

BEFORE THE
Oil Conservation Commission
SANTA FE, NEW MEXICO

IN THE MATTER OF:

CASE NO. 796

TRANSCRIPT OF PROCEEDINGS

ADA DEARNLEY AND ASSOCIATES
COURT REPORTERS
ROOMS 105, 106, 107 EL CORTEZ BUILDING
TELEPHONE 7-9546
ALBUQUERQUE, NEW MEXICO

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
December 16, 1954

Application of Amerada Petroleum Corporation
for approval of a 280-acre non-standard gas
proration unit in the Eumont Gas Pool: NW/4
and W/2 SW/4 of Section 35, Township 19 South,
Range 36 East, and NW/4 NW/4 Section 2, Town-
ship 20 South, Range 36 East.

No. 796

BEFORE:

MR. E. C. (Johnny) WALKER
MR. WILLIAM B. MACEY

TRANSCRIPT OF HEARING

MR. WOODWARD: If the Commission please, we would like to consolidate our present case 796 with 797 and 804, since all of these cases deal with the establishment of non-standard gas proration units in the Eumont Gas Pool and then following that we will present Case 798.

MR. MACEY: You are taking up Case No. 796 first.

MR. WOODWARD: Yes, sir.

R. S. CHRISTIE;

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

DIRECT EXAMINATION

By: MR. WOODWARD:

Q Will you state your name, please.

A R. S. Christie.

Q By whom are you employed and in what capacity?

A Amerada Petroleum Company as a petroleum engineer.

Q Have you previously testified before this Commission

in your capacity as a petroleum engineer and an expert witness?

A Yes, I have.

Q Are Mr. Christie's qualifications accepted?

MR. MACEY: They are.

MR. WOODWARD: Mr. Christie, will you describe the non-standard gas proration unit that Amerada is proposing in this case?

A The non-standard gas proration unit in 796 is the northwest quarter of Section 35, Township 19 South, Range 36 East, and the west half of the southwest quarter of Section 35, Township 19 South, Range 36 East, and the northwest quarter of the northwest quarter of Section 2, Township 20 South, Range 36 East.

Q Section 2 is immediately south of 35 in this 40 acre tract that you are proposing here, is immediately south of the west half of the southwest quarter, is that correct?

A Yes, it is, yes, sir.

Q Is actually that acreage contiguous?

A It is contiguous.

Q And held under the same leasehold?

A Yes, sir.

Q Is the proposed unit longer than 5280 feet?

A Yes, one dimension of the proposed unit would be 6600 feet in length.

Q And it crosses the section line?

A Yes, sir.

Q Where is the unit well located on this proposed unit?

A The unit well is located in the southeast quarter of the northwest quarter of section 35, Township 19 South, Range 36 East.

Q What acreage is presently attributed to this well for

allowable purposes?

A 240 acres.

Q How much acreage in the Eumont Pool will this well drain?

A It has been testified previously before this Commission that one well in the Eumont Pool would drain at least 640 acres and in my opinion this well will drain approximately the same number of acres.

Q Well, then all this application amounts to is that you want to add the northwest quarter of the northwest quarter of Section 2, to the acreage presently attributed to the well?

A That is correct, yes, sir.

Q And do you propose that the allowables be increased proportionately?

A Yes, I do.

Q In your opinion, can this 40-acre tract be consolidated with other acreage in Section 2 to form a producing unit at this time?

A At this time it doesn't seem to be very practical for two reasons. It is better, I think, to attach it to the acreage in the section to the north because it is the same ownership and secondly, we are still in doubt as to the finding of the Federal Power Commission so that it is doubtful whether a well would be drilled in this quarter section or this quarter quarter section at this time.

Q Would the applicant be unwilling to consider incorporation of this 40-acre tract with other land in the Section 2, if that should prove feasible in the future?

A Yes, we would be.

Q In your opinion, is this an interim measure for the protection of correlative rights?

A Yes, sir.

Q Have all offset operators been notified of this proposed non-standard unit, Mr. Christie?

A Yes, they have.

Q Have you received any objections to it?

A No, we have not.

MR. WOODWARD: That is the extent of our direct examination in Case 796. If the Commission please, we'd like to introduce a plat which is attached to our original application, like to introduce this as Amerada's Exhibit A in Case 796.

MR. MACEY: Is there objection to the introduction of this exhibit in evidence? If not, it will be received. Are there any questions of the witness in Case 796?

MR. RHODES: I have one, Mr. Macey. Mr. Christie, in regard to 796, you are asking there not only for an exception to the standard acreage unit as thought of when we speak of proration units but also you wish to get an exception to 5-a, to Rule 5-a, where it pertains to the well location, do you not, that is, I believe that you need two exceptions there in this order, is that right? One an exception to the size of the proration and number two, an exception to the location of the well.

A As I understand it, it is primarily one exception, that is to the standard proration unit.

MR. WOODWARD: If the Commission please, I believe our application states that the unit well is located 1980 feet from the north line and 1980 feet from the west line of section 35.

some 80 per cent of the oil which moves up-structure will be lost and never recovered. At this time there is very small difference in the bottom hole pressure in this particular area, in the Pinrose oil and Pinrose gas. The following figures are a little rough but they are probably very close to the actual situation: Assuming a gas well on 40-acres and an oil well on 40-acres, the gas with an estimated take of 200 MCF per day, based on 40-acres will void 2310 cubic feet of reservoir space while the oil well will void 290 cubic feet making the oil short 2,011 cubic feet of reservoir space.

Now putting it on raw economic facts, 1,000 cubic feet of gas is worth about 10¢ and voids about two barrels of reservoir space and oil over 40 degrees of gravity is selling for \$2.77 a barrel or 5¢ worth of gas is obtained from the same amount of space that oil would pay \$2.77. Thank you.

MR. WOODWARD: If the Commission please, we are aware of the considerations that Mr. Montgomery raised and recognized there. However, we'd like to point out that this non-standard unit is only 280 acres, it is less than half in size and less than half in allowable of standard size 640 acre unit and none of the acreage along this west side, including this 40 acre tract is any closer to this proposed oil well to the west. Consequently, the effect of exception here, we do not believe would have any impact whatever on the oil production to the west inasmuch as it is considerably smaller than the standard unit and the standard allowable which could be granted if all of the acreage in that section were under the same ownership and lease.

MR. MONTGOMERY: I believe that the witness testified that

the gas well would drain 640 acres.

MR. MACEY: I think he testified that it could drain 640 acres if it was necessary for it to drain 640 acres.

MR. WOODWARD: That is correct, but it is only going to get a 280 acre allowable and there is plenty of testimony in the record that that is what a well will drain in the Eumont Poll but we are not asking that that well be assigned such an allowable.

A I might add that it is our opinion that this reservoir is primarily a gas reservoir and that we have this fringe of oil around the periphery of the gas zone and it has been our experience that this is very tight formation and it takes, requires fracturing and it is very doubtful whether this oil would migrate to any great extent. If there is an inequitable withdrawal from the reservoir standpoint it seems to me that it would be better to increase the oil allowable so that it would lower the bottom hole pressure at about the same rate as the gas withdrawals.

MR. MACEY: Mr. Christie, I think we are all talking pretty much about the same thing. That is, that we probably are going to have to watch the bottom hole pressures in the pool and at the same time watch the withdrawals and make any adjustments, if necessary, if it looks like it is going to be necessary.

A I think that is correct, we know that condition exists and it should be kept in mind and possibly be a subject for a special hearing some time after we get more additional information but I don't believe at this time that the gas well should be penalized until we know more about the conditions in the reservoir.

MR. MACEY: Is there anyone else?

MR. WALKER: I'd like to ask Mr. Christie one question.

Would you advocate, for instance, if you had an offset well there right across the line that produced oil -- this is a theoretical proposition -- and your well/was a gas well, would you advocate a volumetric proposition then, Mr. Christie, in other words, what kind of equity would you recommend in that condition?

A Well, I think you'd have to make a pretty good study of the reservoir to determine whether your oil is migrating to any great extent, if it is, why then you'd have to adjust all over the reservoir. I wouldn't think you could adjust over any quarter section line, you'd have to consider the entire reservoir.

MR. WALKER: Thank you.

MR. MACEY: Any one else?

MR. MONTGOMERY: I'd just like to make the further statement that we have quite a number of gas wells that are completed in the Pinrose that are going to oil and apparently this Pinrose Reservoir could be quite large depending on the porosity that we get but down the road it is a very serious problem.

MR. MACEY: Anyone else? If not, we will take the case under advisement. Proceed to Case 797.

STATE OF NEW MEXICO)
COUNTY OF BERNALILLO) ss.

I, MARGARET McCOSKEY, Court Reporter, do hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, is a true and correct record to the best of my knowledge, skill and ability.

IN WITNESS WHEREOF I have affixed my hand and notarial seal this 23rd day of December, 1954.

My commission expires
August 15, 1956.

Margaret McCoskey
Notary Public - Court Reporter