

CASE 4949: Application of SKELLY  
OIL COMPANY FOR AMENDMENT OF  
ORDER NO. R-1069-B, San Juan Co.

CASE No.

4949

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Application,

Transcripts,

Small Exhibits

ETC.

dearnley, meier &amp; mc cormick

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BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
MORGAN HALL  
STATE LAND OFFICE BUILDING  
SANTA FE, NEW MEXICO  
April 25, 1973

## EXAMINER HEARING

IN THE MATTER OF:

Application of Skelly Oil Company for  
the amendment of Order No. R-1069-B,  
San Juan County, New Mexico.

Case No. 4949

BEFORE: Richard L. Stamets  
Examiner

TRANSCRIPT OF HEARING

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1 MR. STAMETS: Call next Case 4949.

2 MR. CARR: Case 4949, Application of Skelly Oil  
3 Company for the amendment of Order No. R-1069-B, San Juan  
4 County, New Mexico.

5 MR. BLODGET: Mr. Examiner, I'm Chester Blodget  
6 appearing also on behalf of Skelly Oil Company in this case.  
7 I have a copy of Mr. White's Entry as local counsel the  
8 original of which, I believe, was heretofore sent to the  
9 Commission. I have one witness. I'd like to have him sworn,  
10 please.

11 GERALD BROWN

12 was called as a witness and after being duly sworn, according  
13 to law, testified as follows:

14 DIRECT EXAMINATION

15 BY MR. BLODGET:

16 Q State your name, please.

17 A Gerald Brown.

18 Q What is your profession and by whom are you employed?

19 A I'm a Senior Engineer with Skelly Oil Company located in  
20 Denver, Colorado.

21 Q Have you testified before this Commission prior to this  
22 time?

23 A No.

24 Q Would you give us a summary of your higher education and  
25 experience, please, and who you have worked for?

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1 A I was graduated from the University of Oklahoma in 1958;  
2 and in the past 15 years, I have worked for Skelly Oil  
3 Company in six different locations, the Gulf Coast,  
4 Mid-Continent, and Rocky Mountain areas.

5 Q How long have you worked in the Rocky Mountain area?

6 A I worked in the Rocky Mountain area a total of nine years;  
7 and in the past three years, it has included the New  
8 Mexico area.

9 Q Are you generally familiar with the rules and regulations  
10 of the New Mexico Oil Commission?

11 A Yes.

12 MR. STAMETS: What was your degree from Oklahoma  
13 University?

14 THE WITNESS: Bachelor of Science in Petroleum  
15 Engineering.

16 MR. STAMETS: The witness' qualifications are  
17 acceptable.

18 MR. BLODGET: Thank you.

19 Q (By Mr. Blodget) Mr. Brown, I call your attention to  
20 Skelly Oil Company's Exhibit No. 1 and ask you to identify  
21 that, please.

22 A This is a base plat of the old East Bisti Unit with  
23 other information superimposed upon it. It covers the  
24 eastern portion of the Bisti-Gallup Field about a 13-mile  
25 stretch through here (indicating). This application is

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1 concerned with changing the rules so that gas wells can  
2 be designated in this oil pool.

3 However, we feel that our one well is probably a single  
4 situation that will come up. We have no knowledge of any  
5 other operator having this same situation, and our particu-  
6 lar well is outlined in blue, and that is the acreage which  
7 we want designated.

8 This map also shows the East Bisti Unit Engineering  
9 Committee's interpretation of the gas cap areas, and  
10 there were two of them because there are two separate  
11 zones. These are indicated by the red lines. The curved  
12 green line in the center part of the plat shows an area  
13 of extreme casing failure in which our well is located.

14 All the wells that are colored in orange have had  
15 casing failures. All of these failures except two happened  
16 before methodic protection was instituted in the field.  
17 Methodic protection is now disbanded because the unit  
18 was terminated.

19 Two of the wells have had casing failure since this  
20 other failure was removed. One, we believe, was lost.  
21 The other one was repaired and successfully opened back  
22 to production is what our information is. The green dots  
23 represent the last remaining wells in this part of the  
24 Bisti-Gallup Pool.

25 There are seven of them. There have been 111 wells

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1 plugged about two years ago. And only seven remain  
2 productive and two of those seven are located in the  
3 gas cap area, our well and another well which is not  
4 capable of producing its allowable. That covers Exhibit  
5 1.

6 Q I call your attention to Skelly Oil Company's Exhibit No.  
7 2. Would you identify that, please, and explain it?

8 A Yes. This is a bottom hole pressure over "Z" compressed  
9 belted factor Z versus cumulative production for Skelly  
10 J. C. Daum Well Number 1 which is the only well that we  
11 are aware of that will fit under this new ruling we are  
12 asking for.

13 It shows that to date, 1.2 billion MMCF of gas has  
14 been produced and that the ultimate recovery to 100  
15 pounds BHP over Z abandonment will be 2.4 billion per  
16 cubic foot from the single well in the gas cap area.

17 This shows that there are considerable reserves re-  
18 maining, 1.2 billion. It also shows that we are definitely  
19 located in a gas cap area.

20 Q I call your attention to Exhibit No. 3. Would you identify  
21 that and explain it, please?

22 A Yes. This is a tabulation of economics that points out  
23 what might happen if we have a casing failure after we  
24 have produced the well five years from today. If we  
25 have a casing failure before then, these figures would be

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1 even more drastic; or if we have it after five years,  
2 they would be less drastic.

3 The reason I chose the five-year period was that if  
4 we had a maximum allowable on the well where we could  
5 produce it at a maximum rate, we could get our reserves  
6 in approximately five years. So what I have shown here  
7 is that with the present allowable, we would have a life  
8 of approximately 11 to 17 years, probably closer to 17.

9 With the production of 275 MMCF, the life would be  
10 reduced to four to five years. Now, if we had the present  
11 allowable and then lost our well in five years, the  
12 next set of calculations show that we would lose 618 MMCF  
13 of gas, where if we had a complete failure of the well,  
14 and this represents \$115,000 at gas prices which I use  
15 \$12 per MCF. I think that's about doubled, but I'm not  
16 sure. So this could represent 230 now.

17 Q Now, you were talking about days allowable. How is this  
18 well classified at this time?

19 A It's classified as an oil well with 80 acres designated to  
20 it.

21 Q And what reason? Is it the gas-oil ratio that is cutting  
22 your allowable now?

23 A Yes. It's the gas-oil ratio, and we had an unfortunate  
24 situation that again applied only to this well. The  
25 Commission issued an order a few months back, Order No.

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1 R-4348 which had the purpose of gearing our production,  
2 and I quote, "gear our production to the present period  
3 of under supply rather than the over supply and lower  
4 our allowable of yesteryear".

5 And in our particular case, this order had the effect  
6 of cutting our allowable from 400 MCF per calendar day  
7 to 320. So we were further handicapped in producing this  
8 well.

9 Q On the average, how long does it take, how many days per  
10 month does it take us to produce our allowable on that  
11 well?

12 A We have actually been taking anywhere from 12 to 18, but  
13 the engineering technician who watches the well very  
14 closely and our foreman both tell me we could get our  
15 allowable from 8 to 12 days, possibly even less if they  
16 opened it up right. We have just never done this.

17 Q And Skelly's application in this case requests that these  
18 allowables be changed by adopting or amending the rules  
19 in the Bisti Lower Gallup Pool; is that correct?

20 A Yes. We ask that they be amended similar to the amendments  
21 made in the Gallegos-Gallup Pool. In fact, we would be  
22 satisfied with the exact type of amendment, and I think  
23 there are several other fields that have this similar rule  
24 which provided for non-standard gas proration units along  
25 with the provision of re-classified oil wells as gas wells

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1 if the gas-oil ratio was in excess of 30,000. Our gas-  
2 oil ratio is in excess of 50,000.

3 Q Now, are the reservoir characteristics in this particular  
4 pool -- I believe you testified that they indicate that  
5 there is a gas area there?

6 A Yes.

7 Q Gas cap?

8 A Yes, it is a gas area, definitely.

9 Q In your opinion, do you believe that that area could be  
10 efficiently and economically drained and developed on a  
11 320-acre spacing?

12 A Yes, I definitely do, and this is evidenced by the pro-  
13 duction capabilities of our particular well. I was in-  
14 formed by our foreman and technician that this well will  
15 produce upwards to two million a day. Looking at our  
16 analysis, we have a total of 67 feet of pay and we have  
17 a 10-foot slide interval where the permeability averages  
18 65 millidarcies.

19 So, I'm convinced that we could adequately drain 320  
20 acres.

21 Q And based on your information that this subject pool  
22 presently would justify a definition of a gas well as a  
23 well producing with a gas-oil ratio of 30,000 or more cubic  
24 feet of oil per barrel of liquid hydrocarbons --

25

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1 A Yes.

2 Q -- in your opinion, would the change of rules and change  
3 of classification of this particular well present economic  
4 loss and the drilling of unnecessary wells?5 A Yes. It would definitely for our particular case and for  
6 any other operator that may run into this in other portions  
7 of the Bisti-Gallup Pool. I'm not familiar with the  
8 West Bisti Field. We do have some interest in it, but  
9 it's operated by another operator. They may have situations  
10 similar to this, but if they do, it's several miles dis-  
11 tance from our well.12 MR. BLODGE: Mr. Examiner, you will note that in this  
13 application a letter to the Commission was considered an  
14 application in this particular matter. In that application  
15 we set out that the 320 acres we wished to assign is in the  
16 southeast quarter of Section 26 and the northeast quarter of  
17 Section 35, Township 25 North, Range 11 West, San Juan County.18 So we also are asking for a variance, I believe, in  
19 the statewide rules in order to put the 160, 320 acres together  
20 there.21 We ask that really because this is an isolated situa-  
22 tion. We have the acreage that does adjoin that right to the  
23 south of the well and all the other acreages owned by other  
24 people.

25 MR. STAMETS: Mr. Blodget, I was just pondering that

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1 particular situation. I'm not certain how the advertisement  
2 was worded. The docket does not mention this particular  
3 thing, and this may or may not give us a problem. If it does,  
4 it may be necessary to re-advertise this portion of the case  
5 and not issue any order until it should be called again.

6 In a case like that, if we have no objection here  
7 at this time, I would assume no one would need to appear.  
8 After the case was called again, we could go ahead and issue  
9 such an order; but this may have already been taken care of  
10 in the advertisement and our special pool rules possibly  
11 could be broad enough to cover this. We'd just have to see.

12 MR. BLODGET: We have no further evidence, then,  
13 Mr. Examiner; and we move the introduction of Skelly Oil  
14 Company's Exhibits 1, 2, and 3 in this matter.

15 MR. STAMETS: Without objection, these exhibits will  
16 be admitted into evidence. Are there questions of the  
17 witness?

18 (No response)

19 CROSS EXAMINATION

20 BY MR. STAMETS:

21 Q Mr. Brown, you have described this as a unique situation.

22 Do you not anticipate any more gas wells in this area?

23 A Not by us. I don't know. And I said I can't speak for  
24 the West Bisti or the Central Bisti, but I think that if  
25 anyone anticipated future gas wells, then they would

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1 welcome this ruling. We would be doing them a service  
2 to have this ruling made.

3 Q All the area which you have on here that has the yellow  
4 outline, that is a unitized area still?

5 A No.

6 Q It is not?

7 A No. This unit was disbanded or terminated on December 1,  
8 1971; and subsequent to that date, we have plugged all  
9 wells except those colored in green. This amounted to  
10 117 wells that were plugged. These are only the straggler  
11 wells that were considered marginally profitable by the  
12 original operators.

13 And they were taken back by the original operators for  
14 continued production, these seven. There was another one,  
15 an eighth well, that had the casing collapsed a few  
16 months ago; and they lost the well.

17 Q So what is identified on here as Tract 27 is a single  
18 lease in two different sections, and this lease is cur-  
19 rently operated by Skelly?

20 A Right. And we also have another 80 acres to the west of  
21 our outlined area. The lease is 400 acres.

22 Q Right.

23 A And we are asking for 320 to be assigned to that well.

24 Q And this would be treated just as a gas well and an oil  
25 pool and the gas allowable would be calculated by a multiple

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1 of the acreage times the standard acreage and the GOR  
2 times the limiting GOR?

3 A Right. That's our understanding.

4 Q Now, this is a depleted pool. Can the extra gas with-  
5 drawals from this well harm this reservoir in any way  
6 at this time?

7 A I don't think so. It's about a shot reservoir, I guess  
8 you could call it; and their nearest well, there is one  
9 exactly a mile to the west. There is another one a mile  
10 and a half to the north, and all of the other wells are  
11 at least two and a half miles away. I really don't see  
12 that we would hurt the reservoir.

13 MR. BLODGET: Didn't you state that a mile to the  
14 west is an economic well site?

15 THE WITNESS: Well, it's not uneconomic. It will just  
16 barely, if at all, make its present allowable under the present  
17 oil designation.

18 Q It is a gas well but the productivity is low?

19 A It's a gas well, yes. It's located in the gas cap and  
20 has a gas-oil ratio of 44,000 to one. The productivity  
21 is very low, about 1/20 of our well.

22 Q Now, you brought the situation of casing failures, and I  
23 got the impression at least that if you were restricted  
24 to the current allowable and you had a casing failure in  
25 five years, you couldn't afford to fix this well.

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1 A It depends. If we had a complete casing collapse, probably  
2 no. Just the fact, and this is probably more important  
3 than just the mechanical problems involved, but our  
4 experience as operator of the East Bisti Unit was that  
5 when we had casing failures the formation and way over half  
6 the cases was severely damaged by mud and water and so  
7 forth going on the formation.

8 This was not the case, however, in this well, as I  
9 understand it, that had the casing collapse in 1972 just  
10 last year. I haven't talked to the operators specifically,  
11 but our foreman informed me that that well was returned  
12 to production.

13 They didn't lose the well. They repaired the casing  
14 collapse and returned the well to production; but our  
15 experience as operator of the unit doing the waterflood  
16 units doing the far majority of the cases, the well was  
17 severely damaged, the formation.

18 Q So you run the risk if you should have casing failure of  
19 leaving gas in the ground?

20 A Definitely, definitely.

21 Q The special rules that you have proposed here, would you  
22 require that any well classified as a gas well have 320  
23 acres dedicated to it?

24 A No, definitely not. Under the Gallegos-Gallup Ruling, Rule  
25

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1 2-B provides that non-standard gas proration units could  
2 be applied for and received from the Commission.

3 Q So you would propose that it could be any size from 80  
4 acres up to 320?

5 A Yes, very definitely, because in some of these areas which  
6 Skelly isn't interested in, these actual oil wells were  
7 drilled on 80-acre spacing. Since they fall in the gas  
8 cap in another area in the Bisti-Gallup Pool, then I'm  
9 sure the other operators would want this provision.

10 It doesn't affect us, but I'm sure that they would,  
11 and it should be included in the order just as it was in  
12 the Gallegos-Gallup Order.

13 Q Gallegos-Gallup has a rather extensive bunch of rules there.  
14 I don't think you all want quite that many, do you?

15 A Actually, all we need is we would like the Commission to  
16 find three, four, five and six and issue Rule 2 and 2-B  
17 and possibly five.

18 Q All right. I believe that will clarify that point.

19 MR. BLODGET: I believe that was set out in our letter.

20 MR. STAMETS: Are there any other questions of this  
21 witness?

22 (No response)

23 MR. STAMETS: He may be excused. Is there anything  
24 further in the case?

25 (No response)

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MR. STAMETS: The case will be taken under advisement.

\* \* \* \*

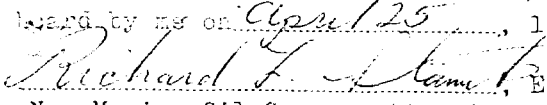
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1 STATE OF NEW MEXICO )  
2 ) ss.  
3 COUNTY OF BERNALILLO )

4 I, JANET RUSSELL, a Certified Shorthand Reporter, do hereby  
5 certify that the foregoing and attached Transcript of Hearing  
6 before the New Mexico Oil Conservation Commission was reported  
7 by me; and that the same is a true and correct record of the  
8 said proceedings, to the best of my knowledge, skill and ability.

9   
10 CERTIFIED SHORTHAND REPORTER

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22 I do hereby certify that the foregoing is  
23 a complete record of the proceedings in  
24 the Examiner hearing of Case No. 4949,  
25 heard by me on April 25, 1943.  
  
Examiner  
New Mexico Oil Conservation Commission

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|    |  |                |                 |
|----|--|----------------|-----------------|
| 1  | <u>I N D E X</u>   |                |                 |
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| 3  | GERALD BROWN   |                |                 |
| 4  | Direct Examination by Mr. Blodget  |                | 3               |
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| 6  | <u>EXHIBITS</u>  | <u>Offered</u> | <u>Admitted</u> |
| 7  | Exhibit No. 1 - Base plat of old East Bisti Unit                             | 4              | 11              |
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| 9  | Exhibit No. 2 - bottom hole pressure data of Skelly J. C. Daum Well Number 1 | 6              | 11              |
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| 11 | Exhibit No. 3 - Tabulation of Economics                                      | 6              | 11              |
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# OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

P. O. BOX 2088 - SANTA FE

87501

GOVERNOR  
BRUCE KING  
CHAIRMAN

LAND COMMISSIONER  
ALEX J. ARMijo  
MEMBER

STATE GEOLOGIST  
A. L. PORTER, JR.  
SECRETARY - DIRECTOR

June 25, 1973

Mr. Chester E. Blodget  
Skelly Oil Company  
Post Office Box 1650  
Tulsa, Oklahoma 74102

Re: Case No. 4949

Order No. R-1069-F

Applicant:

Skelly Oil Company

Dear Sir:

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

Very truly yours,

A. L. PORTER, Jr.  
Secretary-Director

ALP/ir

Copy of order also sent to:

Hobbs OCC x

Artesia OCC           

Aztec OCC x

Other Mr. Charles White

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. 4949  
Order No. R-1069-F

APPLICATION OF SKELLY OIL COMPANY  
FOR THE AMENDMENT OF ORDER NO.  
R-1069-B, SAN JUAN COUNTY,  
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on April 25, 1973, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 25th day of June, 1973, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, 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 the applicant, Skelly Oil Company, is the owner-operator of the J. C. Daum Well No. 1 located in Unit I of Section 26, Township 25 North, Range 11 West, NMPM, Bisti-Lower Gallup Oil Pool, San Juan County, New Mexico.

(3) That the Bisti-Lower Gallup Oil Pool in the area of said well has been depleted by primary and secondary recovery techniques and is now capable of only marginal production.

(4) That applicant's J. C. Daum Well No. 1 has a gas-oil ratio in excess of 50,000 to 1, and that said well's allowable is restricted due to this high gas-oil ratio.

(5) That said well is located in an area of the Bisti-Lower Gallup Oil Pool where casing failures have occurred and that should such a failure occur in said well before said well is depleted, hydrocarbons could be wasted through non-production.

(6) That the applicant seeks the amendment to the special pool rules of the Bisti-Lower Gallup Oil Pool to include provisions for the classification of gas wells in said pool and the dedication of 320 acres thereto.

-2-

Case No. 4949  
Order No. R-1069-F

(7) That the applicant further seeks approval of a 320-acre proration unit consisting of the SE/4 of Section 26 and the NE/4 of Section 35, Township 25 North, Range 11 West, NMPM, to be dedicated to said J. C. Daum Well No. 1.

(8) That the evidence indicates that said well can efficiently and economically drain said 320 acre tract.

(9) That the resultant higher allowables should permit the applicant to deplete said well at an earlier date minimizing the risk of waste due to casing failure.

(10) That wells producing in the Bisti-Lower Gallup Oil Pool with gas-oil ratios in excess of 50,000 to 1 should be permitted to have dedicated thereto up to 320 acres and be assigned oil and casinghead gas allowables in proportion as the dedicated acreage relates to 80 acres; that approval of amendments to the special pool rules for the Bisti-Lower Gallup Oil Pool to provide for the same is in the interest of conservation, will prevent waste, and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the special pool rules for the Bisti-Lower Gallup Oil Pool are amended to include:

RULE 6. Any well in the Bisti-Lower Gallup Oil Pool with a gas-oil ratio of 50,000 cubic feet or more of gas per barrel of oil may have dedicated to it up to 320 acres.

RULE 7. That the acreage dedicated under Rule 6 above shall be all or part of a single governmental half section.

RULE 8. That acceptance of Commission Form C-102 by the Supervisor of the Aztec District office of the Commission shall constitute approval of the proration unit.

RULE 9. That wells in the Bisti-Lower Gallup Oil Pool shall be permitted to produce a casinghead gas allowable obtained by multiplying the top unit oil allowable for the pool by 2,000 and by a fraction, the numerator of which is the number of acres dedicated to the particular well and the denominator of which is 80.

IT IS FURTHER ORDERED:

(1) That the SE/4 of Section 26 and the NE/4 of Section 35, Township 25 North, Range 11 West, NMPM, is hereby approved as a 320-acre proration unit to be dedicated to applicant's J. C. Daum Well No. 1, located in Unit I of said Section 26 in said pool.

-3-

Case No. 4949

Order No. R-1069-F

(2) That the dedication shall be effective after the effective date of this order and upon the receipt of a proper Form C-102 by the Aztec District Office of the Commission.

(3) That the effective date of this order shall be June 1, 1973.

(4) That jurisdiction of this cause is hereby retained for the entry of such further orders as the Commission may deem necessary.

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

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION



*I. R. Trujillo*

I. R. TRUJILLO, Chairman

ALEX J. ARMILLO, Member

*A. L. Porter, Jr.*

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

S E A L

dr/

WHITE,  
KOCH, KELLY  
&  
McCARTHY

APR 5 1973  
April 5, 1973

Mr. A. L. Porter, Jr.  
New Mexico Oil Conservation Commission  
P. O. Box 2088  
Santa Fe, New Mexico 87501

RE: Skelly Oil Company Application to  
Amend Pool Rules, Bisti-Gallup Pool  
Rule, San Juan Basin, New Mexico

Dear Mr. Porter:

We herewith enter our formal appearance as local  
counsel for Skelly Oil Company in regard to amending the  
Bisti-Gallup Pool Rules, as requested in their letter of  
March 12th, 1973, and which matter will come on for hearing  
April 25th, 1973.

Very truly yours,

WHITE, KOCH, KELLY  
& McCARTHY

By *L.C. White*  
L. C. WHITE  
P. O. Box 787  
Santa Fe, New Mexico

LCW:DT  
cc: Mr. Chester E. Blodget  
Skelly Oil Company  
P. O. Box 1650  
Tulsa, Oklahoma 74102

DOCKET MAILED

Date 4-12-73

L.C. White  
Summer S. Koch  
William Booker Kelly  
John F. McCarthy, Jr.  
Kenneth Bateman  
Benjamin Phillips  
Ronald M. Friedman

Attorneys and Counselors at Law

220 Otero St., P.O. Box 787, (505)982-4374, Santa Fe, N.M. 87501 — P.O. Drawer E, (505)758-4338, Taos, N.M. 87571

Approve 4949

Find - Pool production marginal,  
~~Shall~~ define gas wells

Approve

Definition of gas well, ~~GOR~~  
~~GOR~~ of 30,000 to 1 or more

Dedication of ~~320~~ acres to  
gas wells.

Less acreage for gas wells administratively  
by Sec Director if file application,  
notify off sets, no objection 30 days.

4949 -

grantee applicant will provide drilling  
and necessary wells.

exception to the above rules -

since ~~to~~ 350 acres  
in two sections.

— will need to recall and  
reauthorize.

need -

rules 3-4-5-6 — and 2 and 2(b)  
and 5

as submitted



Case 4449

# SKELLY OIL COMPANY

P. O. BOX 1650

TULSA, OKLAHOMA 74102

LAW DEPARTMENT  
GEORGE W. SELINGER  
SENIOR ATTORNEY

March 12, 1973

Re: Bisti-Gallup Field  
San Juan Basin, New Mexico

VIA AIR MAIL

Mr. A. L. Porter, Jr.  
New Mexico Oil Conservation Commission  
P. O. Box 2088  
Santa Fe, New Mexico 87501

Dear Mr. Porter:

The Bisti-Lower Gallup Pool was classified by the Commission and field rules issued in 1958 and 1959 as an oil pool with uniform 80-acre well spacing and related special rules and regulations. Under these rules, together with the definition of a gas well in the Statewide Rules that any well with a gas-oil ratio in excess of 100,000 cubic feet of gas per barrel of oil producing from an oil pool is considered a gas well, consequently, our J. C. Daum with a producing gas-oil ratio of 50,385 to 1 is considered an oil well from a regulation standpoint. This creates an extreme hardship on our part to operate this well which the Commission has recognized in the Gallegos-Gallup Pool, that while this pool is presently classified as an oil pool it is in fact an associated reservoir and that the reservoir characteristics indicate that the gas area of the Bisti-Gallup Field can efficiently and economically drain 320 acres, and we therefore feel that insofar as the Bisti-Lower Gallup oil pool is concerned and the reservoir characteristics thereunder justifies the definition of a gas well in this particular pool as a well producing with a gas liquid ratio of 30,000 or more cubic feet of gas per barrel of liquid hydrocarbons.

We, therefore, would like to have you consider amending the Bisti-Lower Gallup Oil Pool Rules by the inclusion of Findings 3, 4, 5 and perhaps 6, and Rule 2 and Rule 5 of the Gallegos-Gallup Pool Rules, and since other rules of the Gallegos-Gallup that may be applicable thereto.

such?

DOCKET MAILED

Date 4-12-73

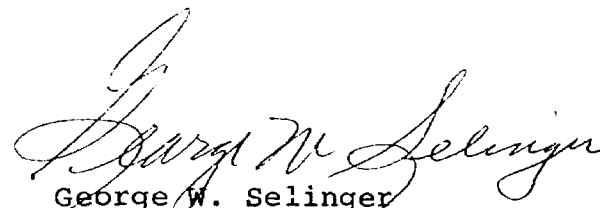
Mr. A. L. Porter  
March 12, 1973  
Page 2

The hardship that I referred to is augmented by the fact that we believe our J. C. Daum is the only well in the Bisti-Gallup Field that the productivity is such that the limiting gas-oil ratio results in severe curtailment of production.

The 320 acres we wish to assign is in the SE/4 of Section 26, and the NE/4 of Section 35, Township 25 North, Range 11 West, San Juan County, and from the attached plat you will note that this lies southwest of the main portion of the field and is unique in this instance.

We would appreciate hearing from you in this regard.

GWS:br  
Attach.

  
George W. Selinger

DOCKET: EXAMINER HEARING - WEDNESDAY - APRIL 25, 1973

9 A.M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM,  
STATE LAND OFFICE BUILDING - SANTA FE, NEW MEXICO

The following cases will be heard before Richard L. Stamets, Examiner, or Daniel S. Nutter or Elvis A. Utz, Alternate Examiners:

CASE 4946: Application of Union Texas Petroleum for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the Crosby-Fusselman Pool, Lea County, New Mexico, including a provision for classification of oil wells and gas wells, 80-acre spacing for oil wells, 320-acre spacing for gas wells, and a limiting gas-oil ratio of 5000 to one.

CASE 4947: Application of Tom Brown, Inc., for compulsory pooling, and a non-standard unit, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests underlying the N/2 of Section 13, Township 22 South, Range 26 East, South Carlsbad Field Extension, Eddy County, New Mexico, to form a non-standard 336.6-acre unit to be dedicated to a well to be drilled 1680 feet from the North line and 1980 feet from the East line of said Section 13.

Also to be considered will be the costs of drilling said well, a charge for the risk involved, a provision for the allocation of actual operating costs, and the establishment of charges for supervision of said well.

CASE 4948: Application of Skelly Oil Company for an unorthodox oil well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to re-complete its R. R. Sims Well No. 7 located 2200 feet from the South and West lines of Section 3, Township 23 South, Range 37 East, Lea County, New Mexico, as a producing oil well in its Penrose "A" waterflood project, Langlie-Mattix Pool, said well being an unorthodox location closer than 330 feet to another well producing from the same pool. Applicant further seeks an administrative procedure for approval of further in-fill development at unorthodox locations in its Penrose "A" Unit Area.

CASE 4949: Application of Skelly Oil Company for the amendment of Order No. R-1069-B, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-1069-B, which order promulgated special pool rules for the Bisti Lower-Gallup Oil Pool, San Juan County, New Mexico. Applicant seeks the adoption of rules for the classification of gas wells in said pool and the dedication of 320 acres thereto.

## (SOUTH BLANCO-TOCITO POOL—Cont'd.)

Pool, except that credit for daily average net water injected into the Tocito formation through any injection well or wells located within the project area may be applied to any well or wells producing with a gas-oil ratio in excess of two thousand cubic feet of gas per barrel of oil. Total credit for net water injected in the project area shall be the gas equivalent volume of the daily average net water injected during a one-month period. The daily average gas equivalent of net water injected shall be computed in accordance with the following formula:

$$E_g = (V_{w \text{ inj}} - V_{w \text{ prod}}) \times \frac{5.61 \text{ ft}^3 \times P_a \times 520^\circ \times 1}{\text{bbl } 15.025 \times 635^\circ \times Z}$$

where:

- $E_g$  = Average daily gas equivalent of net water injected  
 $V_{w \text{ inj}}$  = Average daily volume of water injected, barrels  
 $V_{w \text{ prod}}$  = Average daily volume of water produced, barrels  
 $P_a$  = Average reservoir pressure at datum of —100 feet, psig + 11.5, as determined from most recent semi-annual survey.  
 15.025 = Pressure base, psi  
 520° = Temperature base of 60°F expressed as absolute temperature  
 635° = Reservoir temperature of 175°F expressed as absolute temperature  
 $Z$  = Supercompressibility factor for 0.7 gravity gas at average reservoir pressure,  $P_a$ , interpolated from supercompressibility tabulation below:

| Pressure | Z     | Pressure | Z     |
|----------|-------|----------|-------|
| 2000     | 0.845 | 1200     | 0.889 |
| 1900     | 0.849 | 1100     | 0.897 |
| 1800     | 0.853 | 1000     | 0.905 |
| 1700     | 0.857 | 900      | 0.914 |
| 1600     | 0.861 | 800      | 0.923 |
| 1500     | 0.865 | 700      | 0.932 |
| 1400     | 0.873 | 600      | 0.941 |
| 1300     | 0.881 | 500      | 0.950 |

Distribution of the total calculated average daily gas equivalent volume may be made to any well or wells with gas-oil ratios in excess of two thousand to one. The daily adjusted oil allowable for any such well receiving water injection credit shall be determined as follows:

Well's  
 Adjusted = (Top unit allowable X 2000) + gas  
 Allowable equivalent volume assigned to well  
 Well's gas-oil ratio

provided however, that in no event shall the gas equivalent volume assigned to a well be such as to cause the well's adjusted allowable to exceed the top unit allowable for the pool.

(h) Each month the project operator shall, within three days after the normal unit allowable for Northwest New Mexico has been established, submit

to the Commission a South Blanco-Tocito Water Injection Project Operator's Report, on a form prescribed by the Commission, outlining thereon the data required, and requesting allowables for each of the several wells in the Project.

(i) The Commission shall, upon review of the report and after any adjustments deemed necessary, assign allowables to each well in the Project for the next succeeding month in accordance with these rules.

(j) The Special Rules and Regulations for the operation of wells in the project area shall prevail as against the Special Rules and Regulations for the South Blanco-Tocito Oil Pool, if in conflict therewith.

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

### BISTI-LOWER GALLUP OIL POOL San Juan County, New Mexico

Order No. R-1069-B, Adopting Rules for the Bisti-Lower Gallup Oil Pool, San Juan County, New Mexico, January 17, 1958. As made permanent by Order No. R-1069-E, February 2, 1959.

*Application of Sunray Mid-Continent Oil Company for an order extending the horizontal limits of the Bisti-Lower Gallup Oil Pool, in San Juan County, New Mexico, and temporarily establishing uniform 80-acre well spacing and promulgating special rules and regulations for said pool.*

CASE NO. 1308  
 Order No. R-1069-B

### ORDER OF THE COMMISSION

BY THE COMMISSION: This cause came on for hearing at 9 o'clock a.m., on September 18, 1957, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," and that this cause came on for rehearing before the Commission, upon the petition of Sunray Mid-Continent Oil Company et al, at 9 o'clock a.m. on December 18, 1957 at Santa Fe, New Mexico.

NOW, on this 17th day of January, 1958, the Commission, a quorum being present, having considered the application, the petitions for rehearing, and the evidence adduced at both the original hearing and the rehearing 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 Order No. R-1069 should be superseded by this order.

(3) That the Commission found in Order No. R-1069 that "... the Commission should continue to follow its established policy of extending the horizontal limits of oil and gas pools in the State of New Mexico to include only such acreage as has been proven productive by actual drilling operations."

## (BISTI-LOWER GALLUP OIL POOL—Cont'd.)

(4) That the petitioners on rehearing failed to show cause why the Commission should deviate from the aforementioned policy in the Bisti-Lower Gallup Oil Pool.

(5) That sufficient evidence was adduced by the petitioners on rehearing, in addition to the evidence adduced at the original hearing, to justify the establishment of 80-acre proration units in the Bisti-Lower Gallup Oil Pool on a temporary basis.

(6) That 80-acre proration units should be temporarily established in the Bisti-Lower Gallup Oil Pool and that all wells drilled to or completed in said pool should be located on a unit containing 80 acres, more or less, which consists of either the North half or the South half of a single governmental quarter section; and further that all wells drilled in the Bisti-Lower Gallup Oil Pool should be located within 100 feet of the center of either quarter-quarter section; provided however, that the rules should not prohibit the drilling of a well on each of the quarter-quarter sections in an 80-acre proration unit.

(7) That the Secretary-Director of the Commission should have authority to grant exceptions to the foregoing spacing and well location requirements without the necessity of a formal hearing.

(8) That an 80-acre proration unit in the Bisti-Lower Gallup Oil Pool should be assigned an 80-acre proportional factor of two (2) for allowable purposes, and that in the event there is more than one well on an 80-acre proration unit, the operator should be permitted to produce the unit's allowable from said wells in any proportion.

(9) That any well which was projected to or completed in the Bisti-Lower Gallup Oil Pool prior to the effective date of this order should be granted an exception to the 80-acre spacing and well location requirements set forth above, and that any such excepted well should be assigned an allowable which is in the proportion to the standard 80-acre allowable that the well's dedicated acreage bears to 80-acres; provided however, that the allowable for any such excepted well should be increased to that of a standard unit upon receipt by the Commission of proper notice that such well has 80 acres dedicated thereto.

IT IS THEREFORE ORDERED: (Temporary Order No. R-1069-B made permanent by Order No. 1069-E, February 2, 1959.)

(1) That Order No. R-1069 dated October 9, 1957, be and the same is hereby superseded by this order.

(2) That the application of Sunray Mid-Continent Oil Company to extend the horizontal limits of the Bisti-Lower Gallup Oil Pool to include acreage which has not been proven productive by actual drilling operations be and the same is hereby denied.

(3) That any well which was drilling to or completed in the Bisti-Lower Gallup Oil Pool prior to January 25, 1958, be and the same is hereby granted an exception to the well location requirements of Rule 3 of the Special Rules and Regulations for the Bisti-Lower Gallup Oil Pool hereinafter set forth, and that any such well which is located on a tract comprising either the North half or the South half of a governmental quarter section on which 80-acre unit there is located more than one well, be and the same is hereby granted an exception to the requirements of Rule 2 of the Special Rules and Regulations hereinafter set forth; further, that all such excepted wells shall be assigned an allowable effective at 7 o'clock a.m. Mountain Standard Time, March 1, 1958, which allowable shall bear the same proportion to the standard 80-acre allowable for the Bisti-Lower Gallup Oil Pool that the acreage dedicated to such well

bears to 80 acres; provided however, that the allowable for any such excepted well may be increased to that of a standard 80-acre unit by the dedication to the well of additional acreage sufficient to constitute a standard 80-acre proration unit, said allowable to become effective on the date of receipt by the Commission of an amended Form C-128, Well Location and Acreage Dedication Plat, showing the increased acreage dedication. Provided however, that no well shall be assigned an 80-acre allowable in the Bisti-Lower Gallup Oil Pool prior to March 1, 1958.

(4) That the effective date of this order shall be March 1, 1958.

(5) (Rescinded by Order No. 1069-E, February 2, 1959) That this order shall be of no further force nor effect after February 28, 1959.

(6) That a case be called for the regular Commission hearing in January, 1959, to permit all interested parties to appear and show cause why the Special Rules and Regulations herein-after set forth should be continued beyond February 28, 1959.

(7) That special pool rules for the Bisti-Lower Gallup Oil Pool be and the same are hereby promulgated as follows:

#### SPECIAL RULES AND REGULATIONS FOR THE BISTI-LOWER GALLUP OIL POOL

RULE 1. Any well projected to or completed in the Lower Gallup formation within one mile of the boundaries of the Bisti-Lower Gallup Oil Pool shall be spaced, drilled, operated, and prorated in accordance with the Special Rules and Regulations hereinafter set forth.

✓ RULE 2. All wells projected to or completed in the Bisti-Lower Gallup Oil Pool shall be located on a unit containing 80 acres, more or less, which consists of either the North half or the South half of a single governmental quarter section.

RULE 3. All wells projected to or completed in the Bisti-Lower Gallup Oil Pool shall be located within 100 feet of the center of either quarter-quarter section in the unit; provided however, that nothing contained herein shall be construed as prohibiting the drilling of a well on each of the quarter-quarter sections in an 80-acre unit.

RULE 4. The Secretary-Director of the Commission may grant exceptions to the requirements of Rule 2 and, for topographical reasons only, to the requirements of Rule 3 above without notice and hearing where the application is filed in due form, provided the applicants furnish all operators within a 2640-foot radius of the subject well a copy of the application to the Commission, and provided further that the Secretary-Director of the Commission shall wait at least twenty days before approving any such application and that no such application shall be approved over the objection of an offset operator. In the event an offset operator objects to the application, the Commission shall consider the matter only after proper notice and hearing. The applicant shall include with his application a list of names and addresses of all the operators within the radius set forth above together with a stipulation that proper notice of the application has been given said operators.

✓ RULE 5. An 80-acre proration unit in the Bisti-Lower Gallup Oil Pool shall be assigned an 80-acre proportional factor of two (2) for allowable purposes, and in the event there is more than one well on an 80-acre proration unit, the operator may produce the allowable assigned to the unit from said wells in any proportion.

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

## (BUFFALO VALLEY-PENNSYLVANIAN GAS POOL - Cont'd.)

where an application has been filed in due form and where the unorthodox size or shape of the tract is due to a variation in the legal subdivision of the United States Public Land Surveys, or where the following facts exist and the following provisions are complied with:

(1) The non-standard unit consists of contiguous quarter-quarter sections or lots.

(2) The non-standard unit lies wholly within a single governmental section.

(3) The entire non-standard unit may reasonably be presumed to be productive of gas from the Buffalo Valley-Pennsylvanian Gas Pool.

(4) The applicant presents written consent in the form of waivers from all offset operators and from all operators owning interests in the section in which any part of the non-standard unit is situated and which acreage is not included in said non-standard unit.

(5) In lieu of Paragraph 4 of this rule, the applicant may furnish proof of the fact that all of the aforesaid operators were notified by registered or certified mail of his intent to form such non-standard unit. The Secretary-Director may approve the application if, after a period of thirty days, no such operator has entered an objection to the formation of such non-standard unit.

## C. ALLOCATION AND GRANTING OF ALLOWABLES

RULE 8(A). The allowable production in the Buffalo Valley-Pennsylvanian Gas Pool shall be allocated as follows:

The pool allowable remaining each month after deducting the total allowable assigned to marginal wells shall be allocated among the non-marginal wells entitled to an allowable in the proportion that each well's acreage factor bears to the total of the acreage factors for all non-marginal wells in the pool.

## C. GENERAL

RULE 25. The vertical limits of the Buffalo Valley-Pennsylvanian Gas Pool shall be the Pennsylvanian formation.

RULE 26. The first proration period for the Buffalo Valley-Pennsylvanian Gas Pool shall commence May 1, 1969, and shall terminate December 31, 1969. Subsequent proration periods shall be the six-month periods as provided in the General Rules.

## IT IS FURTHER ORDERED:

(1) That the Special Rules and Regulations for the Buffalo Valley-Pennsylvanian Gas Pool promulgated by Orders Nos. R-2349 and R-2349-A are hereby superseded.

(2) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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

GALLEGOS-GALLUP POOL  
San Juan County, New Mexico

Order No. R-3707, Adopting Operating Rules for the Gallegos-Gallup Pool, San Juan County, New Mexico, May 1, 1969, as Amended by Order No. R-4367, August 30, 1972.  
Application of El Paso Products Company for Special Pool Rules, San Juan County, New Mexico.

CASE NO. 4053  
Order No. R-3707

## ORDER OF THE COMMISSION

BY THE COMMISSION: This cause come on for hearing at 9 a.m. on February 26, 1969, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 14th day of March, 1969, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, 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 the applicant, El Paso Products Company, seeks the promulgation of special rules and regulations for the Gallegos-Gallup Oil Pool, San Juan County, New Mexico, including provisions for the classification of oil and gas wells, 80-acre spacing for oil wells, and 320-acre spacing for gas wells.

(3) That while said *Bisti-Lane* Gallegos-Gallup Oil Pool is presently classified as an oil pool, the evidence adduced indicates that it is in fact an "associated" reservoir.

(4) That the reservoir characteristics of the subject pool indicate that the gas area can be efficiently and economically drained and developed on 320-acre spacing, and that the oil area can be efficiently and economically drained and developed on 80-acre spacing.

(5) That the reservoir characteristics of the subject pool presently available justify the definition of a gas well as a well producing with a gas-liquid ratio of 30,000 or more cubic feet of gas per barrel of liquid hydrocarbons.

(6) That special rules and regulations providing for 320-acre gas well spacing and 80-acre oil well spacing should be promulgated for the subject pool in order to prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, prevent reduced recovery which might result from the drilling of too few wells, and otherwise prevent waste and protect correlative rights.

## (GALLEGOS-GALLUP POOL - Cont'd.)

## IT IS THEREFORE ORDERED:

(1) That Special Rules and Regulations for the Gallegos-Gallup Oil Pool, San Juan County, New Mexico, are hereby promulgated as follows, effective May 1, 1969:

SPECIAL RULES AND REGULATIONS  
FOR THE  
GALLEGOS-GALLUP OIL POOL

**RULE 1.** Each well completed or recompleted in the Gallup formation within the boundary of the Gallegos-Gallup Oil Pool or within one mile thereof, and not nearer to nor within the boundaries of another designated Gallup pool, shall be drilled, spaced, and produced in accordance with the Special Rules and Regulations hereinafter set forth.

**RULE 2.** (a) Each gas well shall be located on a tract consisting of approximately 320 acres which may reasonably be presumed to be productive of gas from said pool, and which shall comprise any two contiguous quarter sections of a governmental section, being a legal subdivision (half section) of the United States Public Land Surveys. For purposes of these rules, a unit consisting of between 316 and 324 contiguous surface acres shall be considered a standard gas unit.

**RULE 2.** (b)

1. The District Supervisor shall have the authority to approve a non-standard unit as an exception to Rule 2 (a) without notice and hearing when the unorthodox size or shape of the unit is necessitated by a variation in the legal subdivision of the United States Public Land Surveys and the non-standard unit is not less than 75% nor more than 125% of a standard unit.

2. The District Supervisor may approve the non-standard unit by:

(a) Accepting a plat showing the proposed non-standard unit and the acreage to be dedicated to the non-standard unit, and

(b) Assigning an allowable to the non-standard unit.

3. The Secretary-Director of the Commission shall have authority to grant an exception to Rule 2 (a) without notice and hearing where an application has been filed in due form and when the unorthodox size or shape of the tract is due to a variation in the legal subdivision of the United States Public Land Surveys and the non-standard unit is less than 75% or more than 125% of a standard unit, or where the following facts exist and the following provisions are complied with:

(a) The proposed non-standard proration unit consists of less acreage than a standard proration unit;

(b) The non-standard gas proration unit consists of contiguous quarter-quarter sections and/or lots;

(c) The non-standard gas proration unit lies wholly within a single governmental section;

(d) The entire non-standard gas proration unit may reasonably be presumed to be productive of gas from the designated gas pool;

(e) The applicant presents written consent in the form of waivers from:

(1) All operators owning interests outside the non-standard gas proration unit but in the same section in which any part of the non-standard gas proration unit is situated, and

(2) All operators owning interests in acreage offsetting the non-standard gas proration unit.

(f) In lieu of subparagraph (e) of this rule, the applicant may furnish proof of the fact that said offset operators were notified by registered mail of his intent to form such non-standard gas proration unit. (This notification to offset operators should consist of the same information that is furnished to the Commission). The Secretary-Director of the Commission may approve the application if, after a period of 30 days following the mailing of said notice, no operator has made objection to formation of such non-standard gas proration unit.

**RULE 2.** (c) The allowable assigned to any such non-standard gas proration unit shall bear the same ratio to a standard allowable in said pool as the acreage in the unit bears to 320 acres.

**RULE 3.** (a) Each oil well shall be located on a unit containing approximately 80 acres, which may reasonably be presumed to be productive of oil from said pool, and which consists of the N/2, S/2, E/2, or W/2 or a governmental quarter section. For purposes of these rules, a unit consisting of between 79 and 81 contiguous surface acres shall be considered a standard unit. Nothing contained herein shall be construed as prohibiting the drilling of an oil well on each of the quarter-quarter sections in the 80-acre unit.

**RULE 3.** (b) For good cause shown, the Secretary-Director may grant an exception to the requirements of Rule 3 (a) without notice and hearing when an application has been filed in due form, and where the unorthodox size or shape of the tract is due to a variation in the legal subdivision of the United States Public Land Surveys, or where the following facts exist and the following provisions are complied with:

(1) The non-standard unit is to consist of a quarter-quarter section or lot.

(2) The non-standard unit consists of not more than 81 acres.

(3) The entire non-standard unit may reasonably be presumed to be productive of oil from said pool.

(4) The applicant presents written consent in the form of waivers from all offset operators.

(5) In lieu of paragraph (4) of this rule, the applicant may furnish proof of the fact that all of the offset operators were notified by registered or certified mail of his intent to form such non-standard unit. The Secretary-Director may approve the application if, after a period of 30 days, no operator has entered an objection to the formation of such non-standard unit.

**RULE 3.** (c) The District Supervisor shall have authority to approve non-standard oil proration units without notice and hearing and without administrative approval by the Secretary-Director if such unit consists of two contiguous quarter-quarter sections or lots comprising less than 79 acres lying within a governmental quarter section and the non-standard unit is necessitated by a variation in the United States Public Land Surveys.

## (GALLEGOS-GALLUP POOL - Cont'd.)

RULE 3. (d) The allowable assigned to any such non-standard oil proration unit shall bear the same ratio to a standard allowable in said pool as the acreage in the unit bears to 80 acres.

RULE 4. (a) Each well, oil or gas, shall be located no nearer than 790 feet to any quarter section line and each such well shall be located no nearer than 330 feet to a governmental quarter-quarter section line or subdivision inner boundary line. Any well drilled to and producing from the Gallegos-Gallup Oil Pool prior to the effective date of this order at a location conforming to the well location requirements in effect at the time the well was drilled shall be considered to be located in conformance with this rule.

RULE 4. (b) The Secretary-Director shall have authority to grant an exception to Rule 4 (a) without notice and hearing when the application has been filed in due form and the Secretary-Director determines that good cause exists for granting such exception. However, such an unorthodox location, if approved, may necessitate an allowable adjustment.

Applicants shall furnish all offset operators and all operators within the section in which the subject well is located a copy of the application to the Commission, and the applicant shall include with his application a list of the names and addresses of all such operators together with a stipulation that proper notice has been given said operators at the addresses listed. The Secretary-Director of the Commission shall wait at least 20 days before approving any such unorthodox location, and only in the absence of objection from an offset operator may such application be approved.

RULE 5. A well shall be classified as a gas well if it has a gas-liquid ratio of 30,000 cubic feet of gas per barrel of liquid hydrocarbons, or more. A well shall be classified as an oil well if it has a gas-liquid ratio of less than 30,000 cubic feet of gas per barrel of liquid hydrocarbons. The simultaneous dedication of any acreage to both an oil well and a gas well is strictly prohibited.

RULE 6. The gas-liquid ratio limitation shall be 2000 cubic feet of gas per barrel of liquid hydrocarbons produced.

RULE 7. An oil well which has 80 acres dedicated to it shall be permitted to produce an amount of gas determined by multiplying the top unit oil allowable for said pool by the limiting gas-liquid ratio for the pool, (2000). In the event there is more than one oil well on an 80-acre oil proration unit, the operator may produce the allowable assigned to the 80-acre unit from said wells in any proportion.

A gas well shall be permitted to produce that amount of gas obtained by multiplying the top unit oil allowable for the pool by 2000 and by a fraction, the numerator of which is the number of acres dedicated to the particular gas well and the denominator of which is 80. In the event there is more than one gas well on a 320-acre gas proration unit, the operator may produce the amount of gas assigned to the unit from said wells in any proportion.

RULE 8. The operator of each newly completed well shall cause a gas-liquid ratio test to be taken on said well upon recovery of all load oil from the well, provided however, that

in no event shall the test be commenced later than 30 days from the date of first production unless the well is connected to a gas-gathering facility and is producing under a temporary gas allowable assigned in accordance with Rule 11. Provided further, that any well which is shut-in shall be exempted from the aforesaid gas-liquid ratio test requirement so long as it remains shut-in. The initial gas-liquid ratio test shall be taken in the manner prescribed by Rule 9. If the gas-liquid ratio is 30,000 cubic feet of gas per barrel of liquid hydrocarbons, or more, the operator shall not produce the well until beneficial use can be made of the gas.

No gas shall be flared or vented from any well classified as an oil well more than 60 days after the well begins to produce. Any operator that desires to obtain an exception to the foregoing provisions for a well classified as an oil well shall submit to the Secretary-Director of the Commission an application for such exception with a statement setting forth the facts and circumstances justifying it. The Secretary-Director is hereby authorized to grant such an exception if he determines that the granting of it is reasonably necessary. If the Secretary-Director declines to grant administrative approval of the requested exception, the matter shall be set for hearing if the operator so requests.

RULE 9. Gas-liquid ratio tests shall be taken on all wells in the pool, and on all wells producing from the Gallup formation within one mile of the boundaries of the pool which are not within another designated Gallup pool, during the month of April, 1969, and annually thereafter. An initial gas-liquid ratio test taken after April 1, 1969, shall suffice as the first annual test. Tests shall be 24-hour tests, being the final 24 hours of a 72-hour period during which the well shall be produced at a constant normal rate of production. Results of such tests shall be filed on Commission Form C-116 on or before the 10th day of the following month. At least 72 hours prior to commencement of any such gas-liquid ratio tests, each operator shall file with the Aztec office of the Commission a test schedule for its wells, specifying the time each of its wells is to be tested. Copies of the test schedule shall also be furnished to all offset operators.

Special tests shall also be taken at the request of the Secretary-Director and may also be taken at the option of the operator. Such special tests shall be taken in accordance with the procedures outlined hereinabove, including notification to the Commission and offset operators.

RULE 10. An initial shut-in pressure test shall be taken on each gas well and shall be reported to the Commission on Form C-125.

RULE 11. Any well completed after the effective date of this order shall receive an allowable only upon receipt by the Commission's Aztec office of Commission Forms C-104 and C-116, all properly executed. The District Supervisor of the Commission's Aztec office is hereby authorized to assign a temporary gas allowable to wells connected to a gas transportation facility during the recovery of load oil, which allowable shall not exceed the number of cubic feet of gas obtained by multiplying the daily top unit allowable for the pool by 2000.

RULE 12. (As Amended by Order No. R-4367, August 30, 1972.) The date 7:00 a.m. January 1 of each year shall be known as the balancing date, and the twelve months following this date shall be known as the gas proration period.

## (GALLEGOS-GALLUP POOL - Cont'd.)

RULE 13. Any gas well which has an underproduced status as of the end of a gas proration period shall be allowed to carry such underproduction forward into the next gas proration period and may produce such underproduction in addition to the allowable assigned during such succeeding period. Any allowable carried forward into a gas proration period and remaining unproduced at the end of such gas proration period shall be cancelled.

RULE 14. Production during any one month of a gas proration period in excess of the allowable assigned to a well for such month shall be applied against the underproduction carried into such period in determining the amount of allowable, if any, to be cancelled.

RULE 15. Any well which has an overproduced status as of the end of a gas proration period shall carry such overproduction forward into the next gas proration period, provided that such overproduction shall be compensated for during such succeeding period. Any well which has not compensated for the overproduction carried into a gas proration period by the end of such proration period shall be shut-in until such overproduction is compensated for. If, at any time, a well is overproduced an amount equalling three times its current monthly allowable, it shall be shut-in during that month and each succeeding month until the well is overproduced less than three times its current monthly allowable.

RULE 16. The allowable assigned to a well during any one month of a gas proration period in excess of the production for the same month shall be applied against the overproduction carried into such period in determining the amount of overproduction, if any, which has not been compensated for.

RULE 17. The Commission may allow overproduction to be compensated for at a lesser rate than would be the case if the well were completely shut-in upon a showing after notice and hearing that complete shut-in of the well would result in material damage to the well and/or reservoir.

RULE 18. The monthly gas production from each gas well shall be metered separately and the gas production therefrom shall be reported to the Commission on Form C-115 so as to reach the Commission on or before the 24th day of the month next succeeding the month in which the gas was produced. The operator shall show on such report what disposition has been made of the produced gas.

RULE 19. Each purchaser or taker of gas shall submit a report to the Commission on or before the 15th day of the month next succeeding the month in which the gas was purchased or taken. Such report shall be filed on Form C-111 with the wells being listed in approximately the same order as they are listed on the oil proration schedule.

RULE 20. Failure to comply with any provision of this order or the rules contained herein shall result in the immediate cancellation of allowable assigned to the affected well. No further allowable shall be assigned until all rules and regulations have been complied with. The District Supervisor shall notify the operator of the well and the purchaser in writing of the date of allowable cancellation and the reason therefor.

RULE 21. All transporters or users of gas shall file gas well-connection notices with the Commission as soon as possible after the date of connection.

RULE 22. Allowables to wells whose classification has changed from oil to gas or from gas to oil as the result of a gas-liquid ratio test shall commence on the first day of the month following the month in which such test was reported, provided that a plat (Form C-102) showing the acreage dedicated to the well and the location of all wells on the dedicated acreage have been filed.

(4) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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

LA PLATA-GALLUP POOL  
San Juan County, New Mexico

Order No. R-3720, Adopting Operating Rules for the La Plata-Gallup Pool, San Juan County, New Mexico, April 1, 1969.

Application of Benson-Montin-Greer Drilling Corporation for Special Pool Rules, San Juan County, New Mexico.

CASE NO. 4067  
Order No. R-3720

## ORDER OF THE COMMISSION

BY THE COMMISSION: This cause came on for hearing at 9 a.m. on March 5, 1969, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 1st day of April, 1969, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

## FINDS:

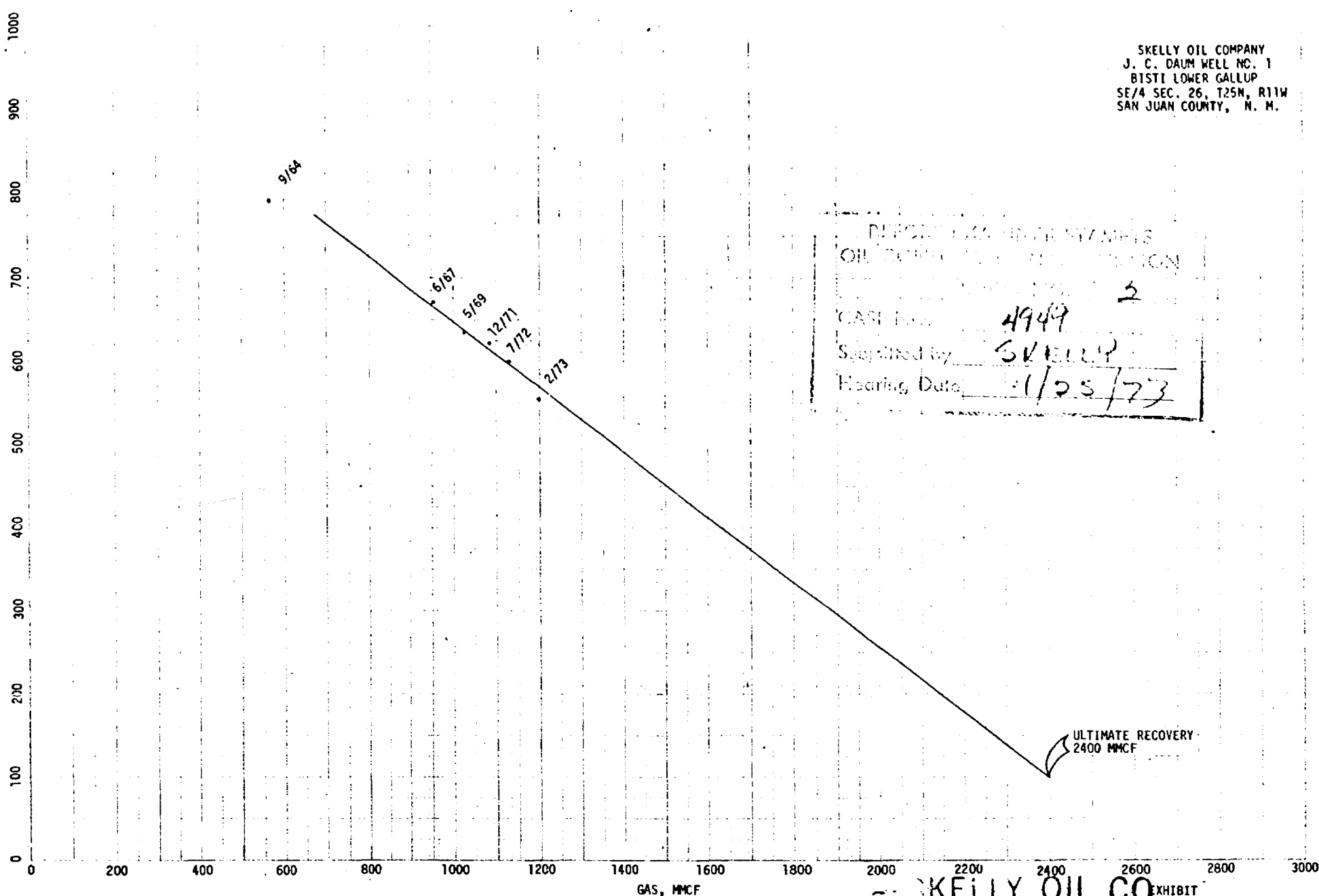
(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Benson-Montin-Greer Drilling Corporation, seeks the promulgation of special rules and regulations for the La Plata-Gallup Oil Pool, San Juan County, New Mexico, including a provision for 160-acre spacing and proration units.

(3) That the applicant requests that said special rules provide that the unit allowable for a 160-acre unit in said pool be allocated on the basis of four times the normal unit allowable for Northwest New Mexico, and that no credit be given for depth factors.

SKELLY OIL COMPANY  
J. C. DAUM WELL NO. 1  
BISTI LOWER GALLUP  
SE/4 SEC. 26, T25N, R11W  
SAN JUAN COUNTY, N. M.

BOTTOM HOLE PRESSURE



REPORT MADE BY SKELLY OIL COMPANY

CASE NO. 4949

Submitted by SKELLY

Hearing Date 1/25/73

SKELLY OIL CO. EXHIBIT

EXHIBIT NO. 2

DOCKET OR CASE NO. 4949

DATE APRIL 25, 1973

BISTO GALLUP POOL  
SAN JUAN COUNTY, NEW MEXICO

SKELLY OIL COMPANY

J. C. DAUM WELL NO. 1

Ultimate Recovery to BHP/Z = 100 = 2,400 MMCF  
Present Recovery to BHP/Z = 554 = 1,198 MMCF  
Remaining Recovery 1,202 MMCF

Present Allowable: 116.8 MMCF/Year  
Life = 11 to 17 years at present allowable *2 cases to 100*

Possible Average Production Over Life: 275 MMCF/Year  
Life = 4 to 5 Years

Production Loss If Hole Is Lost in 5 Years:

1202 MMCF - (5)(116.8 MMCF/Year) =  
1202 MMCF - 584 MMCF = 618 MMCF

and the dollar loss:

(618 MMCF)(\$120/MMCF) + (618 MMCF)(20 B/MMCF)(\$3.34/bbl.)  
\$74,000 + \$41,000 = \$115,000

*2 of 134 - MCF*

|                              |         |
|------------------------------|---------|
| BEFORE EXAMINER SIGNATURES   |         |
| OIL COMPANY'S OIL COMMISSION |         |
| DOCKET NO.                   | 3       |
| CASE NO.                     | 1947    |
| Submitted by                 | SKELLY  |
| Hearing Date                 | 4/25/77 |

*Chk. previous records - 66  
in 8-12 days*

*R-41548 -  
act allowable from  
400 to 220 MCF  
per day*

SKELLY OIL CO.

EXHIBIT NO. 3

DOCKET OR  
CASE 4949

DATE APRIL 25 1973

EXHIBIT \_\_\_\_\_

DRAFT

RLS/dr

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. 4949

Order No. R-1069-F

APPLICATION OF SKELLY OIL COMPANY  
FOR THE AMENDMENT OF ORDER NO.  
R-1069-B, SAN JUAN COUNTY,  
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on April 25, 1973  
at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this May day of June, 1973, the Commission,  
a quorum being present, having considered the testimony, the record,  
and the recommendations of the Examiner, 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 the applicant, Skelly Oil Company, is the owner-  
operator of the J. C. Daum Well No. 1 located in Unit I of  
Section 26, Township 25 North, Range 11 West, NMPM, Bisti-Lower  
Gallup Oil Pool, San Juan County, New Mexico.

(3) That the Bisti-Lower Gallup Oil Pool in the area of said well has been depleted by primary and secondary recovery techniques and is now capable of only marginal production.

(4) That applicant's J. C. Daum Well No. 1 has a gas-oil ratio in excess of 50,000 to 1, and that said well's allowable is restricted due to this high gas-oil ratio.

(5) That said well is located in an area of the Bisti-Lower Gallup Oil Pool where casing failures have occurred and that should such a failure occur <sup>in</sup> said well before said well is depleted, hydrocarbons could be wasted through non-production.

(6) That the applicant seeks the amendment to the special pool rules of the Bisti-Lower Gallup Oil Pool to include provisions for the classification of gas wells in said pool and the dedication of 320 acres thereto.

(7) That the applicant further seeks approval of a 320-acre ~~gas~~ proration unit consisting of the SE/4 of Section 26 and the NE/4 of Section 35, Township 25 North, Range 11 West, NMPM, to be dedicated to said J. C. Daum Well No. 1.

(8) That the evidence indicates that said well can efficiently and economically drain said 320 acre tract.

(9) That the resultant higher allowables should <sup>permit</sup> ~~allow~~ the applicant to deplete said well at an earlier date minimizing the risk of waste due to casing failure.

(10) That wells producing in the Bisti-<sup>Lower</sup> Gallup Oil Pool with gas-oil ratios in excess of 50,000 to 1 should be permitted <sup>have</sup> ~~to~~ <sup>there</sup> ~~be~~ <sup>there</sup> ~~dedicated~~ <sup>to</sup> ~~dedicated~~ <sup>up to</sup> 320 acres ~~and~~ <sup>there</sup> ~~be~~ assigned oil and casinghead gas allowables in proportion as the dedicated acreage relates to 80 acres; ~~and~~ that approval of amendments to the special pool rules for the Bisti-Lower Gallup Oil Pool to provide for the same is in the interest of conservation, will prevent waste, and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the special pool rules for the Bisti-Lower Gallup Oil Pool are amended to include:

← RULE 6. Any well in the Bisti-Lower Gallup Oil Pool  
← with a gas-oil ratio of 50,000 cubic feet or more  
of gas per barrel of oil may have dedicated to it  
up to 320 acres.

← RULE 7. That the acreage dedicated under Rule 6  
above shall be all or part of a single governmental  
half section.

← RULE 8. That acceptance of Commission Form C-102  
by the Supervisor of the Aztec District office of  
the Commission shall constitute approval of the  
proration unit.

← RULE 9. That wells in the Bisti-Lower Gallup Oil  
Pool shall be permitted to produce a casinghead  
gas allowable obtained by multiplying the top unit  
oil allowable for the pool by 2,000 and by a  
fraction, the numerator of which is the number of  
acres dedicated to the particular well and the  
denominator of which is 80.

IT IS FURTHER ORDERED:

(1) That the SE/4 of Section 26 and the NE/4 of Section 35,  
Township 25 North, Range 11 West, NMPM, is hereby approved as a  
320-acre proration unit to be dedicated to applicant's J. C.  
Daum Well No. 1, located in Unit I of said Section 26 in said  
pool.

-4-

Case No. 4949

Order No. R-1069-F

(2) That the dedication shall be effective after the effective date of this order and upon the receipt of a proper Form C-102 by the Aztec District Office of the Commission.

(3) That the effective date of this order shall be June 1, 1973.

(4) That jurisdiction of this cause is hereby retained for the entry of such further orders as the Commission may deem necessary.

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