anyone else have a question of the witness? Mr. Cooley.

QUESTIONS BY MR. COOLEY:

Q Mr. Lyon, I would like to dwell a little more on the point dwelled on by Mr. Ballow concerning the waste that could be caused if this application is denied. The entire North Half of Section 23 has to date, and still is dedicated to the No. 1 well, is it not? A That's correct.

Q Is it your professional opinion that that well will more adequately drain the North Half of Section 23?

A It will, so long as its capacity to produce per acre allocated to it is equal to those of the offset wells.

Q Will you explain that answer please?

A Well, all of the other wells in this area have a 160-acre

allowable, consequently, their allowables are only half of what our Meyer B-23 Well No. 1 Well has. As pressure declines, deliverability will also decline, and there will come a day, I am sure, when the No. 1 well will not be able to produce as much gas per acre as the offset wells. At that time, we would suffer drainage.

Q And those two wells that Continental has could make the allowable, or one could make the double allowable? A Yes, sir.

Q What is the acreage dedicated to the Sun Oil Company's No. 1 Well?

A The Sun Record unit well has the Northeast Quarter of Section 22.

Q You are likewise offset to the Northwest and North by a 160-acre unit? A Yes, sir.

Q And to the South and Southwest? A Yes, sir.

Q This would be a possible violation of correlative rights but would not involve waste, is that correct?

A It would involve economic waste, I think.

Q How do you define economic waste, Mr. Lyon?

A The unnecessary expenditure of money, or money spent without an adequate return.

Q I don't believe that either of those definitions is encompassed by the State of New Mexico in the definition of waste.

A You mean economic waste is not in the definition of --

Q Not as you defined it, no, sir.

MR. KELLAHIN: If the Commission please, I think that is a

legal conclusion.

Q I want to know what the witness when he stated it would result in waste and --

A Well, let me approach it this way, if it were necessary for us to drill an additional well in order to protect our correlative rights, then there would be economic waste because we now have a well.

Q On your Exhibit 7 you set out several instances in which similar proration units have been approved by this Commission?

A Yes, sir.

Q Are any of those units -- Are any of the wells on those units as close to the offsetting property lines as is the No. 3 Well in this case?

A I am familiar with the location of only two of those wells, The N. B. Hunts No. 1 and N. B. Hunts No. 2, both are located 660 feet from the west line of that lease and I believe that they are only located 1320 feet apart. Their 1 is located 660 from the west, 660 from the south, the other is located 660 from the west and 1980 from the south.

MR. COOLEY: That is all.

QUESTIONS BY MR. NUTTER:

Q Whose acreage offsets them?

A I don't know. I can find that out for you.

Q Mr. Lyon, would Continental have contemplated another well and also projecting it to the Jalmat Gas Pool on this 320-acre

unit?

A Not immediately.

Q Then the fact remains, does it not, that they drilled a well to the South Eunice and got a dry hole?

A Yes, sir, that's right.

Q And to dedicate 160-acres to that dry hole is a salvage operation?

A That's correct.

MR. NUTTER: Does anyone have any questions of Mr. Lyon?

MR. KELLAHIN: That's all we have, Mr. Examiner.

MR. NUTTER: Does anyone have anything else they wish to offer in this case? Mr. Ballow.

MR. BALLOW: At the time I wrote my letter I didn't realize that the Commission permitted the reduction of size in proration units, but our position is simply that Continental Oil Company has enjoyed an allowable advantage for its Meyer B-23 Well No. 1 for all this time, when each of the wells surrounding it had 160-acre assigned to it. Now, pressure is declining in that area; they have drilled another well and want to assign half an allowable so that they can continue to maintain that advantage, and our objection is on the basis of locating the other well closer to us rather than on the other quarter section, which has no well on it.

MR. NUTTER: Thank you Mr. Ballow.

MR. BALLOW: Thank you.

MR. KELLAHIN: If the Commission please, in reply to the statement made by Mr. Ballow, I would like to point out that the spacing set out by the Conservation Commission is 640-acres,

and had Continental had one well on the 640-acres, I don't think you could refer to that as an allowable advantage. Certainly, if they got 320 they had no advantage because they had 320-acres, whereas the offsetting wells only had 160-acres and theoretically, under our producing rules, we are entitled to produce only half as much as the 320-acre unit. I would also like to point out that the Sun Record well's accumulated production is as great as that on the Meyer B-23 No. 1 well, so on that basis, I don't see there is any argument as to who has an advantage.

The other point I would like to make is that the one well on 320, or 2 wells on 320, or a 160-acre unit with a well on each, the allowable assigned by the Oil Conservation Commission is going to be the same, and it depends entirely upon the well to produce it, which they have a right to do. On that basis, we seek approval of two non-standard 160-acre units or as Mr. Lyon pointed out in his testimony, one unit with two wells would be equally acceptable.

MR. NUTTER: Thank you Mr. Kellahin. If there is nothing further in Case No. 1318, we will take that case under advisement, and continue with case No. 1319.

C E R T I F I C A T E

STATE OF NEW MEXICO)
 : ss
 COUNTY OF BERNALILLO)

I, J. A. TRUJILLO, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing was reported by me in Stenotype at the time and place hereinbefore set forth; that same was thereafter transcribed into typewritten transcript by me; and that same is a true and correct record to the best of my knowledge, skill, and ability.

WITNESS my Hand and Seal this, the 30th day of September, 1957, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

J. A. Trujillo
 NOTARY PUBLIC

My Commission Expires:
 October 5, 1960.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 1318, heard by me on 8-24, 1957.

Paula S. Zutter, Examiner
 New Mexico Oil Conservation Commission

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. 1318
Order No. R-1084

APPLICATION OF CONTINENTAL OIL
COMPANY FOR APPROVAL OF TWO 160-
ACRE NON-STANDARD GAS PRORATION
UNITS IN THE JALMAT GAS POOL,
LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on September 24, 1957, at Santa Fe, New Mexico, before Daniel S. Nutter, Examiner duly appointed by the New Mexico Oil Conservation Commission, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 9th day of October, 1957, the Commission, a quorum being present, having considered the application, the evidence adduced and the recommendations of the Examiner, Daniel S. Nutter, and being fully advised in the premises,

FINDS:

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

(2) That the applicant, Continental Oil Company, is the owner and operator of an oil and gas lease, a portion of which consists of the N/2 of Section 23, Township 22 South, Range 36 East, NMPM, Lea County, New Mexico.

(3) That the above-described acreage is presently dedicated to the applicant's Meyer B-23 No. 1 Well located in the NE/4 NW/4 of said Section 23, which well is completed within the vertical and horizontal limits of the Jalmat Gas Pool.

(4) That the applicant recently drilled its Meyer B-23 No. 3 Well at a point 1980 feet from the North line and 660 feet from the West line of said Section 23 as a projected South Eunice oil well, and that said well was, upon completion, found to be non-productive of oil in the South Eunice Pool but productive of gas from the Jalmat Gas Pool.

(5) That the applicant proposes to divide the above-described 320-acre non-standard gas proration unit in the Jalmat Gas Pool between the aforementioned Meyer B-23 No. 1 Well and the Meyer B-23 No. 3 Well by dedicating the N/2 N/2 of said Section 23 to the former and by dedicating the S/2 N/2 of said Section 23 to the latter.

-2-

Case No. 1318
Order No. R-1064

(6) That approval of the subject application will not cause waste nor violate correlative rights.

IT IS THEREFORE ORDERED:

1. That a 160-acre non-standard gas proration unit in the Jalmat Gas Pool consisting of the N/2 N/2 of Section 23, Township 22 South, Range 36 East, NMPM, Lea County, New Mexico, be and the same is hereby established, said unit to be dedicated to Continental Oil Company's Meyer B-23 No. 1 Well located in the NE/4 NW/4 of said section 23.

2. That a 160-acre non-standard gas proration unit in the Jalmat Gas Pool consisting of the S/2 N/2 of said Section 23, be and the same is hereby created, said unit to be dedicated to Continental Oil Company's Meyer B-23 No. 3 Well located in the SW/4 NW/4 of said Section 23.

3. That the aforementioned Meyer B-23 No. 1 Well and Meyer B-23 No. 3 Well each be granted an allowable, in the proportion that the acreage dedicated to each well bears to a standard gas proration unit in the Jalmat Gas Pool, effective on the first day of the month following receipt by the Commission of the required Commission forms for said wells.

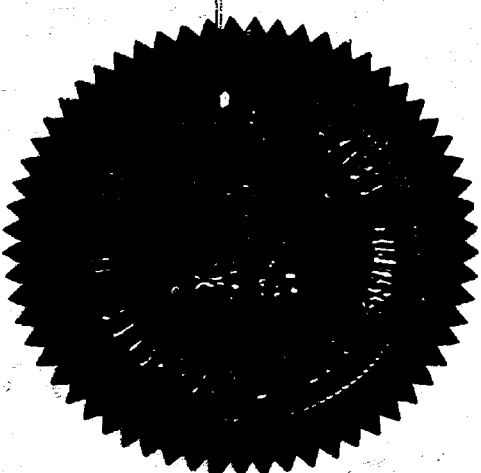
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


EDWIN L. MECHEM, Chairman


MURRAY E. MORGAN, Member


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



1r/

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

Date 9-24-57

CASE 1318

Hearing Date 9-24-57 @ 9am

DSN @ SF

My recommendations for an order in the above numbered cases are as follows:

Enter an order approving the two non-standard proration units applied for by Continental for administrative approval. Sun Oil Co objected to the administrative approval and the two units were automatically referred to hearing.

Sun registered an objection at the hearing also, but as their representative testified at the hearing, he did not know, when he wrote the letter of objection, that the OCC had ever permitted the reduction of the size of a proration unit and the dedication of the acreage to another well. I do not feel that any one's ^{including Sun's} rights will be injured by approval of the units requested. Further economic loss was claimed by applicant if the Meyer B-23 #3 well which was drilled as a dry hole in the South Texas Pool, is not allowed to ~~be produced~~ ^{be recompleated and} as a Galmat gas well.

James A. Miller
Examiner

DOCKET: EXAMINER HEARING SEPTEMBER 24, 1957Oil Conservation Commission 9:00 a.m., Mabry Hall, State Capitol, Santa Fe

The following cases will be heard before Daniel S. Nutter, Examiner:

- CASE 1315: Application of Magnolia Petroleum Company for approval of an unorthodox gas well location in an undesignated Lower Gallup Gas Pool in San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order authorizing an unorthodox gas well location for its Ah-Nus-Bah No. 1 Well, at a point 1980 feet from the South line and 1980 feet from the West line of Section 22, Township 25 North, Range 11 West, San Juan County, New Mexico. Said well was projected as a wildcat oil well but was found to be productive of gas rather than oil.
- CASE 1316: Application of Sun Oil Company for approval of an 80-acre non-standard gas proration unit and an unorthodox gas well location in the Crosby-Devonian Gas Pool, Lea County, New Mexico, in exception to Rule 3 of Order No. R-639-A. Applicant, in the above-styled cause, seeks an order authorizing an 80-acre non-standard gas proration unit in the Crosby-Devonian Gas Pool consisting of the E/2 SE/4 of Section 20, Township 25 South, Range 37 East, Lea County, New Mexico. Applicant further seeks approval of the unorthodox location of its B. T. Lanehart Well No. 3 at a point 330 feet from the South and East lines of said Section 20. The said B. T. Lanehart Well No. 3 was projected as an oil well and was found to be productive of gas rather than oil.
- CASE 1317: Application of Sunray Mid-Continent Oil Company for approval of a 320-acre non-standard gas proration unit in the Jalmat Gas Pool, Lea County, New Mexico and for the forced pooling of all interests therein within the vertical limits of the Jalmat Gas Pool. Applicant, in the above-styled cause, seeks an order establishing a 320-acre non-standard gas proration unit in the Jalmat Gas Pool consisting of the NE/4 of Section 20, and the NW/4 of Section 21 of Township 20 South, Range 36 East, Lea County, New Mexico, said unit to be dedicated to the applicant's Greer No. 2 Well located in the NW/4 NW/4 of said Section 21. Applicant further requests the forced pooling of the interests of all persons within the vertical limits of the Jalmat Gas Pool underlying the above-described acreage.
- CASE 1318: Application of Continental Oil Company for approval of two 160-acre non-standard gas proration units in the Jalmat Gas Pool, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order establishing two 160-acre non-standard gas proration units in the Jalmat Gas Pool, one unit to consist of the N/2 N/2 of Section 23, Township 22 South, Range 36 East, Lea County, New Mexico, which is to be dedicated to the applicant's Meyer B-23 No. 1 Well located in the NE/4 NW/4 of said Section 23; and the other unit to consist of the S/2 N/2 of said Section 23 which is to be dedicated to the

applicant's Meyer B-23 No. 3 Well located in the SW/4 NW/4 of said Section 23. The entire N/2 of said Section 23 is presently dedicated to the above-described Meyer B-23 No. 1 Well.

CASE 1319:

Application of Standard Oil Company of Texas for an order authorizing the production into a common tank battery of the oil produced from two separate leases in the Atoka Pool, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order authorizing the production into a common tank battery of the oil produced from two separate leases in the Atoka Pool. Said leases comprise the SW/4 SW/4 of Section 13 and the SE/4 SE/4 of Section 14, all in Township 18 South, Range 26 East, Eddy County, New Mexico.

ir/

Continental Oil Co,
applicant, requested
administrative approval
of NSP 386 and
NSP 387 on 8-15-57
Referred to hearing
Case 1318 both
non-standard proration
units as a result
of objection to
administrative approval
by Sun Oil Co
8-15-57

Wm
9/5/57

1957 AUG 14 AM 8:40
SUN OIL COMPANY

SOUTHWEST DIVISION

S. M. GLADNEY

T. F. HILL

ASST. MGR.

RIO GRANDE NATIONAL BUILDING

DALLAS 2, TEXAS

A. S. RHEA

CHIEF OPERATING DEPT.

August 15, 1957

New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Attention: Mr. A. L. Porter, Jr.

Gentlemen:

In re: Continental Oil Company application for 160-acre non-standard proration unit for its Meyer B-23 #1 Well and Meyer B-23 #3 Well, Section 23, Township 22, Range 36, Jalmat Pool, Lea County, New Mexico.

Sun Oil Company has been advised of Continental Oil Company's application to reduce the size of its proration unit for its Meyer B-23 #1 Well from 320-acres to 160-acres so that it can form another 160-acre unit for its Meyer B-23 #3 Well. Sun Oil Company, as an offset operator, objects to this application for the following reasons:

1. Applicant does not have a permit to complete a well in the Jalmat Pool since its permit for Meyer B-23 #3 Well was received for the purpose of drilling a well to the Seven Rivers-Queen formation for oil production from the South Eunice Field.
2. Applicant could not have received a permit for this well at its present location on the same quarter section as the Meyer B-23 #1 Well in the Jalmat Pool.
3. If this application is granted applicant will have two gas wells offsetting Sun's H. S. Record well on the same quarter section, and each of applicant's wells will have 160-acres assigned to it.
4. Applicant should not be permitted to reduce the size of its units merely for the purpose of accommodating wells that it has in the area.
5. Sun Oil Company feels that in the future, by reason of the location of these wells, if applicant's request is granted that Sun will suffer drainage by reason of the location of two wells offsetting our one well.

Your consideration of this objection will be appreciated.

Very truly yours,

A. L. Porter, Jr.

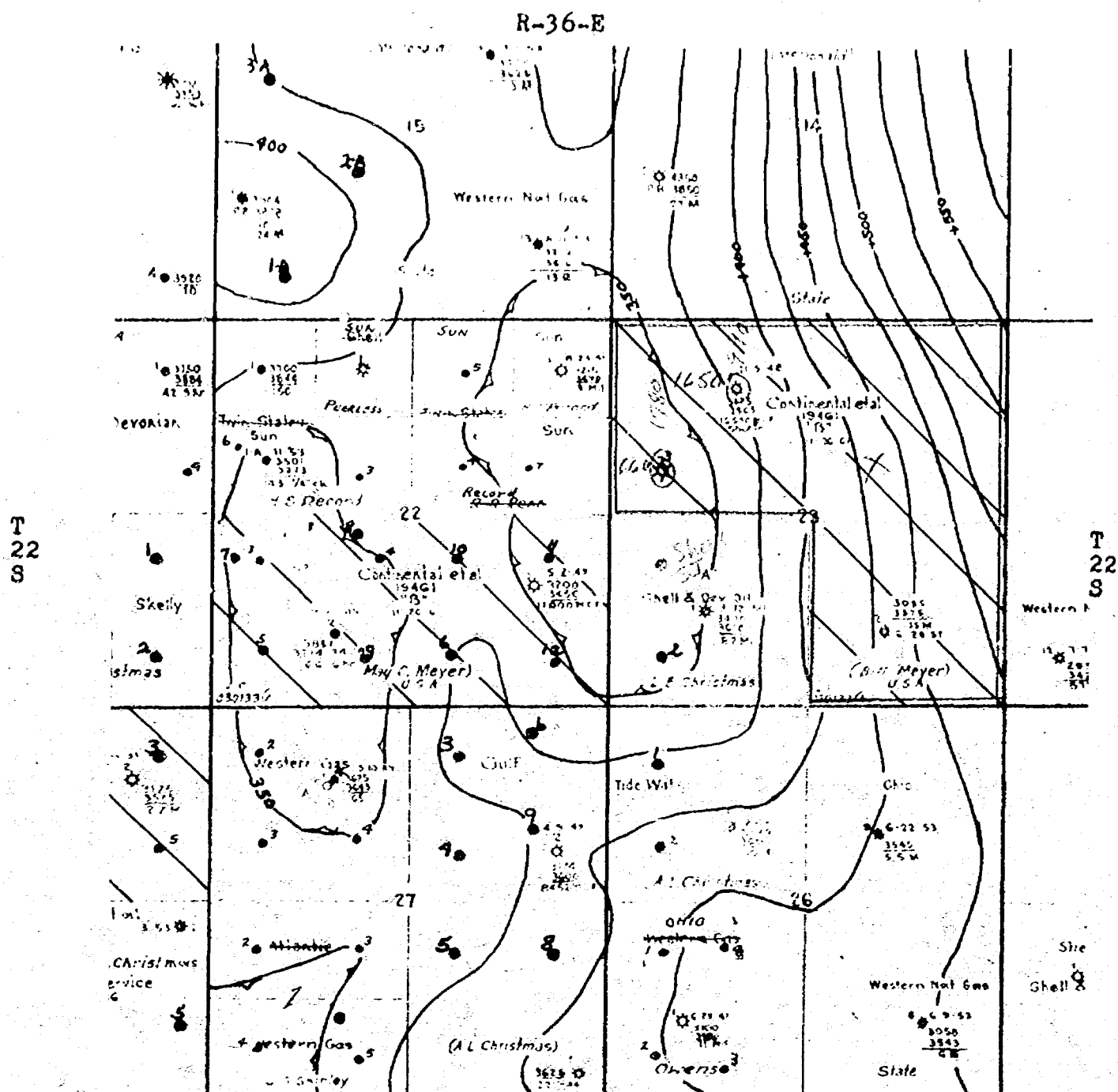
ARB:oms

cc - Mr. R. L. Adams
Continental Oil Company
Roswell, N. Mexico

Shell Oil Company
Hobbs, New Mexico

*Refer NSP 386
and NSP 387
to hearing*

*Docketed, mailed
to Sun & Continental
9-18-57 BP*



[illegible]

Contoured on top of Queen
Contour Interval 25 feet
Scale 1" = 2000'

Oil Conservation Commission

11 Ex 2
O Jalmat Oil Well

6 South Eunice Oil Well

○ Jalmat Oil Well

X-2

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Jalmat Formation Yates County Lea
 Initial X Annul Special Date of Test 7-29/7-30-57
 Company Continental Oil Company Lease Meyer B-23 Well No. 3
 Unit E Sec. 23 Twp. 22 Rge. 36 Purchaser El Paso Natural Gas Company
 Casing 5 1/2 Wt. 14.0 I.D. 5.012 Set at 3884 Perf. 3312 To 3468
 Tubing 2" Wt. 4.7 I.D. 1.995 Set at 3300 Perf. To
 Gas Pay: From 3312 To 3468 L 3300 xG .670 -GL 2211 Bar.Press. 13.2
 Producing Thru: Casing Tubing X Type Well Single
 Date of Completion: 7-30-57 Packer None Single-Bradenhead-G. G. or G.O. Dual
 Reservoir Temp. 900

OBSERVED DATA

Tested Through (XXXXXX) (XXXXXX) (Meter) Type Taps Flange

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(XXXXXX) (Line) Size	(XXXXXX) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						808				72
1.	4"	2.000	600	6	68	754				3
2.	4"	2.000	600	10	65	728				3
3.	4"	2.000	600	16	66	702				3
4.	4"	2.000	600	23	66	670				3
5.	4"	2.000	600	18	64	690				24

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wpf}}$	Pressure psia	Flow Temp. Factor F _t	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	25.58	21.46	767.2	.9924	.9463	1.084	558
2.	25.58	27.23	741.2	.9952	.9463	1.082	711
3.	25.58	33.83	715.2	.9943	.9463	1.078	877
4.	25.58	39.64	683.2	.9943	.9463	1.073	1024
5.	25.58	42.41	703.2	.9962	.9463	1.078	1102

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio Dry cf/bbl.
 Gravity of Liquid Hydrocarbons deg.
 F_c 9.936 (1-e^{-s}) 0.141

Specific Gravity Separator Gas .670
 Specific Gravity Flowing Fluid
 P_c 821.2 P_c 674.4

No.	P _w (psia)	P _t ²	F _c Q	(F _c Q) ²	(F _c Q) ² (1-e ^{-s})	P _w ²	P _c ² -P _w ²	Cal. P _w	P _w P _c
1.	767.2					588.6	85.8		
2.	741.2					549.4	125.0		
3.	715.2					511.5	162.9		
4.	683.2					466.8	207.6		
5.	703.2					494.5	179.9		

Absolute Potential: 2.750 MCFPD; n .69897

COMPANY Continental Oil Company
 ADDRESS Box 68, Eunice, New Mexico
 AGENT and TITLE
 WITNESSED
 COMPANY

REMARKS

Before Examiner huller

Oil Conservation Commission

Exhibit Case No. 3

INSTRUCTIONS

This form is to be used for reporting multi-point back pressure tests on gas wells in the State, except those on which special orders are applicable. Three copies of this form and the back pressure curve shall be filed with the Commission at Box 871, Santa Fe.

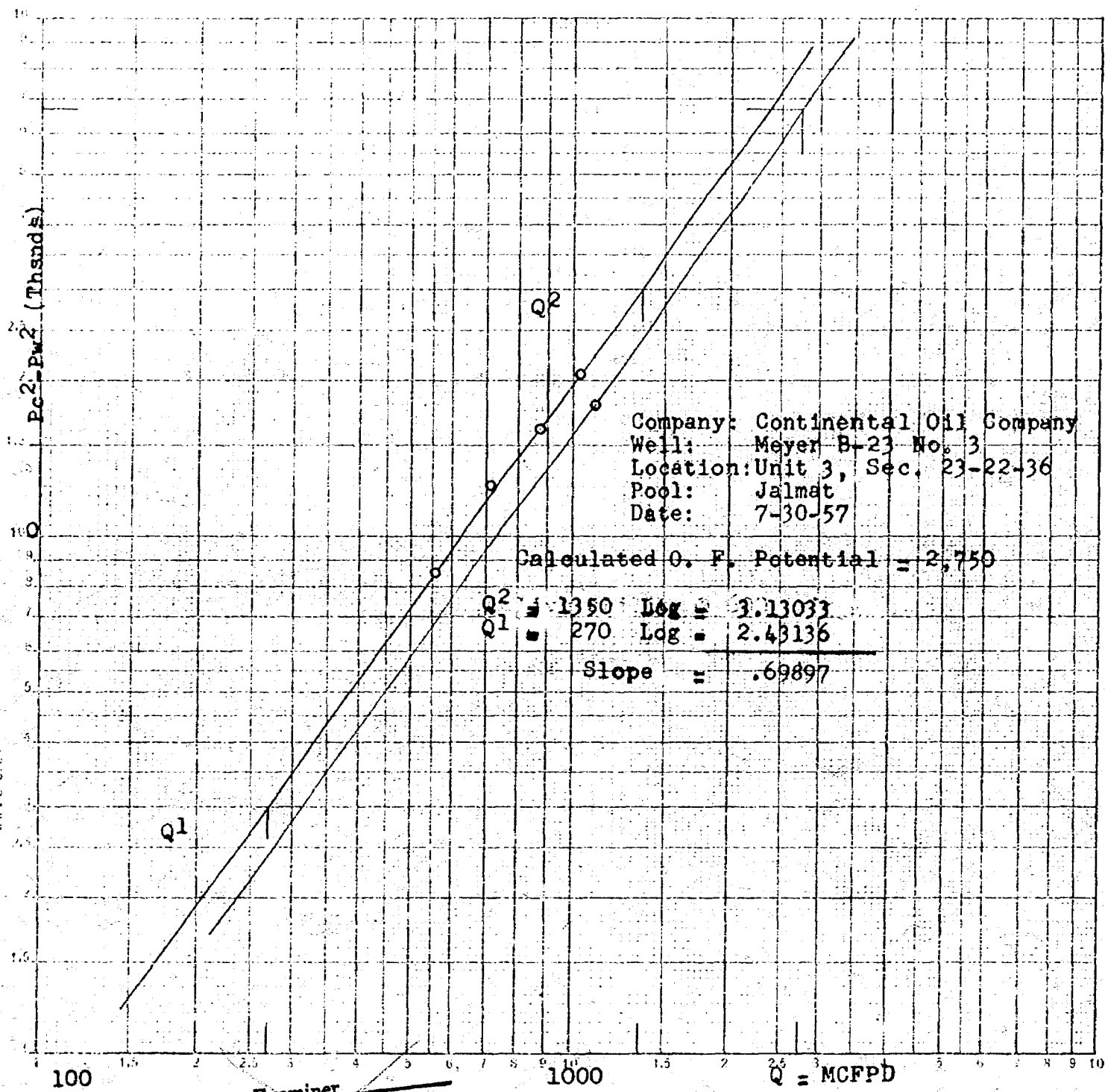
The log log paper used for plotting the back pressure curve shall be of at least three inch cycles.

NOMENCLATURE

- Q = Actual rate of flow at end of flow period at W. H. working pressure (P_w).
MCF/da. @ 15.025 psia and 60° F.
- P_c = 72 hour wellhead shut-in casing (or tubing) pressure whichever is greater.
psia
- P_w = Static wellhead working pressure as determined at the end of flow period.
(Casing if flowing thru tubing, tubing if flowing thru casing.) psia
- P_t = Flowing wellhead pressure (tubing if flowing through tubing, casing if
flowing through casing.) psia
- P_f = Meter pressure, psia.
- h_w = Differential meter pressure, inches water.
- F_g = Gravity correction factor.
- F_t = Flowing temperature correction factor.
- F_{pv} = Supercompressibility factor.
- n = Slope of back pressure curve.

Note: If P_w cannot be taken because of manner of completion or condition of well, then P_w must be calculated by adding the pressure drop due to friction within the flow string to P_t .

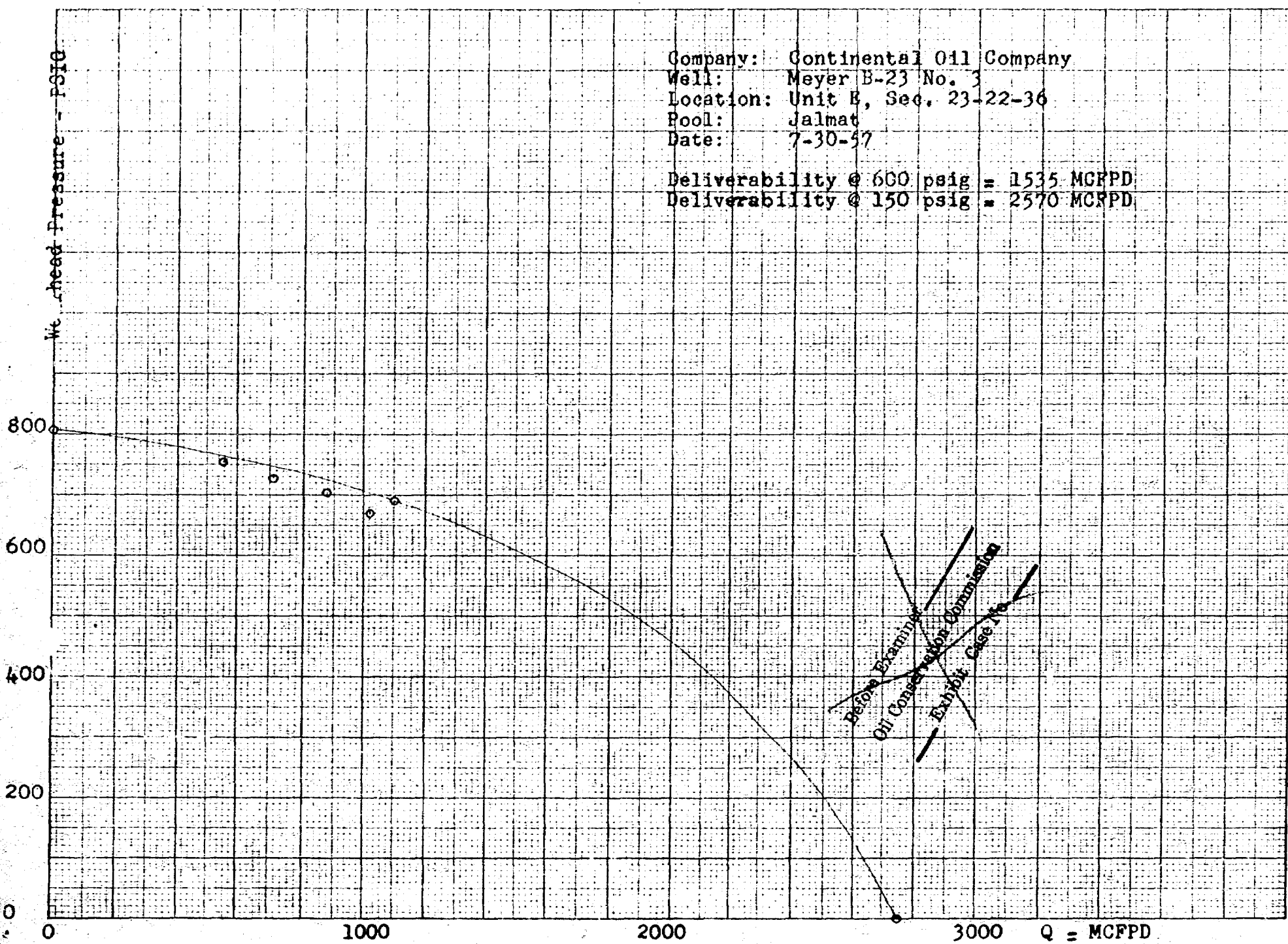
K&W LOGARITHMIC 359-110
MUSSELL & LORING CO. MINNEAPOLIS, MINN.
242 P. C. 111

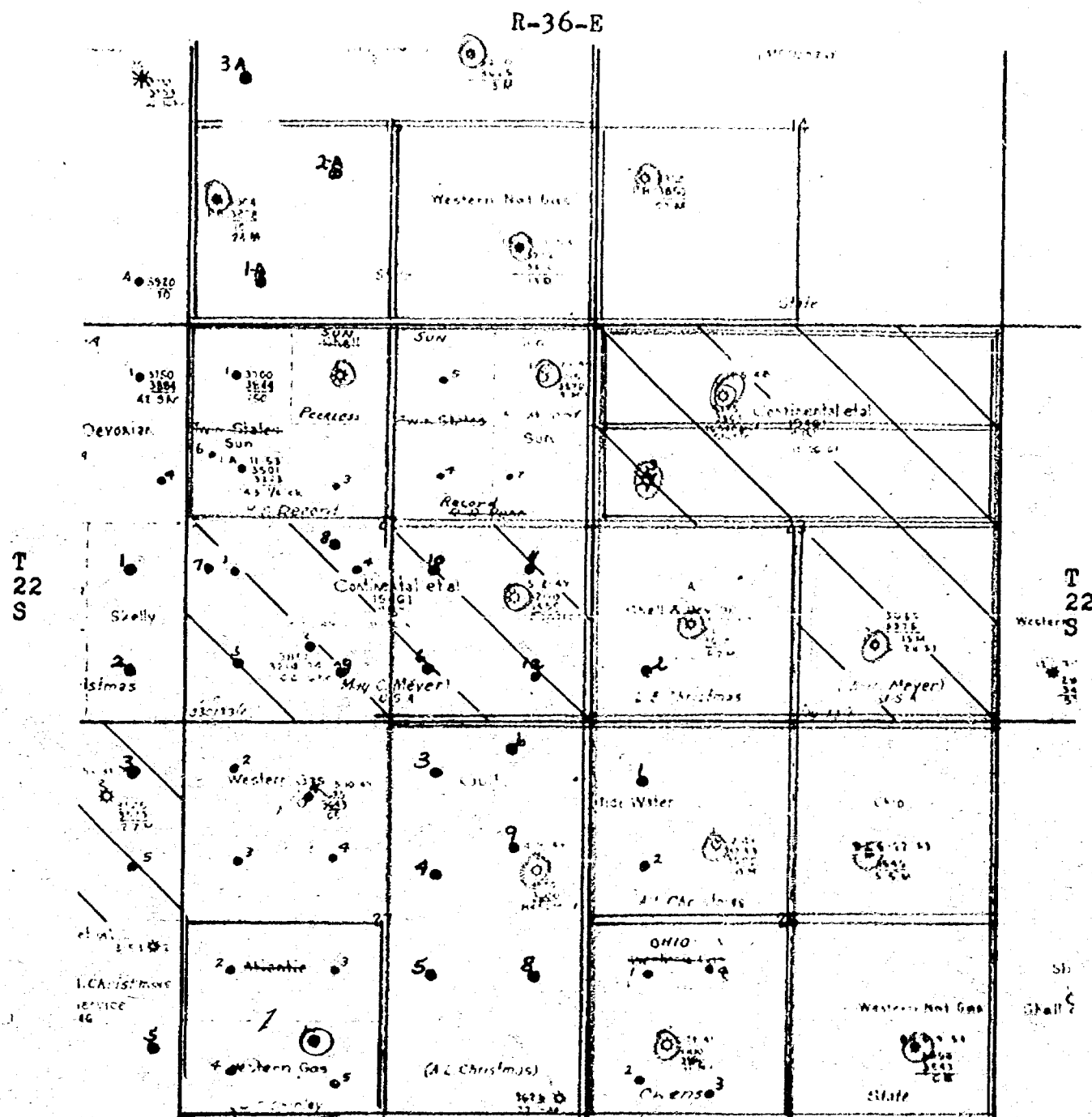


Before Examiner
Oil Conservation Commission
Exhibit Case No.

Company: Continental Oil Company
 Well: Meyer B-23 No. 3
 Location: Unit B, Sec. 23-22-36
 Pool: Jalmat
 Date: 7-30-57

Deliverability @ 600 psig = 1535 MCFPD
 Deliverability @ 150 psig = 2570 MCFPD





Before Examiner Miller

Oil Conservation Commission

Appt Exhibit Case No. 1318
Ex 4

ACREAGE ALLOCATION PLAT

JALMAT GAS POOL

Scale 1" = 2000'

Proposed Unit Boundary —
Proposed Unit Well ○

— Approved Unit Boundary
○ Approved Unit Well

Exhibit No. 4
Case No.

LIST OF LONG 160 ACRE NSP UNITS

Before Examiner W. J. [Signature]
Oil Conservation Commission

Exhibit Case No. 1-16

Ex 7

<u>Operator</u>	<u>Lease & Well</u>	<u>Description</u>	<u>S-T-R</u>	<u>NSP</u>
Gulf	Graham State C-1	W/2 E/2	24-19-36	209
Gulf	Kyte No. 1	S/2 S/2	7-19-37	130
Gulf	Kutter C-1	S/2 N/2	18-19-37	119
Texaco	Keohane Unit No. 1	N/2 N/2	18-19-37	118
Ohio	State D No. 1	W/2 E/2	28-19-37	231
Gulf	White B-5	S/2 S/2	35-20-36	227
Mapenza	Phillips-Hooper No. 1	W/2 E/2	27-20-37	204
Gulf	Bell-Ramsey B-3	W/2 W/2	28-20-37	288
Sunray	Reeves No. 1	N/2 N/2	29-20-37	315
Gulf	Ramsey State B-1	S/2 S/2	29-20-37	56
Gulf	Reeves No. 2	S/2 N/2	29-20-37	93
Gulf	Reeves No. 1	N/2 S/2	29-20-37	97
Gulf	Ramsey State B-2	W/2 W/2	33-20-37	168
Conoco	Meyer B-9 No. 2	E/2 W/2	9-21-36	287
Sinclair	State 176 No. 3	W/2 E/2	19-21-36	43
Hunt	Wantz No. 1	S/2 S/2	21-21-37	131
Hunt	Wantz No. 2	N/2 SW/4, NW/4 SE/4	21-21-37	132
Olsen	Cooper R-2	N/2 N/2	14-24-36	27
Sinclair	Mosely No. 1	S/2 S/2	34-24-37	115
So. California	Liberty Royalties Co. No. 3	W/2 W/2	3-25-37	179

X-7

Before Examiner

Oil Conservation Commission

Exhibit Case No. 1211

EX 8

LIST OF NON-STANDARD GAS PLORATION UNITS
HAVING TWO UNIT WELLS APPROVED AFTER HEARING

Order No. R-796

The Ohio Oil Company Lou Wortham Unit in the Tubb Pool comprising N/2 Sec. 11-T22S-R37E. Wells Nos. 9 and 11 located in units E and F, respectively, are both assigned to the unit under this order. The unit was originally assigned to the No. 9 well alone but decline of deliverability or other factors dictated operator to complete No. 11 for purposes of sharing in the unit's production.

Order No. 956

The Ohio Oil Company State McDonald Unit in the Jalmat Pool was enlarged from a 520-acre unit comprised of E/2, S^W/4 and SE/4 NW/4 Sec. 16-22-36 to a 600 acre unit comprising all of the section except for the NW/4 NW/4, and the unit assigned to two wells, No. 25 and No. 6, located in units H and N respectively. The original 520-acre unit was assigned to both wells under terms of order No. NSP-84.

Order No. 1020

Cities Service Oil Company Closson B Unit in the Jalmat Pool was enlarged from 160 acres consisting of the NW/4 of Sec. 20-22S-36E to 320 acres consisting of the W/2 of the section. The 160-acre unit was assigned to well 6 located in unit E of the section. The enlarged unit is assigned jointly to well No. 6 and to well No. 3 located in Unit D both of which wells are located in the original 160-acre unit.

X - 8