

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
COMMISSION OF NEW MEXICO FOR  
THE PURPOSE OF CONSIDERING:

CASE No. 1816  
Order No. R-1101-A

APPLICATION OF SHELL OIL COMPANY  
FOR PERMISSION TO COMMINGLE THE  
PRODUCTION FROM SEVERAL SEPARATE  
POOLS FROM SEVERAL SEPARATE LEASES  
AND FOR PERMISSION TO INSTALL  
AUTOMATIC CUSTODY TRANSFER EQUIP-  
MENT TO HANDLE THE PRODUCTION FROM  
SAID LEASES IN LEA COUNTY, NEW  
MEXICO

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on November 24, 1959, at Santa Fe, New Mexico, before Elvis A. Utz, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 16th day of December, 1959, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Elvis A. Utz, 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 by Order R-1101 the applicant was authorized to commingle the production from the Pearl-Queen Pool in Lea County, New Mexico, from the following-described leases after separately metering the production from each lease and to transfer custody of said production by means of automatic custody transfer equipment:

McIntosh "E" lease, E/2 SW/4 of Section 21

McIntosh "D" lease, E/2 of Section 21

McIntosh "B" lease, E/2 NW/4 and NW/4 SW/4  
of Section 22

McIntosh "A" lease, SW/4 SW/4 of Section 22

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McIntosh "C" lease, NE/4 and NE/4 SE/4 of  
Section 28

McIntosh lease, W/2 NW/4 and NW/4 SW/4 of  
Section 27

Kimberlin lease, E/2 SW/4 and W/2 SE/4 of  
Section 22

State "PB" lease, E/2 NW/4 of Section 27

State "PA" lease, E/2 SW/4 of Section 27

Hooper lease, W/2 NE/4 of Section 27

Allen Estate "A" lease, E/2 NE/4 of Section 27

Allen Estate lease, E/2 SE/4 and NW/4 SE/4  
of Section 27 and NE/4 NE/4 of Section 34

Record "A" lease, SW/4 SE/4 of Section 27

State "PD" lease, NW/4 of Section 34

State "PC" lease, W/2 NE/4 of Section 34

State "PE" lease, SE/4 NE/4 of Section 34 and  
SW/4 NW/4 and NW/4 SW/4 of Section 35

State "PF" lease, N/2 SE/4 of Section 34

State "PG" lease, S/2 SE/4 of Section 34 and  
S/2 SW/4 of Section 35

Record lease, S/2 SW/4 of Section 23, all of  
Section 26, N/2 N/2 and SW/4 NE/4 and SE/4 NW/4  
and NE/4 SW/4 and NW/4 SE/4 and S/2 SE/4 of  
Section 35

State "PI" lease, SE/4 NE/4 and NE/4 SE/4 of  
Section 35

Record "B" lease, all of Section 25

State "PJ" lease, N/2 and SW/4 of Section 36

all in Township 19 South, Range 35 East.

State "PH" lease, all of Section 2, Township  
20 South, Range 35 East.

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(3) That by Administrative Order CTB-36, issued April 26, 1959, the applicant was authorized to commingle the production from the Pearl-Queen Pool from the said State "PA," State "PB," State "PC," State "PD," State "PE," State "PF," and State "PG" leases without separately metering the production from each of said leases.

(4) That the applicant now proposes to commingle the Pearl-Queen, San Andres, and Atoka production from the said State "PI" lease and the said Record lease after separately metering the production from each zone of each of said leases.

(5) That the applicant further proposes to enlarge the previously authorized automatic custody transfer equipment to handle the Pearl-Queen production from all wells presently drilled or hereafter completed on the leases described in Finding No. 2 and also to handle San Andres and Atoka production from the said State "PI" lease and the said Record lease.

(6) That the previous use of automatic custody transfer equipment, similar to that proposed by the applicant, has demonstrated that such equipment is a reliable and economic means of transferring the custody of oil, and that the use of such equipment should be permitted.

IT IS THEREFORE ORDERED:

(1) That the applicant be and the same is hereby authorized to commingle the Pearl-Queen, San Andres, and Atoka production from all wells presently drilled or hereafter completed on the following-described leases after separately metering the production from each zone of each lease and to commingle said production with Pearl-Queen production from all leases described in this order:

State "PI" lease, SE/4 NE/4 and NE/4 SE/4  
of Section 35

Record lease, S/2 SW/4 of Section 23, all of  
Section 26, N/2 N/2 and SW/4 NE/4 and SE/4 NW/4  
and NE/4 SW/4 and NW/4 SE/4 and S/2 SE/4 of  
Section 35

both in Township 19 South, Range 35 East, NMPM, Lea County, New Mexico.

(2) That the applicant be and the same is hereby authorized to commingle the production from the Pearl-Queen Pool from all wells presently drilled or hereafter completed on the following-described leases after separately metering the production from each lease and to commingle said production with the production from all leases described in this order:

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McIntosh "E" lease, E/2 SW/4 of Section 21

McIntosh "D" lease, E/2 of Section 21

McIntosh "B" lease, E/2 NW/4 and NW/4 SW/4 of Section 22

McIntosh "A" lease, SW/4 SW/4 of Section 22

McIntosh "C" lease, NE/4 and NE/4 SE/4 of Section 28

McIntosh lease, W/2 NW/4 and NW/4 SW/4 of Section 27

Kimerlin lease, E/2 SW/4 and W/2 SE/4 of Section 22

Hooper lease, W/2 NE/4 of Section 27

Allen Estate "A" lease, E/2 NE/4 of Section 27

Allen Estate lease, E/2 SE/4 and NW/4 SE/4 of Section 27 and NE/4 NE/4 of Section 34

Record "A" lease, SW/4 SE/4 of Section 27

Record "B" lease, all of Section 25

State "PJ" lease, N/2 and SW/4 of Section 36

all in Township 19 South, Range 35 East.

State "PH" lease, all of Section 2, Township 20 South, Range 35 East.

(3) That the applicant be and the same is hereby authorized to commingle the Pearl-Queen Pool production from all wells presently completed or hereafter drilled on the following-described State leases without separately metering the production from each lease and to commingle said production with the production from all leases described in this order:

State "PB" lease, E/2 NW/4 of Section 27

State "PA" lease, E/2 SW/4 of Section 27

State "PD" lease, NW/4 of Section 34

State "PC" lease, W/2 NE/4 of Section 34

State "PE" lease, SE/4 NE/4 of Section 34 and SW/4 NW/4 and NW/4 SW/4 of Section 35

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State "PF" lease, N/2 SE/4 of Section 34

State "PG" lease, S/2 SE/4 of Section 34  
and S/2 SW/4 of Section 35

PROVIDED HOWEVER, That the total production from the above-described seven State leases shall not be commingled with the production from any other leases until it has been separately metered.

(4) That the applicant be and the same is hereby authorized to enlarge the previously authorized automatic custody transfer equipment to handle the Pearl-Queen production from the leases described in this order and also to handle San Andres and Atoka production from the above-described State "PI" lease and the Record lease, and, if necessary, to transport the oil off of said leases prior to measurement.

PROVIDED HOWEVER, That the applicant shall install adequate facilities to permit the testing of all wells on the subject leases at least once each month to determine the individual production from each well.

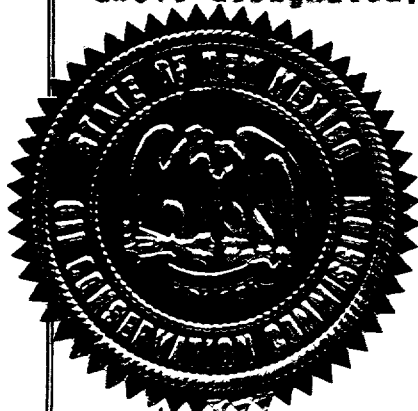
PROVIDED FURTHER, That the above-described system shall be so equipped as to prevent the undue waste of oil in the event of malfunction or flow-line break.

PROVIDED FURTHER, That all meters used in the above-described system shall be operated and maintained in such a manner as to ensure an accurate measurement of the liquid hydrocarbon production at all times.

PROVIDED FURTHER, That all meters shall be checked for accuracy at least once each month until further direction by the Secretary-Director. Meters shall be calibrated against a master meter or against a test tank of measured volume and the results of such calibration filed with the Commission on the Commission form entitled "Meter Test Report."

(5) That Order No. R-1101 and Administrative Order Nos. CTB-20 and CTB-38 be and the same are hereby superseded.

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



STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

*John Burroughs*  
JOHN BURROUGHS, Chairman

*Murray E. Morgan*  
MURRAY E. MORGAN, Member

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

**DEARNLEY-MEIER REPORTING SERVICE, Inc.**

**PHONE CH 3-6691**

ALBUQUERQUE, NEW MEXICO

BEFORE THE  
OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
November 24, 1959  
EXAMINER HEARING

IN THE MATTER OF:

Application of Shell Oil Company for permission to commingle the production from several separate pools from several separate leases. Applicant, in the above-styled cause, seeks permission to commingle the production from an undesignated Atoka pool and an undesignated San Andres pool from two separate leases in Sections 23, 26, and 35, Township 19 South, Range 35 East, Lea County, New Mexico, and to transport said production from said leases prior to measurement and to commingle such production with the commingled Pearl-Queen production authorized by Order No. R-1101. Applicant further seeks authorization to expand the automatic custody transfer system authorized by said Order No. R-1101.

Case 1816

BEFORE:

Elvis A. Utz, Examiner

## TRANSCRIPT OF HEARING

MR. UTZ: The next case will be 1816.

MR. PAYNE: Application of Shell Oil Company for permission to commingle the production from several separate pools from several separate leases.

MR. SETH: Oliver Seth for Shell Oil Company. I have one witness, Mr. Elkins.

(Witness sworn.)



R. L. ELKINS

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

DIRECT EXAMINATION

BY MR. SETH:

Q Just state your name and position with Shell Oil Company.

A My name is R. L. Elkins. I'm the Divisional Mechanical Engineer in Roswell, New Mexico.

Q How long have you been in that position?

A Approximately three years.

Q Are you familiar with the application in this case?

A Yes, I am.

Q Have you testified previously before the Commission?

A Yes, I have.

MR. SETH: May he testify as an expert witness, Mr. Utz?

MR. UTZ: Yes, sir.

Q (By Mr. Seth) Would you state, please, to the Commission generally what the application seeks to accomplish?

A Shell is requesting permission to commingle production from the undesignated San Andres and the Atoka Pools on two Shell leases, the State PI and the Record, with the commingled production from the Queen Pool on Shell's leases in the Pearl Field.

We're proposing to commingle this production after the

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production has been separately metered with positive displacement meters from each zone from each lease, and to use the facilities located in the Pearl-Queen Field as authorized in Order No. R-1101.

We are also requesting authority to transport from the San Andres and Atoka, production from the above two leases prior to measurement, and produce more than eight wells from the San Andres and Atoka into the common storage.

Q Would you just describe briefly this Order R-1101 which was the Pearl-Queen order? What did that cover?

A Order 1101 authorized Shell to install automatic testing and production facilities and automatic custody transfer equipment to handle the production from twenty-three leases in the Pearl-Queen Pool, provided that production from each lease was measured and recorded prior to being commingled. It also provided authority to produce all Pearl-Queen wells on the twenty-three leases into a central production and testing facility and to transport the oil off the leases prior to measurement, if necessary, provided that each well shall be tested at least once a month.

Q That order pertained to the Pearl-Queen production, is that correct?

A That is right.

Q That order covered the area which is the subject of the application in this case?

A That is correct.

Q The application in this case, however, refers to





production from the Atoka and San Andres?

A Yes, sir.

Q Have you prepared a plat showing the area which is the subject of the application?

A Yes, I have.

(Applicant's Exhibit No. 1  
marked for identification.)

Q Would you please state to the Commission what that plat shows?

A This plat shows the Shell leases in the Pearl Field. The leases that are outlined in red show the two leases in question on which we wish to commingle the Atoka and San Andres production with the Queen production from the other leases. In the center on the State PB is shown the central facility that is now installed and operating.

Q Is that indicated by a letter "CF"?

A Indicated by letter "CF", that's correct. R-1 in the upper left-hand corner shows the first remote facility which serves the Queen production in that area, and R-2 below the central facility shows the remote facility number two which serves the State leases in the southern end and transports the production to the central facility. R-3 in the lower left-hand corner shows the proposed location for this proposed remote facility number three, which will be used to test and meter production from the Atoka and San Andres and transport it to the central facility for treating and sale to the pipe line company.

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Q This exhibit which has been marked for identification Exhibit 1 shows the two leases which are the subject of this application, is that right?

A Yes, it does. It shows the Record and the State PI outlined in red.

Q And it shows the particular area with which we are concerned, is that correct?

A Yes, sir.

Q Referring again to Exhibit 1, what is the number Two that appears near your R-3 facility?

A Number Two is our Record No. 2 Well which we are now attempting to complete in the Atoka zone.

Q Now have you prepared a diagram of the mechanical facilities proposed?

A Yes, sir, we have.

(Applicant's Exhibits Nos. 2 & 3  
marked for identification.)

Q Now referring to what has been marked as Exhibit No. 2, would you describe to the Commission what that shows? The No. 2 is the San Andres?

A Exhibit No. 2 shows our proposed installation to handle the San Andres production from the Record and State PI leases. The production comes in through our header from these two leases, and the production is normally handled, say for the San Andres production from the Record lease, that is carried through the upper portion of the diagram here; first the production goes



through the water knockout to knock out free water, and then goes through an oil and gas separator to separate the gas, and then we go through a strainer and P. D. meter sampler flow controller and dump valve which is this equipment, and its use is identical to what we have used in the Pearl-Queen automatic facilities.

The State PI San Andres production would flow through the bottom portion of the graph here, through the water knockout separator and identical equipment that's contained above.

Both of that production after metering then would be placed in the 500 barrel surge tank, and from there would be pumped to our central battery for treating and transport to the pipe line companies. In the center of the diagram, back on the left-hand side, we have a three phase metering test separator to test the wells from either one of these two leases at any time they want to. It contains a sampler to sample production, a sample of the oil to determine the water that is emulsified in the oil that wouldn't be knocked out in the three phase metering separator.

Q On Exhibit No. 2, it shows the facilities for the San Andres. Do you have Exhibit No. 3?

A Exhibit No. 3 shows the facilities for the Record and PI leases which would handle the Atoka production; as you can see, it's identical.

Q And you have separate facilities for each zone?

A Yes, sir.

Q And then each of these facilities, there is separate



handling of the oil from each of the two leases?

A That is correct.

Q With testing and sampling facilities that can be used for either lease, is that correct?

A That's correct.

Q How frequently do you contemplate testing the wells?

A With the facilities that we have proposed here, we can test the wells at least once a month.

Q Is that adequate, in your opinion?

A Yes, sir, I think it is adequate.

Q You stated, I believe, that the mechanical devices here are the same as are in use in the Pearl-Queen. What has been your experience in the Pearl-Queen with this type of equipment?

A Our experience to date with our facilities to handle the Pearl-Queen production indicate that it's been very satisfactory from an operating standpoint. We have had very little difficulties with it and our accuracies have been extremely good, too, in metering production and allocating production.

Q Do you have any figures on your experience in the Pearl-Queen as far as how these facilities affect conservation?

A Yes, we do. We handled the production from several leases in the Pearl-Queen Field in conventional tank batteries before we put our central facility in, and after we put the central facility in we compared crude oil gravities in handling them in the conventional and central facility. All our data, it looked like



we had effected a one degree increase in crude oil gravity with our central facility; assuming that we have effected this one degree increase in crude oil gravity, that effects actually a two-fold increase for Shell and the royalty owners.

First of all, we get a higher price for the crude oil, due to increase in gravity, and it's estimated that this higher price in crude oil effects about a \$500.00 per month added revenue from that loan, and also since we do not lose this one degree gravity that we would have in the conventional tankage, we effect about a 450 barrel per month savings in crude oil that would normally be lost off the conventional lines.

Q Then the use of these facilities has demonstrated that they do result in a substantial savings?

A From the data we have, it does indicate that.

Q You contemplate a comparable saving if they are permitted to be installed in accordance with the application?

A Yes, sir.

Q Do you have any experience with the accuracies of meters that are used in this Pearl-Queen facilities?

A Yes, one experience that we do have, we are metering the production from 30 wells on 14 leases, and each of the leases, the crude oil from each of the leases is measured separately before it's commingled, and we also sample the crude and determine the water cut and adjust for clean oil going to the central battery, and then we measure all of this oil from the central battery to the



pipe line through another P. D. meter. During the past seven months we correlated the volume of oil run to the pipe line, and that was 163,510 barrels of oil, and we compared that with what our lease meters showed that we had run from each of the leases, and those two figures differed by only 112 barrels, which gives us a percent difference of .069 percent, or sixty-nine thousandths of one percent difference.

Q Do you consider that to be an indication of a high degree of accuracy?

A Yes, I do, a very high degree of accuracy.

Q What about the capacity of the Pearl-Queen facilities, will this introduction of this Atoka-San Andres oil into the facilities result in overloading?

A No, sir, it will not.

Q Is there anything unusual about the mechanical facilities here that you would like to comment on? You might tell in that connection just where in the automatic custody facilities this oil is introduced.

A The oil from the San Andres and Atoka production would be metered first before it left the leases, and they would be transported to the central facility, and it would be introduced into the flow line immediately before going into the wash tank where the oil would be treated, and then from there on into the surge tank and the pipe line.

Q Now do you have, do you contemplate installing any



high-low pressure meters or anything on the flow line?

A We will have a high-low pressure shutin switch on this transfer line from the remote facility to the central battery, so that if we got the line plugged or the line broke, either condition would shut our pump in, we wouldn't pump oil through it.

Q These are pumping, you contemplate that the wells will be pumping wells, is that right?

A I'm afraid I can't answer that right now, since we haven't completed any wells.

Q Is there anything further you would like to mention?

A No, sir, I believe that's all.

MR. SETH: That's all that we have, Mr. Utz.

MR. UTZ: Do you want to enter the exhibits now?

MR. SETH: Yes, we would like to offer our Exhibits 1 through 3.

MR. UTZ: Without objection Exhibits 1 through 3 will be accepted in the record. Any questions of the witness?

MR. PAYNE: Yes, sir.

CROSS EXAMINATION

BY MR. PAYNE:

Q Do you anticipate any corrosion or paraffin problems from the San Andres or the Atoka?

A It isn't characteristic of either one of those zones to have much paraffin or to be very corrosive. As we don't have any wells completed, I can't answer the question specifically in



this field.

Q Do you propose to plastic line your positive displacement meter, or do you think that will be necessary?

A Paraffin doesn't affect P. D. meters; as far as the corrosion, we will use corrosion resistance trim such as we did in the Pearl-Queen field.

Q You say you do have a high pressure and low pressure cutoff switch on the line that goes to the central facilities?

A Yes, sir.

Q Now your application asks to produce more than eight wells from the Atoka and San Andres into common facilities. I presume you want more than sixteen, since the rule now allows up to sixteen?

MR. SETH: Yes.

A That is correct, yes.

MR. PAYNE: Thank you.

A I might add in that respect, it's very unlikely that we'll get as many as sixteen wells developed, but since we do have more than sixteen going into the central facility right now, we thought we should ask for that, even if we had one Atoka well going into the battery.

BY MR. UTZ:

Q Mr. Elkins, I don't quite understand what the situation is with regard to your State PI and Record lease, is the royalty ownership the same under both of those leases?





A No, sir, it is not.

Q You will meter the oil from the PI lease, if it is developed, before it's commingled?

A That's correct, the oil from both zones, from both leases will be metered individually.

MR. SETH: The Record lease is a fee lease, is it not?

A Yes, it is.

MR. SETH: The other is a State lease?

A That's right.

MR. UTZ: Any other questions?

MR. PAYNE: One more question, Mr. Utz.

BY MR. PAYNE:

Q Mr. Elkins, you intend to transport the production from the leases prior to measuring, is that correct?

A Yes, sir.

Q Where does this measurement take place before it goes into the central facility?

A It will take place at the remote facility, the remote facility's proposed location is on Record lease. The production from the Record lease would be measured from the lease before it goes into the central facility.

Q It's the State PI that would be transported before it would be metered?

A Yes, the State PI would be transported before it would be metered.



MR. UTZ: Any further questions?

MR. JORDAN: William O. Jordan, general counsel for the New Mexico State Land Office.

BY MR. JORDAN:

Q As I understand it, Mr. Elkins, this Order 1101 which has already been approved sometime prior --

A Yes.

Q -- that covers the State land located in the Southeast Northeast Southeast Section 35, 19 -- 35 Southeast?

A I'm not familiar with that. I would have to look at the order. I'm not certain about that.

Q I don't know what exhibit this is.

MR. SETH: Exhibit 1.

A Yes.

Q (By Mr. Jordan) It shows that the Southeast of the Northeast of the Southeast of Section 35 --

A Is that the one we're calling our PI?

Q Yes.

A Yes, sir.

Q -- is State land. As I understood your earlier testimony that Order 1101 permitted pooling, not pooling, commingling of all of the production from the State land with the land in 26 and 35?

A The Queen production.

Q The Queen production?



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A Yes, sir.

Q Was that application filed under Rule 303 or 309 of the Oil Conservation Commission rules?

A It was filed under both rules, I believe.

Q And you had permission from the State Land Office on that?

A Yes, we did, to commingle State leases.

MR. PAYNE: That would just be Rule 309, Mr. Jordan.

Q (By Mr. Jordan) Are there any wells on the -- I guess you call that State P what?

A PI.

Q That would be the Southeast Northeast Southeast of Section 35?

A No.

Q You would contemplate commingling the oil in the event you do drill wells on this?

A After metering, yes.

Q After metering?

A Yes.

Q Is there any variance in the gravity in the formations, the gravity of the oil in these formations?

A Yes, there's a difference in gravity. The Queen gravity averages around 36 degrees; and the San Andres, from the few tests that we have out there, it looks like it will be 35 degrees; and from a drillstem test in the Atoka, it looks like its



gravity might be 41 degrees.

Q Would that vary in the future, or is it contemplated that it would vary from time to time?

A I don't know whether I can answer that, since we don't have any Atoka or San Andres wells producing, I couldn't say.

Q I would like to explain our position here, if I may, and what we are concerned with, what our problem is in the State Land Office. We have some 19 separate trusts and the production from any one of these particular lands, the production which goes to the particular trust must be kept absolutely separate. It is a trust, we are dealing with that type of a proposition. I assume that this application is made under 309. You are going to request the State's permission; in fact, I think you have asked, but we have not given it as yet.

A No, I don't think --

MR. SETH: To commingle the State production.

MR. PAYNE: This application, Mr. Jordan, is seeking an exception to both 309 and 303.

MR. JORDAN: I was under the impression it was under 309.

MR. PAYNE: The prior case, 1101 was to commingle the Pearl-Queen production. This is to commingle the Pearl-Queen with the Atoka and San Andres production, so it's asking for an exception to both Rule 303 and 309.

MR. JORDAN: I realize that securing the permission



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of the Oil Conservation Commission is one thing, and commingling the State production is another.

MR. PAYNE: Yes.

MR. JORDAN: While we are not primarily voicing any objection to the Oil Conservation Commission granting this permission, we are seeking information to give our consent to the commingling of the State production with private production, as in this case. I do want to point out we have that problem. We came down more for information. Even though you have the Conservation Commission's permission to commingle it, you would still need the Commissioner's permission. We have this problem. We want to work it out if we can. I understand it's an economic problem with the oil company in doing this. It would mean more to us. We do have certain limitations, even though it might cost us. We were trying to get information whether we could keep the oil if it were produced from the State land, if we could make certain that the State would receive its share and not commingle trust property.

A I'll go back to figures between our lease meters and meters to pipe line, which was 79 thousandths of one percent. If you check tank **trappings** and tank gauge line, that was more accurate.

Q That was one of our problems, that the meters are accurate. So far we haven't seen anything wrong with that. We have the question of the gravity of the oil. If you commingled



high gravity from low land and high gravity from State land, you may be producing from two formations, the San Andres in the State land and the Atoka on the private land; and then you put the two together, we are commingling property, we have that problem; and I don't know if we should take the Oil Conservation Commission time here to explain this in kicking this around or not, but as I say, we are not voicing any objection to their approval or disapproval at this time, but we still think we have the problem, as far as your company is concerned, and the State.

Q (By Mr. Jordan) So under those circumstances, if we had high gravity mixed with low gravity, do you have any way of making certain, you explained earlier that you mix these varying gravities of oil and you get a higher price for it?

A Yes.

MR. SETH: I think it's primarily an accounting problem. You can determine exactly the gravity of the Atoka.

A Yes, on the diagram here we have a sampling system which samples the strain from the lease and from that particular zone and holds it in a pressurized vessel, in exactly the same manner we will sample and determine the same to the pipe line at the end of the month. It would be an accounting problem at the end of the month, we could take the sample, for instance, of the Atoka from the PI lease and determine the exact gravity.

Q You can interpolate that when you sold it from the tank?



A It would be an accounting problem again, but I think that we could.

Q That was our problem, could that be worked out. I think rather than take the Oil Conservation Commission's time here, I think we would like to sit down with you and Mr. Seth and see what we could work out in that capacity.

MR. SETH: There is no question, is there, Mr. Elkins, but what the exact amount of oil is measured from the State lease in this instance, and it is sampled for basic sediment, water, and gravity, is that right?

A Well, from the information we have to date, I don't think there is. I think the measurements would be more accurate than conventional measurements that we accept as being standard.

Q (By Mr. Jordan) Heretofore we have never approved, with the exception of maybe two cases, we have never approved commingling of State production with private production, or commingling of one beneficiary's production with the production from another.

MR. SETH: This is commingling after measurement.

MR. JORDAN: I'm aware of that.

MR. SETH: It's after measurement. We believe that it is better than tank measurement, so there is no more commingling than if there were tank batteries here.

MR. JORDAN: It would make a difference if the gravity of the oil varied in one well or one formation, one to the other



there. Then it might be mixing high gravity State oil with low gravity other oil, and average out, and we are paid on an average price rather than the other. The opposite would not hurt it. But we don't think we would want to go one way without going the other. We do have that problem, then the other problem after it goes into the tank, you can very well figure the percentage of each sale based on the production from the particular well. I think those are very important problems, that variance in the gravity.

Assuming that we are satisfied that the metering is accurate enough and probably more accurate than we are getting, then we do have the gravity problem. We are going to have to have some way of working that out. You have increased that one percent. You anticipate increasing --

A What's this now?

Q \$500.00 a month?

MR. SETH: Would you explain the increase in gravity results from the fact that the facilities are closed?

A I don't increase, we merely eliminated that loss of one percent.

Q (By Mr. Jordan) I was under the impression that in upgrading your lower crudes, you got a better price?

A We do.

Q That points up the problem I'm speaking of, with high gravity oil from one well and low gravity from another, and commingle





the two together, you get somewhat of an average?

A That's correct.

Q Yet the high gravity, you would be able to pay on the high and the low, and you would have to interpret that and it would be an accounting problem there. I think we have no more questions, and we would like to discuss this with you and Mr. Seth.

MR. PAYNE: Mr. Elkins, it would be possible to pay the royalty on the basis of the gravity in each one of these pools prior to commingling, would it not?

A I think that it would. I don't see why it wouldn't be.

Q (By Mr. Jordan) Normally, you pay after sale?

A We pay after sale.

MR. JORDAN: See, they would have to pay before they sold in that particular instance, or they can sell and then --

MR. PAYNE: Calculate on the basis of the gravity prior?

A Right.

MR. SETH: We have the devices here to exactly determine the quantities and the gravity and water and basic sediments so it's just a mathematical problem, is that correct?

A That's correct, yes.

BY MR. UTZ:

Q Do you know the price of 35 gravity oil?

A No, sir, I don't know the exact price.

Q You don't know the price of 41 gravity oil?



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A There should be about ten cents difference in the two, if I'm not mistaken.

Q Is the 41 higher?

A The 41 is higher. It should be about ten cents higher.

Q And do I understand that in commingling this oil, you would end up, say if you commingled equal parts of 35 and 41 gravity, you would end up with somewhere around 37 gravity, and take a lower price when you sold it and pay a lower percent royalty to the State on lower gravity?

A I didn't understand the question. We would increase the overall gravity of the crude oil sold to the pipe line, but we would also get more money for the crude oil.

Q Well, I thought I understood you to say that 41 gravity was about ten cents a barrel higher than 35 gravity?

A I believe that's correct, in that neighborhood.

Q So that by commingling, you lowered the gravity to 37 gravity, that would be the gravity that you sold it, you would receive a little bit less for it than you would if it was 41 gravity?

A From the Atoka crude, we would, but from the Queen crude we would get more money for it. As a matter of fact, does the crude oil gravity stay constant above 40 degrees, or is it 41?

Q I don't know.

A At any rate, we could possibly get more money for the mixed oil than we could for the two oils separately. I think in this case we would probably get more money for the two oils mixed



than we would separately.

MR. PAYNE: That's not the problem that Mr. Jordan has.

A No.

MR. PAYNE: The problem he has, if the 41 gravity which draws the highest price is being produced from the State land, and the 35 percent gravity is being produced from the fee lands, then the State's royalty would be less from the commingled production.

A That's correct.

MR. JORDAN: In other words, setting up this example, say for the 35 you get \$1.05; for the 41 gravity you would get \$1.10. We would be paid on the basis of the differential, \$1.07 instead of \$1.10. It may be in the average it would work out, so we would be making extra money. Our Supreme Court of the United States has held we can't do that, the example being that the Legislature proposed to take three percent from the nineteen trusts and commingle it with money from other State agencies that have no relation to the trust, and it is to the State as a whole; and they almost proved that it would increase the activity on the State land and thereby return their money manyfold. The Court said, "No, you are dealing with trust property, you must keep them separate."

If we can work them out, we certainly want to go along with a commingled proposition. We don't want to take any chance of getting in trouble with the trust. Any savings in the



facilities that you would have to construct would reflect back in the price we will receive?

A The Atoka production is always pretty questionable. You never know what you have until you produce it for a year, and by commingling instead of building separate facilities, we can save about \$37,000.00 and at the same time evaluate Atoka.

MR. JORDAN: We realize that will reflect back in our ledger, our one-eighth. We certainly want to let you do that, but we have this practical problem.

MR. UTZ: Any other questions of the witness? If not, the witness may be excused.

(Witness excused.)

MR. UTZ: Any other statements to be made in this case? If not, the case will be taken under advisement.

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STATE OF NEW MEXICO     )  
                                   ) ss  
 COUNTY OF BERNALILLO    )

I, ADA DEARNLEY, 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, and that the same was reduced to typewritten transcript under my personal supervision, and contains a true and correct record of said proceedings, to the best of my knowledge, skill and ability.

DATED this 3rd day of December, 1959, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

*Ada Dearnley*  
 NOTARY PUBLIC

My Commission Expires:

June 19, 1963.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 1816, heard by me on Nov. 7-4, 1959.

*[Signature]*, Examiner  
 New Mexico Oil Conservation Commission

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