

BEFORE THE  
OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico

November 29, 1961

EXAMINER HEARING

FARMINGTON, N. M.  
PHONE 325-1182

DEARNLEY-MEIER REPORTING SERVICE, Inc.

ALBUQUERQUE, N. M.  
PHONE 243-6691

IN THE MATTER OF:

Application of Socony Mobil Oil Company for permission to transfer allowables, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks permission to shut-in the Boulder-Apache Well No. 12-14, located in Section 14, Township 28 North, Range 1 West, Boulder-Mancos Oil Pool, Rio Arriba County, New Mexico, and transfer its allowable to the Boulder-Apache Well No. 23-14 located in said Section 14 for the purpose of conducting interference tests.

CASE NO.  
2440

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

EXAMINER NUTTER: The Hearing will come to order, please.

We will call Case No. 2440.

MR. WHITFIELD: Application of Socony Mobil Oil Company for permission to transfer allowables, Rio Arriba County, New Mexico.

MR. ERREBO: I am Burns H. Errebo, appearing on behalf of Modrall, Seymour, Sperling, Roehl and Harris of Albuquerque. We have one witness, Mr. R. C. Mills, who may be sworn at this time.



(Witness sworn.)

R. C. MILLS,

called as a witness, having been first duly sworn on oath, was examined and testified as follows:

DIRECT EXAMINATIONBY MR. ERREBO:

Q Will you state your name, please?

A Robert C. Mills.

Q Where do you reside, by whom are you employed and in what capacity?

A My home is in Durango, Colorado, and I am employed by the Mobil Oil Company. I work in Durango as an engineering supervisor.

Q Mr. Mills, have you ever testified as a petroleum engineer before this Commission?

A Yes.

Q What is the purpose of Socony Mobil Oil Company's application today?

A We are seeking approval to transfer the allowable from one well in the Boulder-Mancos Pool while it is shut-in for the purpose of making an interference test.

Q Where is the Boulder-Mancos pool located?

A In Rio Arriba County, Township 28 North, Range 1 West, shown on the exhibit map.

Q How many wells are there in this pool at the present



time?

A Five wells have been completed. In addition, four are either recovering load oil or are in drilling operation.

(Applicant's Exhibit No. 1  
marked.)

Q Will you please state by reference to your Exhibit No. 1 exactly what you propose to do with the well involved?

A With reference to the map, the Socony leases outlined in red, the Socony Mobil Boulder 12-14 is in the Northwest of Section 14 and the well location is circled in ink. That is the well we would like to shut-in. We would like to transfer the allowable from that Well No. 12-14 to Boulder 23-14, which is circled with the red pencil. Our operation involves these two wells, shutting in one well and transferring its allowable to 23-14.

Q You hope to obtain engineering information from this procedure, is that right?

A Yes, we do.

Q Do you hope to show communication between these two wells?

A We hope to determine if there is communication. We are hopeful that the data we obtain will enable us to determine the optimum spacing for the Boulder-Mancos Pool.

Q What is the present allowable production for these wells? What is the top?

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A Seventy-seven barrels.

Q What is the 12-14 well which you propose to shut-in presently assigned as to allowable?

A Seventy barrels.

Q Is it making its allowable?

A Yes, it is capable of producing approximately 85 barrels a day.

Q Do you propose to transfer the allowable to 23-14 Southeast?

A Yes, sir.

Q What is the capability of this well as far as production is concerned?

A On a recent test made to determine the capacity of this well, it produced at top capacity 170 barrels.

Q That leads you to believe that this well could actually produce in excess of top capacity?

A Yes, sir.

Q You don't know how much?

A No.

Q Have you had occasion to measure the GOR of either or both of these wells?

A Yes, we have. Both are approximately 140 cubic feet per barrel.

Q Do you plan to treat or otherwise work over 12-14 before it's shut-in in the event the Commission grants this appli-



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cation?

A Yes, we do. It's the only well which has been completed to date which has not been fractured, and we think that from a production standpoint to sustain producing rate, we need to fracture the well and also we feel that to make a fair comparison in what we are attempting to prove or determine with our interference test, the well should be fracked so that it will be quite comparable in all respects to the other wells in the pool.

Q Is there any water produced from the reservoir?

A No, there's been no water produced there, yet.

Q What is the GOR, a 140 to one?

A Yes.

Q What period of time would you recommend the Commission at this time that you be allowed to shut-in this well and transfer the allowable?

A Well, we would prefer to request that the transfer be made for an indefinite period. However, we feel that ninety days should be sufficient to collect the data that we want.

Q You feel that there is relative likelihood that any time less than ninety days you would not have the information that you want?

A Well, I have no basis for saying yes or no to the question except I could qualify this by saying that the bottom-hole pressure device can be read at any time at the surface, so when we are beginning to see some pressure deflection, if there



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is interference, we will know that immediately when the shut-in well begins to experience some pressure difference. If we don't see some interference within ninety days, we would probably give serious consideration to terminating the interference test and returning the 12-14 to production.

Q Oil is trucked out of there, is it not?

A That's correct.

Q Do you contemplate any likelihood that production from your well in the offset will be interrupted on account of not being able to haul the production out during this ninety-day period which would, if granted, run during the middle of the winter? Do you think that constitutes any problem?

A It's a possibility. However, we are ready to anticipate that possibility by furnishing ample storage for the oil on the lease.

Q How about the offset wells? Would you expect to be producing? That would also have some effect, I assume, on bottom-hole pressure in the shut-in well. Will you have ample capacity for storage?

A I can't say positively that they do but I'm sure they realize the problems in reaching this area and will supply themselves with adequate storage.

Q There is no necessity at this time to request flexibility from the Commission as to the period of time over which this shut-in would be allowed?



A If it could be granted, I would prefer to leave it as an indefinite period for the reason we don't know what type response we're going to get there.

Q Do you have anything further to add to your testimony?

A No, I don't believe so.

MR. ERREBO: That's all we have.

EXAMINER NUTTER: Are there any questions of Mr. Mills?

CROSS EXAMINATION

BY MR. MORRIS:

Q Mr. Mills, who owns the East half of the Northwest quarter of Section 14?

A Mobil owns those entire four sections and about this time P M Drilling Company obtained those two 80's and they obtained two 80's in Section 15 for the purpose of drilling a test well in this area, a wildcat, and so, P M Drilling is leaseholder of those two 80's that you're referring to.

Q Is there any way that the grouping of this completion can adversely affect P M's correlative rights?

A No, I don't believe so.

Q Does Skelly Oil Company own any acreage in this area?

A Sections 1, 2, 11 and 12 in this township immediately to the north of the Mobil lease.

MR. MORRIS: I believe that's all I have. I would like to mention we have received correspondence from Skelly Oil Company voicing no objection to the granting of the application in



this case.

CROSS EXAMINATION

BY EXAMINER NUTTER:

Q Mr. Mills, the West half of the Northwest quarter of Section 14, the well there is designated as the 12-14 Apache, while the wells down near the remainder of the lease are designated with the name Boulder. Is there any significance in this?

A When we originally drilled that first well of ours, the 12-14, we called it a Boulder-Apache lease. We found that too cumbersome and so we have been describing it as Boulder, but this is the thing from which this map was updated. Originally, it carried the lease name of Apache, which was an oversight on our part. It's incorrect. It should be Boulder.

Q So this is all one lease?

A Yes.

Q The ownership is identical in every respect?

A Yes.

Q The 80's as well as the remainder of the four sections?

A Yes.

Q The GOR here of 142 cubic feet per barrel, is there enough producing history in the reservoir to date with respect to what kind of drive that it has?

A Well, by analogy, I'm of the opinion that the drive will be primarily gravity drainage.

Q Is this pool producing from shale or sand interspersed

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in the Mancos shale?

A It is producing from a shale or silica stone. We believe that the reservoir, as it exists, that there are fractures in that shale.

Q Have cores been taken?

A Yes, they have. Aztec Oil & Gas took one, or several, rather, up in Section 45 of the Township to the north, and those cores did exhibit some fracturing and some oil staining.

Q Have any cores been taken in the immediate area of 12-14?

A No.

Q If there is a gravity drive, will it be detrimental to the 12-14 for it to produce at double allowable for an indefinite period?

A No, I don't think so.

Q Which way is it draining from?

A From east to west.

Q You stated that the 12-14 is the only well in this area that has not been fracked?

A Yes, sir; correct.

Q What was the potential when it was originally brought in?

A One hundred fifty-five barrels a day which declined in about three days to 100 barrels. This was about the middle of August. Since the middle of August, the well has declined in



producing rate from 100 to 85. We feel that one of the reasons for that very rapid initial decline is attributable to the fact the well was not fractured and there is a rather limited drainage reading.

Q Do you think it would be appropriate for the Commission to transfer a full allowable away from the well in view of the fact that it is declining at that rate?

A Well, the declining history would indicate that the well, even if it's not fractured, should surely be capable of producing 70 barrels a day in 90 days, if it must be qualified that way, and we feel that we will substantially increase the productive capacity of the well by fracturing. By way of note, there, I'd like to point out our Boulder 23-14 had no natural show when we drilled through the section with air and yet, we fractured the well and it showed an IP of 160 barrels a day and has increased slightly since then. The same is true of the Skelly well to the north of 12-14. It had no natural show and was IPd for 97 barrels a day. It's reasonable to expect that we will substantially improve the productive capacity of 12-14 through fracturing.

Q Is it your plan to fracture the top 14?

A Yes, we'll do that before we initiate the interference test.

Q You're going to measure that bottomhole pressure at the surface?

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A It is a down-hole element and it will be -- we have an electric cable coming to the surface.

EXAMINER NUTTER: Are there any questions of Mr. Mills?

MR. ERREBO: Just one thing.

REDIRECT EXAMINATION

BY MR. ERREBO:

Q Mr. Mills, was Exhibit 1 prepared by you or under your supervision?

A Yes, sir.

MR. ERREBO: We offer Exhibit 1 in evidence.

EXAMINER NUTTER: Socony Mobil Oil's Exhibit No. 1 will be admitted in evidence.

MR. ERREBO: That's all we have.

EXAMINER NUTTER: The witness may be excused.

(Witness excused.)

Does anyone have anything they wish to offer in Case No. 2440?

We will take the case under advisement.

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