STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO

5 September 1984

EXAMINER HEARING

IN THE MATTER OF:

Applications of Dugan Production Corp. for amendment of Division Orders R-7258, R-7367 and R-7365, Rio Arriba County, New Mexico.	CASE 8308 8309 8310

BEFORE: Gilbert P. Quintana, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation Division:	Charles E. Roybal Attorney at Law Energy and Minerals Dept. 525 Camino de Los Marquez Santa Fe, New Mexico 87501
For the Applicant:	Tommy Roberts Attorney At Law Dugan Production Company P. O. Box 208 Farmington, New Mexico 87499

I N D E X

JOHN ROE

E X H I B I T S

CASE 8308

E X H I B I T S

CASE 8309

CASE 8310

MR. QUINTANA: Call next Case 8308.

MR. ROYBAL: Case 8308, application of Dugan Production Corporation for amendment to Division Order R-7258, Rio Arriba County, New Mexico.

MR. ROBERTS: Mr. Examiner, my name is Tommy Roberts, Farmington, New Mexico, on behalf of the applicant, Jerome P. McHugh.

At this point I'd like to state for the record that the applicant is Jerome P. McHugh and the Cases 8308, 8309 and 8310, and the cases have been advertised under the application of Dugan Production Corporation.

I have consulted with Perry Pearce and he advised that readvertising would not be necessary, so let the record reflect that the applicant is Jerome P. McHugh.

Mr. Examiner, we would request that Case Numbers 8308, 8309 and 8310 be consolidated for purposes of testimony and hearing here today. Issues are common in these three cases and testimony and many of the exhibits will be common to all three cases.

MR. QUINTANA: Are there any other appearances in these three cases?

Let the record show that Cases 8308, 8309 and 8310 will be combined for purposes of testi-

mony.

MR. ROBERTS: I have one witness to be --

MR. QUINTANA: Will you please stand to be sworn in?

(Witness sworn.)

JOHN ROE,

being called as a witness and being duly sworn upon his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. ROBERTS:

Q Would you please state your name, your place of residence, and your occupation?

A My name is John Roe. I live in Farmington, New Mexico. I'm a petroleum engineer, employed by Dugan Production, and we're here today on behalf of Jerome P. McHugh.

Q Have you testified before the New Mexico Oil Conservation Division on prior occasions?

A Yes, I have.

Q In what capacity?

A As a petroleum engineer.

Q And are you familiar with the applications of the applicant in Case Numbers 8308, 8309, and 8310?

A Yes, I am.

MR. ROBERTS: Mr. Examiner, are Mr. Roe's qualifications acceptable as a matter of record?

MR. QUINTANA: Yes, they are.

Q Mr. Roe, would you please briefly state the purposes of these three applications?

A Each of these applications is requesting a revision for the allocation factors which have previously been authorized for the downhole commingling of the Gavilan Mancos Oil Pool with the Dakota production from Basin Dakota.

The orders that were issued previously authorizing the current downhole commingling was Order Number R-7258 for the Janet Well No. 1, which is located in Unit A of Section 27, Township 25 North, Range 2 West; Division Order R-7367, which was issued for the Rightway No. 1, located in Unit C of Section 2, Township 24 North, Range 2 West; and Division Order R-7365, which was issued for Jerome P. McHugh's Mother Lode No. 1, which is located in Unit H of Section 3 of Township 24 North, Range 2 West.

MR. ROBERTS: Mr. Examiner, before we begin identifying exhibits, I'd like to explain for the record how they are numbered for your benefit, also.

When we refer to an exhibit that's numbered with a prefix letter "A", we'll be referring to Case Number 8308.

Exhibits numbered with a prefix

letter "B" refer to Case Number 8309, and exhibits numbered with a prefix letter "C" refer to Case Number 8310.

MR. QUINTANA: All right.

Q Mr. Roe, would you please identify what have been marked as Exhibits A-One, B-One, and C-One, and explain their significance to this case?

A Okay. Exhibits A-One, B-One, and C-one are all exactly the same. There's no difference between the three exhibits. The intended purpose of Exhibit A--Exhibit Number One for each case was basically just to present the location of the three wells, the subjects of these three hearings, which are identified with the red arrows, with respect to other wells in the immediate vicinity that are either currently producing or in some cases locations that have been staked for drilling. On this map I've outlined the existing Gavilan Mancos Pool boundary in orange. Indicated in colors--the yellow would indicate wells that are Mancos productive; the green would indicate wells that are producing from the Dakota; and the blue would indicate completions in the Greenhorn.

Also on this map I've indicated, just as a matter of information, the current barrels of oil per day and the current producing gas well ratio for each of the wells that are producing. In the case of commingled wells, the numbers reflect the total string production.

I've also indicated, in the case of a well that there are more than one completion, whether the well is com-

mingled or it is dually completed.

Q Okay, Mr. Roe. Would you turn to what's been marked as Exhibit A-Two. Identify that exhibit, please, and summarize its contents. Explain its significance to this case.

A Okay. Exhibit A-Two is an exact copy of the letter that was submitted on July 11 to the Aztec office of the New Mexico Oil Conservation Division and the purpose of this letter was requesting an administrative handling of this matter and our proposed revision of the allocation factors. The data presented in the letter is current or it is all correct. There's no revisions to it. At the time the letter was submitted we had production data through May of 1984, and the data presented through May of 1984 is accurate and current.

There are three pages to Exhibit A-Two, the first two pages being the text of the letter and the third page being the tabulation of production that has been recorded on the C-115's for the months November through May of 1984, November '83 through May '84. That's presented in the lefthand portion of the tabulation. I've indicated the split between the Dakota and the Mancos, along with the total commingled string production for both oil and gas.

In the righthand portion of this tabulation I've indicated the fact that our total production of oil and gas is unchanged, however we do feel that the allocation between the zones was not proper on our original--

using our original allocation factors--and as we would propose the reallocation is presented in the righthand portion of this table.

I would like to not dwell too much on this table right now because in a later exhibit we have updated the production data. The data that as I've indicated November '83 through May '84 is unchanged, and it will be--we'll discuss it on a later exhibit.

Q Mr. Roe, does the letter which has been marked as Exhibit A-Two set forth the basis on which you request the revised allocation factors?

A Yes, it does.

Q Would you briefly summarize that--those points upon which these applications are based?

A Yes, I will. The--our original allocation which -- the current allocation attributes 63 percent of the commingled oil to the Mancos and 82 percent of the commingled gas string to the Mancos, and the balance, the 37 percent of the oil to the Dakota and 18 percent of the gas to the Dakota.

The original allocation factors were based upon the -- or they incorporated the initial testing that had been done on the well and at the time we had our commingling hearing, that was combined total production of 116 barrels of oil a day of which 73 was from the Mancos and 43 was from the Dakota.

Since the -- and our early testing pretty

much indicated the well was going to be a subcommercial, marginal well at best, we -- it would not flow continuously and we had trouble producing it.

Since installing a rod pump in November of '83, and producing the well under a more continuous basis than we were able to priot to November of 83, production had continued to improve. It's averages as high as 233 barrels of oil a day for the commingled stream, and because of our analysis of the Mancos in this area we feel fairly certain that the -- it's highly fractured. We lost circulation when we drilled the well, requiring large percentages of lost circulation material in our mudstream.

Our log analysis suggests that the Mancos is fractured. With production, we are actually producing back some lost circulation material, with time.

We feel that the improved productivity is a result of the Mancos cleaning up. The potential tested during our initial completion was disguised with the existence of damage that was either done in the invasion of lost circulation material, invasion of mud, or the invasion of our cement. We feel that the bulk of the productivity--that the productivity improvement is from the Mancos as opposed to the Dakota. Our initial potential that we have data to support the fact that we feel the initial potential does accurately represent the potential of the Dakota. With our allocation factors being fixed and the production being better than anticipated, and that improved productivity being

from the Mancos, it is allowing -- or we're allocation more oil to the Dakota than in reality is occurring.

Q In the drilling of this well, the Janet No. 1 Well, did you experience any lost circulation through the Dakota formation?

A We did experience lost circulation. We, I have identified on a later exhibit the intervals that we lost circulation, but we did lose circulation and were required to incorporate cedar fiber and cottonseed hulls in order to drill through the Mancos.

Q Did, my question dealt with the Dakota formation and lost circulation through the Dakota formation. Did you experience any lost circulation through the Dakota formation?

A No, there was no lost circulation in the Dakota interval; not in this particular well, and analysis of the logs would suggest the Dakota is not highly fractured, or at least not as significantly fractured as the Mancos.

Q Mr. Roe, would you turn to what's been marked as Exhibit A-Three and identify that exhibit?

A Okay. Exhibit A-Three is an exact duplicate of page number three of Exhibit Number Two, with the exception that I've updated it for production that did occur during the months of June and July and I would call your attention to the fact that I've -- for reference I've numbered the columns at the bottom of Exhibit Number Three.

In column number four and column number seven we have indicated the total commingled stream of production that has occurred for the Janet No. 1 during the time period November '83 through July '84. This represents a total oil of 38,584 barrels of oil and 25.5-million cubic feet of gas.

With the existing allocation factors, we have allocated an average of 56 barrels of oil a day to the Dakota. That's indicated in column number two, and an average of 95 barrels of oil per day to the Manco. That's indicated in column three.

The average GOR in the Dakota during this 9-month period would be 323, indicated in column five, and in column six the average GOR during this period for the Mancos would be 860.

During this 9-month period the well has produced a total of 256 days. Our, as I've indicated earlier, our initial potential of 116 barrels of oil per day was tested between the zones. The Dakota, we anticipated its -- or its initial potential was 43 barrels a day from some -- a study that I had done in the area. Utilizing wells in the West Lindrith and the Ojito Gallup Dakota, I had determined that under sustained operations on the average we would expect the wells to produce 42 percent of what was presented on the initial potential.

Utilizing that 42 percent, we, under sustained production operations, we would have expected the Da-

kota to initially produce at 18 barrels a day and decline at an annual rate of 40 percent, and again, this is resulting from the fairly detailed study that I had done in support of our commingling, our original commingling application.

In column number nine I've indicated the Dakota production as we believe it actually exists, initially averaging 18 barrels a day and during the nine month period averaging 15.7 barrels a day.

Having what we feel to be a pretty good handle on the Dakota production, the balance of actual production is believed to have come from the Mancos and that average during the nine month period would be 135 barrels a day.

The gas allocation factors we believe to be accurate as evidenced by the fact that with the revision in the oil our GOR during the nine month period for the Dakota would average 1150 and the Mancos would average 605. These numbers are more in line with the actual production numbers that have occurred on occasions when the zones were tested separately.

Q Now, Mr. Roe, in summary, is it accurate to say that it is your opinion that the allocation of actual production to date between the Mancos and Dakota zones is not represented truly by the current allocation factors?

A Yes. That's -- that's correct. The bottom of each of the columns in columns number two and three we've indicated the current oil allocation factors; in

columns nine and ten at the bottom I've indicated the revised allocation factor, which would be 90 percent of the oil to the Mancos and 10 percent of the oil to the Dakota.

The gas, as I've indicated, we feel to be properly allocated and there are no changes proposed for that.

Q Mr. Roe, would you refer to what have been marked as Exhibits B-Two and B-Three applicable to Case 8309, identify those exhibits and if you have any comments in addition to those you made in response to Exhibits A-Two and A-Three, make those comments?

A Okay. B-Two and B-Three are exhibits that are similar in nature as to A-Two and A-Three, other than they're prepared specifically for the Rightway No. 1. As I've indicated, our reason for proposing a revision in allocation factors is the same. It's, basically, we have evidence to support the fact that the Mancos was damaged at the time we recorded our initial potential. For the Rightway the initial potential totaled 78 barrels of oil a day, of which 51 was allocated or 51 was from the Mancos and 27 was from the Dakota.

As I've indicated with Exhibit A-Two, we do get the lost circulation material back upon producing these wells under artificial lift conditions. We installed a rod pump in the Rightway No. 1 on November 2nd, 1983 and have produced it continuously since that time and production has improved since installing the rod pump.

At the time we'd test our potential again and as is evidenced by the total of 78 barrels a day, we anticipated a subcommercial well, and that was the basis of our original request for commingling, and our original commingling factors allocate 67 percent of the oil to the Mancos and 33 percent of the oil to the Dakota; 85 percent of the gas to the Mancos and 15 percent to the Dakota.

In this application and as supported on Exhibit B-Three, we would revising the allocation factor to represent 92 percent of the commingled stream being allocated to the Mancos and 8 percent of the commingled oil stream allocated to the Dakota.

Again our gas allocation factors, we feel properly represent the gas production.

The -- with reference to Exhibit B-Three, it is again an exact format that was utilized on Exhibit A-Three, just to highlight the performance to date durign the nine month period November '83 through July '84, actual production has averaged 124 barrels of oil per day. That's the commingled stream. And utilizing our current allocation factors, the Dakota production would average 41 barrels a day and the Mancos, 83 barrels a day.

Our GOR during this nine month period would average 346 in the Dakota and 953 in the Mancos, which, again, these GORs are not in line with what has been tested on the occasion that the Dakota or Mancos was tested separately, or produced separately.

In the righthand portion of the Exhibit Number Three I've indicated our Dakota production forecast, which we believe to exist during the nine month period; the actual production would average 9.6 barrels of oil a day; the balance being from the Mancos and that would average 114 barrels a day.

As I've indicated, our allocation factors as we believe they exist and as they currently exist, are indicated at the bottoms of columns number two and three for the oil and nine and ten for the proposed revision in oil, and then the gas allocation factors would be located at the bottom of five and six and twelve and thirteen.

Q Refer to exhibit C-Two and C-Three and identify those exhibits and highlight the pertinent points of those exhibits.

A Okay. Exhibit C-Two and Exhibit C-Three again are the same format as we've just reviewed for A in the previous two cases.

Our reason for the revised commingling factors is the same. We did have evidence of fracturing in the Mancos and we feel that the improved productivity of this well is a result of the Mancos being better than was reflected on our initial potential.

At the time we were completing this well we tested 63 barrels a day from the Mancos and 15 barrels a day from the Dakota. That was what was reported on our initial potential.

Since installing a rod pump in November 11th of '83, the well has produced at rates much higher than that, actually averaging 392 barrels a day in May of 1984.

With our current allocation factors for the Mother Lode No. 1, allocate 79 percent of the oil to the Mancos and 21 percent to the Dakota, and 91 percent of the gas to the Mancos and 9 percent to the Dakota.

It's proposed that we revise these allocation factors to reflect 97 percent of the commingled stream being allocated to the Mancos and only 3 percent of the commingled stream allocated to the Dakota. Again the gas allocation factors would remain unchanged.

With reference to Exhibit C-Three, again the format is exactly the same as the previous two cases, highlightin the numbers that exist during the nine month period November '83 through July '84. The actual production averaged 199 barrels a day during the 265 days that this well has produced. Of that 199 barrels a day 42 barrels a day is allocated to the Dakota with our existing allocation factors. The balance of the 157 barrels a day to the Mancos.

With the current allocation our factors that exist, our average GORs appear to be 249 in the Dakota and 670 in the Mancos. Again, the 249 in the Dakota is an unrealistic number; however, when we make the revised allocation of our oil we feet that the GORs come more in line with the -- that that we believe exists in the Dakota and

Mancos and during the same nine month period our Dakota production with the revised allocation factors would average 5.6 barrels a day and the balance of 173 -- 193 barrels a day would be from the Mancos.

Q Mr. Roe, by what standard would you compare the gas/oil ratios in these wells?

A Well, we have recently, there have some wells that were completed only in the Mancos so we have the actual production performance of several wells, some operated by McHugh and some operated by other operators, plus there have -- there has only been really one sustained production test of the Dakota in this area and that was in the Gavilan No. 1.

I have data that would -- relative to that well here in the following exhibit.

Q Turn to what has been marked as Exhibit A-Four and identify that exhibit.

A Exhibit A-Four is an open hole -- it's a reproduction of the open hole induction electric log --

(REPORTER'S NOTE: At this point the tape became erratic in sound value and the reporter is unable to make a clear transcription for the next several minutes.)

(Thereafter the following testimony was given.)

A We perforated the overall 460-foot gross interval and within this 460-foot interval, 456-foot gross

interval we've completed 17 separate zones and we feel that there's approximately 36 feet of pay with an average porosity of 9.6 percent.

The page does indicate that we did have a little lost circulation at -- when the bit was at 8169. We're not real sure whether this is indicative of fracturing in the Dakota or that the lost circulation occurred at some other point in the wellbore.

We also had a little evidence of bit torquing in the upper part of the Dakota, which possibly would suggest some minor fracturing; however, based upon our initial potential test we don't feel that the evidence of fracturing, plus in the other wells that we have information on that fracturing in the Dakota is a significant factor and especially with respect to the fracturing that exists in the Mancos.

Q Would you go to Exhibit C-Four and identify that exhibit?

A Exhibit C-Four is the open hole induction log for the Mancos interval and the Dakota interval in the Mother Lode No. 1.

The first page of Exhibit C-Four is across the Mancos interval. I've indicated three separate intervals that we had lost circulation in the Mancos. We lost 300 barrels of mud at 6916, 200 barrels of mud at 6974, and 300 barrels of mud at 7324.

Again, as with the other two wells we

were anticipating lost circulation and we had lost circulation material at the time we encountered these zones. We increased the percentage of lost circulation material after encountering the zones and we did lose a significant amount of material to the formation in the Mancos.

(Tape faulty) to 7070 covers a 305 foot gross interval. It entails completing 30 separate intervals and developing approximately 52 feet of pay with an average porosity of 12.7 percent.

The second page of this exhibit is throughout the Dakota interval we've completed the overall 7861 to 8108, 247-foot gross interval. We developed 13 separate intervals and possibly 32 feet of pay with an average porosity of 9.7 percent.

We did not encounter any lost circulation or bit torquing through this interval in the Dakota.

Q Okay, Mr. Roe, would you now turn to Exhibit A-Five, B-Five, and C-Five and identify those exhibits, please?

A Okay. A-Five, B-Five, and C-Five are -- are all exactly the same. What is in A-Five is common to B-Five and is also exactly duplicated in C-Five. I'll make reference to A-Five and call some attention to highlights.

Those same comments would apply to the other two sets of exhibits.

Q Exhibit Number Five for each case consists of six pages. The first page is a summary of the wells

in this immediate vicinity and the well. Its purpose is mainly just to present the information that we have regarding the Mancos and the Dakota.

I've indicated the initial potentials in barrels of oil per day and the GOR that was tested for each zone. Also I've indicated the cumulative production that has occurred as of August 1st of 1984 and also the current production that exists for each well in barrels of oil per day and the current GOR.

As a matter of interest, since this is a fairly new area, a total of 331,000 barrels of oil have been produced from this area plus approximately 488-million cubic feet of gas and the daily average production from this area is about 2400 barrels of oil per day from all of the operators.

Q Mr. Roe, let me interrupt you there. When you refer to "this area" you're talking about the Gavilan area, the Gavilan Mancos Oil Pool, within those boundaries?

A It's within the boundaries of the Gavilan Mancos Oil Pool plus I've included four wells, five wells, that are outside the Gavilan Mancos Pool boundary but in the immediate area of interest, and we feel probably have some bearing on this, the production being similar in nature.

Of the five wells that are outside the boundary there are three locations and two that are in the completion process, so there's really no real new evidence

available from those wells yet, but it does suggest that this is an area that there will be lots of activity in in the coming future.

Q Go ahead with your analysis of Exhibit A-Five.

A Okay. Just one last comment on the first page.

There are fourteen wells in this area in, as Mr. Roberts indicated, the bulk of the completion and the production information is within the bounds of -- or all of the production is within the bounds of the Gavilan Mancos Pool as it exists now.

There are fourteen wells that have been completed and have production histories. Three wells are in the process of completion or awaiting on completion tool and there are two staked locations.

On the second page of Exhibit A-Five, it's just footnotes that further explain the first page and there's really nothing noteworthy on the second page other than should there be questions requiring additional explanation or if I felt there was additional explanation, those explanations are presented on the second page.

The third page of this exhibit is a production plot for the Gavilan No. 1, which is the well operated by Northwest Exploration. This well is located in Unit A of Section 26, Township 25 North, Range 2 West. It's in the immediate vicinity of the three wells we're talking

about that are the subject of this hearing and the purpose of this plot was to just present the overall picture of all of the production that has occurred from the date of first production, which was in 1982.

When Northwest equipped this well they equipped it in a manner that they could produce the Mancos by itself, the Dakota by itself, or with the strings commingled and that has actually occurred during the life of the well.

I've indicated, it may be a little hard to see, but I've got additional detail on page number four. The reason for page three was just to show the overall picture. On the page four I've taken an area out of this production curve and provided additional details.

So with reference to page four of this exhibit, I've provided daily production data for the months July, 1983, through January, 1984. During this period of time the well was produced as a single Mancos. It was produced as a commingled Mancos-Dakota. It was produced as a single Dakota, and then production as a single Mancos was restored.

The upper portion of page number four of this exhibit is the daily data and it is presented for your information if you choose to look at it.

The lower portion is a summary and that's the part that I'll discuss. It basically summarizes the upper portion plus it also accounts for the entire production

history of the well.

Briefly the well was produced as a single Mancos from March of '82 through July 27th of 1983. During this period it initially averaged 44 barrels of oil per day with an average GOR of 8677. This was an average production that did occur during the first 161 days of production.

The last fifteen days of production, which occurred July 1st through July 27th, it averaged 71 barrels a day with an average GOR of 7930.

Northwest then commingled the Mancos and Dakota and produced it as a commingled zone from July 28th through Octobr 9th of 1983. During the latter portion of this period production was averaging 108 barrels of oil per day with a GOR of 3565.

At this time the -- I might just point out that the GORs that I've quoted here are utilizing gas volumes that I got from the C-115. The reason I did that is the daily gas volumes that are reported here, there was a lot of times a question in my mind as to the accuracy of them. It appeared that maybe they were just not able to measure voumes on all of the days and I used, to remove uncertainty, I used an actually recorded gas volume. The production of gas from this well was being sold to the pipeline, so they should be fairly accurate numbers.

On October 10th through November 30th of 1983 the well was produced from the Dakota for a total period of 50 days. The Dakota was the only thing open dur-

ing this test and the average production during the last 30 days of this period was 6 barrels of oil a day and the GOR was an average of 7772.

At that point production to the single Mancos was restored and that is the current status of the well. It, during June of 1984 averaged 82 barrels of oil per day with a GOR of 2223.

Mr. Roe, what conclusions do you draw then from the data in Exhibit A-Five relative to the proposed revision of allocation factor?

A Okay. Exhibit A-Five it establishes the fact that we have productive potential in the Dakota. It, to you knowledge, is the only well that has actually under any long period tested the Dakota. It establishes that relative to the Dakota the Mancos is the primary producing interval in this -- this area.

Q I believe you have a couple of other pages in Exhibit A-Five. Do you wish to elaborate on the contents of those pages?

A Yes. On page number five, this is the -- a plot of the daily production rates for Jerome P. McHugh's Native Son No. 2.

At the initial -- initially we had both the Mancos and the Dakota open for production. The daily rates are plotted beginning in March, March 9th, 1983, and through June 12th of 1984 -- now I said March 9th of 1983, that's 1984, March 9th, we started production and produced a

commingled stream through June 12th of 1984, at which time we shut the well in to isolate the Dakota because we were not able to obtain authorization from the Commission to commingle these zones.

We produced the well under a temporary allowable during the period March through June and at -- on June 12th we shut the well in. We isolated the Dakota, effectively June 18th the Dakota was temporarily abandoned.We changed out the tubing and restored the well to production upon obtaining a pipeline connection for gas sales during August 14th of 1984, and as you can see on the plot of daily rates, the volumes -- the daily rate was restored to rates than higher than we actually had prior to the isolation of the Dakota. The fact that we installed 2-7/8ths tubing during our workover, where production prior to that was through 2-3/8ths tubing, that is our explanation as to the rates being higher.

The back pressure that the well was subjected to before temporarily abandoning the Dakota and after abandoning the Dakota was similar, so improved productivity is the result of the larger tubing. This significance of this plot is that the volume of oil that was attributable to the Dakota during the period March through June is fairly small compared to the amount that is attributable to the Dakota -- to the Mancos.

Q Mr. Roe, what conclusions, then, would you be able to draw from the data submitted for the Native

Son No. 2 Well, Jerome P. McHugh's well, insofar as it applies to the request for revision of allocation factors?

A This is presented in support of the fact that the bulk of our completion information, well, it just supports the fact that the Mancos is our primary producing interval. The initial potential for the Native Son No. 2 was much less than we see here on a daily basis. We actually had an initial potential of 233 barrels a day in the Mancos and 58 barrels a day in the Dakota.

As you can see, the Mancos-Dakota combined stream initially averaged 500 barrels a day, and again, now, I say 500 barrels a day, that's once we were able to get production sustained during the month of January '84, we actually had a daily average of 133 barrels a day during eight days that we were able to get the well to produce, and during February we also averaged 153 barrels a day during ten days that we were able to get the well to produce.

We have continued swabbing trying to get the well to come around and beginning March 9th the data is tabulated on a daily basis.

Q Mr. Roe, do you have any information regarding the oil gravity factors which have a bearing on this application, or these applications?

A Yes, that would be one other factor that we have as evidence to the fact that the Dakota was, even though it was producing it was not a significant part of the

commingled stream.

The average oil gravity during June of 1984 was 44.2 degrees API and the gravity during August that we actually observed was 44.7 degrees, suggesting a very minor change in the composition of the total oil stream.

Again, the data we have with regards to the Dakota suggests that its gravity would be about 37 degrees.

Oh, one other, the last page of this exhibit is -- is just included for information. It is a plot of all production that has occurred from the Native Son No. 2, not just the area that I've chosen to provide detail on.

Q Mr. Roe, in your opinion would the granting of the application in Case Numbers 8308, 8309, and 8310 be in the best interests of conservation and result in the protection of correlative rights and the prevention of waste?

A Yes, sir, I believe that this is absolutely necessary in order to protect correlative rights.

Q Were Exhibits A-One through A-Five, B-One through B-Five, and C-One through C-Five, either prepared by you or at your direction and under your supervision?

A Yes, they were.

MR. ROBERTS: We move the admission of those exhibits.

MR. QUINTANA: Okay, Exhibits A-One through A-Five, B-One through B-Five, and C-One

through C-Five will so be admitted in Cases 8308, 8309, and 8310.

MR. ROBERTS: Mr. Examiner, I have no other questions.

MR. QUINTANA: Are there any other questions of the witness? The witness may be excused.

Cases 8308, 8309, and 8310 will be taken under advisement.

(Hearing concluded.)

C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

Sally W. Boyd CSR

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case Nos. 8308, 8309, 8310 heard by me on SEPT. 5 1984.

Gilbert P. Quintana, Examiner
Oil Conservation Division

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO

22 August 1984

EXAMINER HEARING

IN THE MATTER OF:

Application of Dugan Production Corp. for amendment of Division Order No. R-7367, Rio Arriba County, New Mexico. CASE 8309

BEFORE: Michael E. Stogner, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation Division: W. Perry Pearce
Attorney at Law
Oil Conservation Commission
State Land Office Bldg.
Santa Fe, New Mexico 87501

For the Applicant:

MR. STOGNER: Call next Case Number 8309.

MR. PEARCE: That case is on the application of Dugan Production Corporation for amendment of Division Order R-7367, Rio Arriba County, New Mexico.

Mr. Examiner, applicant has requested continuance until September the 5th, 1984.

MR. STOGNER: Case Number 8309 will be so continued to the Examiner Hearing scheduled for September 5th, 1984.

(Hearing concluded.)

C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

Sally W. Boyd CSR

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 8309, heard by me on August 22 1984.

Oil Conservation Division Examiner