## BEFORE THE OIL CONSERVATION COMMISSION SANTA FE, NEW MEXICO

IN THE MATTER OF:

CASE 1837: Application of Continental Oil Company for an oil-oil dual completion.

TRANSCRIPT OF HEARING

JANUARY 6, 1960

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DEFORE THE OIL CONSERVATION COMMISSION SANTA FE, NEW MEXICO JANUARY 6, 1960

IN THE MATTER OF:

CASE 1837: Application of Continental Oil Company for : an oil-oil dual completion. Applicant, in : the above-styled cause, seeks an order : authorizing the dual completion of its Baish : "A" Well No. 27, located in the NE/4 SE/4 : of Section 21, Township 17 South, Range 32 : East, Lea County, New Mexico, in such a man- : ner as to permit the production of oil from an undesignated Wolfcamp pool through paral-: lel strings of tubing. :

BEFORE:

Daniel S. Nutter, Examiner.

TRANSCRIPT OF HEARING

MR. NUTTER: We will take next Case 1837.

MR. PAYNE: Case 1837. Application of Continental

Oil Company for an oil-oil dual completion.

MR. KELLAHIN: If the Commission please, I ask the record to show the same appearances as in Case 1835. Our witness will be Mr. E. D. Coltharp.

E. D. COLTHARP

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

DIRECT EXAMINATION



DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO

BY: MR. KELLAHIN:

Q Will you state your name, please?

A E. D. Coltharp.

Q By whom are you employed and in what position, Mr. Coltharp?

A With Continental Oil Company as district engineer in the Artesia, New Mexico District.

Q Have you had any training or experience as a petroleum engineer?

A Yes, sir, I have.

Q Would you outline that for the benefit of the Commission, please.

A I graduated with a BS degree in petroleum engineering from the University of Texas, was with the Texas Railroad Commission for a year and a half after that.

Q In what capacity?

A As field engineer and examiner, with W. H. Bryant, Independent, four years; Continental Oil Company two years and a half, as district engineer for a year and a half.

Q Where are you presently located?

A Located presently at Artesia.

MR. KELLAHIN: Are the witness' qualifications acceptable?

MR. NUTTER: Yes, sir. Please proceed.

Q (Ry Mr. Kellahin) Are you familiar with the applica-



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A Yes, sir, I am.

Q Would you state briefly what is proposed in this application?

A This is the application of Continental Oil Company for a a dual completion, oil-oil dual completion, of its ME Baish "A" No. 27 well in an undesignated Wolfcamp and Abo formation, located 1980 from the South line, 810 feet from the East line, Section 21, Township 17 South, Range 32 East, Lea County, New Mexico.

Q Before we get into a discussion of the dual completion, would you outline briefly the history of this well?

A This well was originally drilled to a total depth of about 13,670 feet. The Devonian formation was found to be non-productive. The well was then plugged back to approximately 12,400 feet, and the Cisco formation was tested, however, this zone had very small oil production and declined pretty rapidly, and we plugged it on back to the Wolfcamp formation, where we had a potential test of 145 barrels of oil per day and 145 barrels of water per day. The gas volume was too small to measure at that time.

Q What are the perforations in the Wolfcamp?

A The perforations that we produce from are 9,850 feet to 9,862 feet. This is measured from the Kelly Bushman measurement. Q Following that completion, what occurred in the well?

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PHONE

A The Abo formation was then tested from the interval of 8,977 to 8,987, approximately ten feet of perforations were opened, and also we tried a little lower zone, however, water and communication caused us to squeeze the next interval, which was from 9,004 to 9,013. The initial potential of this well at the upper perforations of 8,977 to 8,987 was four hundred and seventy barrels of oil per day, no water, through a quarter inch choke, and gas-oil ratio of twelve to nine. The cumulative production from this Abo formation to November 1, 1959, was 6,503 barrels of oil; however, to January the lst, 1960, it is approximately 12,000 barrels of oil.

Q It is presently being produced from the Abo, is that correct?

A Yes, sir.

Q Referring to what has been marked Exhibit No. 1, will you discuss that exhibit, please?

A Exhibit 1 is a location and ownership plat showing the ME Baish "A" lease and the surrounding area. The ME Baish lease is indicated by the red, and the ME Baish "A" No. 27 well is circled in red.

Q Now, referring to what has been marked as Exhibit No. 2, will you discuss that exhibit?

A Exhibit No. 2 is just a section of the gammaaray zonic log which shows or indicates that the top of each of these zones, top of the Abo formation at approximately 7608, and the Abo



perforations at 8977 to 8986. The top of the Wolfcamp formation at 9108, top of the Wolfcamp perforations at 9850 to 62.

Q Now, referring to what has been marked as Exhibit No. 3 will you discuss that exhibit.

A Exhibit No. 3 is a schematic diagram of the proposed method of dual completion. As shown in this diagram, the proposed dual completion will be accomplished by producing both zones through two inch tubing.

MR. PAYNE: Two inch or two and three-eights?

A Two and three-eights, that's the common normal size. Two and three-eights inch is the correct measurement, that's OD measurement. We propose setting a Baker model "D" production packer at 9750 to separate the two producing zones, and we are placing a dual production packer at approximately 8950, which would be just above the Abo perforations, and then also on the left-hand side it shows the casing size, the depth, and the top of the cement. The cement, by temperature survey on the oil string was indicated to come back up to 6700 feet on the surface pipe, and the intermediate string, the cement was circulated.

Q Now, in your opinion, are the Abo and Wolfcamp formations capable of being produced?

A Yes, sir, the are.

Q Will the well be equipped in such a manner that there will be no commingling of any sort in the well bore?

A Yes, sir, it will be.



They will be separated all the way to the pipe line.

Q Is the proposed dual completion mechanically and economically feasible, in your opinion?

A Yes, sir, it is.

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Q Will you be able in this type of dual completion, to make adequate packer leakage tests or any other tests that may be required by the Commission?

A Yes, sir, we will be.

Q How will those tests be accomplished?

A By shutting off the required length of time.

Q In your opinion, will the approval of this application result in the prevention of waste and result in the protection of correlative rights?

A Yes, sir.

Q Were Exhibits 1, 2, and 3 prepared by you or under your direction and supervision?

A Yes, sir, they were.

MR. KELLAHIN: At this time we would like to offer in evidence Exhibits 1, 2, and 3.

MR. NUTTER: Continental's Exhibits 1, 2, and 3 will be entered.

MR. KELLAHIN: That's all the questions I have. MR. NUTTER: Does anyone have any questions of Mr.

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PHONE CH 3-6691	Coltharp?
	MR. PAYNE: Yes, sir.
	MR. NUTTER: Mr. Payne.
	CROSS EXAMINATION
	BY: MR. PAYNE:
PHONE	Q Mr. Coltharp, has this well already been dually
	completed?
	A No, sir.
	Q It is producing from the Abo now, is that correct?
	A Yes, sir.
	Q Do you have the gravity of the Abo fluid?
	A Yes, sir, the gravity of the Abo fluid was 42.4 degrees
	API.
	Q What do you anticipate the Wolfcamp will be?
	A We have checked the Wolfcamp, and on the test and
	everything, it was 38.6.
ALBUQUERQUE, NEW MEXICO	Q Are both of these pools presently undesignated?
	A Yes, sir.
	Q But the well is within the horizontal limits of
	the Maljamar pool?
	A Yes, sir.
	Q Now, do you have a gas-oil ratio on the two zones?
	A The gas-oil ratio on the Abo was 1209 as previously
	stated, and likewise, the gas-oil ratio on the Wolfcamp was too
	small to measure. We were making a hundred barrels of water a day

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Q What about pressure?

A The pressure, the static bottom hole pressure on the Abo formation was 3322 taken at the mid-point of the perforations. The Wolfcamp, the only pressure we were able to get on it was on a DST. Initial DST was 2690. That was a thirty minute drill stem test.

Q In view of these variations in gravity, gas-oil ratio and pressure, you would be able to detect a packer leak relatively easy, isn't that correct?

A Yes, sir, we would notice it fairly rapidly.

MR. PAYNE: That's all.

MR. NUTTER: Any further questions?

MR. KELLAHIN: I have one I would like to ask.

## REDIRECT EXAMINATION

BY: MR. KELLAHIN:

Q Is this well within the vertical limits of the Maljamar Co-operative Repressuring Agreement?

A Not in the vertical; horizontal. The Maljamar Cooperative is only down through the Grayburg and San Andres.

MR. KELLAHIN: That's all.

MR. NUTTER: The witness may be excused if there are no further questions.

(Witness excused.)

MR. NUTTER: Does anyone have anything further in

ALBUQUERQUE, NEW MEXICO

Case 1837? Take that cause under advisement and take a fifteen

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 Proceedings before the New Mexico Oil Conservation Commission was reported by me in Stenotype and reduced to typewritten transcript by me, and that the same is a true and correct record to the best of my knowledge, skill and ability.

WITNESS my Hand and Seal this, the  $13^{th}$  day of 1960, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

My Commission Expires:

October 5, 1960

minute recess.

STATE OF NEW MEXICO

COUNTY OF BERNALILLO

I do hereby certify that the foregoing is a complete record of the proceedings in the Examinor hearing of Case No. 1960. heard by he on ..... uniner, Examiner New Mexico Oil Conservation Commission

NOTARY PUBLIC

ALBUQUERQUE, NEW MEXICO