

W. Thomas Kellahin  
Karen Aubrey  
Jason Kellahin  
Of Counsel

KELLAHIN and KELLAHIN  
Attorneys at Law  
El Patio - 117 North Guadalupe  
Post Office Box 2265  
Santa Fe, New Mexico 87504-2265

Telephone 982-4285  
Area Code 505

RECEIVED

February 10, 1987

FEB 10 1987

HAND-DELIVERED

OIL CONSERVATION DIVISION

Mr. William J. LeMay  
Oil Conservation Division  
Post Office Box 2088  
Santa Fe, New Mexico 87504

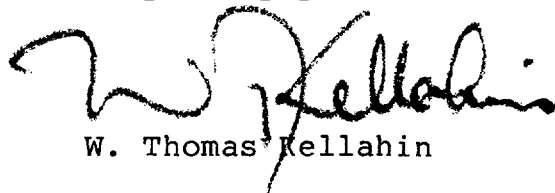
Case 9099

Re: Application of William C. Russell for an Exception to Order R-8170 to Permit the Application of a Full Deliverability Factor in the Formula Utilized in Determining the Allowable for Certain Units, Blanco Mesaverde Pool, San Juan County, New Mexico

Dear Mr. LeMay:

Please set the enclosed application for hearing on the next available Examiner's Docket now set for March 4, 1987.

Very truly yours,

  
W. Thomas Kellahin

WTK:mh  
Enclosure  
cc: A. R. Kendrick  
Box 516  
Aztec, New Mexico 87410

ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION



GARREY CARRUTHERS  
GOVERNOR

May 3, 1988

POST OFFICE BOX 2088  
STATE LAND OFFICE BUILDING  
SANTA FE, NEW MEXICO 87501  
(505) 827-5800

Mr. Thomas Kellahin  
Kellahin, Kellahin & Aubrey  
Attorneys at Law  
Post Office Box 2265  
Santa Fe, New Mexico

Re: CASE NO. 9099  
ORDER NO. R-3426

Applicant:

William C. Russell

Dear Sir:

Enclosed herewith are two copies of the above-referenced  
Division order recently entered in the subject case.

Sincerely,

*Florence Davidson*

FLORENE DAVIDSON  
OC Staff Specialist

Copy of order also sent to:

Hobbs OCD           X            
Artesia OCD           X            
Aztec OCD           X          

Other \_\_\_\_\_  
\_\_\_\_\_

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

4 March, 1987

EXAMINER HEARING

IN THE MATTER OF:

Applications of John E. Schalk, Col-	CASE
umbus Energy Corporation, Union Texas	9096
Petroleum Corporation, William C.	9097
Russell, C & E Operators, Inc., and	9098
Dugan Production Corporation, for an	9099
exception to Rule 5(a)2(2) of Divi-	9100
sion Order No. R-8170, as amended,	9101
San Juan and Rio Arriba Counties,	
New Mexico.	

BEFORE: Michael E. Stogner, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Commission:	Jeff Taylor Legal Counsel for the Division Oil Conservation Division State Land Office Bldg. Santa Fe, New Mexico 87501
For the Applicants:	W. Thomas Kellahin Attorney at Law KELLAHIN, KELLAHIN, & AUBREY P. O. Box 2265 Santa Fe, New Mexico 87501

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

## I N D E X

## A. R. KENDRICK

Direct Examination by Mr. Kellahin	7
Cross Examination by Mr. Stogner	26
Redirect Examination by Mr. Kellahin	35
Recross Examination by Mr. Stogner	37

## E X H I B I T S

Schalk Exhibit A-1, Policy	8
Schalk Exhibit A-2, Calculation	8
Schalk Exhibit A-3, Calculation	8
Schalk Exhibit A-4, Calculation	8
Schalk Exhibit One, Application	18
Schalk Exhibit Two, Well Information	18
Schalk Exhibit Three, Plat	18
Schalk Exhibit Four, Page A-1	19
Schalk Exhibit Five, Page A-2 plus	19

1

2

## E X H I B I T S CONT'D

3

4

5 Columbus Exhibit One, Certificate of Mailing 19

6 Columbus Exhibit Two, Plat 19

7 Columbus Exhibit Three, Plat 19

8 Columbus Exhibit Four, Page A-1 19

9 Columbus Exhibit Five, Page A-2 plus 19

10

11 UTP Exhibit One, Certificate of Mailing 19

12 UTP Exhibit Two, Wells Information 20

13 UTP Exhibit Three, Wells Information 20

14 UTP Exhibit Four, Plat 20

15 UTP Exhibit Five, Plat 20

16 UTP Exhibit Six, Plat 20

17 UTP Exhibit Seven, Plat 20

18 UTP Exhibit Eight, A-1 20

19 UTP Exhibit Nine, A-2 20

20

21 Russell Exhibit One, Certificate of Mailing 21

22 Russell Exhibit Two, Well Information 21

23 Russell Exhibit Three, Plat 21

24 Russell Exhibit Four, Page A-1 21

25 Russell Exhibit Five, Page A-2 21

## E X H I B I T S CONT'D

1		
2		
3	C & E Exhibit One, Document	21
4	C & E Exhibit Two, Plat	22
5	C & E Exhibit Three, Page A-1	22
6		
7		
8	Dugan Exhibit One, Certificate of Mailing	23
9	Dugan Exhibit Two, Plat	23
10	Dugan Exhibit Three, Plat	23
11	Dugan Exhibit Four, Plat	23
12	Dugan Exhibit Five, Page A-1	23
13	Dugan Exhibit Six, Page A-2	23
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		

1  
2 MR. STOGNER: Call next Case  
3 9096.

4 MR. TAYLOR: Application of  
5 John E. Schalk for an exception to Rule 5(a)2(2) of Division  
6 Order No. R-8170, as amended, Rio Arriba County, New Mexico.

7 MR. STOGNER: Call for appear-  
8 ances in this case.

9 MR. KELLAHIN: Mr. Examiner,  
10 I'm Tom Kellahin of Santa Fe, New Mexico, appearing on be-  
11 half of John E. Schalk.

12 Mr. Examiner, with regard to  
13 the Cases 9097, 9098, 9099, 9100, and 9101, each of them is  
14 in the same regard as Case 9096, and we represent all appli-  
15 cants in these six cases in this matter, and would request  
16 that the cases be consolidated for purposes of testimony.

17 MR. STOGNER: Very well, Mr.  
18 Kellahin, we will call Cases 9097, 9098, 9099, 9100, and  
19 9101 at this time and they will be consolidated for purposes  
20 of this hearing.

21 MR. TAYLOR: Application of  
22 Columbus Energy Corporation for an exception to Rule  
23 5(a)2(2) of Division Order No. R-8170, as amended, San Juan  
24 County, New Mexico.

25 Application of Union Texas

1 Petroleum Corporation for an exception to Rule 5(a)2(2) of  
2 Division Order No. R-8170, as amended, San Juan County, New  
3 Mexico.

4 Application of William C.  
5 Russell for an exception to Rule 5(a)2(2) of Division Order  
6 No. R-8170, as amended, San Juan County, New Mexico.

7 Application of C & E Opera-  
8 tors, Inc. for an exception to Rule 5(a)2(2) of Division  
9 Order No. R-8170, as amended, San Juan County, New Mexico.

10 Application of Dugan Produc-  
11 tion Corporation for an exception to Rule 5(a)2(2) of Divi-  
12 sion Order No. R-8170, as amended, San Juan County, New Mex-  
13 ico.

14 MR. STOGNER: Will the witness  
15 please stand and be sworn?

16  
17 (Witness sworn.)

18  
19 MR. STOGNER: Mr. Kellahin.

20 MR. KELLAHIN: Thank you, Mr.  
21 Stogner.

22  
23 A. R. KENDRICK,  
24 being called as a witness and being duly sworn upon his  
25 oath, testified as follows, to-wit:



1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Mr. Kendrick, for the record would you please state your name and occupation?

A A. R. Kendrick, Petroleum Consultant.

Q With regards to the six consolidated cases, Mr. Kendrick, have you been retained by each of those applicants to prepare testimony as a petroleum engineer in those cases?

A Yes, sir.

Q Would you describe generally what is the subject matter of each of those six applications for the Examiner?

A The subject matter is the procedure for calculating allowables for these wells. They are nonstandard proration units having approximately 50 percent acreage factors because they have only one-quarter of a section dedicated to the wells instead of a half section, and the present proration formula does not treat these wells fairly compared to offset wells on standard proration units.

Q Have you made an examination of the way the allowables are calculated for each of the wells for each of the applicants?

A Yes, sir.

1 MR. KELLAHIN: We tender Mr.  
2 Kendrick as an expert petroleum engineer.

3 MR. STOGNER: Mr. Kendrick is  
4 so qualified.

5 Q Mr. Kendrick, I have marked as Schalk Ex-  
6 hibit A-1 the allowable calculation policy and then the al-  
7 lowable calculation as Exhibit A-2, and then finally, as A-3  
8 and 4 are the Schalk calculations on specific wells.

9 So that the Examiner will have an  
10 understanding of what we're doing for all of these cases, I  
11 would like to use the Schalk case as an example and have you  
12 begin, then, with the generic exhibit, if you will, A-1, and  
13 have you go through the allowable calculation policy that  
14 you're recommending and give us the basis upon which -- to  
15 give us a basis upon which you have made the recommendation  
16 that the allowable for nonstandard proration units be  
17 adusted.

18 A The generic description package, Exhibit  
19 A-1, shows the -- my conception of the allowable calculation  
20 policy as it currently exists and is a recap of the proce-  
21 dure for the determination of the allowable formula, which  
22 the allowable is equal to the acreage factor times a factor  
23 known as F-1, plus the acreage times deliverability factor,  
24 times a factor known as F-2, which is referred to as the A x  
25 D factor or the deliverability factor in the formula.

1                   Where we have infill wells drilled we add  
2 the deliverabilities in the deliverability portion of that  
3 formula and those are shown on the bottom of Page A-1 in  
4 this packet.

5                   On Page A-2, the allowable calculation, I  
6 cited the statute, 70-2-17, which essentially says that the  
7 allowable assigned to each proration unit shall be equal to  
8 that or represent that proration unit's fair share of the  
9 known reserves of the pool.

10                   And I stated further that based on the  
11 premise that this statute was followed when the proration  
12 formulas were established, the deliverability of one well in  
13 the Basin Dakota or Blanco Mesaverde Pools would represent  
14 the recoverable reserves under each proration unit or 320  
15 acres.

16                   When the infill drilling orders were is-  
17 sued for these pools this must have caused a redefinition of  
18 the value of the deliverability to equal the deliverability  
19 of a 160-acre tract since we added the deliverabilities to  
20 represent the reserves under the tracts.

21                   And this is resulting in the equation  
22 shown at the bottom of the page, or the second one up from  
23 the bottom the bottom showed that the allowable is equal to  
24 the acreage factor times F1 plus the acreage factor times  
25 the sums of the deliverabilities of the two wells times the

1 factor F2.

2           The formula that I'm proposing to be used  
3 on these wells would delete the acreage factor itself of the  
4 deliverability portion of that formula so that the allowable  
5 formula would be equal to the acreage factor times the F1  
6 plus the sums of the deliverabilities times F2, and if this  
7 is applied on a poolwide basis, if the second well had not  
8 been drilled on a drill tract, you would add a zero for  
9 deliverability and wind up with the exact same formula that  
10 we have now if it were on a standard unit.

11           On a nonstandard unit you would just not  
12 reduce the calculated reserves under the tract by the  
13 multiplication of the acreage factor.

14           Q           To see how the existing formula and the  
15 proposed formula work in a specific example situation, have  
16 you prepared a calculation to demonstrate the disparity in  
17 allowables under the current formula versus the proposed  
18 formula?

19           A           Yes. I have tow pages of generic type  
20 situations.

21           The first is shown as an example for the  
22 Basin Dakota Pool. I've made the assumptions that we have a  
23 320-acre unit on which two wells are drilled, one with the  
24 deliverability of 200 MCF and one with a deliverability of  
25 400 -- excuse me, of 500 MCF.

1           By taking the average allocation factors,  
2 F1 and F2, from the Basin Dakota Pool for the year 1985, the  
3 average factors are entered under Assumption 2.

4           By substitution into the present formula  
5 the allowable for one 2-well unit is 10,150 MCF.

6           Using the present formula if we divide  
7 that into two 1-well units, each well having a 50 percent  
8 acreage factor, the allowable for the one with deliverabil-  
9 ity of 200 would be 3,303 MCF and the allowable for the unit  
10 having a deliverability of 500 MCF would be 4,366.

11           When we add those together we get 7,669  
12 MCF for the 320 acres.

13           When we subtract that from the 10,150  
14 where we have one 2-well unit, we find that during that  
15 month those two 160-acre units would lose 2,481 MCF of al-  
16 lowable just because the unit was divided into two units in-  
17 stead of one unit.

18           Q           There is no other factor that accounts  
19 for the difference in the disparity in allowables other than  
20 the fact that you've taken a 320-acre unit and divided it in  
21 half --

22           A           Yes, sir.

23           Q           -- into two nonstandard 160-acre prora-  
24 tion units.

25           A           That is true.

1 Q By adjusting the formula as you have pro-  
2 posed by deleting the acreage factor from the deliverability  
3 portion of the calculation, can you show us what happens  
4 then under the proposed formula?

5 A Under the proposed formula if we apply  
6 the proposed formula to one 2-well unit, we would arrive  
7 with the same answer of 10,150 MCF for the allowable for  
8 that average month.

9 If we divide the unit and have two 1-well  
10 units with the same deliverabilities as cited in the example  
11 earlier, for the well with the deliverability of 200 MCF,  
12 that allowable is moved from 3,303 to up 4,012, and for the  
13 well the deliverability of 500, the allowable would change  
14 from 4,366 to 6,138.

15 We add those two together we get 10,150  
16 MCF.

17 We subtract that from the allowable as-  
18 signed to the 320-acre unit and we get zero.

19 So that all we're asking for is that the  
20 wells, because they're on nonstandard units, be given the  
21 same allowable they would get if they were on the 320-acre  
22 drill tract.

23 Q All right, you've demonstrated for us the  
24 Basin Dakota Gas Pool situation and how you would propose to  
25 adjust the allowable calculation to remove the disparity in

1 the formula, does the change also hold true if you do the  
2 calculation for the Blanco Mesaverde Gas Pool?

3 A Yes, the examples shown on the next page  
4 are using the average factor for the Blanco Mesaver Pool un-  
5 der Assumption 2, and by substituting those values in the  
6 same formulas, this page shows the identical calculations  
7 and the difference in allowables under the present formula  
8 would be 6,412 MCF and under the proposed formula the dif-  
9 ference would be zero.

10 So that the wells would wind up with  
11 identical allowables as those for two wells on one 320-acre  
12 tract.

13 Q What is your recommendation to the Exam-  
14 iner as to when this affected change in the calculation  
15 should be made for all the applicants involved in the six  
16 consolidated cases?

17 A I think the effective date should be the  
18 first day of a proration month so that there would be no  
19 supplemental requirements to change the history. Probably  
20 on the next schedule calculated if the resulting order can  
21 be out earlier enough that they can (not clearly under-  
22 stood).

23 Q Are you seeking to make any type of  
24 retroactive adjustment in the allowables for any of these  
25 wells?

1           A           No, sir.

2           Q           All right, sir, let's go to Page A-3 of  
3 the exhibit package and the caption says John E. Schalk.  
4 Would you describe for the examiner what it is that you've  
5 put on this exhibit?

6           A           Do the --

7           Q           Do you want to go to that exhibit?

8           A           Well, let's apply these together with the  
9 plat from the John Schalk --

10          Q           All right.

11          A           -- case.

12   MR. KELLAHIN: Mr. Examiner,  
13 I'm handing you what is a package of exhibits from the  
14 Schalk Case 9096. They're Exhibits One through Five, and  
15 I'd like to direct your attention to Exhibit Three in that  
16 package.

17          Q           All right, sir, if you'll -- if we'll use  
18 Schalk Exhibit A-3 and then turn to Schalk Exhibit Three,  
19 which is the plat, describe for us what you have specifical-  
20 ly done for the Schalk well.

21          A           The Schalk Exhibit Number Three is a plat  
22 showing the John E. Schalk Schalk Gulf No. 2 Well and it's  
23 proration unit, and the Union Texas Petroleum Corporation's  
24 McCrodden A-3 Well, both being in the east half of Section 8  
25 of Township 25 North, Range 3 West.



1                   And on Schalk Exhibit A-3 there's a cal-  
2                   culation of the allowables based on the current formula and  
3                   the proposed formula showing the different sets of factors,  
4                   one for the total of 1985, one for the average of 1985, and  
5                   one for September '86, which happened to be a schedule lay-  
6                   ing on my desk when I prepared these.

7                   It shows the allowables calculated under  
8                   formula one, being the current use formula; formula two,  
9                   being the proposed formula, and the differences identified  
10                  in the column shown as gain in MCF.

11                  Moving from the current use formula to  
12                  the present formula -- excuse me, from the present formula  
13                  to the proposed formula.

14                  Q                   We've looked at how to make the adjust-  
15                  ment in the allowable formula for the Schalk Well. Also on  
16                  Exhibit Three below the Schalk nonstandard unit is a Union  
17                  Texas Petroleum Corporation nonstandard unit. Can you show  
18                  us the allowable calculation for that one so that we can  
19                  compare the Schalk to the Union Texas?

20                  I think that's shown on your Exhibit A-4.

21                  A                   On Exhibit A-4 we have the top set of  
22                  calculations is similar to those that we just discussed on  
23                  Exhibit A-3 for the same three types of calculations, using  
24                  the actual deliverability of the well and the acreage  
25                  factors.

1                   And immediately below that is the same  
2 information shown on Exhibit A-3 for the John E. Schalk  
3 well, and then at the bottom of the page where we have both  
4 wells considered as being unitized, and the composite is  
5 shown there of what the allowables would be calculated for  
6 Formula 1 or Formula 2, and it shows how they would be as  
7 one 2-well unit as compared to being two 1-well units, and  
8 the difference in each case results in zero.

9                   Q                If we assume the west half -- the east  
10 half of Section 8 is a single spacing unit with an infill  
11 well on it, then we would look at the bottom portion of A-4  
12 and you can see for September of '86 there would be an al-  
13 lowable of -- under your formula, yours is Formula 2 --

14                   A                Yes, Formula 2, the proposed formula.

15                   Q                -- the 2118?

16                   A                During the month of September, 1986.

17                   Q                Okay.

18                   A                For the average of 1985 it would be 6,957  
19 MCF, to relate back to the pages in the generic package, or  
20 earlier.

21                   Q                If we take the Union Texas well for Sep-  
22 tember of '86, and under your Formula 2 the allowable for  
23 September of '86 is 1194, right?

24                   A                Yes, sir.

25                   Q                And then on the Schalk well the September

1 '86 allowable under your proposed change is 924.

2 A That's correct.

3 Q And we add those two together and we're  
4 going to get the 2118.

5 A That's correct.

6 Q So by using the adjusted formula you're  
7 proposing you have removed the inequity in the formula so  
8 that regardless of whether or not you have two wells on a  
9 single communitized 320-acre unit or whether you have a well  
10 on separate 160-acre units, they will each have allowables  
11 that are equitable for the owners of those particular inter-  
12 ests.

13 A Yes, sir.

14 Q It would --

15 A It would remove the inequities in the al-  
16 lowable calculation.

17 Q And without the change the current rule  
18 provides a disadvantage in allowables for nonstandard 160-  
19 acre units.

20 A That's correct.

21 Q And the only reason that disparity is  
22 there is simply a function of the calculation and the fact  
23 that you've taken 320 acres and divided it in half.

24 A Yes, sir.

25 Q All right. In your opinion, Mr. Ken-

1 drick, is the proposed change in the formula that you've re-  
2 quested for each of these wells one that is in the best in-  
3 terests of conservation, the prevention of waste, and the  
4 protection of correlative rights?

5 A Yes, sir.

6 Q Let's start, sir, with the exhibits for  
7 each of the cases now so that the Examiner will understand  
8 how we have put together the exhibit package.

9 If you'll start with the first Schalk  
10 exhibit, would you identify Exhibit One?

11 A Exhibit One in the Schalk package is the  
12 application for hearing for Case Number 9096.

13 Q It will be the certificate of mailing  
14 portion to the offset operators, it would be that portion of  
15 the application?

16 A Yes, sir.

17 Q And Exhibit Number Two is what?

18 A Shows the name of the operator, the well,  
19 the location of the well, and the pool it's located in, and  
20 the names of the offset operators.

21 Q Okay. Exhibit Number Three is what?

22 A It's a plat showing the proration units  
23 with different patterns to show the Schalk well and the off-  
24 set wells identified by operators and well names and loca-  
25 tions.

1 Q Okay. And Exhibit Number Four?

2 A Exhibit Number Four is the same as Page  
3 A-1 on the generic exhibit.

4 Q And Exhibit Five?

5 A Page A-5 -- excuse me, Page 5 is the same  
6 as the generic Page A-2, and the supplemental calculation  
7 pages attached behind that for the pool in which this opera-  
8 tor's wells exist; in this case the Blanco Mesaverde Pool.

9 Q All right, sir, let's turn to the next  
10 case, which is the Columbus Energy Corporation Case 9097.

11 A Exhibit One is the Certificate of Mailing  
12 and shows the names and addresses of the offset operators  
13 notified.

14 Exhibit Two is a plat showing Columbus  
15 Energy's Aberdeen (sic) No. 1 and Landower No. 1-E Well lo-  
16 cations and their -- their offset operators.

17 Exhibit Number Three shows the Owens No.  
18 1, Gross No. 1-E, Arnstein No. 1, and Reed No. 1 locations  
19 and proration units and their offsets.

20 Exhibits Four and Five are copies of the  
21 generic exhibit pages similar to those in Case 9096.

22 Q Let's turn now to the Union Texas Petro-  
23 leum Corporation Case 9098 and let me have you identify the  
24 exhibits that are submitted for that case.

25 A Exhibit Number One is the Certificate of

1 Mailing showing the names and addresses of the offset opera-  
2 tors notified for the lease.

3                   Exhibit Number Two shows the names of the  
4 wells, the locations of the wells and the pools they're lo-  
5 cated in and the offset operators for three of the wells.

6                   Exhibit Number Three identifies two other  
7 wells and their locations and pool and the offset operators  
8 that were notified.

9                   Exhibit Four is the plat of the Jicarilla  
10 L No. 5 and its offset operators.

11                   Exhibit Number Five shows the plat of the  
12 Schalk Gulf 2 and the McCrodden A-3 and the offset operators.

13                   A           Exhibit Number Six shows a plat of the  
14 Rothson (sic) No. 2 Well and the offset operators.

15                   Exhibit Number Seven shows the plat of  
16 the Jicarilla L No. 12 and Jicarilla L No. 11 Wells and the  
17 offset operators.

18                   And the remainder of this package is  
19 identical to the generic package that we discussed earlier,  
20 the A-1, A-2 package.

21                   The calculation pages were not identified  
22 by exhibit numbers. They were just attachments to -- One  
23 through Nine and then we also have a calculation for the  
24 well which would be similar to Exhibit A-3 of the Schalk  
25 Well but this exhibit or page is for the Union Texas McCrod-

1 den A-3 Well, which is the companion well to the Schalk  
2 well, and that is the well in the same quarter section --  
3 same half section.

4 Q Let me direct your attention now, Mr.  
5 Kendrick, to the package of exhibits for the Russell Case  
6 9099 and have you identify those exhibits.

7 A Exhibit Number One is the Certificate of  
8 Mailing and the names and addresses of the operators noti-  
9 fied.

10 Exhibit Number Two shows the names and  
11 locations and the pool name and the offset operators for the  
12 two wells covered by the William C. Russell case.

13 Exhibit Number Three shows the plats of  
14 proration units and their offsets.

15 Exhibit Number Four is equivalent to  
16 generic Exhibit A-1 and Exhibit Number Five would be the Ex-  
17 hibit Number A-2.

18 Q I direct your attention to the C & E  
19 Operators, Inc. Case 9100, and ask you to identify the exhi-  
20 bits for that case.

21 A Since there were no offset operators to  
22 this, there was no certificate of mailing.

23 Exhibit One shows the list of offset  
24 operators as "none" for the Aztec Wells Nos. 8 and 9, the  
25

1 location of the wells and the pool they're in.

2 Exhibit Two is a plat showing the prora-  
3 tions units of these two wells and their offsets, and C & E  
4 Operators is the only offsetting operator to these wells.

5 Exhibit Number Three is the -- a copy of  
6 generic Exhibit A-1 and Exhibit Number Four is a copy of  
7 generic Exhibit A-2.

8 Q When we talk about the generic exhibit  
9 for the calculation of the allowable, that is simply a sam-  
10 ple for the Mesaverde Pool and does not represent the actual  
11 numbers for the two C & E Operator wells.

12 A That's correct.

13 Q And that's true of the other exhibits.

14 A Yes, all exhibits.

15 Q All right. So except for the original  
16 package of exhibits where we made a specific calculation on  
17 the Schalk wells and the UTP wells to show a comparison and  
18 to show the absence of a disparity in allowables, you have  
19 not run an actual calculation for each of the wells.

20 A I have not included it in these packages.

21 Q There's no reason to believe that the  
22 calculation would be other than as you've represented in the  
23 generic example in terms of balancing the equity.

24 A It's calculated according to the present  
25 formula and the proposed formula. They will be equivalent



1 to the generic.

2 Q And turning now to the Dugan Production  
3 Corporation Case 9101, I hand you what is marked as a pack-  
4 age of exhibits for the Dugan case and ask you to identify  
5 those exhibits.

6 A Exhibit Number One is the Certificate of  
7 Mailing, showing the names and addresses of those persons  
8 notified.

9 Behind that without an exhibit number is  
10 a list of the wells, the locations, and the pool they're in,  
11 and the offsets to each of those.

12 Exhibit Number Two is the plat of Dugan  
13 Production Corporation's No. 1-A New Dawn Well, and the off-  
14 set operators.

15 Exhibit Number Three is the plat of the  
16 Fullerton No. 1 Well and the offsets.

17 And Exhibit Number Four is the plat of  
18 the McAdams No. 3 and McAdams No. 2 Wells, and their off-  
19 sets.

20 Exhibit Five is a copy of generic Exhibit  
21 A-1 and Exhibit Six is a copy of generic Exhibit A-2 and the  
22 calculation page behind that.

23 MR. KELLAHIN: At this time,  
24 Mr. Examiner, we'd move the introduction of the respective  
25 exhibits in the relative cases, as well as the Schalk Exhi-

1 bit A-1 through A-5, was it?

2 THE REPORTER: Four.

3 MR. KELLAHIN: Through A-4.

4 MR. STOGNER: Schalk, or gen-  
5 eric, Cases 1-A through 1-4 and all the exhibits in the  
6 cases will be admitted into evidence at this time.

7 MR. KENDRICK: Mr. Examiner, on  
8 each of the plats, I would refer you to any of the plats  
9 showing the proration unit, in the center of that proration  
10 unit I've attempted to identify the order that set out the  
11 nonstandard proration unit.

12 On Union Texas Petroleum Cor-  
13 poration's exhibits, for the Jicarilla L-11 and 12 Wells I  
14 did not show you the order for those two wells and I learned  
15 that those two wells were drilled on 160-acre drill tracts  
16 because the West Lindrith Gallup-Dakota Pool was expanded to  
17 include the 160-acre tract in the section and merely left  
18 this acreage to be all that's still available to dedicate to  
19 these wells because there's an offset 320-acre drill tract  
20 in each section, and I would submit to you a miscellaneous  
21 notice filed through the BLM with an attached C-103 that ex-  
22 plains why they dedicated the 160-acre tract to the Jicaril-  
23 la L Well and I think the situation is, or will be, similar  
24 to the Jicarilla L-11, because there was only 160 acres a-  
25 vailable in that section to dedicate to a well, and I don't

1 think that a nonstandard proration unit has been approved  
2 for either of those as such, but the Jicarilla L-12 Well has  
3 produced for several years as the Jicarilla L No. 6-E and  
4 due to this other manipulation of the expansion of the West  
5 Lindrith-Gallup-Dakota Pool it only left 160 acres in the  
6 Dakota formation for this well.

7 MR. STOGNER: Let me make sure  
8 I got that right.

9 You're talking about Jicarilla  
10 L No. 12 and the Jicarilla L No. 11 only.

11 MR. KENDRICK: Yes.

12 MR. STOGNER: Those were 160-  
13 acre units because of a quirk in the pooling (not under-  
14 stood).

15 MR. KENDRICK: Yes, sir.

16 MR. STOGNER: Okay, how about  
17 the Jicarilla L No. 5?

18 MR. KENDRICK: If it's not in-  
19 cluded in the packet, I'll determine the order number and  
20 get you notice of the nonstandard proration unit order num-  
21 ber.

22 Tom, why don't you read him  
23 that. I failed to read that order number that sets up  
24 those. It's --

25 MR. STOGNER: Also do you have

1 a copy of that order?

2 MR. KELLAHIN: Sure.

3 MR. KENDRICK: The order number  
4 for Jicarilla L-11 and Jicarilla L-6 is Order No. R-8106 and  
5 8106A.

6 MR. STOGNER: So that the  
7 record may be straight on those wells, Mr. Kendrick, would  
8 Union Texas Petroleum Corporation please submit an applica-  
9 tion for nonstandard proration units -- better late than  
10 never -- so we'll have it on record?

11 MR. KENDRICK: I'll tell them  
12 that you requested that.

13

14 CROSS EXAMINATION

15 BY MR. STOGNER:

16 Q I don't know where to get started on this.  
17 Let's turn to the generic exhibits and  
18 the third page, this is your example for the Basin Dakota  
19 Gas Pool?

20 A Yes, sir.

21 Q So that I'm understanding this, let's go  
22 through the present formula, AF concept 1, and F1 you show  
23 to be 5188.54 and that changes each proration period?

24 A That's -- that's the average F1 for the  
25 year of 1985 for the Basin Dakota Pool, and the 7.087965 is

1 the average F2 for the year of 1985.

2 Q For the record, how is that F1 accom-  
3 plished? How is that determined?

4 A Each month the purchasers nominate the  
5 amount of gas they plan to take from each pool and those  
6 nominations are totaled and an adjustment factor may or may  
7 not be applied in each pool. The amount of gas to be  
8 allocated to marginal wells is taken from that volume and  
9 the remaining amount of gas is to be allocated to the  
10 nonmarginal wells within that pool.

11 And based on the pool proration orderss,  
12 that is split into a portion to be allocated on  
13 deliverability and a portion to be allocated on acreage.

14 The portion to be allocated to straight  
15 acreage is divided by the sums of the participating acreage  
16 factors of the nonmarginal wells and determines factor F1.

17 The volume of gas to be allocated to the  
18 nonmarginal wells based on deliverability is divided by the  
19 sums of the acreage factors times the deliverability factors  
20 of the individual wells and that resultant answer is F2.

21 Then the calculation of the allowable for  
22 the well is as shown on the bottom of page one or page -- or  
23 Exhibit A-1 or Exhibit A-2 or the example for one 2-well  
24 unit where we have wells -- the deliverabilities added  
25 together, and we take the acreage factor of the individual

1 well or the proration unit and the deliverabilities and ap-  
2 ply those through these formulas, using the F1 and F2 fac-  
3 tors determined each month for that pool, and by computer  
4 all the allowables are calculated based on these two factors  
5 and the individual well factors throughout the pool.

6 Factors F1 and F2 change each month in  
7 each pool based on the anticipated market.

8 Q So in using the present formula, to keep  
9 this to an example, let's say that we had a prorated pool  
10 that had five sections, that would be the 320-acre proration  
11 units, correct?

12 A Right.

13 Q There would a finite number assigned to  
14 that pool during a proration period, is that correct?

15 A The anticipated market would be assigned  
16 to the pool.

17 Q Okay.

18 A And if those ten proration units were  
19 nonmarginal, then we would add the acreage factors of those  
20 and divide that into the volume to be allocated to acreage  
21 and wind up with an F1.

22 And we would take the acreage factor of  
23 the individual well times the deliverability of that well on  
24 that proration unit or the two wells on the proration unit,  
25 and determine an AD factor for the proration unit and divide

1 that into the volume of gas to be allocated based on  
2 deliverability and get F2.

3 Then we would apply the -- excuse me, we  
4 would take the acreage factors times the deliverabilities of  
5 each of the units and total all those and get a pool total,  
6 A times D factor and divide that into the volume of gas to  
7 be allocated to the nonmarginal well based on deliverability  
8 and get the F2.

9 The we would go back and take the indivi-  
10 dual acreage factor of the well times the F1 that had been  
11 calculated and the acreage factor of the proration unit  
12 times the deliverability of that proration unit, and multi-  
13 ply that by F2.

14 F1 and F2 applies to all wells within the  
15 pool each month.

16 Q Okay.

17 A But the acreage factors of the individual  
18 wells and the deliverabilities of individual wells is what  
19 causes the difference in allowables between the wells in the  
20 pool.

21 Q So we throw this scenario in there that  
22 we have two 160-acre units and we've been prorating along  
23 using the old formula, if we come in and change it now, how  
24 would that affect the other wells in this scenario?

25 Would they have to give up a certain por-

1 tion of their allowable or would the allowable be broken  
2 down evenly throughout the pool?

3 A The effect of changing the allowables of  
4 these few wells in the pool, I don't remember the count of  
5 these wells for these six operators, but it would be some-  
6 where in the range of about 15 wells, but the total effect  
7 here would not affect the allowable assigned to any other  
8 well in the pool by any more than one MCF.

9 Q So in essence there wouldn't be some al-  
10 lowable taken from a standard 320 to make up for this 160,  
11 with the formula you have.

12 A No, what would happen was that the allow-  
13 ables that have been assigned historically are in error and  
14 it would correct that error so that this 320-acre drill  
15 tract would get its rightful allowable equal to what would  
16 be on an offset 320-acre tract with two wells of equal de-  
17 liverabilities.

18 Q How come this hasn't come up before a  
19 hearing to change the proration rules, do you know?

20 A I do not know.

21 MR. KELLAHIN: These type cases  
22 have come up in the past, have they not, Mr. Kendrick, be-  
23 fore the Division on an individual well basis?

24 A Yeah, the first one of these was about a  
25 year ago, sometime last summer, for Cinco, Limited, in Case





1 but I think each of these has .50 acreage factor.

2 Q All right, now let's take that scenario  
3 for a second.

4 Let's assume that, and I'm going with the  
5 formulas here on this particular page, let's say that we had  
6 an acreage factor of 320 (not clearly understood) that would  
7 be essentially one of the quarter sections having about 224  
8 acres and the other one having 160 acres, that's usually  
9 the way it works, or in this particular case how would we  
10 make up for that in this formula? Would that change this  
11 formula to where it would be equal if we had this scenario  
12 pop up?

13 A If you apply the acreage factor correc-  
14 tion in the first portion of this formula --

15 Q Okay, when you say "first portion of the  
16 fomula" are you talking about the --

17 A The factor in the formula that's acreage  
18 factor times F1.

19 Q Uh-huh.

20 A If the acreage factor is left in that  
21 proportion, then you have corrected for the difference in  
22 acreages among the proration units.

23 If you leave the acreage factor out of  
24 the deliverability portion and allow the deliverability to  
25 represent the reserves under that drill tract on the basis

1 that since infill drilling has caused the definition of the  
2 deliverability to represent the reserves under one 160-acre  
3 tract, then if you don't drill the second tract your  
4 deliverability is zero, or 320-acre one-well units as com-  
5 pared to 320-acre two-well units.

6 Q I did some quick calculations here, Mr.  
7 Kendrick, so what I think I'm going to do is take a short  
8 recess on these cases and what I'd like for you to do is  
9 let's assume that we had a 320-acre unit that had 384 acres.  
10 That would give us an acreage factor of 1.2, and assuming  
11 that one of the quarter sections had 224 acres and the other  
12 one had 160 acres, how that would change this, and while  
13 you're doing that, I'm going to hear the BTA case, because  
14 don't get that -- if I use your proposed formula of allow-  
15 able 1 plus allowable 2, assuming that my -- one of my ac-  
16 reage factors would be .7 and the other would be .5. I come  
17 out with it just to be a little bit less, and this could  
18 probably be assumed if we had an acreage factor for a 320-  
19 acre unit to be .94.

20 A Would you please give me that proration  
21 unit size again, please?

22 Q Let's go with 384 acres, the top half  
23 having 224 acres, having for extended section, and the bot-  
24 tom part being 160 acres.

25 A All right, sir, I'll calculate --

1           Q           Maybe I'm missing something here. Let me  
2 add this piece of paper that I did some rough calculations  
3 on, that may help.

4                               MR. STOGNER: So let's take a  
5 short recess on these cases at this time and I'll come back  
6 to them later.

7  
8                               (Thereupon Cases 9096, 9097, 9098, 9099,  
9                               9100, and 9101 were in recess until later  
10                              in the docket.)

11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

1  
2 (Thereafter, following completion of other  
3 cases on Docket No. 7-87, Cases 9096, 9097,  
4 9098, 9099, 9100, and 9101 were again  
5 called to be concluded.)  
6

7 MR. STOGNER: The hearing will  
8 come to order.

9 We will call the grouping of  
10 cases starting with 9096 and ending with 9101. We took a  
11 recess several hours ago.

12 Mr. Kellahin.

13 MR. KELLAHIN: Thank you, Mr.  
14 Examiner.

15  
16 A. R. KENDRICK,  
17 resuming the witness stand and remaining under oath, testi-  
18 fied as follows, to-wit:

19  
20 REDIRECT EXAMINATION

21 BY MR. KELLAHIN:

22 Q Mr. Kendrick, before the continuation of  
23 this case Mr. Stogner asked you whether or not there were  
24 any of the nonstandard proration units which were utilizing  
25 a acreage factor of other than 50 percent full acreage?

1           A           To my knowledge, no. I think they all  
2 have an acreage factor of .50.

3           Q           If all the subject wells for the various  
4 applicants have a .5 acreage factor, then will your proposed  
5 formula change work in the way that you have demonstrated  
6 earlier to the Examiner it would work in the generic exam-  
7 ple?

8           A           Yes, sir.

9           Q           If the acreage factor is plus or minus  
10 one for a 320-acre spacing unit, then will your proposed  
11 formula be a solution for resolving the inequities of the  
12 allowables?

13          A           It will not resolve the problem to a zero  
14 balance. It will just be a lot closer than the current for-  
15 mulas.

16          Q           Okay. Have you reviewed the proration  
17 schedule to determine whether all of the wells that are the  
18 subject of the consolidated hearings have allowables as-  
19 signed to them that will allow your calculation to work pro-  
20 perly?

21          A           In reviewing the schedule I just found  
22 two wells operated by the Columbus Energy Corporation to be  
23 of acreage .49 instead of .50, being the Arnstein No. 1-E  
24 and the Reed No. 1-M, in the Blanco-Mesaverde Pool.

25          Q           Subsequent to the hearing, Mr. Kendrick,

1 will you make a review of all of the wells that are the sub-  
2 ject of this consolidated hearing and for those wells that  
3 do not fit your proposed formula, will you submit to the  
4 Examiner a written calculation showing how for those excep-  
5 tions you should make the adjustment in the allowable?

6 A Yes, sir.

7 MR. KELLAHIN: That concludes my  
8 questions of Mr. Kendrick.

9  
10 (Thereupon a discussion was had  
11 off the record.)  
12

13 MR. STOGNER: Well, let's get  
14 back on the record here.

15 Are there any questions of Mr.  
16 Kendrick?

17 Mr. Chavez? Mr. Kendrick? Do  
18 you have any questions?

19 MR. H. L. KENDRICK: No, sir.

20

21 RE CROSS EXAMINATION

22 BY MR. STOGNER:

23 Q The two wells that you found with the .49  
24 acreage factor, those were just the two Columbus wells?

25 A Two of the Columbus wells, the Arnstein

1 No. 1-E and the Reed No. 1.

2 Q Have you had time to go through and check  
3 all of them that you're proposing today?

4 A I think so. I'm not sure but I'll verify  
5 that.

6 Q All right. I'll hold the record open on  
7 the Columbus application, that's Case Number 9097, until  
8 you're able to submit to me a calculation that would fit.

9 And assuming that all the others have a .5  
10 acreage factor, I will take those under advisement at this  
11 time.

12 MR. STOGNER: If there is no-  
13 thing else for Mr Kendrick, he may be excused.

14 Anything else further in any of  
15 these cases?

16 If not, this hearing is adjour-  
17 ned.

18

19 (Hearing concluded.)

20

21

22

23

24

25



1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY the foregoing Transcript of Hearing before the Oil Conservation Division (Commission) was reported by me; that the said transcript is a full, true, and correct record of this portion 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. 9441 through 9442 heard by me on 4/24/57 19 57.  
[Signature], Examiner  
Oil Conservation Division