

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
March 3, 1961

IN THE MATTER OF:

Application of Union Oil Company of California for permission to commingle the production from two separate leases from two separate pools and for an automatic custody transfer system. Applicant, in the above-styled cause, seeks permission to commingle the Anderson Ranch-Devonian and Anderson Ranch-Wolfcamp Pool production from all wells presently completed or hereafter drilled on the following-described leases: North Anderson Ranch Unit, E/2 NE/4 and NE/4 SE/4 of Section 32 and NW/4 and N/2 SW/4 of Section 33; State "A" Lease, comprising 360 acres in Sections 28 and 33, all in Township 15 South, Range 32 East, Lea County, New Mexico. Applicant further seeks permission to install an automatic custody transfer system to handle said commingled production.

) Case
) 2212

BEFORE:

Daniel S. Nutter, Examiner.

TRANSCRIPT OF HEARING

MR. NUTTER: Call Case 2212.

MR. MORRIS: Application of Union Oil Company of California for permission to commingle the production from two separate leases from two separate pools and for an automatic custody transfer system.

MR. CAMPBELL: Jack M. Campbell, Campbell & Russell, Roswell, New Mexico, appearing on behalf of the applicant Union Oil Company of California. We have one witness to be sworn in this case.

(Witness sworn.)

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CLAUDE C. MALONEY

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

DIRECT EXAMINATION

BY MR. CAMPBELL:

Q Will you state your name, please?

A Claude C. Maloney.

Q Where do you live, Mr. Maloney?

A Midland, Texas.

Q By whom are you employed?

A Union Oil.

Q In what capacity?

A District Superintendent.

Q How long have you been employed there?

A Thirteen years.

Q What has been the general nature of your work with Union Oil Company of California?

A Production supervision.

Q During all this time you have been in the production division; is that correct?

A Yes, sir.

Q Are you acquainted with the application of Union Oil Company of California in this Case No. 2212?

A Yes.

Q Are you acquainted with the leasehold interests involved

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in the two leases?

A Yes, sir.

Q Will you refer to what has been identified as Union Oil Company Exhibit 1 in this case, the plat, and will you point out to the Examiner on that Exhibit No. 1 which two areas are involved and where they are situated?

A The unit acreage is this that is hashed in red. The yellow acreage is the State "A" Lease.

Q Will you point out the presently existing wells on the Anderson Ranch unit area and the State "A" Lease, please, and advise the Examiner from which zones those wells are now producing?

A The State "A" Lease at the lower bottom is a dual Wolfcamp Devonian. The No. 1 Well in the unit is a Wolfcamp single completion; the No. 2 Well is a Wolfcamp single.

Q Have you previously obtained authority from this Commission for the commingling of oil on your State "A" Lease from the Devonian and Wolfcamp?

A Yes, sir, we have.

MR. CAMPBELL: Will the Examiner take administrative notice of the Commission's letter of November 22, 1960, being administrative Order PC-22, in which authority is granted administratively for the commingling of the Wolfcamp and the Devonian on the State "A" Lease, which is the acreage outlined in yellow on Exhibit No. 1?

MR. NUTTER: Yes, we will take notice of that.



MR. CAMPBELL: I would like also, at this time, with regard to Exhibit No. 1 to advise the Commission, or the Examiner, that I was in error in including the SW/4 of the SE/4 of Section 28 in the State "A" Lease. The notice does not identify the acreage, but that is a Texas-Pacific Coal and Oil Company 40-acre tract, so there is actually 320 acres instead of 360 acres in the State "A" Lease.

Q With regard to the commingling of oil, what is it that you propose to do, Mr. Maloney?

A The Devonian Lease at the present time is, from the State "A" 1 Well, is produced through an automatic lease shut in valve into an emulsion treater.

Q I am asking you, do you intend to commingle the oil from Anderson Ranch unit properties and State "A" Lease?

A No, sir, we do not.

Q You are going to have a separate unit for the Anderson Ranch unit area and the State "A" Lease; is that correct?

A Yes, sir.

MR. CAMPBELL: Mr. Examiner, may I inquire whether, on this hearing where we do not have Devonian production in the Anderson Ranch Unit as yet, whether it is possible to obtain authority on the basis of this notice to commingle Wolfcamp and Devonian on that unit if and when Devonian production is obtained?

MR. NUTTER: I would say so, Mr. Campbell. The application is advertised to provide for commingling Anderson Ranch Devonian



and Anderson Ranch Wolfcamp production.

MR. CAMPBELL: When we present our evidence as to the automatic custody transfer system for the unit we will have the witness supplement his testimony by stating what would be done in the event Devonian production was obtained in the unit.

MR. NUTTER: Yes, sir.

Q (By Mr. Campbell) Now, Mr. Maloney, I refer you to what has been identified as Union Oil's Exhibit 2, a diagrammatic sketch of the automatic custody transfer system for Anderson Ranch unit. Will you refer to that and advise the Examiner what sort of set up you intend to install there with regard to the production from the Wolfcamp Formation within the unit, and advise approximately where that installation will be located on the unit?

A The location will be just north of the No. 1 Well. In the event we do get Devonian production there it will be metered separately from the Wolfcamp production.

Q In the event you obtain Devonian production will the set up then be the same as you are going to describe for the ACT unit on the State "A" Lease?

A Yes, sir.

Q It will be an identical plan; is that correct?

A Yes, sir.

Q Will you explain briefly to the Examiner the set up that you intend to install on the Anderson Ranch unit for the handling of Wolfcamp production within the unit? First, explain what company-



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type installation this will be. -- By way of correction, will you refer to what has been identified as Union Oil Company Exhibit No. 2, which is the automatic custody transfer system for the State "A" Lease, and describe to the Examiner the type of installation you intend to use there.

A The Devonian production is routed through the automatic lease shut in valve into an emulsion treater. The clean oil is then routed to a liquimeter which measures and records the Devonian production. It is then sent on to the working tank.

Q What is the capacity of the working tank?

A 500 barrels. The Wolfcamp production is produced through the lease shut in valve through a metering separator which records the production, and is then commingled downstream of the liquimeter and goes to the working tank. The head level start-stop control (e) on the working tank senses the working level in that tank and, in turn, starts the pump (1), transferring oil to the pipeline. The oil, from Pump (1) goes into the strainer (2), then into the deaerator (3), into the BS & W monitor probe. In the event bad oil is sensed in the probe the BS & W monitor diverts the bad oil through (5) and returns the oil back to stock for further treatment. This oil goes through a bypass meter system and is registered there in order that the Devonian oil can be accounted for, then returns back to the working tank. When the probe senses good oil the oil goes to the sampler which takes an impulse per barrel from the P. D. meter.

~~This sample is stored in the receptacle No. 11. The oil goes~~



through the temperature compensated P. D. meter (7) and impulses sent to the monthly allowable counter (b). In this manner the lease may be shut in when the monthly allowable is made. A ticket printer attachment is located on top of the P. D. meter. A ticket is inserted at the beginning of each measurement period and cannot be removed until the measurement period is ended, and this is enclosed for pipeline seal.

The oil then goes through pressure switch (8) and, in the event of excessive pipeline pressure this switch automatically shuts down the system. The oil then goes through the meter prover loop (9), from this loop through the good oil back pressure valve, (10), into the pipeline.

Q Will you state what is the capacity of your storage tank?

A Well, from the position of the head level control we will have approximately 800 barrels storage.

Q Will you explain to the Examiner what operation takes place in the event that the storage becomes full?

A When the working tank becomes full the oil is equalized into the emergency storage tank which is a 500 barrel tank, then, as that fluid level rises to position (D) the high level switch shuts in the lease.

MR. PAYNE: At the header?

A It shuts in each one of these automatic lease shut in valves at the header.

Q (By Mr. Campbell) You feel that this system can be oper-



ated in such a manner that there will be no waste of oil in connection with the operation?

A Yes, sir.

Q To your knowledge is this type of installation in operation in the southeast New Mexico area at this time?

A Yes, sir, it is.

MR. CAMPBELL: Would the Examiner like to ask questions about this particular installation before we proceed to the next?

MR. NUTTER: Either way you want to do it.

MR. CAMPBELL: Perhaps that would be a little more orderly.

MR. NUTTER: Why don't you go ahead and proceed with the next one. Maybe there will be questions we can eliminate after we hear both of them.

Q (By Mr. Campbell) Now, Mr. Maloney, refer, please, to Exhibit No. 3, which is the automatic custody transfer system for the State Lease, or the Anderson Ranch Unit, and state to the Examiner what that installation is and in what respects, if any, it differs from the installation on the State "A" lease?

A Of course, the main difference is the fact we are only producing one zone there at this time. We are not commingling. Wolfcamp oil is produced to a centralized header. Downstream of the header are located two automatic lease shut in valves, one on the production side and one on the test side. The oil from the production side goes through a regular two-phase oil-gas production separator, then into an emulsion treater. The clean oil will then



go to the 500-barrel working tank. On the test side, production is routed through a metering test separator and then is commingled downstream from the production separator into the emulsion treater, and this is just for testing only at this time. The LACT unit for this battery operates exactly the same as the other for the State "A" Lease.

Q What would be necessary with regard to this unit in the event you obtained Devonian production and desire to commingle the production under proper authority from the Commission? What would you have to do with this unit?

A We would have to put in additional testing equipment for the Devonian.

Q Would you be prepared, in the event that authority were granted, and you did obtain Devonian production on your State lease, to make that installation which would, as I understand it, make it identical with the installation on the State "A" lease?

A Exactly, and it would be metered in the same way.

Q Mr. Maloney, have you discussed the proposed installation of these two LACT units with the purchaser of the oil?

A Yes, we have.

Q Who is the purchaser of the oil?

A Gulf Pipeline, Gulf Refining Company.

Q I refer you to what has been identified as Union Oil Company Exhibit No. 4 in this case and ask you to state what that is?

A This is just a letter of approval from Gulf Refining



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Company stating that they are agreeable to the measurements and the way we intend to install this system.

MR. CAMPBELL: I'd like to offer in evidence Union Oil Company Exhibits Nos. 1, 2, 3 and 4.

MR. NUTTER: Union's Exhibits 1 through 4 will be admitted.

MR. CAMPBELL: That is all the questions I have.

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

BY.MR. PAYNE:

Q As I understand it, all you are seeking insofar as the State "A" lease is concerned is permission to install an automatic custody transfer facility?

A That's right, sir.

Q As regards the Anderson Ranch Unit, what you want is permission to commingle the production from the Wolfcamp and the Devonian and to install an ACT to handle this commingled production?

A That's right, sir, with the understanding they do not have, presently, production on the Anderson Ranch, on the State lease.

Q How does the commingling on it affect the value?

A We were able to obtain an increase due to gravity difference there.

Q So you anticipate, I presume, the same situation would be true if you get Devonian production on the Anderson Ranch unit?

A That's right, sir.

Q What is the maximum unattended time on each of these?



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A We have a pumper there at the present time eight hours a day, approximately.

Q When the wells are shut in, when the lease is shut in at the header, what is the pressure on the flow line at that point?

A At the present time we have line pipe in there rather than tubing, and it is our intention, unless we change that well, to have two automatic valves, one at the header, which will automatically shut the well in at the header, but as the flow line pressure increases the well will be shut in at the well head.

Q Is this a dual completion in the Wolfcamp-Devonian a top allowable well in both zones?

A It is in the Wolfcamp, and the present allowable on the Devonian is 243 barrels a day.

Q What about the two Wolfcamp wells in the Anderson Ranch?

A They are both top allowable.

Q Is it physically possible under your proposed installation for Devonian oil to be charged to the Wolfcamp-Anderson and vice versa, inadvertently, of course?

A It would be physically possible, but at the time our allowable is made on the meters that we have installed in that zone will be shut in.

Q How many wells do you anticipate drilling on your State "A" lease?

A Possibly six.

Q You are still proposing to use this ACT even though the



acreage is spread out?

A Yes, sir, we do at the present time. In the event that we should get some production in the northernmost acreage there it might be necessary to put in another system.

BY MR. NUTTER:

Q Mr. Maloney, referring to the installation for the State "A" lease, which is Exhibit No. 2, your production from the Devonian comes through a treater, then it passes through a liquimeter. Would you describe the operation of a liquimeter?

A Yes, sir. That is a constant area liquimeter. It has a separate section in the top. The capacity remains the same all the time. It is flow-operated, and as the oil fills up and actuates the flow it then is dumped out, one barrel dump.

Q In other words, this is a little dump meter?

A That's right.

Q The metering separator, is that also a dump-type meter?

A Yes, sir.

Q What size of a liquimeter do you propose to use?

A It will be a one barrel dump.

Q And what will the metering separator dump?

A One barrel per dump.

Q Then, the commingled production from the output of the metering separator and the liquimeter passes into the 500-barrel working tank, is that correct?

A That's correct.



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Q Then if your monitor, No. C, detects bad oil, the oil is diverted there at valve No. 5 back to the left and into the upstream side of the treater into the Devonian production line, correct?

A That's correct, sir.

Q It passes through a meter, so I presume the amount of oil that the pumper would -- if he were circulating tank bottoms, or the oil was being diverted back -- he would produce his allowable through the liquimeter plus the amount of oil that passes through the bypass meter, so we would know how much Devonian oil he could produce?

A Yes, sir. This production that goes through the bypass meter will be deducted from the total amount in order to keep an accurate gauge on the Devonian production.

Q Why is this little loop here around the bypass meter?

A That is a mistake. It shouldn't be there.

Q And it won't be installed?

A No, sir.

Q Is this the entire system, Mr. Maloney, or will there be any additional lines than indicated?

A Yes, sir. I haven't attempted to show any of the water lines, any of the gas lines.

Q These are all of the oil lines, though?

A Yes, sir.

Q Will these lines in this battery be installed below ground or above ground?



A Above ground.

Q Item E, the head level stop-start, turns the circulating transfer pump on and also turns it off, is that correct?

A That's right.

Q Item D, the lease shut in, shuts the wells in at the header?

A Yes, sir.

BY MR. PAYNE:

Q Does the Anderson Ranch Unit provide for expansion?

A Yes, sir.

Q Do you anticipate at any time in the future that some of the State "A" acreage might be included within that unit?

A I am sorry, sir. I misunderstood your first question. I don't believe there has been any provision for expansion other than this hashed area in there.

BY MR. NUTTER:

Q On Exhibit No. 3, diverting valve 5 in the ACT kicks oil back into the output side of the production separator for circulation through the emulsion treater in the event bad oil is encountered?

A That's correct, sir.

Q You also have a line coming from the 500-barrel storage tank?

A The reason there is not a meter required there, at the present time, of course, is we are just producing one zone.



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Q This metering test separator you have here, will it be a one-barrel dump type separator?

A Yes, sir.

Q You have mentioned that you'd have a lease shut in control in the event the allowable was run?

A Yes, sir.

Q That would be the allowable for the entire lease, but there isn't any provision for shutting in either zone in the event it makes its allowable?

A That's correct. As this is presented, it is not. You would have to have two separate monthly allowable counters on this panel in order to provide what you are asking.

Q That could be installed?

A Yes, sir.

MR. NUTTER: Any further questions of Mr. Maloney? He may be excused.

MR. CAMPBELL: That is all I have.

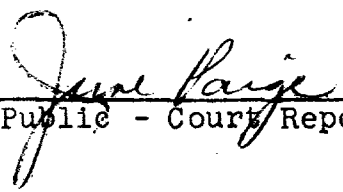
MR. NUTTER: Does anyone have anything further they wish to offer in Case 2212? Take the case under advisement.



STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

I, JUNE PAIGE, 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 11th day of March, 1961.



Notary Public - Court Reporter

My Commission expires:

May 11, 1964.

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I N D E XWITNESSPAGE

CLAUDE C. MALONEY

Direct Examination by Mr. Campbell

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QUESTIONS by Mr. Payne

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QUESTIONS by Mr. Nutter

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QUESTIONS by Mr. Payne

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E X H I B I T S

<u>NUMBER</u>	<u>EXHIBIT</u>	<u>IDENTIFIED</u>	<u>OFFERED</u>	<u>ADMITTED</u>
Ex.#1	Plat	3	10	10
Ex.#2	Diagrammatic Sketch	5	10	10
Ex.#3	ACT System Sketch	8	10	10
Ex.#4	Letter	9	10	10

I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of Case No. 2212
heard by me on 3/3, 1961

[Signature], Examiner
New Mexico Oil Conservation Commission

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