CASE 6146: DE NOVO NOVEMBER 7, 1978

JEROME P. McHUGH FOR DOWNHOLE COMMINGLING, RIO ARRIBA COUNTY, NEW MEXICO

ase Mumber 6/46 Application Transcripts. 5man Exhibits

BRUCE KING LARRY KEHOE

# Case 6/46 de MIBURO STATE OF NEW MEXICO

## ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION AZTEC DISTRICT OFFICE

1000 RIO BRAZOS ROAU AZTEC, NEW MEXICO B7410 I5051 334-6178

December 4, 1979

Mr. Thomas A. Dugan P. O. Box 208 Farmington, New Mexico 87401

Re: Jerome P. McHugh Jicarilla #5 D-29-26N-4W

Dear Mr. Dugan:

We agree to the production split set out below for the downhole commingled production as authorized by Order R-5665-A for the subject well.

Gallup 80% of all gas, 50% of all oil produced Dakota 20% of all gas, 50% of all oil produced

By copies of this letter the authorized transporters are advised.

If there are questions, please contact us.

Yours very truly,

District Supervisor

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xc: Oil Conservation Division, Santa Fe

Gas Transporter: El Paso Natural Gas Company Oil Transporter: Plateau, Inc.

ARK:no

## BRUCE KING GOVERNOR LARRY KEHOE SECRETARY

#### STATE OF NEW MEXICO

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A. R. Kendrick District Supervisor

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### **OIL CONSERVATION COMMISSION**

STATE OF NEW MEXICO P.O. BOX 2088 - SANTA FE 87501

DIRECTOR JOE D. RAMEY

LAND COMMISSIONER PHIL R. LUCERO December 26, 1978

STATE GEOLOGIST EMERY C. ARNOLD

6146

CASE NO. 6146
ORDER NO. R-5665-A

Mr. Richard Tully, Attorney Dugan Production Corporation	ORDER NO. K-3003-A
P. O. Box 234 Farmington, New Mexico 87401	Applicant:
	Jerome P. McHugh
Dear Sir:	
Enclosed herewith are two co Commission order recently en	pies of the above-referenced atered in the subject case.
Yours very truly,  JOE D. RAMEY  Director	8
JDR/fd	
Copy of order also sent to:	
Hobbs OCC x Artesia OCC x Aztec OCC x	
Other	

#### STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

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

CASE NO. 6146 DE NOVO Order No. R-5665-A

APPLICATION OF JEROME P. MCHUGH FOR DOWNHOLE COMMINGLING, RIO ARRIBA COUNTY, NEW MEXICO.

#### ORDER OF THE COMMISSION

#### BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on February 8, 1978, before Examiner Daniel S. Nutter, and on November 14, 1978, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 20th day of December, 1978, the Commission, a quorum being present, having considered the testimony presented and the exhibits received at said hearing, 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, Jerome P. McHugh, is the owner and operator of the Jicarilla Well No. 5, located in Unit D of Section 29, Township 26 North, Range 4 West, NMPM, Rio Arriba County, New Mexico.
- (3) That the applicant seeks authority to commingle Tapacito-Gallup and Basin-Dakota production within the wellbore of the above-described well.
- (4) That during September and October, 1978, the Gallup formation in the subject well produced an average of 100 MCF of gas and 1.7 barrels of oil per day.
- (5) That during September and October, 1978, the Dakota formation in the subject well produced an average of 89 MCF of gas and 0.8 barrels of oil per day.

Page 2 Case No. 6146 Order No. R-5665-A

- (6) That the production decline curve for the Gallup formation in the subject well indicates an abnormal decline for the latter portion of the curve.
- (7) That this abnormal decline for the Gallup formation can be attributed to fluid loading and inefficient flow through the tubing casing annulus.
- (8) That by downhole commingling the Gallup and Dakota and producing both pools through the tubing from said well, flow from the Gallup will be more efficient.
- (9) That the proposed commingling may result in the recovery of additional hydrocarbons from the Gallup, thereby preventing waste, and will not violate correlative rights.
- (10) That the reservoir characteristics of each of the subject zones are such that underground waste would not be caused by the proposed commingling provided that the well is not shut-in for an extended period.
- (11) That to afford the Division the opportunity to assess the potential for waste and to expeditiously order appropriate remedial action, the operator should notify the Aztec district office of the Division any time the subject well is shut-in for 7 consecutive days.
- (12) That in order to allocate the commingled production to each of the commingled zones in the subject well, applicant should consult with the supervisor of the Division's Aztec office to arrive at an allocation formula.

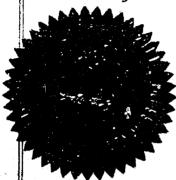
#### IT IS THEREFORE ORDERED:

- (1) That the applicant, Jerome P. McHugh, is hereby authorized to commingle Tapacito-Gallup and Basin-Dakota production within the wellbore of the Jicarilla Well No. 5, located in Unit D of Section 29, Township 26 North, Range 4 West, NMPM, Rio Arriba County, New Mexico.
- (2) That the applicant shall consult with the Supervisor of the Aztec District Office of the Division and determine an allocation formula for the allocation of production to each zone of the subject well.
- (3) That the operator of the subject well shall immediately notify the Division's Aztec district office any time the well has been shut-in for 7 consecutive days and shall concurrently present, to the Division, a plan for remedial action.

Page 3 Case No. 6146 Order No. R-5665-A

- (4) That Division Order No. MC-1837 is hereby superseded.
- (5) 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 herein-above designated.



STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

PHIL R. LUCERO, Chaipman

MERY C ARNOLD Member

JOE D. RAMEY, Member & Division Director

SEAL

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MR. RAMEY: The hearing will come to order. Call first Case 6146.

MS. TESCHENDORF: Case 6146. Application of Jerome P. McHugh for downhole commingling, Rio Arriba County, New Mexico.

The case will be heard de novo pursuant to the provisions of Rule 1220.

MR. TULLY: My name is Richard Tully. the attorney for Jerome P. McHugh. I have one witness to be sworn, Thomas A. Dugan.

(Witness sworn.)

MR. TULLY: Are Mr. Dugan's credentials a matter of record and acceptable?

MR. RAMEY: Yes. Are there any other appearances in this case?

You may proceed, Mr. Tully.

MR. TULLY: We previously submitted an application for downhole commingling in January of this year and the hearing was held on February 8, 1978, before Examiner Daniel Nutter.

The Order was issued on July 20, 1978, denying this commingling that we had previously proposed.

We're here today on a de novo hearing to go through this again and requesting that our downhole commingling of the Gallup and the Dakota formations for the

Jicarilla No. 5 Well be granted.

We have several exhibits we would like to go over again, which were previously presented in the Examiner Hearing.

#### THOMAS A. DUGAN

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

#### DIRECT EXAMINATION

BY MR. TULLY:

Q I'll now hand you, Mr Dugan, what has been marked as Exhibit DN-1. Would you please identify it and explain it?

nity of the Jerome McHugh Jicarilla 5 Well, and the 5 Well is indicated by the blue arrow. The well is a dually completed Gallup-Dakota well.

Q Okay. Was this original application submitted because you felt that there was low bottom hole pressure and declining production and the need to raise produced fluids in order to acquire more production?

A. Yes. The Jicarilla 5 Well on original completion was -- the Dakota zone was average type well but the Gallup was an extremely good well, and we had set out

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originally to drill the well as a Dakota well, single completion, and had set 4-1/2 casing in the well as a production string. And we set -- after we found that we had a good looking Gallup zone, why, we dually completed the well, setting a Baker Model D packer and running one string of 2-inch tubing.

The Gallup zone in the well produced very well for a number of years through the tubing casing annulus lifting produced fluids. But in the past year or so we've had trouble lifting the produced fluids because of the declining production rate and the declining bottom hole pressure in the Gallup zone.

I'm now handing you what have been marked as Exhibits DN-2 and DN-3, and do these just outline what you've previously stated on the well's completion as well as the dual completion of this well?

Yes. The DN-2 is the daily drilling report when the well was originally drilled back in '68, and the DN-3 is the diagrammatic sketch of the dual completion and it was originally filed when the application to dual the well was made in '68.

And the well hasn't been worked on since that date.

Are the ownership of these two pools, the Tapacito-Gallup Pool and the Basin-Dakota Pool, common?

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A. In this wellbore the working ownership is common; however, the overriding royalty is different in that El Paso -- El Paso or Northwest Production owns the overriding royalty and it's greater in the Dakota -- and it's greater in the Gallup zone.

Q. Okay.

A. So there is a slight difference in the overriding royalty.

Are you aware that the offsetting operators to this proposed commingling, Supron Energy and Northwest Production, have submitted waivers of objection?

λ. Yes.

MR. TULLY: Do you have copies of those waivers?

MR. RAMEY: Northwest is the overriding royalty?

A. Yes, that's a subsidiary of El Paso, the old Northwest Production Corporation, not to be confused with Northwest Pipeline.

MR. RAMEY: Okay, we have waivers from Northwest Production Corporation and Supron Energy Corporation.

Q. (Mr. Tully continuing.) I'm now handing you what has been marked as Exhibit DN-4. Would you please identify and explain this exhibit?

A Okay, this is a production decline curve on

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the Tapacito-Gallup zone of the Jicarilla 5 Well, and you can note that the well produced very well back in the '69, '70, '71, '72 on through, really, '75. At that time we started having problems with the well logging off and we installed a compressor on the well on the Gallup side of the well, and then the well continued to produce intermittently very well.

Most of the down time there in '76 was due to compressor problems.

Then in '77 the well produced fairly well and on in -- but we were starting to have problems with it logging off, and now our problems are getting more pronounced, in that the inability of the well to lift the produced fluids from the Gallup zone on the tubing casing annulus.

- I'm now handing you what has been marked as Exhibit DN-5. Would you identify and explain that exhibit?
- This is a production decline curve from the Dakota zone in the Jicarilla 5 Well. You can note that the Dakota production is declining at a normal rate and is down to the area where it's making approximately 100 Mcf per day.
- I'm now handing you what has been marked as Exhibit DN-6. Would you please identify and explain that exhibit?

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Well, this is just a tabulation of the last of 1977 and 1978 production from both zones, which really is shown on our decline curves, but it's a little plainer in this tabulation.

Are you aware that --- of an allocation that you submitted to Northwest Production to allocate this production between the Gallup -- Tapacito-Gallup and the Basin-Dakota, which was submitted to them on February 14th and then their waiver of objection was dated March 6th, 1978?

Yes. What we proposed was to, if approval was given to commingle production in the wellbore, was to use the Basin-Dakota Pool decline curve, assuming that the Dakota production continued to be fairly constant like it has in the past, and use that as our basis for the Dakota production, with the remaining production being attributed to the Gallup side.

Would you please explain this allocation formula that you proposed?

Well, that's essentially it. What we proposed at that time was to allocate 3100 Mcf per month and 15 barrels of oil, to the Dakota zone, Dakota Zone of the well, and the remaining production from the well to the Gallup Zone.

Now, of course, if we're allowed to commingle the well -- the production in the wellbore, why, then we'd

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SALLY WALTON BOY
CERTIFED SHORTHAND REPORT
3020Plaza Blanca (606) 471-24
Santa Fe, New Mexico 5750

be utilizing our compressor to compress both zones of the well so the Dakota production, because we'd be lowering the producing pressure, should increase slightly. That's how we came up with the 3100 Mcf per month.

- Q I'm now handing you what has been marked as Exhibit DN-7. Would you identify and explain that exhibit, please?
- A. This is a tabulation of the shut-in pressures from the -- that have been taken on the Jicarilla 5 Well, and would indicate that the Gallup shut-in pressure has decreased and is continuing to decrease, and that the Dakota pressure is decreasing but not at as a rapid a rate as the Gallup zone.
- Q. Directing your attention now to Order Number R-5665 of this Commission, Finding Number Six and Finding Seven, as well as Finding Number Eight, would you please review these findings for the Commission and make comment?
- A. Well, Finding Number Six is that no recent bottom hole pressures are available, which is true and does indicate that the Gallup shut-in pressure is in the neighborhood of 250 psi and the Dakota pressure is currently, the last pressure we got was 797 psi. So the Dakota pressure is considerably higher than the Gallup zone.

Finding Seven states that the producing characteristics of the two zones in the subject well, as reflected

SALLY WALTON BOY CERTIFIED SHORTHAND REPORTS 2020 Plane Blance (505) 471-24 Sunta Fe, New Mexico 5750

by findings Four and Five above, are not conducive to efficient downhole commingling.

Well, we feel that the -- that we could efficiently downhole commingle the two zones and feel that we'd be able to deplete the Gallup horizon in a better manner if they were commingled.

Eight says that the pressure differential between the two zones in the subject well, as reflected by
Finding Six above, would cause wasteful cross-flow between
the zones, and is not conducive to effective downhole commingling.

There could -- should the well be shut-in, there could be flow from the Dakota into the Gallup. This would be the only direction of the flow. We don't believe that it would damage the Gallup formation. We do not believe that the gas would be lost. We believe that when the well was put back on production, that we'd produce that gas. We believe that we would be accounting for the gas because we're attributing the production, the initial production from the well to the Dakota Zone, using the existing Dakota decline curve.

So while it is true there could be flow from the Dakota to the Gallup, we don't believe it would be a serious problem.

And Nine just states that there could be a

establishes scales some

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CERTIFIED SHORTHAND REPORTE
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Santa Fe, New Mexico 376.0

problem in producing the well because of logging off of the Gallup zone, and we are here to say that there is a problem and that's why we're here trying to solve it in the best way.

Q So to summarize again the reason we're here, is because you feel that it's necessary to commingle the production from these two zones because of the low bottom hole pressure, the declining production, as well as the need to raise the produced fluids?

the Gallup formation, we're going to have to change our method of producing the well, and the well isn't conducive to working over or running two strings of tubing in it.

If we have to do that, we'd have to kill the well, which would probably damage the Gallup formation, and it's not too easy to do in 4-1/2 casing, anyway.

So the simplest and best solution to continue or further deplete the Gallup zone in this well is to open the Baker sliding sleeve valve that's in the wellbore now at this time and go ahead and commingle both zones in the wellbore, which would better lift the produced fluids and make more gas available for production.

Q. So therefore, in your professional opinion, you feel that this proposed commingling from these pools will result in recovery of additional hydrocarbons, thereby

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preventing waste, and that the commingling will not violate correlative rights?

- A That's correct.
- Q Do you have anything more to state?
- A. No, sir.

MR. TULLY: At this time I would move for the introduction of Exhibits DN-1 through 7 into evidence.

MR. RAMEY: The Exhibits DN-1 through DN-7 will be admitted.

#### CROSS EXAMINATION

BY MR. RAMEY:

Mr. Dugan, I note on your Exhibit DN-7, there seems to be a lot of fluctuation on the shut-in pressures for both zones, but primarily there's more fluctuation on the Gallup zone. Could this be due to fluid levels?

- A Yes, sir, I'm sure it is.
- And is there a possibility that your shut-in pressures really aren't accurate and Dakota shut-in pressure or the Gallup shut-in pressure could be higher than what is reflected here?
- A Well, of course, the shut-in pressure, the surface shut-in pressures, these are accurate.
  - Q Yeah.
  - A But the bottom hole pressure is unknown.

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Really, the way the well's completed there's no way of taking a bottom hole pressure in the --- on the Gallup side, and it's very possible that these numbers don't truly reflect the bottom hole pressure, in either zone, for that matter.

- What I'm saying is that the pressure differential could be -- or what I'm trying to say, I should say, is that the pressure differential could be less.
  - A. Yes, sir, that's true.
  - Q The Gallup seems to make more fluid than --
  - A. Yes, sir, that's right.
- O Than the Dakota, and so your pressure differential, bottom hole pressure differential, could be less than what is reflected by the surface shut-in pressure.
- A. That's a possiblity, although, it's probable that the Gallup, if there was an extended shut-in, is less than the Dakota shut-in pressure.
- Now, on your allocation you had proposed to just allocate 3100 Mcf per month and 15 barrels of oil to the Dakota and the remainder to the Gallup.
- A. What I would propose would be to make that allocation for a year's period and then have a -- using this decline curve, make a smaller allocation for the next year's period, so that you'd be taking into account the natural decline of the Dakota zone.

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So I'd think that you could either set out to, say, give an average decline, or an average production for a year's period, and use that a year's period, and then make an adjustment for the next year, either by having an agreement to -- with Northwest Production and with Al Kendrick at Aztec Office, or just agreeing initially for a five year period on what that decline would be.

But those three, McHugh and Northwest and the Commission should be able to reach some sort of an equitable production amount from the Dakota formation using this decline curve.

Q So you would propose, then, that yearly a new -- a new allocation --

A. Yes, sir.

Q -- be set.

A. Yes.

Q Well, I'm still having a little trouble with how we could allocate this unless we put in an order that all interested parties get together and determine an allocation factor --

MR. ARNOLD: Is there --

Q -- once a year.

MR. ARNOLD: Excuse me for interrupting in there. Is there an ownership difference between the Gallup and the Dakota?

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Λ.	The:	re's	an	overriding	royalty	difference.
	MR.	ARNO	DLD:	Overridir	g royal	ty interest?

A. Uh-huh.

MR. ARNOLD: That's the only reason that the allocation factor critical at all in the first place?

A. Yeah, well, and allocating the Dakota production, I guess, for proration -- prorationwise in the Basin-Dakota Pool.

MR. ARNOLD: Wouldn't it likely be a marginal well, anyway?

A. Yeah, it's not that big of a well. It's really not a big factor prorationwise.

Q. (Mr. Ramey continuing.) Mr. Dugan, are there any Commission tests that you have to take on this well that would cause it to be shut-in for any period of time?

A Well, of course, at this time we're taking packer leakage tests, but if it was commingled we wouldn't have to do that, and then I guess every two years we have to take some sort of a deliverability test.

- And how long is the shut-in time on that one?
- A. That's 72 hours now.
- Q 72 hours.
- A. I believe that's right.

MR. RAMEY: Any other questions of the witness?

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## CROSS EXAMINATION

#### BY MR. ARNOLD:

How much oil does the Callup make? Q.

Referring back to this Exhibit DN-6, we have the oil production there. It makes about 8 barrels per million, something in that neighborhood, so -- it did better than that in October but if you take a good month there where it's really lifting the fluids, it's -- it's in that neighborhood, around 10 barrels a million.

If you did have a cross flow of gas from the Dakota to the Gallup, do you think you would move oil away from the wellbore in the Gallup?

I don't think so. I wouldn't anticipate that cross flow to be very great. I really don't think it would be a problem.

MR. RAMEY: Probably so long as the well is open and producing, particularly with this pressure, why, there wouldn't be any cross flow at all.

> No, there won't. There will not be and -MR. RAMEY: Only during the shut-in period.

That's correct. And with that compressor we're pulling the tubing pressure down to around 70 pounds. Right now when we're producing the Gallup we're pulling the casing down to around 70 pounds, so I'm sure the tubing would

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be similar.

MR. RAMEY: Any other questions of the witness? He may be excused.

Anything further in the case?

MR. TULLY: No, sir.

MR. RAMEY: The Commission will take the case

under advisement.

(Hearing concluded.)

time of the hearing.

I, SALLY WALTON BOYD, a Court Reporter, DO HEREBY CERTIFY that the foregoing and attached Transcript of Hearing before the Oil Conservation Division was reported by me; that said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my

ability, knowledge, and skill, from my notes taken at the

Sally W. Boyd, C.S.R.

## WAIVER OF OBJECTION AND CONSENT TO THE DOWNHOLE COMMINGLING OF THE JICARILIA #5 WELL

7,ce Care 6146

The undersigned, as an operator of a lease offsetting the N/2 of Section 29, Township 26 North, Range 4 West, N.M.P.M., Rio Arriba County, New Mexico, does hereby acknowledge receipt of the Application for Downhole Commingling of the Jicarilla #5 Well.

The undersigned states that it waives any objection that it may have to this Application, and voluntarily consents to the commingling of the Jicarilla #5 Well as stated in the above mentioned Application.

Dated this 6 day of March, 1978.

NORTHWEST PRODUCTION CORPORATION Company Name

William V. Holik

Title: Vice President

Address: POST OFFICE BOX 1796

EL PASO, TEXAS 79949

Please send one executed copy to Joe D. Ramey, Secretary-Director, New Mexico Oil Conservation Commission, P. O. Box 2088, Santa Fe, NM 87501, and return one executed copy to the Applicant. The remaining copy is for your files.

# BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION Santa Fe, New Mexico November 7, 1978

#### COMMISSION HEARING

IN	THE	MATTER	OF:

Application of Jerome P. McHugh for downhole commingling, Rio Arriba County, New Mexico.

Application of Harvey E. Yates Company for an) unorthodox gas well location, Eddy County, New Mexico.

Application of Durham, Inc., for compulsory pooling, Eddy County, New Mexico.

In the matter of the hearing called by the Oil Conservation Division on the motion of Shell Oil Company to permit Corinne Grace and all other interested parties to appear and show cause why Division Order No. R-3713 should not be declared null and void.

Application of Shell Oil Company for pool contraction and pool extension, Eddy County, New Mexico.

CASE 6146 (DE NOVO)

CASE 6266 (DE MOVO)

**CASE 6377** 

CASE 6378

CASE 6379

BEFORE: Joe D. Ramey, Director

TRANSCRIPT OF HEARING

APPEARANCES

For the New Mexico Oil Conservation Commission:

Lynn Teschendorf Legal Counsel for the Commission State Land Office Building Santa Fe, New Mexico MR. RAMEY: Call Cases 6146, 6266, 6377, 6378, and 6379.

MS. TESCHENDORF: Case 6146, application of Jerome P. McHugh for downhole commingling Rio Arriba County, New Mexico. Upon application of Jerome P. McHugh this case will be heard De Novo.

Case 6266, application of Harvey E. Yates Company for an unorthodox gas well location, Eddy County, New Mexico. Upon application of Harvey E. Yates Company this case will be heard De Novo.

Case 6377, application of Durham, Inc., for compulsory pooling, Eddy County, New Mexico.

Case 6378, in the matter of the hearing called by the Oil Conservation Division on the motion of Shell Oil Company to permit Corinne Grace and all other interested parties to appear and show cause why Division Order No. R-3713 should not be declared null and void. Case 6379, application of Shell Oil Company for pool contraction and pool extension, Eddy County, New Mexico.

It is requested that these cases be continued until November 14, 1978.

MR. RAMEY: This hearing is hereby continued until November 14, 1978, 9 o'clock a.m., Oil Conservation Commission Conference Room, State Land Office Building, Santa Fe, New Mexico. The hearing is adjourned.

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<u> </u>	10(m) So Union	NW Prod		Lycax Conocc	SA (PM)	- Control of the Cont
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4	Jicarillak	NW Prod	NW Prod	Cose No.	Mr. Hoose 10	Humbble
8	<b>3</b>	<b>(*)</b>		\$ Submitted	de 11-14-7-3	P
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×	Jicarilla K	Jicarilla 123C	Jicarilla 123 C	Apr.:he O	: D.I.L N	DK 12.5%
		Well I	ocation	ORK	Hay I	2
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	BEFORE E	XAMINER NU	TTED		lla #5 Well, Ric	18%
	OIL CONSER	VATION COMMISS	IIEK		county, New Mexic	<b>★ 1</b> ★ 1 ★ 1 ★ 1 ★ 1 ★ 1 ★ 1 ★ 1 ★ 1 ★ 1
	Repl 1	XHIBIT NO /	DION		Case No	. <u>6146</u>
	CASE NO	6146			Exhibit	t No.
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Post Office Box 234 Zip Code 87401

## DUGAN PRODUCTION CORP.

TELEPHONE: \$25-9184 Office \$25-5694 Home

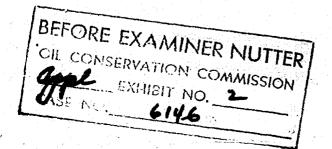
Area Code 503

THOMAS A. DUGAN, President

709 BLOOMFIELD RD.
FARMINGTON, NEW MEXICO
NOVEMBER 7, 1968

Jerome P. McHugh Jicarilla #5 7 A.M. Morning Drilling Report

6/26/68	E. V. Echohawk staked location 890' fnl 880' fwl, Sec. 29, T26N, R4W, Rio Arriba County, New Mexico. Elev. 6847'.			
9/26/68	Move in Arapahoe Dril	Move in Arapahoe Drilling Rig #7.		
9/27/68	Spud 12 1/4" hole 9:0 Water. Ran 6 jts. 8 set at 205' RKB cemen 9/27/68. Cement circ	5/8" O.D., 24#, it w/175 sx. Clas	J-55, 8R ST&C csg.	T.E. 192'
9/28/68	207' Repair rig and	l pressure test c	sg held O.K.	
9/29/68	2063' 3/4° - 1171' 2° - 2063'	1/2 <sup>0</sup> - 528' 1/2 <sup>0</sup> - 1484'	1/2 <sup>0</sup> - 858' 1/4 <sup>0</sup> - 1891'	Water
9/30/68	3177' 1 1 3/4° - 2980' 1	3/4 <sup>0</sup> - 2360' 1/2 <sup>0</sup> - 3177'	1 3/4° - 2671'	Water
10/1/68	4025' 1 1° - 4010'	1/40 - 3480'	1 1/40 - 3790'	Water
10/2/68	4496'	3/40 - 4321'	10 - 4395'	wt. 9.0 vis 34
10/3/68	4834'	10 - 46951	10 - 4772'	wt. 9.2 vis 33
10/4/68	<b>5200'</b>	1/2 <sup>0</sup> - 4978'	•	wt. 8.9 vis 33
10/5/68	55801	3/4 <sup>0</sup> - 5261'		wt. 8.9 vis 35
10/6/68	5850' BEFORE THE OIL CONSERVATION COM Santa Fe, New Mexic	1/20 - 5580'	1/2° - 5661'	wt. 9.2 vis 40
10/7/68	OIL CONSERVATION CON	1/20 - 5881'		wt. 8.9 vis 40
10/8/68	Cuse No.	3/40 - 6410		wt. 9.1 vis 44
10/9/68	Submitted by Hearing Date 4-14-78	1/20 - 6715'	3/4° - 6898'	wt. 9.1 vis 43
10/10/68	73551	10 - 7168'		wt. 9.2 vis 42
10/11/68	7583'	10 - 7545'		wt. 9.1 vis 41



APPLICATION OF JEROME P. MCHUGH FOR DOWNHOLE COMMINGLING OF Jicarilla #5 Well, Rio Arriba County, New Mexico

Case No. 6141

Exhibit No. 2

Post Office Box 254 Zip Code 87401

## DUGAN PRODUCTION CORP.

TELEPHONE: 325-9184 Office 325-5694 Home

Arca Code 505

THOMAS A. DUGAN, President

709 BLOOMFIELD RD.
FARMINGTON, NEW MEXICO

Page 2

Jicarilla #5
Morning Drilling Report (Cont'd)

10/12/68 7697' wt. 9.3 vis 43
10/13/68 7761' wt. 9.2 vis 40
10/14/68 7845' 10 - 7845' wt. 9.2 vis 75
Condition hole to log.

10/15/68 7845' Attempt to log - bridge at 7300'. Went in hole - conditioned hole. Pulled out of hole - ran Welex Density and Gamma Ray log. Conditioned hole - laid down drill pipe. wt. 9.1 vis 43

Ran 245 jts. 4 1/2" O.D., 34 jts. 11.6#, 211 jts. 10.5#, J-55, 8R ST&C csg. T.E. 7859.55' set at 7847' RKB. Cemented first stage with 150 sx. Class "A" 8% gel. plus 260 sx. Class "C" 2 1/2# salt per sx. P.O.B. 1:40 P.M., 10/15/68. Good mud returns while cementing. Max. cementing pressure 900 psi. Reciprocated csg. free while cementing. Cemented second stage through Baker two stage tool at 5755' with 175 sx. Class "A" 40% Diacel "D" 12 1/2# gilsonite per sx. P.O.B. 5:50 P.M., 10/15/68. Good mud returns while cementing. Max. cementing pressure 800 psi. Closed Baker tool with 2500 psi. Cemented third stage through Baker two stage tool at 3545' with 250 sx. Class "A" 40% Diacel "D". P.O.B. 7:00 P.M., 10/15/68. Good mud returns while cementing - no cement to surface. Max. cementing pressure 800 psi. Closed Baker tool with 2500 psi.

10/17/68 Move out Arapahoe Rig #7.

10/18/68 Move in Signal Rig #1.

10/19/68 PBTD 7810' Rigged up - went in hole with bit and casing scraper, drilled Baker stage tools at 3545' and 5755'.

PBTD Cleaned out to 7810', circulated hole clean, tested csg. and B.O.P. to 4000 psi - held O.K., displaced hole, spotted 250 gal. 15% HCl acid, pulled out of hole, ran Jet-Tech Gamma Ray Correlation log. Perf. 2 jets per ft. 7745'-49', 7754'-60', 7783'-87', 7789'-94', and 7796'-7800', frac with Dowell 4000 HP 40,000# 20-40 sd., 48,500 gal. water w/2 1/2# J-166 friction reducing agent per 1000 gal., I.F. 3300 psi, max. 3300 psi, ave. 2800 psi, min. 2600 psi, final 3200 psi. Instant shut in 2000 psi, 10 min. shut in 1900 psi. Ave. I.R. 53 B/M. (Cont'd)

Post Office Box 284 Zip Code 87401

## DUGAN PRODUCTION CORP.

Telephone: 325-9184 Office 325-5694 Home

Area Code 505

THOMAS A. DUGAN, President

709 BLOOMFIELD RD.
FARMINGTON, NEW MEXICO

Page 3

Jicarilla #5
Morning Drilling Report (Cont'd)

10/20/68

(Cont'd) Perf. 2 jets per ft. 7646'-54', frac all perf. w/53,600 gal. water w/2 1/2# J-166 per 1000 gal., 40,000# 20-40 sd. I.F. 3500 psi, ave. 3200 psi, max. 4000 psi, final 4000 psi. Instant shut in 2200 psi, 10 min. shut in 1900 psi. Ave. I.R. 50 B/M. Made five ball drops of 10 balls each, good ball action. Perf. 2 jets per ft. 7083' to 7101'. Spot 500 gal. HCl acid to Gallup perf., established injection rate at 64 B/M at 3000 psi, assume Gallup perf. open, let acid soak - frac all perf. w/40,000# 20-40 sd., 51,500 gal. water with 20# Adomite Aqua fluid loss additive per 1000 gal. water. I.F. 3800 psi, ave. 3800 psi, min. 3200 psi, max. 4000 psi, final 3900 psi. Instant shut in 2100 psi, 10 min. shut in 1900 psi. Ave. I.R. 43 B/M. Made 4 ball drops of 5 balls each, good ball action. Laid blow lines, let well flow back. Well kicked off strong at 6:15 A.M. making est. 40,000 MCF through 7" blow line.

10/21/68

PBTD 7810' Let well flow to atmosphere a total of 5 1/2 hrs., well blowing strong, not much water or oil. Shut well in, wait on water and kill trucks. Hooked up 2 B.J. pump trucks, killed well with 200 bbls. water. Jet-Tech ran Baker Model "D" packer with flapper valve in place on wire line set at 7584' RKB. Pumped in 200 bbls. water, well on vac., pump into well continually while running tbg. Ran 241 jts. 2 3/8" O.D., 4.7#, J-55, 8R EUE Lone Star tbg. T.E. 7579.55' set at 7588' RKB with Baker blast joints 7073' to 7113', Baker Model "H" sliding sleeve valve at 7175', Baker Model "F" seating nipple at 7552' and Baker seal assembly at 7584'. Landed tbg. with 15,000# wt. at packer. Nippled up, drop ball, pumped into tbg. to pump out float, wait on day light.

10/22/68

PBTO 7810' Swab tbg. to 7200', Dakota would not kick off, float probably not out of Dakota tbg., released rig.

10/23/68

Move out Signal Rig.

10/24/68

Check well, Gallup side unload some water, Dakota side dead.

10/25/68

Gallup kicked off strong.

10/29/68

Dowell pump 35 bbls. water into Dakota, drop ball with swab cup, pumped in 35 bbls. water - no pressure increase. Drop three sticks soap, pumped in 35 bbls. water, had pressure increase and instant drop back. Well flowing back.

10/30/68

Dakota kicked off making estimated 1200 MCF. Shut in for test.

COMPLETION

8-5/8" OD Casing @ 205' cemented with 175 sacks

Stage tool @ 3545' cemented with 200 sacks 40% Diacel "D"

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

Stage tool @ 5755' cemented with 175 sacks 40% Diacel "D"

Top of Gallup - 6757'
Gallup Perforations 7083-7101'
Base of Gallup - 7240'

Two Baker "Blast Joints" 7073-7113' 3.062" OD

Baker Model "H" sliding sleeve valve @ 7175' Baker Model "F" seating nipple @ 7552'

Baker Model "D" Packer @ 7584' 2-3/8" OD Tubing set @ 7586'

4-1/2" OD casing set @ 7847'. First stage cemented with 650 cu ft Top of Dakota - 7641
Dakota Perforations 7646-7654'
7745-7749, 7754-7760, 77837787, 7789-7794', 7796-7780'

7646 7800 ·

7083

7101

BEFORE EXAMINER NUTTER

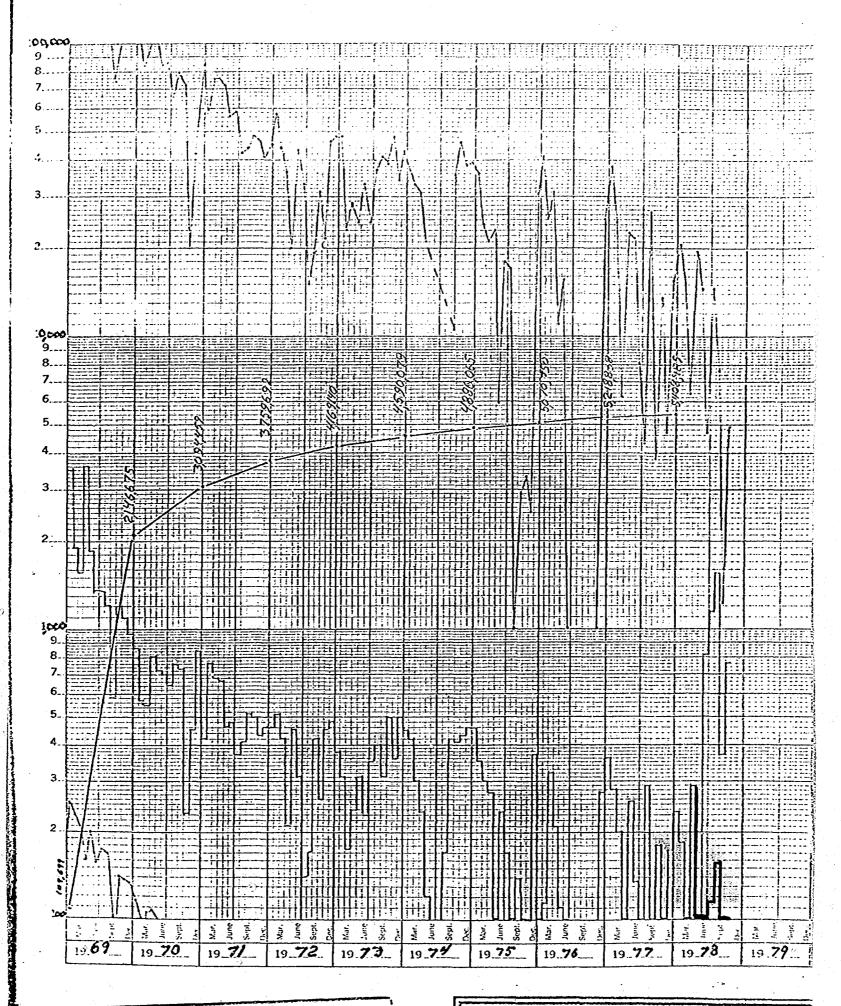
OIL CONSERVATION COMMISSION

CASE NO 6/4/

APPLICATION OF JEROME P. MCHUGH FOR DOWNHOLE COMMINGLING OF Jicarilla #5 Well, Rio Arriba County, New Mexico

Case No. 6146

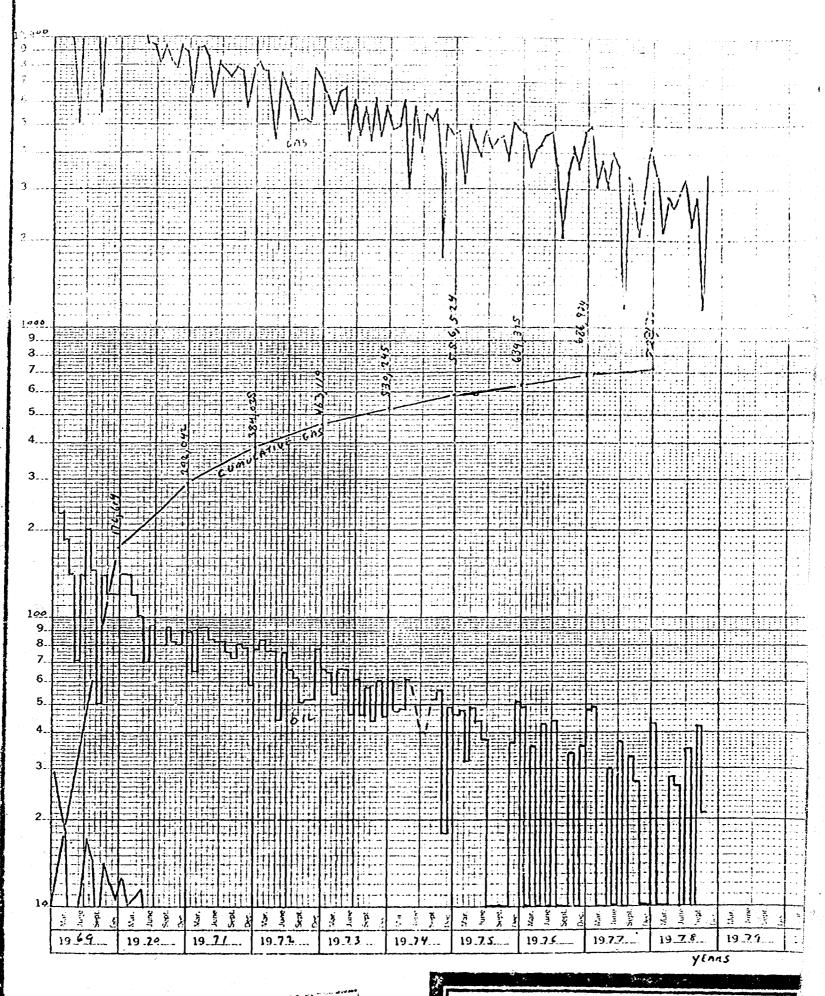
Exhibit No. 3



BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
DN-4
Case No. AntiExhibite Maraduction
Submitted by
Hearing Date

APPLICATION OF JEROME P. McHUGH FOR DOWNHOLE COMMINGLING OF Jicarilla #5 Well, Rio Arriba County, New Mexico

Case No.	6146
Exhibit No.	



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APPLICATION OF JEROME P. MCHUGH
FOR DOWNHOLE COMMINGLING OF
Jicarilla #5 Well, Rio Arriba
County, New Mexico

Case No.	6146
Exhibit No.	

Oil and Gas Production of the Jicarilla #5 Well from the Tapacito Gallup Pool and the

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Daain	Dakota	UAAI
RACIN	UAKULA	CULL

		1977		
Production Month/Year	Tapacito 0il	Gallup Pool Gas	Basin Dako Oil	Gas
January, 1977	357	38087	48	4894
February, 1977	283	24776	49	3024
March, 1977	200	6304	0	3752
April, 1977	210	22571	38	3028
May, 1977	255	21676	30	4074
June, 1977	135	8175	0	3658
July, 1977	73	4172	37	3661
August, 1977	287	26625	0	3326
September, 1977	22	3825	33	2711
October, 1977	182	13585	27	2082
November, 1977	70	4687	0	2714
December, 1977	173	15464	0	4284
TOTAL 1977 PRODUCTION	2247	189947	262	41208
	•	1978		
January, 1978	235	20708	43	3386
February, 1978	184	15291	0	2159
March, 1978	81	6256	<u> </u>	2842
April, 1978	290	19850	28	2609
May, 1978	97	14355	26	2957
June, 1978	81	3679	0	3466
July, 1978	114	14237	<b>35</b>	2260
August, 1978	157	7923	0	2827
September, 1978	27	1226	28	2094
October, 1978	76	4887	21	3377
TOTAL 1978 PRODUCTION (Through October)	1342	108412	181	27977

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
Exhibit No.

Case No.\_\_\_\_Exhibit

Hearing Date

APPLICATION OF JEROME P. McHUGH
FOR DOWNHOLE COMMINGLING OF
Jicarilla #5 Well, Rio Arriba
County, New Mexico

Case No. 6146
Exhibit No. 00-6

# SHUT-IN PRESSURES

ምን መር <u>ት</u>	GALLUP	DAKOTA
DATE	(casing)	(tabing)
	(Ottober 3)	2000
November 2, 1968	1696	2379
April 27, 1969	greps on	3.675
June 11, 1969	1070	W C A C
September 17, 1969	888	1348
May 5, 1970	662	1042
September 16, 1970	540	088
	450	882
July 19, 1971	· ·	790
September 6, 1971	430	
June 19, 1972	382	<b>7</b> 52
August 1, 1973	352	742
January 31, 1974	240	690
May 7, 3.974	270	660
	:	742
May 22, 1975		ocr.
July 25, 1975	690	<b>26</b> 5
December 10, 1975	354	<b>⊷</b> 0∞
February 4, 1977	245	645
June 8, 1977	-0-	712
August 25, 1977	250	650
	292	-0-
December 3], 1977	292	222
August ]6, ]978	253	773
		797
September 8, 1978	. 248	

OIL CONSERVAT	ORE THE ATION COMMISSION  e, New Mexico			
Case No	Exhibit No. Du -7			
Submitted by				
Magring Date				

	CATION OF JEROME P. MCHUG	ï
	DOWNHOLE COMMINGLING OF	1
Jica	rilla #5 Well, Rio Arriba	
	County, New Mexico	 5

Case	No.	(	ال	16	
Case					
Exhi	bit No				

SUPRON ENERGY CORPORATION CONTERNATION SAME DALLAS, TEXAS 75206 BILL CURTIS MANAGER OF LANDS January 31, 1978 Mr. Joe D. Ramey Secretary-Director New Mexico Oil Conservation Commission Box 2088 Santa Fe, New Mexico 87501 Re: Waiver of Objection and Consent to the Downhole Commingling of the Jicarilla #5 Well in Rio Arriba County, New Mexico and the Big 8 #1 Well in San Juan County, New Mexico Dear Mr. Ramey: Enclosed herewith please find one (1) copy each of the above referenced Waivers. These have been fully executed on behalf of Supron Energy Corporation. If we can be of further assistance, please advise. Yours very truly, Bill Curtis Manager of Lands BC/cg Enclosure

# WATVER OF OBJECTION AND CONSENT TO THE DOWNHOLE COMMINGLING OF THE JICARILLA #5 WELL

The undersigned, as an operator of a lease offsetting the N/2 of Section 29, Township 26 North, Range 4 West, N.M.P.M., Rio Arriba County, New Mexico, does hereby acknowledge receipt of the Application for Downhole Commingling of the Jicarilla #5 Well.

The undersigned states that it waives any objection that it may have to this Application, and voluntarily consents to the commingling of the Jicarilla #5 Well as stated in the above mentioned Application.

Dated this 30th day of January, 1978.

SUPRON ENERGY CORPORATION

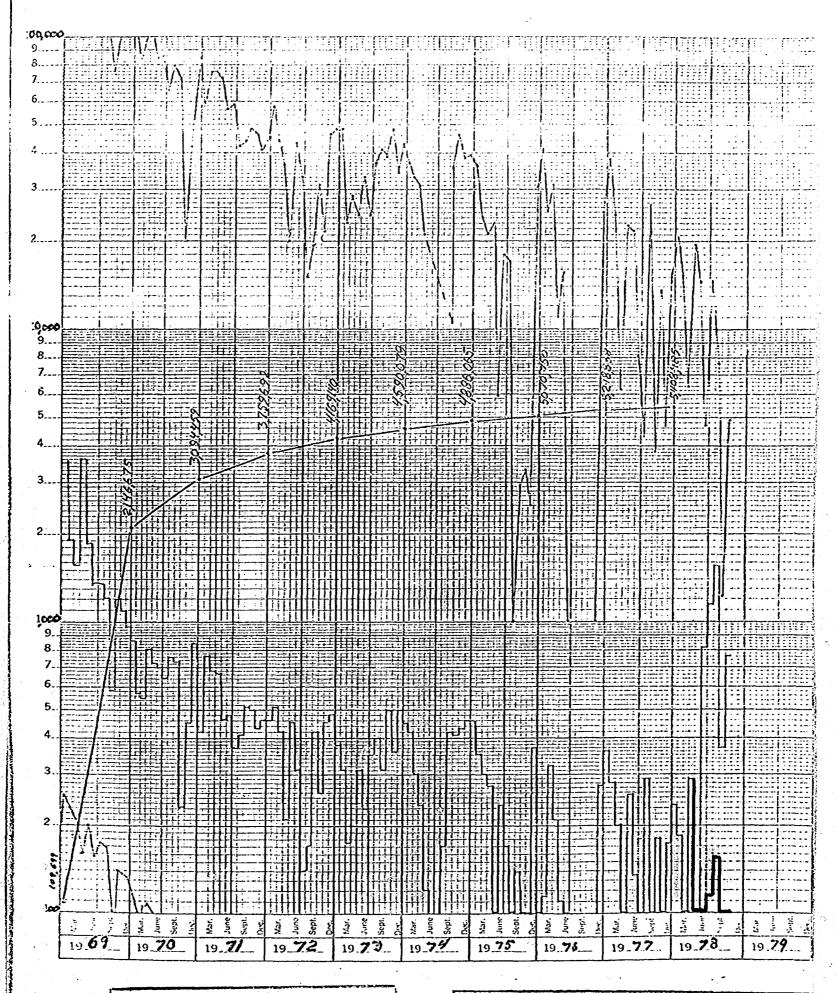
Company Name

Title: Executive Vice President

Address: Suite 1700, 8350 N. Central Expwy

Dallas, Texas 75206

Please send one executed copy to Joe D. Ramey, Secretary-Director, New Mexico Oil Conservation Commission, P. O. Box 2088, Santa Fe, NM 87501, and return one executed copy to the Applicant. The remaining copy is for your files.



× .	BEFORE THE	-
OIL CON	ISERVATION COMMI	SSICN
Sc	inta Fe, New Mexico	
Case No.	Exhibit No. D	N-4

Case No. Exhibit No. UN-9

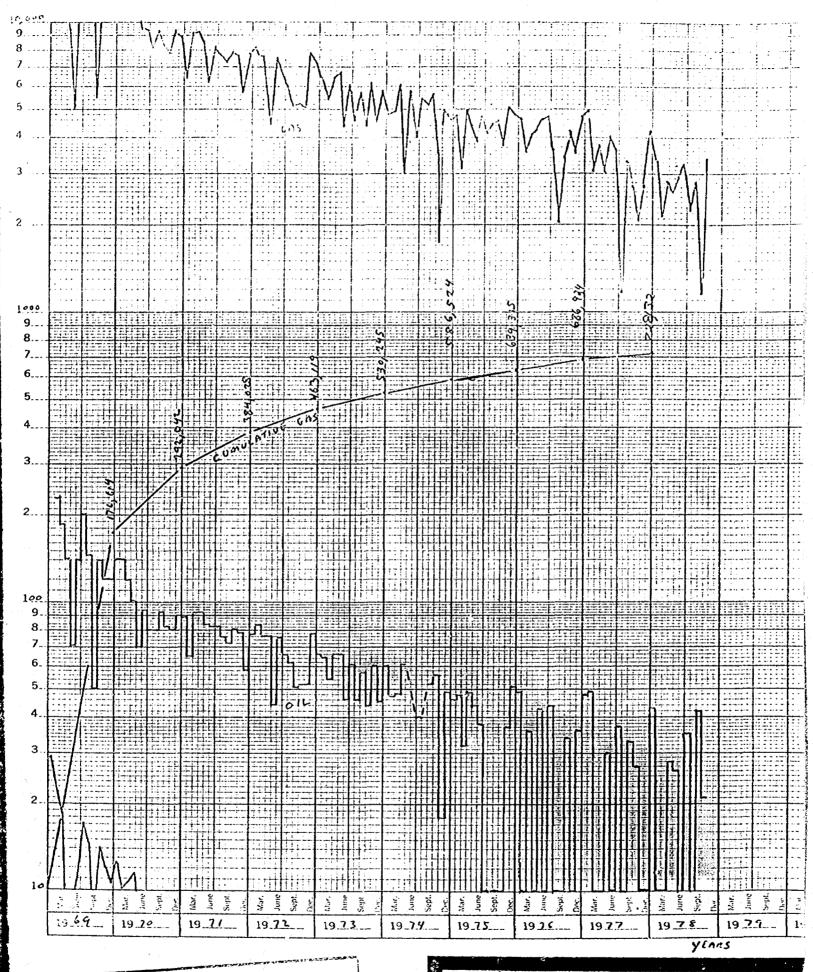
Anticipated Production

Submitted by Hearing Date

APPLICATION OF JEROME P. McHUGH FOR DOWNHOLE COMMINGLING OF Jicarilla #5 Well, Rio Arriba County, New Mexico

Case No.	6146
	**************************************

Exhibit No.



APPLICATION OF JEROME P. McHUGH FOR DOWNHOLE COMMINGLING OF Jicarilla #5 Well, Rio Arriba County, New Mexico

Case No.	6146
Evhibit No	4.4

Oil and Gas Production of the Jicarilla #5 Well from the Tapacito Gallup Pool and the

Rac	in	Dakota	Pool
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		1977		
Production Month/Year	Tapacito Oil	Gallup Pool Gas	Basin Dako Oil	ta Pool Gas
January, 1977	357	38087	48	4894
February, 1977	283	24776	49	3024
March, 1977	200	6304	0	3752
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December, 1977	173	15464	0	4284
TOTAL 1977 PRODUCTION	2247	189947	262	41208
		<u>1978</u>		
January, 1978	235	20708	43	3386
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March, 1978	81	6256	0	2842
April, 1978	290	19850	28	2609
May, 1978	97	14355	26	2957
June, 1978	81	3679	0	3466
July, 1978	114	14237	35	2260
August, 1978	157	7923	0	2827
September, 1978	27	1226	28	2094
October, 1978	76	4887	21	3377
TOTAL 1978 PRODUCTION (Through October)	1342	108412	181	27977

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
Case No.\_\_\_\_Exhibit No.\_\_\_\_

Case No.\_\_\_\_Exhibit No.\_\_\_\_
Submitted by\_\_\_\_
Hearing Date\_\_\_\_

APPLICATION OF JEROME P. McHUGH
FOR DOWNHOLE COMMINGLING OF
Jicarilla #5 Well, Rio Arriba
County, New Mexico

Case No. DN-6

# SHUT-IN PRESSURES

DATE	GVITAG	DAKOTA
	(casing)	(tubing)
November 2, 1968	1696	2379
April 27, 1969	pol pri co	3.675
June 11, 1969	1070	
September 17, 1969	888	1348
May 5, 1970	662	1042
September 16, 1970	540	989
July 19, 1971	450	882
September 6, 1971	430	790
June 19, 1972	382	752
August 1, 1973	352	742
January 31, 1974	240	690
May 7, 1974	270	660
May 22, 1975	, derroma	742
July 25, 1975	690	265
December 10, 1975	354	-0
February 4, 1977	245	645
June 8, 1977	-0-	712
August 25, 1977	250	650
December 3],]977	292	-0 <del>;</del>
August ]6, ]978	253	773
September 8, 1978	. 248	797

	THE RESERVE OF THE PERSON NAMED IN COLUMN TWO IS NOT THE OWNER, WHEN THE PERSON NAMED IN COLUMN TWO IS NOT THE OWNER.
BEFC	ORE THE
OIL CONSERV	ATION COMMISSION
Santa I	e, New Mexico
Case No	Exhibit No. DN-7
Submitted by	
Hearing Date	

APPLICATION OF JEROME P. McHUGH
FOR DOWNHOLE COMMINGLING OF
Jicarilla #5 Well, Rio Arriba
County, New Mexico

 - 3	6146
Case No	6176
Exhibit No.	_

# 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. 6146 Order No. R-5665

APPLICATION OF JEROME P. MCHUGH FOR DOWNHOLE COMMINGLING, RIO ARRIBA COUNTY, NEW MEXICO.

### ORDER OF THE COMMISSION

### BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on February 8, 1978, at Santa Fe, New Mexico, before Examiner, Daniel S. Nutter.

NOW, on this 20th day of July, 1978, 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, Jerome P. McHugh, is the owner and operator of the Jicarilla Well No. 5, located in Unit D of Section 29, Township 26 North, Range 4 West, NMPM, Rio Arriba County, New Mexico.
- (3) That the applicant seeks authority to commingle Tapacito-Gallup and Basin-Dakota production within the wellbore of the above-described well.
- (4) That by actual test taken December 22, 1977, the Gallup formation in the subject well produced 1559 MCF of gas and 14 barrels of oil in 24 hours.
- (5) That while no recent test of the Dakota formation in the subject well is available, said well produced 4284 MCF of gas from the Dakota during December, 1977, or an average of 138 MCF per day assuming the well was on production throughout the month.
- (6) That while no recent bottom hole pressures are available for either the Gallup or the Dakota formation in the subject well, the latest available shut-in pressures taken August 25, 1977, indicate a surface shut-in pressure of 250 psi for the Gallup formation and 650 psi for the Dakota formation.

-2-Case No. 6146 Order No. R-5665

- (7) That the producing characteristics of the two zones in the subject well, as reflected by Finding Nos. (4) and (5) above, are not conducive to efficient downhole commingling.
- (8) That the pressure differential between the two zones in the subject well, as reflected by Finding No. (6) above, could cause wasteful cross flow between the zones and is not conducive to efficient downhole commingling.
- (9) That while there appears to be some problem in keeping the Gallup zone in the subject well on production due to loading up with fluid, this is probably the result of annular flow in this dually completed well.
- (10) That while a solution to this problem could probably be achieved by flowing the Gallup zone through the tubing, the commingling of Dakota production with said Gallup production in said tubing is not in the best interests of conservation, may cause waste, and should not be permitted.
  - (11) That the application should be denied.

### IT IS THEREFORE ORDERED:

- (1) That the application of Jerome P. McHugh to commingle Tapacito-Gallup and Basin-Dakota production in the wellbore of his Jicarilla Well No. 5, located in Unit D of Section 29, Township 26 North, Range 4 West, NMPM, Rio Arriba County, New Mexico, be and the same is hereby denied.
- (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.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

SEAL

jr/

PHIL R. LUCERO, Chairman

EMERY C. ARNOLD Member

JOE D. RAMEY, Momber & Secretary

Dockets Nos. 37-78 and 38-78 are tentatively set for hearing on November 21 and December 6, 1978. Applications for hearing must be filed at least 22 days in advance of hearing date.

### DOCKET: COMMISSION HEARING - TUESDAY - NOVEMBER 7, 1978

OIL CONSERVATION COMMISSION - 9 A.M. - ROOM 205 STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

- CASE 6146:

(DE NOVO) (Continued and Readvertised)

Application of Jerome P. McHugh for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Tapacito-Gallup and Basin-Dakota production within the wellbore of his Jicarilla Well No. 5 located in Unit D of Section 29, Township 26 North, Range 4 West, Rio Arriba County, New Mexico.

Upon application of Jerome P. McHugh this case will be heard De Novo pursuant to the provisions of Rule 1220.

CASE 6266: (DE NOVO)

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Application of Harvey E. Yates Company for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of an Upper Pennsylvanian test well to be located 660 feet from the North and East lines or, in the alternative, 990 feet from the North and East lines of Section 23, Township 22 South, Range 23 East, Indian Basin-Upper Pennsylvanian Gas Pool, Eddy County, New Mexico, all of said Section 23 to be dedicated to the well.

Upon application of Harvey E. Yates Company this case will be heard De Novo pursuant to the provisions of Rule 1220.

CASE 6377: Application of Durham, Inc., for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Morrow formation underlying Section 8, Township 21 South, Range 24 East, Indian Basin-Morrow Gas Pool, Eddy County, New Mexico, to be dedicated to a well to be drilled 1650 feet from the North and East lines of said Section 8. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6378: In the matter of the hearing called by the 0il Conservation Division on the motion of Shell 0il Company to permit Corinne Grace and all other interested parties to appear and show cause why Division Order

No. R-3713, which pooled all of Section 8, Township 21 South, Range 24 East, Eddy County, New Mexico, should not be declared null and void, if said pooling order has not already automatically expired due to non-production.

Application of Shell 011 Company for pool contraction and pool extension, Eddy County, New Mexico.

Applicant, in the above-styled cause, seeks the contraction of the Indian Basin-Morrow Gas Pool by the deletion therefrom of the N/2 of Section 8, Township 21 South, Range 24 East, Eddy County, New Mexico, or in the alternative, all of said Section 8, and the extension of the Cemetery-Morrow Gas Pool to include the aforesaid N/2 or all of said Section 8.

Docket No. 36-78

### DOCKET: EXAMINER HEARING - WEDNESDAY - NOVEMBER 8, 1978

9 A.M. - OIL CONSERVATION DIVISION 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, Alternate Examiner:

CASE 6369: Application of Amoco Production Company for an unorthodox gas well location and simultaneous dedication,

Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its DR Well No. 3 to be drilled 660 feet from the North and Last lines of Section 16, Township
19 South, Range 32 East, Lea County, New Mexico, to be simultaneously dedicated with its Well No. 1
located in Unit E to the present 320-acre unit comprising the N/2 of said Section 16.

- CASE 6370: Application of Amoco Production Company for an unorthodox gas well location and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Gilluly B Fed. Well No. 22 to be drilled 2310 feet from the North line and 1980 feet from the West line of Section 33, Township 20 South, Range 37 East, Eumont Gas Pool, Lea County, New Mexico, to be simultaneously dedicated with the current unit Wells No. 3 and 15 located in Units N and II, respectively, to the present 360-acre non-standard proration unit in Section 33.
- CASE 6371: Application of Doyle Hartman for an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of his Phillips-Woolworth Well No. 1 located 2310 feet from the North line and 1980 feet from the East line of Section 26, Township 24 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico.
- CASE 6372: Application of Belco Petroleum Corporation for an unorthodox well location, Eddy County, New Mexico.

  Applicant, in the above-styled cause, seeks approval for the unorthodox location of a well to be drilled 1495 feet from the North line and 330 feet from the West line of Section 6, Township 23 South, Range 31 East, Los Mendanos Atoka Pool, Eddy County, New Mexico, the W/2 of said Section 6 to be dedicated to the well.
- CASE 6373: Application of Beard Oil Company for a dual completion, surface commingling, pool creation, and special pool rules, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the gasgas dual completion of its Hanlad Well No. 1 located in Unit E of Section 17, Township 17 South, Range 24 East, Eddy County, New Mexico, to produce gas from the Atoka formation through tubing and the Abo formation through the casing-tubing annulus, and to commingle the production at the surface. Applicant further seeks the creation of a new Abo gas pool and the adoption of special pool rules therefor, including a provision for 320-acre spacing and proration units for a temporary period of one year.
- Application of Mesa Petroleum Company for a special oil allowable, Lea County, New Mexico. Applicant, in the above-styled cause, seeks a temporary increase in the oil allowable for its West Knowles Well No. 5 located in Unit H of Section 34, Township 16 South, Range 37 East, West Knowles-Drinkard Pool, Lea County, New Mexico, from 310 barrels to 500 barrels for the 90-day period extending from October 1, 1978 to December 31, 1978.
- CASE 6375: Application of Harper Oil Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of the Wantz-Abo, Drinkard, and Blinebry production within the wellbore of its S. J. Sarkeys Well No. 2 located in Unit H of Section 26, Township 21 South, Range 37 East, Lea County, New Mexico.
- CASE 6352: (Continued and Readvertised)

Application of Southland Royalty Company for a dual completion, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion of its Grenier "A" Well No. 1A located in Unit C of Section 26, Township 30 North, Range 10 West, to produce gas from the Blanco-Pictured Cliffs and Blanco Mesaverde Pools, San Juan County, New Mexico, with separation of the zones to be achieved by means of a polished bore receptacle and mandrel.

CASE 6346: (Continued and Readvertised)

Application of Supron Energy Corporation for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Pictured Cliffs and Chacra production in the wellbore of its Jicarilla K Well No. 14 located in the SE/4 of Section 11, Township 25 North, Range 5 West, Rio Arriba County, New Mexico.

CASE 6348: (Continued and Readvertised)

Application of Supron Energy Corporation for downhole commingling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Mesaverde and Dakota production in the wellbore of its Starr Well No. 3 located in the NE/4 of Section 5, Township 26 North, Range 8 West, San Juan County, New Mexico.

CASE 6341: (Continued from October 11, 1978, Examiner Hearing)

Application of Supron Energy Corporation for dual completions and downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks the dual completion of its Jicarilla A Well No. 8 located in the NW/4 of Section 23; its Jicarilla E Well No. 7 located in the SE/4 of Section 15; and its Jicarilla E Well No. 8 located in the NW/4 of Section 15, all in Township 26 North, Range 4 West, Rio Arriba County, New Mexico, to produce gas from the Mesaverde formation through a separate string of tubing and to commingle Gallup and Dakota production in the wellbores of said wells.

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CASE 6342: (Continued from October 11, 1978, Examiner Hearing)

Application of Supron Energy Corporation for a dual completion and downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion of its Jicarilla J Well No. 10 located in the SE/4 of Section 26, Township 26 North, Range 5 West, Rio Arriba County, New Mexico, to produce gas from the Pictured Cliffs formation through a separate string of tubing and to commingle Tocito and Dakota production in the wellbore of said well.

CASE 6343: (Continued from October 11, 1978, Examiner ilearing)

Application of Supron Energy Corporation for a dual completion and downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion of its Jicarilla H Well No. 8 located in the SE/4 of Section 11, Township 26 North, Range 4 West, Rio Arriba County, New Mexico, to produce gas from the Pictured Cliffs formation through a separate string of tubing and to commingle Gallup and Dakota production in the wellbore of said well.

CASE 6344: (Continued from October 11, 1978, Examiner Hearing)

Application of Supron Energy Corporation for a dual completion and downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion of its Jicarilla F Well No. 1 located in the SW/4 of Section 27, Township 26 North, Range 4 West, Rio Arriba County, New Mexico, to produce gas from the Pictured Cliffs formation through a separate string of tubing and to commingle Mesaverde and Dakota production in the wellbore of said well.

CASE 6345: (Continued from October 11, 1978, Examiner Hearing)

Application of Supron Energy Corporation for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the chove-styled cause, seeks approval for the downhole commingling of Callup and Dakota production in the wellbore of its Jicarilla H Well No. 7 located in the SW/4 of Section 19, Township 26 North, Range 4 West, Rio Arriba County, New Mexico.

CASE 6347: (Continued from October 11, 1978, Examiner Hearing)

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Application of Supron Energy Corporation for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Chacra and Dakota production in the wellbore of its Jicarilla K Well No. 17 located in the SW/4 of Section 12, Township 25 North, Range 5 West, Rio Arriba County, New Mexico.

CASE 6376: In the matter of the hearing called by the 0il Conservation Division on its own motion for an order creating and extending vertical and horizontal limits of certain pools in Chaves, Eddy, and Lea Counties, New Mexico:

(a) CREATE a new pool in Chaves County, New Mexico, classified as a gas pool for Pennsylvanian production and designated as the Mescalero Sands-Pennsylvanian Gas Pool. The discovery well is Petroleum Development Corporation Estelle Federal Well No. 1 located in Unit E of Section 34, Township 12 South, Range 30 East, NMPM. Said pool would comprise:

TOWNSHIP 12 SOUTH, RANGE 30 EAST, NMPM Section 34: W/2

(b) CREATE a new pool in Lea County, New Mexico, classified as an oil pool for Yates production and designated as the Sioux-Yates Pool. The discovery well is Tishman Federal Wall No. 1 located in Unit N of Section 5, Township 26 South, Range 36 East, NMPM. Said pool would comprise:

TOWNSHIP 25 SOUTH, RANGE 36 EAST, NNPM Section 31: NE/4

Section 32: W/2

TOWNSHIP 26 SOUTH, RANGE 36 EAST, NMPM Section 5: W/2

(c) EXTEND the Avalon-Strawn Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 20 SOUTH, RANGE 27 EAST, NMPM Section 31: N/2
Section 32: N/2
Section 33: All

(d) EXTEND the Blinebry 011 and Cas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 20 SOUTH, RANGE 38 EAST, NMPM Section 26: SE/4

(e) EXTEND the vertical limits of the Box-Canyon Upper Pennsylvanian Gas Pool in Eddy County, New Mexico, to include the Canyon and Wolfcamp formations and redesignate said pool as the Box Canyon-Permo Pennsylvanian Cas Pool and extend the horizontal limits of said pool to include therein:

TOWNSHIP 21 SOUTH, RANGE 21 EAST, NMPM

Section 13: All

Section 23: S/2

Section 26: E/2 Section 35: E/2

Section 36: W/2

TOWNSHIP 22 SOUTH, RANGE 21 EAST, NMPM

Section 1: N/2

(f) EXTEND the North Burton Flats-Wolfcamp Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 20 SOUTH, RANGE 28 EAST, NMPM Section 28: S/2

Section 33: E/2

EXTEND the East Carlsbad-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 27 FAST, NMPM Section 27: S/2

(h) EXTEND the South Carlsbad-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 23 SOUTH, RANGE 26 EAST, NMPM Section 28: N/2

TOWNSHIP 23 SOUTH, RANGE 27 EAST, NMPM

Section 10: N/2

Section 21: S/2

(1) EXTEND the Comanche Stateline Tansill-Yates Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 26 SOUTH, RANGE 36 EAST, RMPM Section 33: NW/4

(j) EXTEND the Eagle Creek-Strawn Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 26 EAST, NMPM Section 29: W/2

(k) EXTEMD the East Empire Yates-Seven Rivers Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 28 EAST, NMPM Section 22: SW/4 and W/2 SE/4

(1) EXTEND the Forehand Ranch-Delaware Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 23 SOUTH, RANGE 27 EAST, NMPM Section 15: NW/4 SE/4

(m) EXTEND the Fowler-Tubb Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 24 SOUTH, RANGE 37 EAST, NMPM Section 16: SE/4

(n) EXTEND the Jenkins-San Andres Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 9 SOUTH, RANGE 35 EAST, NMPM

Section 28: S/2

(o) EXTEND the Kemnitz-Cisco Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 16 SOUTH, RANGE 34 EAST, NMPM Section 16: W/2

(p) EXTEND the East Lusk-Wolfcamp Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 19 SOUTH, RANGE 32 EAST, NMPM Section 10: N/2 and SW/4

Section 15: NW/4

(q) EXTEND the West Malaga-Horrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 24 SOUTH, RANGE 28 FAST, NNPM Section 9: N/2

(r) EXTEND the Revelation-Morrow Cas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 22 SOUTH, RANGE 25 EAST, NMPM Section 3: W/2

(s) EXTEND the Rock Tank-Upper Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 23 SOUTH, RANGE 24 EAST, NMPM Section 1: All

(t) EXTEND the South Salt Lake-Morrow Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 20 SOUTH, RANGE 32 EAST, NMPM Section 25: N/2

(u) EXTEND the Southwest Sulphate-Delaware Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 25 SOUTH, RANGE 26 EAST, NMPM Section 14: NE/4 NE/4

(v) EXTEND the Wantz-Granite Wash Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 22 SOUTH, RANGE 37 EAST, NMPM Section 3: NE/4

(w) EXTEND the Watkins Yates-Seven Rivers-Queen-Grayburg Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 19 SOUTH, RANGE 32 EAST, NMPM Section 6: SW/4

(x) EXTEND the White City-Pennsylvanian Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 24 SOUTH; RANGE 26 EAST, NMPM Section 8: All

TOWNSHIP 25 SOUTH, RANGE 26 EAST, NMPM Section 4: All

(y) EXTEND the Wilson-Morrow Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 34 EAST, NMPM Section 14: S/2 .

TOWNSHIP 19 SOUTH, RANGE 26 EAST, NMPM Section 24: S/2

EXTEND the Winchester-Upper Pennsylvanian Gas Pool in Eddy County, New Mexico, to include therein:

(aa) EXTEND the Winchester-Wolfcamp Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 19 SOUTH, RANGE 28 EAST, NMPM

Section 26: E/2 and SW/4

September 11, 1978

Joe D. Ramey Division Director New Mexico Oil Conservation Division Santa Fe, NM 87501

Re: Application by Jerome P. McHugh for De Novo Hearing of Case No. 6146 for approval of Downhole Commingling of the Jicarilla #5 Well in Rio Arriba County, New Mexico

Dear Mr. Ramey:

Pursuant to Richard Tully's telephone conversation with Lynn Teschendorf, General Counsel of the New Mexico Oil Conservation Division, on September 10, 1978, we hereby request a continuance of the captioned Application until the next regularly scheduled Commission Hearing.

Thank you for your assistance and cooperation in this matter. Sincerely,

Thomas A. Dugan Thomas A. Dugan Agent for Applicant

VS

709 BLOOMFIELD RD. . P. O. BOX 234 . FARMINGTON, NEW MEXICO 87401 . PHONE 505-325-0238 Dockets Nos. 31-78 and 32-78 are tentatively set for hearing on September 27 and October 11, 1978. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: COMMISSION HEARING - MONDAY - SEPTEMBER 11, 1978

OIL CONSERVATION COMMISSION - 9 A.M. - ROOM 205 STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

CASE 6289: (Continued from August 23, 1978, Commission Hearing)

Application of Bill Taylor for enforcement and amendment of Order No. R-5332, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks a determination of well costs, an accounting of expenditures and costs withheld from production, and the amendment of Order No. R-5332 to remove the present operator of the pooled proration unit comprising the N/2 of Section 13, Township 22 South, Range 26 East, South Carlsbad Field, Eddy County, New Mexico, and designate another operator for said unit.

CASE 6146:

(DE NOVO)

Application of Jerome P. McNugh for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Tapacito-Gallup and Basin-Dakota production within the wellbore of his Jicarilla Well No. 5 located in Unit D of Section 29, Township 26 North, Range 4 West, Rio Arriba County, New Mexico.

Upon application of Jerome P. KcHugh this case will be heard De Novo pursuant to the provisions of Rule 1220.

CASE 6328:

Application of Maralo, Inc., for statutory unitization, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order unitizing, for the purpose of secondary recovery, all mineral interests in the Jalmat Yates Unit underlying the following described lands in Township 25 South, Range 36 East:

Section 12: SE/4 Section 13: NE/4

and the following described lands in Township 25 South, Range 37 East:

Section 18: NW/4 and N/2 SW/4

all in Lea County, New Mexico.

The unitized interval would be all formations or zones extending from the top of the Yates formation down to 100 feet below the base of the Queen formation in the Humble-Winters "A" Well No. 2 located in Unit C of Section 18, Township 25 South, Range 37 East.

Among the matters to be considered at the hearing will be the necessity of unit operations; the designation of a unit operator; the determination of the horizontal and vertical limits of the unit area; the determination of a fair, reasonable, and equitable allocation of production and costs of production, including capital investment, to each of the various tracts in the unit area; the determination of credits and charges to be made among the various owners in the unit area for their investment in wells and equipment; and such other matters as may be necessary and appropriate for carrying on efficient unit operations, including, but not necessarily limited to, unit voting procedures, selection, removal, or substitution of unit operator, and time of commencement and termination of unit operations.

CASE 6313:

Application of Maralo, Inc., for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project on its Jalmat Yates Unit Area, Lea County, New Mexico, by the injection of water into various wells located in Township 25 South, Ranges 36 and 37 East.

### DOCKET: EXAMINER HEARING - WEDNESDAY - SEPTEMBER 13, 1978

9 A.M. - OIL CONSERVATION DIVISION 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, Alternate Examiner:

- ALLOWABLE: (1) Consideration of the allowable production of gas for October, 1978, from fifteen prorated pools in Lea, Eddy, and Chaves Counties, New Mexico.
  - (2) Consideration of the allowable production of gas for October, 1978, from four prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico.
- CASE 6314: In the matter of the hearing called by the Oil Conservation Division on its own motion to permit Overland Drilling & Exploration, Ltd., Ohio Casualty Insurance Company, and all other interested parties to appear and show cause why the Lowe State Well No. 1 located in Unit E of Section 15, Township 19 South, Range 29 East, Eddy County, New Mexico, should not be plugged and abandoned in accordance with a Division-approved plugging program.
- CASE 6315: In the matter of the hearing called by the Oil Conservation Division on its own motion to permit llugh L. Johnston, Sr., General Insurance Co. of America, and all other interested parties to appear and show cause why the Continental State Well No. 5 located in Unit C of Section 30, Township 17 South, Range 29 East, Eddy County, New Mexico, should not be plugged and abandoned in accordance with a Division-approved plugging program.
- CASE 6316: In the matter of the hearing called by the Oil Conservation Division on its own motion to permit Cortez Corporation, Actna Casualty & Surety Company, and all other interested parties to appear and show cause why the Pair Well No. 1 located in Unit D of Section 24, Township 18 South, Range 26 East, Eddy County, New Mexico, should not be plugged and abandoned in accordance with a Division-approved plugging program.
- CASE 6290: (Continued from August 16, 1978, Examiner Hearing).

In the matter of the hearing called by the Oil Conservation Division on its own motion to permit R. A. Crane, Jr., Great American Insurance Co., and all other interested parties to appear and show cause why the Donella Well No. 1 located in Unit P of Section 3, Township 29 North, Range 15 West, San Juan County, New Mexico, should not be plugged and abandoned in accordance with a Division-approved plugging program.

CASE 6307: (Continued from August 30, 1978, Examiner Hearing)

Application of Exxon Corporation for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Drinkard and Wantz-Abo production in the wellbore of its F. F. Hardison B Well No. 10, located in Unit A of Section 34, Township 21 South, Range 37 East, Lea County, New Mexico. (This case will be dismissed.)

- CASE 6317: Application of Harvey E. Yates Company for an unorthodox gas well location and a non-standard proration unit, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 301.75-acre non-standard gas proration unit comprising the N/2 of Section 18, Township 18 South, Range 29 East, Eddy County, New Mexico, to be dedicated to a well to be drilled 1980 feet from the North line and 660 feet from the East line of said Section 18 to test the Morrow formation.
- CASE 6318: Application of Coquina Oil Corporation for an increase in casinghead gas allowable, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Rule 303-C-4 to increase the casinghead gas allowable for its Vivian Well No. 1, located in Unit F of Section 30, Township 22 South, Range 38 East, Lea County, New Mexico, the Drinkard and Granite Wash zones in said well being commingled pursuant to Order No. DRC-255 and subject to the GOR limit for the Wantz-Granite Wash Pool.
- CASE 6319: Application of Belco Petroleum Corporation for an unorthodox well location and compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp formation underlying the N/2 of Section 31, Township 21 South, Range 27 East, Eddy County, New Mexico, to be dedicated to its Mollie Com Well No. 1 located at an unorthodox location 1100 feet from the North line and 1575 feet from the East line of said section. Also to be considered will be the cost of recompleting said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said yell.

- CASE 6320: Application of Texas 011 & Gas Corporation for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Coquina Federal Com. Well No. 1 to be drilled 660 feet from the North line and 1980 feet from the West line of Section 32, Township 18 South, Range 27 East, to test the Morrow formation, the W/2 of said Section 32 to be dedicated to the well.
- Application of Texas Oil & Gas Corporation for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Shugart State Com. Well No. 1 to be drilled 660 feet from the South line and 1980 feet from the West line of Section 16, Township 18 South, Range 31 East, Eddy County, New Mexico, to test the Wolfcamp and Pennsylvanian formations, the W/2 of said Section 16 to be dedicated to the well.
- CASE 6283: (Continued from August 2, 1978, Examiner Hearing)

Application of Texas Oil & Gas Corporation for a non-standard proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 320-acre non-standard gas proration unit comprising the W/2 of Section 16, Township 20 South, Range 36 East, North Osudo-Morrow Gas Pool, Lea County, New Mexico, to be dedicated to a well to be drilled at a standard location thereon.

CASE 6322: Application of Yates Petroleum Corporation for pool contraction, Eddy County, New Mexico.

Applicant, in the above-styled cause, seeks the amendment of Order No. R-391 to contract the horizontal limits of the Empire-Pennsylvanian Gas Pool to the following:

All of Sections 28 and 29, Township 17 South, Range 28 East

In the alternative, applicant seeks to limit the special pool rules for said pool to the present horizontal limits of the pool.

- CASE 6323: Application of Yates Petroleum Corporation for compulsory pooling and an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp and Pennsylvanian formations underlying the W/2 of Section 23, Township 17 South, Range 28 East, Empire-Pennsylvanian Gas Pool, Eddy County, New Mexico, to be dedicated to its Lucas Store JZ Well No. 1 located at an unorthodox location 1980 feet from the North line and 860 feet from the West line of said section. Also to be considered will be the cost of completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.
- CASE 6324: Application of Yates Petroleum Corporation for downhole commingling or pool creation, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Wolfcamp and Upper Penn gas production in the wellbore of its Box Canyon GJ Fed. Well No. 1 located in Unit J of Section 13, Township 21 South, Range 21 East, Eddy County, New Mexico. In the alternative, applicant seeks the creation of a new Permo-Penn gas pool for said well.
- CASE 6325: Application of Amoco Production Company for unorthodox locations and directional drilling, Lea County, New Mexico. Applicant, in the above-styled cause, ceeks approval for the unorthodox locations of the following South Hobbs Unit wells located in Township 19 South, Range 38 East, Hobbs Pool, Lea County, New Mexico:

Well No. 120 located 1272 feet from the North line and 1420 feet from the West line of Section 5; Well No. 121 located 1450 feet from the North line and 150 feet from the West line of Section 4; Well No. 123 located 2390 feet from the North line and 150 feet from the East line of Section 6; Well No. 124 located 1925 feet from the South line and 2380 feet from the East line of Section 4; Well No. 126 located 1295 feet from the South line and 1365 feet from the West line of Section 10; Well No. 122 located 1726 feet from the North line and 167 feet from the East line of Section 4; and Well No. 125 located 2016 feet from the North line and 763 feet from the West line of Section 3.

Applicant further seeks authority to directionally drill Wells Nos. 122 and 125 to bottomhole locations in the extreme southeast corners of Unit H of Section 4 and Unit E of Section 3, respectively.

exercises continued by the second section of the second

- CASE 6326: Application of Energy Reserves Group, Inc., for downhole commingling, Rio Arriba County, New Mexico.

  Applicant, in the above-styled cause, seeks authority to commingle South Blanco-Pictured Cliffs and Otero-Chacra production in the wellbore of its Jicarilla 35 Well No. 3, located in Unit B of Section 2, Township 24 North, Range 5 West, Rio Arriba County, New Mexico.
- CASE 6327: Application of 0. II. Berry for an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its J. L. Isabell Well No. 5-Y located 340 feet from the North line and 330 feet from the East line of Section 15, Township 24 South, Range 36 East, Santa Rosa formation, Lea County, New Mexico, the NE/4 of said Section 15 to be dedicated to the well.

. . .

STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION State Land Office Building Santa Fe, New Mexico 11 September 1978

# COMMISSION HEARING

# IN THE MATTER OF:

Application of Jerome P. McHugh for downhole commingling, Rio Arriba County, New Mexico.

CASE 6146

BEFORE: Commissioner Joe Ramey Commissioner Emery Arnold

TRANSCRIPT OF HEARING

# APPEARANCES

For the Oil Conservation Commission:

Lynn Teschendorf, Esq. Legal Counsel for the Commission State Land Office Bldg. Santa Fe, New Mexico 87501

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MR. RAMEY: We'll call next Case 6146.

MS. TESCHENDORF: Case 6146. Application of

MR. RAMEY: Case 6146 will be continued to

Jerome P. McHugh for downhole commingling, Rio Arriba

County, New Mexico.

The case is to be heard de novo and the

Applicant has requested it be continued.

some later date.

(Hearing concluded.)

## REPORTER'S CERTIFICATE

I, SALLY WALTON BOYD, a Court Reporter, DO HEREBY CERTIFY that the foregoing and attached Transcript of Hearing before the Oil Conservation Commission was reported by me; that the said transcript is a full, true, and correct transcript of the hearing, prepared by me to the best of my ability from my notes taken at the time of the hearing.

Soly W. Boyd CSR. Sally W. Boyd, C.S.R.



# dugan production corp.

August 18, 1978

Ree'd & 5

Joe D. Ramey Division Director New Mexico Oil Conservation Division Box 2088 Santa Fe, NM 87501

Re: Application for De Novo Hearing of Case No. 6146 for Approval of Downhole Commingling of the Jicarilla #5 Well in Rio Arriba County, New Mexico

Dear Mr. Ramey:

Enclosed are the following instruments concerning the captioned Application for De Novo Hearing:

- 1. Three executed copies of the Application.
- 2. Three Executed copies of a Certificate of Mailing for the Application.

Please advise if you need further information or assistance.

Sincerely,

Thomas A. Dugan

vs

Enclosures

709 BLOOMFIELD RD. . P. O. BOX 234 . FARMINGTON, NEW MEXICO 87401 . PHONE 505-325-0238

Joe D. Ramey Division Director New Mexico Oil Conservation Division Page 2 August 18, 1978

### Distribution:

Jerry Long District Engineer U.S. Geological Survey Box 1809 Durango, CO 81301

Al R. Kendrick Supervisor, District III Office New Mexico Oil Conservation Division 1000 Rio Brazos Road Aztec, NM 87410

Ray Nordhausen Northwest Production Corporation Box 1796 El Paso, TX 79949

Bill Curtis Manager of Lands Supron Energy Corporation Suite 1700 8350 North Central Expressway Dallas, TX 75206

# OIL CONSERVATION DIVISION STATE OF NEW MEXICO

In the Matter of the Application of )
Jerome P. McHugh for Downhole Commingling )
of the Jicarilla #5 Well in Rio Arriba )
County, New Mexico )

Case No. 6146 Order No. R-5665

### APPLICATION

Pursuant to N.M.S.A. 65-3-11.1 and Rule 1220 of the Rules and Regulations of the State of New Mexico Oil Conservation Division, the Applicant, Jerome P. McHugh, by and through his agent, Thomas A. Dugan, hereby makes application for a de novo hearing before the Oil Conservation Division for approval of downhole commingling in the well bore of the Jicarilla #5 Well in Rio Arriba County, New Mexico.

The Applicant further states:

- Case No. 6146 came on for hearing on February 8, 1978 before
   Examiner Daniel S. Nutter.
- 2. Order No. R-5665 was entered by the Oil Conservation Division on July 20, 1978, and the Applicant is adversely affected by the Order.
- 3. This Application is being filed within thirty (30) days from the date Order No. R-5665 was rendered.

WHEREFORE, the Applicant requests this Application be set for hearing at the next regular hearing date following the expiration of fifteen days from the date this Application is filed; and after this hearing the New Mexico Oil Conservation Division give its approval to the downhole commingling of the Jicarilla #5 Well in Rio Arriba County, New Mexico.

Respectfully submitted,

Thomas A. Dugan Agent for Applicant

P.O. Box 234

Farmington, NM 87401

## CERTIFICATE OF MAILING

I certify that I mailed a copy of the Application requesting a de novo hearing before the New Mexico Oil Conservation Division for Case No. 6146 to all operators of leases offsetting the dedicated acreage for this well, the U.S. Geological Survey, and the Supervisor of the District III Office of the New Mexico Oil Conservation Division on this 18th day of August, 1978.

Thomas A. Dugan
Thomas A. Dugan

JOR

# STATE ON NA OIL CONSERVATION COMMISSION?

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

XW/

CASE NO. 6146 ORDER NO. R-5665-A

# DE NOVO

APPLICATION OF JEROME P. MCHUGH FOR DOWNHOLE COMMINGLING, RIO ARRIBA COUNTY, NEW MEXICO,

# ORDER OF THE COMMISSION

# BY THE COMMISSION!

This conse come on for hearing of 90,100, on February 8, 1978, the before Examinar Doniel 5. Nutter, and on November, 14, 1978 before the Commission.

NOW, on this \_ Jay of December 1978, the Commission, a quorum being present, having considered the testimony, and being Sully advised in the premise.

# EINDS:

(1) That one public notice having been given as required by four the Commission has sunsdiction

of this conse and the subject matter thereof.

(2) That the applicant, Jarome P. McHugh, is the owner and operator of the Ticarilla Well No. 5, located in Unit D of Section 29, Township 26 North, Range 4 West, NMPM, Rio Arriba County, New Mexico.

(3) That the applicant seeks an thority to commingle Tapacito-Gallup and Basin-Dakota production within the wellhore of the above-described well.

(4) That during September + October, 1978, the Gallup formation in the subject well produced on average of 100 MCF of gas + 17 barrels of oil per Jag.

(5) That during september + Octoba, 1978, The Dotota formation in the subject well produced an average of 89 MCF of gas + 0,8 barrels of oil per Jay.

(6) That the the for the Gallap decline curve for the Gallap formation in the subject well indicates an approximal decline for the latter portion of the curve.

(7) That this abnormal decline for the Gallup for mation as can be attributed to fluid loading the inefficient flow through the tubing caping annulus.

(8) That by downhole commingling the Collup and Datota and producing both Books through the tubing from said well, Flow from the Gallup will be more efficient.

(9) That the proposed commingling may result in the recovery of additional hydrocarbons from the Gallup, thereby preventing waste, and will not violate correlative rights.

(10) That the reservoir characteristics of each of the subject zones are such that underground waste would not be consed by the proposed commingling provided that the well is not shut-in for an extended period.

(11) That to afford the Division the opportunity to assess the potential forwarde and to expeditionsly order appropriate remedial action, the operator should notify the Aztec district office of the Division any time the subject well is shut-in for 7 consecutive days.

(12) That in order to allocate the commingled production to each of the commingled zones in the subject well, applicant should consult with the supervisor of the Division's Arter office to arrive at an allocation formule.

# IT IS THEREFORE ORDERED

(1) That the applicant, Terome P.
Me Hugh, is here by an thorized to
commingle Tobacito-Gallup and BasinDakota production within the wellhore
of the Ticarilla Well No.5, located
in Unit D. of Section 29, Township 26
North, Range 4 West, NMPM, Rio Arriba
County, New Mexico.

(2) That the applicant shall consult with the Supervisor of the Azter District Office of the Division and determine on allocation formula for the allocation of production to each zone of the subject well.

(3) That the operator of the subject well shall immediately notify the Division's Azter district office any time the well has been shut-in for Transacutive days and shall concurrently present, to the Division, a plan for remedial action.

(4) That Division Order No. MC-1837 is hereby superscoped.

(5) That juris diction of this cause is retained for the entry of such further orders as the Commission may been necessary.

Lone st

Kamey Lucaro Arnold

# **OIL CONSERVATION COMMISSION**

STATE OF NEW MEXICO P. O. BOX 2088 - SANTA FE 87501

DIRECTOR JOE D. RAMEY LAND COMMISSIONER PHIL R. LUCERO July 20, 1978



STATE GEOLOGIST EMERY C. ARNOLD

6146

Mr. Richard Tully Dugan Production Corporation	ORDER NO. R-5665
P. O. Box 234	
Farmington, New Mexico 87401	Applicant:
	Jerome P. McHugh
Dear Sir:	
	opies of the above-referenced ntered in the subject case.
Yours very truly,	
Director	
JDR/fd	
Copy of order also sent to:	
Hobbs OCC ×	
Artesia OCC ×	en e
Aztec OCC x	
Other	
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Re: CASE NO.

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	8	)	
	The application of Jerome for downhole commingling,		
87 8 87 501	County, New Mexico	) 6146	
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Por Sport anta B 9823	BEFORE: Daniel S. Nutter, Exa	miner.	
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	5 D D E A	APPEARANCES	
	A P P B A	RANCES	
		Lynn Teschendorf, Esq. Legal Counsel for the Commission	
	8	State Land Office Building	
		Santa Fe, New Mexico	
		Richard C. Tully, Esq.	
2		Attorney at Law P.O. Box 2011	
		Farmington, New Mexico	
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MR. NUTTER: Call Case Number 6146.

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MS. TESCHENDORF: Case Number 6146, application of Jerome P. McHugh for downhole commingling, Rio Arriba County,

New Mexico.

MR. TULLY: My name is Richard Tully and I am an attorney for Jerome P. McHugh in Case Number 6146, and I have one witness, Thomas A. Dugan, and I believe he is still under oath and his qualifications are still acceptable?

MR. NUTTER: He is still under oath and he is qualified.

THOMAS A. DUGAN

was called as a witness by the applicant, and having been
first duly sworn, testified upon his oath as follows, to-wit:

### DIRECT EXAMINATION

BY MR. TULLY:

Q. Mr. Dugan, I am handing you an instrument entitled application and would you identify this for us, please?

A. This is our application for this hearing and we are requesting approval to commingle the production from the Tapacito-Gallup Pool and the Basin-Dakota Pool in the Jicarilla No. 5 Well.

The reason that we are requesting approval to commingle is that the Basin-Dakota zone of the Jicarilla 5

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is a relatively low producer and has continued to produce at a fairly stablized rate through its life.

However, the Tapacito-Gallup zone of the Jicarilla 5 Well has been a very excellent producing zone and has produced a large amount of gas during its life.

However, the botton hole pressure has reached a low figure and the ability of the well to lift the produced fluids has stopped and the well remains logged off most of the time because of the declining production and the low bottom hole pressure.

So, we are proposing that we be allowed to open a sliding sleeve valve that is in the well and produce both zones together.

We have had a compressor on the Gallup side of this well for the past five years and have produced it with a compressor up until the present time and we are still producing it with a compressor.

However, because of the inability of the well to lift the produced fluids we are down a considerable amount of the time.

- Q Where is this well located?
- A. It is in Section 29 of Township 26 North, Range 4 West, Rio Arriba County, New Mexico, and on the Jicarilla-Apache Reservation.
  - Q Would you describe the ownership of these two zones,

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please?

A. The royalty ownership is identical with both zones.

However, the overriding royalty is different between each zone.

The Gallup horizon has an overriding royalty of seventeen and a half percent and the Dakota has an overriding royalty of twelve and a half percent, all of which is owned by Northwest Production Corporation.

- Q I am now handing you what has been marked as Exhibit
  Number One and would you describe the exhibit, please?
- A. This is the location of the Jicarilla 5 Well of
  Jerome McHugh's as indicated by the blue arrow and also
  the proration unit is outlined and it shows the offsetting wells.
- Q I am now handing you what has been marked as Exhibit
  Number Two and would you describe the exhibit, please?
- A. This is our daily drilling report when the well was initially drilled and completed back in 1968, and it shows the manner in which the well was drilled and completed.
  - Q. Is the well currently dually completed?
- A. Yes, it is dually completed with one string of tubing and four and a half inch casing was set and a string of two inch tubing was run. The Dakota formation is producing through the two inch tubing and the Gallup formation is producing through the tubing casing annulus.
  - Q I am handing you what has been marked as Exhibit

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Three and would you describe this exhibit for us?

A. This is a diagrammatic sketch of the dual completion that was filed originally when permission was obtained to produce the well as a dual completion and it shows the location of the perforations, Model D packer and string of tubing and the other information pertaining to the well.

You might note that we have a Baker Model H sliding sleeve valve at seventy-one seventy-five and we would propose to open this sliding sleeve valve and produce both zones through the two inch tubing.

- Q. I am now handing you what has been marked as Exhibit Number Four and would you describe Exhibit Number Four?
- A. This shows the wells that are producing in the Tapacito-Gallup Pool. Actually the only well that is producing is the Jerome McHugh Jicarilla 5. The other two wells, apparently, are not producing at this time.
- Q. Is it your understanding that the production from those two wells in Section 19 are unreported and they are operated by Southern Union?
- A. Yes. I am sure they are unreported because of no production.
- Q Now, handing you what has been marked as Exhibit Number Five and would you describe that exhibit for us?
- A. This shows the location of the Jicarilla 5 Well with an arrow and the adjoining Basin-Dakota Pool wells with the

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1976 production figures.

The Jicarilla 5 is a relatively marginal well for the area and produces about a hundred M.C.F. a day, a little over a hundred M.C.F. a day, and is just an average well --- lower than average well for the area.

- Q. I am now handing you what has been marked as Exhibit
  Number Six and would you describe this exhibit for us?
- A. These are the shut-in pressures that we have taken over the life of the well and this will show that the shut-in surface pressures of the Gallup formation has declined to two hundred fifty P.S.I. and the shut-in Dakota pressures have declined to six hundred and fifty P.S.I. as of the last pressure that was taken.
- Q I am now handing you what has been marked as Exhibit
  Number Seven, and would you describe this exhibit for us?
- A. This is the current production from both zones of the well.

As you can see, the Gallup zone has the ability to produce the well as long as the produced fluids -- or that we are able to lift the produced fluids and that the Basin-Dakota Pool is producing at a lower rate.

- Q I am now handing you what has been marked as Exhibit
  Number Eight and would you describe this exhibit for us?
- A. This is a decline curve showing the production from the Tapacito -- from the Jicarilla 5, Tapacito-Gallup Pool

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and you will note that this has been quite a good well.

It produced excellently over its life until the last few months and we have had trouble with it logging off because the zone is not able to lift the produced fluids.

You will also note that the well has made five-five point four billion cubic feet of gas.

- Q I am now handing you what has been marked as Exhibit Number Nine and would you describe the exhibit for us, please?
- A. This, again, is a decline curve from the Jicarilla 5 Basin-Dakota zone and you will note that this well has been producing at a fairly normal rate with a normal decline over its life and has only produced seven hundred twenty-six thousand M.C.F. So, it is not near the well that the Gallup zone is.
- Q. Referring back to Exhibit Number Eight, and also referring to Exhibit Number Nine, it appears that you are having some problems with oil production as well as gas production on these two zones?
- A. Well, the Gallup zone makes some oil, more oil, than the Dakota zone, of course, and producing through the tubing casing annulus for the last year or so we have had problems lifting these produced fluids.
- Q. Now, referring to Exhibit Number Nine, there are some blue marks as well as some red marks. Would you explain these marks, please?

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A. Well, since there is a difference in the overriding royalty on the two zones and since we -- if the well is commingled, we need to come up with an allocation of production between the two zones.

The blue mark is our extension of the decline curve and the red marks would be the average production, or the potential average production, from the Dakota zone for the future years.

The way I would propose to allocate the production from this zone, if we are allowed to commingle, is to use the decline curve and use the average production for the year and say that in 1978, the average production from the Basin-Dakota zones should be thirty-one hundred M.C.F. per month and allocate the first thirty-one hundred M.C.F. as produced from the well to the Basin-Dakota zone and the remainder of the gas that is produced to the Gallup zone.

I propose to use the average oil-gas ratio for the Dakota zone which is approximately five barrels per M.M.C.F. so the Dakota -- the oil we would allocate the first fifteen barrels of oil to the Dakota zone and the remainder to the Gallup zone for 1978.

- Q. Do you propose, then, to have a review after you have gained some experience, more experience, with this well and maybe coming up with a different allocation formula?
  - A. Well, assuming that we are allowed to commingle the

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zones in the well bore, I would doubt that we would have any additional information at this time to change the allocation.

However, the Dakota zone while it is producing at a lower rate has a much longer life, expected life, than the Gallup zone.

I would estimate that we would probably finish 8 depleting the Gallup zone in a matter of four or five years so that it probably would be uneconomical to keep the well-10 head compressor on the well at that time.

At that time I would propose to shut the sliding 12 valve and continue to produce the well as a Dakota well when 13 both production becomes too low to justify the wellhead compressor.

- Do you feel that the Dakota formation will produce for many more years than the Gallup formation?
  - Yes, I do.

MR. NUTTER: Is the Dakota producing without a compressor at this time?

- Yes, it is.
- Only the Gallup is compressed?
- Yes, sir.

MR. TULLY: Were these exhibits prepared by you or 24 under your supervision?

Yes.

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MR. TULLY: I now move for the introduction of Exhibits One through Nine.

MR. NUTTER: Applicant's Exhibits One through Nine will be admitted in evidence.

Q. (Mr. Tully continuing.) So, in essence what you are asking in this application is to commingle these two zones because of the low bottom hole pressure in the Gallup and the declining production and also the need to raise the produced fluids?

A. Yes. The well is not capable of producing at a steady rate now because it stays logged off most of the time. If we can produce both zones through the tubing we will have a better flow rate and be able to produce the fluids better for a period of time until the Gallup zone is completely depleted.

Q In your opinion will this proposed commingling result in the recovery of additional hydrocarbons and thereby prevent waste and also it will not violate correlative rights?

A. Yes.

MR. TULLY: I have nothing further.

#### CROSS EXAMINATION

BY MR. NUTTER:

Mr. Dugan, the Gallup has been producing through the annulus ever since the well was completed, is that correct?

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A.	That's	correct.
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- Q. Let's take 1973, here, on Exhibit Number -- I was looking at Nine but I want Gallup?
  - A. That would be Eight.
- Q. What would be the approximate G.O.R. here, say, for 1973, would the average oil production for that year be somewhere in the neighborhood of three hundred and fifty barrels?
  - A. Yes.
- Q. And the average that year would be somewhere in the neighborhood of about three hundred and fifty thousand?
  - A. Thirty-five thousand per month.
  - Q. Thirty-five thousand per month?
  - A. Yes.
  - Q. So, what would that give us for an average G.O.R.
  - A. I didn't bring the calculator but --
- Q. Three hundred and fifty into thirty-five thousand would be, what, ten thousand to one?
- A. I, generally, on a gas well do it the other way around and say barrels per M.M.C.F. and so that would be about ten barrels per M.M.C.F.
- Q. So, that would be one hundred thousand to one, would be the ratio?
  - A. Yes.
- Q. And this annular flow has been successful for a number of years for the well?

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- A. Yes. It has been quite a good well.
- Q I notice on the daily drilling report when they first got their first indication of the well kicking off it made forty million a day?
  - A. Yes, it was quite a good well.
- Q. But now that time is catching up with the annular flow it is not so good for it anymore?
  - A. That's correct.
- Q. Now, you gave us on one of your exhibits the surface pressures and have you made any computations as to what the bottom hole pressures would be on these zones?
  - A. No, sir, I haven't.
- Q. We have a considerable differential between the present tubing pressure and the present casing pressure on the these two zones?
  - A. Yes.
- Q. It is a comparison of six hundred and fifty to two hundred and fifty?
  - Q. Yes, that's correct.
- Q. What about the pressures down in the well? What kind of a differentials are we going to have when we open the sliding sleeve?
- A. Of course, the Dakota at this point, I am sure, has a higher bottom hole pressure than the Gallup.
  - Q Is the Gallup going to be able to flow against the

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Dakota?

A. Oh, yes, because of the volume. If we -- well, we will have to compress both zones to get them to flow.

- Q. Into the pipline?
- A. Yes.
- Q What is the pipline pressure in the area?
- A. It's around three hundred.
- 0. I see.
- A. But we are pulling the wellhead pressure down to around fifty.
- Q And the Dakota bucks that pressure but the Gallup just won't make it without a compressor?
- A. At present, yes. It has become -- in the last year in the has become difficult to keep the Gallup zone on because it will log off and then our compressor will go down.
  - Q What do you have to do to restore the production, then?
- A. Well, generally, if you leave it shut-in for a few days and then you can get it to unload and then produce it a few days. That's what we have been doing here for the last several months.

So, we are producing it intermittently at the present time. Maybe it will produce three or four days and then we will leave it down for about a week and, then, produce it for three or four more days.

Q How do you get it to unload?

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- A. Generally, by blowing it to the atmosphere.
- Q. The suction of the compressor is not enough for
- A. No. If you can get the head of fluid off of it, then, it will produce pretty good for awhile.
- Q. I presume that it goes through a separator before it goes into the compressor?
  - A. Yes.

it?

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- Q And then, you blow it into the atmosphere upstream from the separator, I presume?
  - A. Yes, downstream from the separator.
  - Q. Downstream from the separator?
  - A. Yes, and upstream from the compressor.

MR. TULLY: Mr. Nutter, in order to clarify something else, we have another exhibit which has been marked as Exhibit Number Ten and I hand it to Mr. Dugan to describe and give you three copies of it --

MR. NUTTER: Thank you.

- A. That's a gas-oil ratio test of the Gallup zone which shows the production of the oil and gas on 12/22/77, and indicating that the gas-oil ratio was one hundred eleven thousand to one.
- Q. (Mr. Nutter continuing.) Now, the overriding royalty is different here. Northwest Production has the override in both zones?

· we	Q. But they have seventeen and a half percent in one
	and twelve and a half percent in the other?
	A. Yes, sir.
	Q. Does anyone else have any override?
	A. No, sir.
· 	Q. This is just the difference of what is carved out of
i i	the working interest?
87501	A. Yes, sir.
Λ	MR. NUTTER: Are there any further questions of Mr.
5 P	Dugan? He may be excused.
reporting resorting Sant Fe, No. 505) 982-9212	(THEREUPON, the witness was excused.)
300	MR. NUTTER: Exhibit Number Ten will be admitted,
sid morrish  General Co Zile Mejia, No. 12 Phone	Mr. Tully.
sid n	MR. TULLY: Excuse me, Mr. Examiner.
823 1	MR. NUTTER: Do you have anything further, Mr. Tully?
1	MR. TULLY: No, sir.
<b>1</b>	MR. NUTTER: Does anyone have anything they wish to
	offer in Case 6146?
2	MS. TESCHENDORF: Yes, we have a waiver of objections
2	to this proposed downhole commingling from Supron Energy
<u>2</u>	Corporation.
2.	MR. NUTTER: Do you have a waiver from Northwest
2.	Production?
2ا عند الله عند	MS. TESCHENDORF: No, I don't.
the property of the second sec	

Yes.

MR. NUTTER: Is Northwest Production aware of this application?

MR. TULLY: Yes, they are.

MR. NUTTER: The waiver in the previous case didn't happen to show this well, too, did it?

MR. TULLY: That was Northwest Pipeline, I believe.

MR. NUTTER: Yes, that was Northwest Pipeline. If there is nothing further in Case 6146, we will take the case under advisement.

> (THEREUPON, the hearing on Case 6146 was concluded.)

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#### REPORTER'S CERTIFICATE

I, SIDNEY F. MORRISH, a Certified Shorthand Reporter, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me, and the same is a true and correct record of the said proceedings to the best of my knowledge, skill and ability.

i do hereby certify that the foregoing is a complete recard of the proceedings in the Examiner hearing of Case No. 1978 heard by me on 1978 Nexico Uil Conservation Commission



P. O. BOX 1492 EL PASO, TEXAS 79978 PHONE: 915-543-2600

Jile 6146 Care 6146

March 7, 1978

Joe D. Ramey Secretary-Director New Mexico Oil Conservation Commission P. O. Box 2088 Santa Fe, New Mexico 87501

Dear Mr. Ramey:

Pusuant to the request of Applicant, J. P. McHugh, we are furnishing herewith Waiver of Objection and Consent to the Downhole Commingling of the Jicarilla #5 Well.

Yours very truly,

R. H. Nordhausen Senior Landman

Land Department
Energy Resource Development

RHN/sf

cc: Thomas A. Dugan

SERVATION OC.....

Dockets Nos. 7-78 and 9-78 are tentatively set for hearing on February 22 and March 8, 1977. Applications for hearing must be filed at least 22 days in advence of hearing date.

#### DOCKET: EXAMINER HEARING - WEDNESDAY - FEBRUARY 8, 1978

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

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

- Application of Amoco Production Company for an unorthodox gas well location, Lea County, New Mexico.

  Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Nellis

  Federal Well No. 3 to be located 1980 feet from the North line and 660 feet from the West line of
  Section 8, Township 19 South, Range 33 East, West Tonto-Pennsylvanian Gas Pool, Lea County,
  New Mexico, the N/2 of said Section 8 to be dedicated to the well.
- Application of Amoco Production Company for a non-standard proration unit, simultaneous dedication, and an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 480-acre non-standard gas proration unit comprising the E/2 and NW/4 of Section 24, Township 20 South, Range 36 East, Eumont Cas Pool, Lea County, New Mexico, to be simultaneously dedicated to its Gillully Federal Cas Com Wells Nos. 4, 7 and 15 located in Units B, O, and E, respectively, of Section 24. Applicant also seeks approval for the unorthodox location of said Well No. 15 located 1650 feet from the North line and 990 feet from the West line of said Section 24.
- CASE 6139: Application of Petro-Lewis Corporation for an unorthodox oil well location, Sandoval County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Boling Federal Well No. 8-22 to be drilled at a point 990 feet from the North line and 2160 feet from the West line of Section 22, Township 19 North, Range 3 West, Southwest Media-Entrada Oil Pool, Sandoval County, New Mexico.
- Application of Burleson & Huff for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests from 3,000 feet below the surface to the base of the Queen formation underlying the SE/4 NW/4 of Section 21, Township 25 South, Range 37 East, Langlie-Mattix Pool, Lea County, New Mexico, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.
- CASE 6141: Application of Paul Slayton for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Seven Rivers formation thru the open-hole interval from 528 feet to 547 feet in his Hastie Well No. 7 located in Unit L of Section 18, Township 17 South, Range 28 East, Empire Field, Eddy County, New Mexico.
- CASE 6142: Application of Atlantic Richfield Company for compulsory pooling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Dakota formation underlying the E/2 of Section 29, Township 24 North, Range 3 West, Rio Arriba County, New Mexico, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.
- CASE 6143: Application of Atlantic Richfield Company for compulsory pooling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Dakota formation underlying the W/2 of Section 33, Township 24 North, Range 3 West, Rio Arriba County, New Mexico, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.
- CASE 6144: Application of Southland Royalty Company for two unorthodox locations and two non-standard gas proration units, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for two 120-acre non-standard gas proration units comprising the S/2 SE/4 of Section 10 and the SW/4 SW/4 of Section 11, and comprising the SE/4 SW/4 and the S/2 SE/4 of Section 11, all in Township 29 North, Range 11 West, Fulcher Kutz-Pictured Cliffs Pool, San Juan County, New Mexico, each of said units to be dedicated to a well drilled at an unorthodox location thereon.

Application of Jerome P. McHugh for downhole commingling, Rio Arriba County, New Mexico.

Applicant, in the above-styled cause, seeks approval for the downhole commingling of GavilanPictured Cliffs and Blanco-Mesaverde production within the wellbore of his June Well No. 1
located in Unit B of Section 28, Township 28 North, Range 3 West, Rio Arriba County, New Mexico.

CASE 6146: Application of Jerome P. McHugh for downhole commingling, Rio Arriba County, New Mexico.

Applicant, in the above— Fled cause, seeks approval for the downhole commingling of TapacitoGallup and Basin-Dakota production within the wellbore of his Jicarilla Well No. 5 located in
Unit D of Section 29, Township 26 North, Range 4 West, Rio Arriba County, New Mexico.

CASE 6147: Application of Dugan Production Corporation for downhole commingling, San Juan County, New Mexico.
Applicant, in the above-styled cause, seeks approval for the downhole commingling of Undesignated
Greenhorn, Bisti-Lower Gallup, and Basin Dakota production within the wellbore of its Big 8 Well
No. 1 located in Unit L of Section 8, Township 24 North, Range 9 West, San Juan County, New Mexico.

CASE 6148: Application of Coquina Oil Corporation for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its Vivian Well No. 1 located in Unit F of Section 30, Township 22 South, Range 38 East, Lea County, New Mexico, in such a manner as to produce oil from the Drinkard and Granite Wash formations thru the casing-tubing annulus and the tubing, respectively.

CASE 6134: (Readvertised)

Application of Burleson & Huff for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests from the surface of the ground to the base of the Queen formation underlying the SE/4 NW/4 of Section 22, Township 25 South, Range 37 East, Lea County, New Mexico, to form a 40-acre Langlie Mattix oil proration unit or underlying the N/2 NE/4, NE/4 NW/4, and SE/4 NW/4 of said Section 22 to form a non-standard 160-acre Jalmat gas proration unit. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6096: (Continued from January 18, 1978 Examiner Hearing)

Application of Texas Oil & Gas Corporation for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp and Pennsylvanian formations underlying the S/2 of Section 14, Township 21 South, Range 34 East, Lea County, New Mexico, to be dedicated to applicant's South Wilson State Well No. 1 to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6133: (Continued from January 18, 1978 Examiner Hearing)

Application of Doyle Hartman for compulsory pooling and a non-standard provation unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests underlying the SE/4 of Section 8, Township 19 South, Range 37 East, Eumont Gas Pool, Lea County, New Mexico, to form a non-standard unit to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

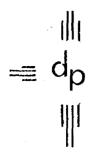
Docket No. 5-78

#### DOCKET: EYAMINER HEARING - WEDNESDAY - FEBRUARY 15, 1978

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, Alternate Examiner:

- ALLOWABLE: (1) Consideration of the allowable production of gas for March, 1978, from fifteen prorated pools in Lea, Eddy and Chaves Counties, New Mexico.
  - (2) Consideration of the allowable production of gas for March, 1978, from four prorated pools in San Juan, Rio Arriba and Sandoval Counties, New Mexico.
  - (3) Consideration of purchaser's nominations for the one year period beginning April 1, 1978, for both of the above areas.



dugan production corp.

January 16, 1978

(5.11.1.7.15.16.)

Joe D. Ramey Secretary-Director New Mexico Oil Conservation Commission Box 2088 Santa Fe, NM 87501

Re: Application for Approval of Downhole Commingling of the Jicarilla #5 Well (Gallup and Dakota) in Rio Arriba County, New Mexico.

Dear Mr. Ramey:

Enclosed are the following instruments concerning the Application for Approval of Downhole Commingling by Jerome P. McHugh for the Jicarilla #5 Well located in the N/2 of Section 29, Township 26 North, Range 4 West, N.M.P.M., Rio Arriba County, New Mexico.

- 1. Three copies of the Application.
- 2. Three copies of a Certificate of Mailing stating that all operators of leases offsetting the dedicated acreage for this well, the U.S. Geological Survey, and the Supervisor of the District III Office of the New Mexico Oil Conservation Commission have been notified of this Application.

We would appreciate it if you would place this Application for hearing on February 8, 1978.

Thank you for your assistance and cooperation in this matter. Please advise if you need further information.

Sincerely,

Thomas A. Dugan

Agent

pb

Enclosures

709 BLOOMFIELD RD. . P. O. BOX 234 . FARMINGTON, NEW MEXICO 87401 . PHONE 505-325-0238

#### OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

. .11:10:18

In The Matter Of The Application Of Jerome P. McHugh For Downhole Commingling Of The Jicarilla #5 Well In Rio Arriba County, New Mexico

#### APPLICATION

Pursuant to Rule 303 C of the Rules and Regulations of the State of New Mexico Oil Conservation Commission, the Applicant, Jerome P. McHugh, by and through his agent, Thomas A. Dugan, hereby makes application for approval of downhole commingling in the well bore of the Jicarilla #5 Well in Rio Arriba County, New Mexico.

The Applicant further states:

- 1. The Operator of the Jicarilla #5 Well is the Applicant Jerome P. McHugh.
- 2. The Jicarilla #5 Well is located on Jicarilla Apache Tribal Contract No. 120 insofar as it covers the following described lands:

Township 26 North, Range 4 West, N.M.P.M.

Section 29: N/2 (Tapacito Gallup)

Section 29: N/2 (Basin Dakota)

Rio Arriba County, New Mexico

3. The legal location of the well is as follows:

Township 26 North, Range 4 West, N.M.P.M.
Section 29: 890' FNL - 880' FWL (Unit Letter D)
Rio Arriba County, New Mexico

- 4. The Jicarilla #5 Well is currently dually completed in the Tapacito Gallup Pool and the Basin Dakota Pool. The New Mexico Oil Conservation Commission Order No. 1837 authorized the dual completion of this well.
- 5. Because of low bottom hole pressure, declining production, and the need to raise the produced fluids, it is necessary to commingle the Tapacito Gallup production with the Basin Dakota production in the tubing instead of continuing to produced the Tapacito Gallup production through the casingtubing annulus.
  - 6. The ownership of the above mentioned Pools is common.
- 7. The proposed commingling from the above Pools will result in the recovery of additional hydrocarbons from each of these Pools, thereby preventing waste, and the commingling will not violate correlative rights.

WHEREFORE, the Applicant requests this Application be set for hearing on February 8, 1978; and after this hearing the New Mexico Oil Conservation Commission grant this Application by giving approval to the downhole commingling of the Jicarilla #5 Well in Rio Arriba County, New Mexico.

Respectfully submitted,

Thomas A. Dugan

Agent for Applicant

P. O. Box 234

Farmington, NM 87401

#### CERTIFICATE OF MAILING

I certify that I mailed a copy of the Application for Downhole Commingling for the Jicarilla #5 Well in Rio Arriba County, New Mexico to all operators of leases offsetting the dedicated acreage for this well, the U. S. Geological Survey, and the Supervisor of the District III Office of the New Mexico Oil Conservation Commission.

Thomas A. Dugan

Agent for Applicant

p. O. Box 234

Farmington, NM 87401

#### DISTRIBUTION

- 1. Jerry Long
  District Engineer
  U. S. Geological Survey
  Box 1809
  Durango, CO 81301
- 2. Al R. Kendrick Supervisor, District III Office New Mexico Oil Conservation Commission 1000 Rio Brazos Road Aztec, NM 87410
- 3. Ray Nordhausen
  Northwest Production Corporation
  Box 1796
  El Paso, TX 79949
- 4. Bill Curtis
  Manager, Land
  Southern Union Production Company
  Suite 1700
  8350 North Central Expressway
  Dallas, TX 75206

### 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:

HE PURPOSE OF CONSIDERING.  CASE NO. 6146
order No. R- 5665
PPLICATION OF JEROME P. McHUGH OR DOWNHOLE COMMINGLING, RIO ARRIBA OUNTY, NEW MEXICO.  ORDER OF THE COMMISSION
BY THE COMMISSION:
This cause came on for hour lands and the recommendations of the Examiner Daniel S. Nutter  NOW, on this day of February 1978, 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,
(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, Jerome P. McHugh , is the owner and operator of the Jicarilla Well No. 5 , located in Unit D of Section 29 , Township 26 North , Range  4 West , NMPM, Rio Arriba County, New Mexico.  (3) That the applicant seeks authority to commingle
within the wellbore of the above-described well.

(L)

- (4) That by actual test taken December 22, 1977, the Gallup formation in the subject well produced 1559 MCF of gas and 14 barrels of oil in 24 hours.
- (5) That while no recent test of the Dakota formation in the subject well is available, said well produced 4284 MCF of gas from the Dakota during December, 1977, or an average of 138 MCF per day assuming the well was on production throughout the month.
- (6) That while no recent bottom hole pressures are available for either the Gallup or the Dakota formation in the subject well, the latest available shut-in pressures taken August 25, 1977, indicate a surface shut-in pressure of 250 psi on the Gallup formation and 650 psi on the Dakota formation.
- (7) That the producing characteristics of the two zones in the subject well, as reflected by Finding Nos. (4) and (5) above, are not conducive to efficient downhole commingling.
- (8) That the pressure differential between the two zones in the subject well, as reflected by Finding No. (6) above, could and in not cause wasteful cross flow between the zones conducive to efficient downhole commingling.
- the Gallup zone in the subject well on production due to loading up with fluid, this is probably the result of annular flow with dually completed well.

  (10) That a solution to this problem could probably be
- achieved by flowing the Gallup zone through the tubing, the commingling of Dakota production with said Gallup production in said tubing is not in the best interests of conservation, may cause waste, and should not be permitted.
  - (11) That the application should be denied.

-3-Case No. 6146 Order No. R-

#### IT IS THEREFORE ORDERED:

- (1) That the application of Jerome P. McHugh to commingle Tapacito-Gallup and Basin-Dakota production in the wellbore of his Jicarilla Well No. 5, located in Unit D of Section 29, Township 26 North, Range 4 West, NMPM, Rio Arriba County, New Mexico, be and the same is hereby denied.
- (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.

T-26-N, R-4-W, N.M.F.M.						
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13	18	17	16	15	14	13
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25	30	* 148038 1282	<b>a</b> 8	27	3.6	25
36	31	32	33	34	35	36
	6	5	4	3	a	
12	7	8	9	10	11	12

#### 1976 Production

#### Tapacito Gallup Pool Wells

\* Well Location

Gas Production

- Oil Production

	DEFO
	BEFORE EXAMINER NUTTER
I	CONSTRUATION
	EXHIBIT NO.
	EVHIRIT NO.
	6/46

APPLICATION OF JEROME P. MCHUGH FOR DOWNHOLE COMMINGLING OF Jicarilla #5 Well, Rio Arriba County, New Mexico

Case No.	6146
Exhibit No	. 4

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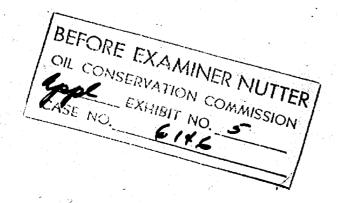
1976 Production

#### Basin Dakota Pool Wells

Well Location

- Gas Production

- Oil Production

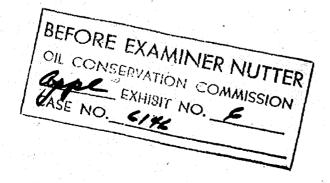


APPLICATION OF JEROME P. McHUGH FOR DOWNHOLE COMMINGLING OF Jicarilla #5 Well, Rio Arriba County, New Mexico

Case No. 6146
Exhibit No. 5

#### SHUT-IN PRESSURES

DATE	GALLUP	DAKOTA
	(casing)	(tubing)
November 2, 1968	1696	2379
April 27, 1969	par par da	1475
June 11, 1969	1070	ave an over
September 17, 1969	888	1348
May 5, 1970	662	1042
September 16, 1970	540	880
July 19, 1971	450	882
September 6, 1971	430	790
June 19, 1972	382	752
August 1, 1973	352`	742
January 31, 1974	240	690
May 7, 1974	270	660
May 22, 1975	, and pair	742
July 25, 1975	690	265
December 10, 1975	354	-0-
February 4, 1977	245	645
June 8, 1977	-0-	712
August 25, 1977	250	650



APPLICATION OF JEROME P. McHUGH FOR DOWNHOLE COMMINGLING OF Jicarilla #5 Well, Rio Arriba County, New Mexico

Case No. 6146
Exhibit No. 6

Oil and Gas Production of the Jicarilla #5 Well from the Tapacito Gallup Pool and the

Basin	Dakota	Pool
וואסטע	Juilou	~ ~ ~

1976

Tapacito	Gallup	Pool

Gas

148088 MCF

0il

1282 Barrels

Basin Dakota Pool

Gas

47609 MCF

oil

242 Barrels

December, 1977

Tapacito Gallup Pool

Gas

15464 MCF

Oil

173 Barrels

Basin Dakota Pool

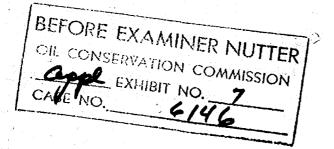
Gas

4284 MCF

Oil

-0- .

30p  $\frac{301}{31} = \frac{499}{400} = \frac{173}{31} = \frac{5.680PD}{31}$ Dak  $\frac{4284}{31} = \frac{138}{400} = \frac{138}{400}$ 



APPLICATION OF JEROME P. MCHUGH FOR DOWNHOLE COMMINGLING OF Jicarilla #5 Well, Rio Arriba County, New Mexico

Case No.

Exhibit No

10,255 1000 9\_ 8-Mar. June June June Sept. 19.72... 19.74\_

BEFORE EXAMINATION Production
OIL CONSERVATION COMMISSION
EXHIBIT NO. 8
CASE NO. 6146

APPLICATION OF JEROME P. MCHUGH FOR DOWNHOLE COMMINGLING OF Jicarilla #5 Well, Rio Arriba County, New Mexico

•		/ / / / /
Case	No.	614

Exhibit No. 8

