CASE 3865: Appli. of SOUTHERN UNION PRODUCTION CO. FOR AN UNORTHODOX LOCATION AND A DUAL.

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dSeNumber 3865 Application Transcripts. Small Exhibits 

#### 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. 3865 Order No. R-3510

APPLICATION OF SOUTHERN UNION PRODUCTION COMPANY FOR AN UNORTHODOX LOCATION AND A DUAL COMPLETION, RIO ARRIBA COUNTY, NEW MEXICO.

#### ORDER OF THE COMMISSION

#### BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on September 25, 1968, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 2nd day of October, 1968, the Commission, a guorum 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, Southern Union Production Company, seeks an exception to Rule 2 of the Special Rules and Regulations governing the Blanco-Mesaverde Gas Pool as promulgated by Order No. R-1670, as amended, to complete its Jicarilla "A" Well No. 9 at an unorthodox location 790 feet from the North line and 1670 feet from the West line of Section 14, Township 26 North, Range 4 West, NMPM, Rio Arriba County, New Mexico.

(3) That the applicant also seeks authority to complete the subject well as a dual completion (conventional) to produce gas from the Blanco-Mesaverde Gas Pool and the Basin-Dakota Gas Pool through parallel strings of 1 1/2-inch tubing, with separation of zones by a packer set at approximately 7660 feet.

-2-CASE No. 3865 Order No. R-3510

(4) That the subject well was originally projected and drilled as a Pictured Cliffs-Dakota gas well at a standard location for said formations and is off-pattern with respect to the Special Rules and Regulations governing the Blanco-Mesaverde Gas Pool.

(5) That the mechanics of the proposed dual completion are feasible and in accord with good conservation practices.

(6) That approval of the subject application will prevent the drilling of unnecessary wells, will avoid the augmentation of risk arising from the drilling of an excessive number of wells, will prevent reduced recovery which might result from the drilling of too few wells, will afford the applicant the opportunity to produce its just and equitable share of the gas in the subject pools, and will otherwise prevent waste and protect correlative rights.

#### IT IS THEREFORE ORDERED:

(1) That the applicant, Southern Union Production Company, is hereby granted an exception to the well location requirements of Rule 2 of the Special Rules and Regulations governing the Blanco-Mesaverde Gas Pool as promulgated by Order No. R-1670, as amended, and is hereby authorized to complete its Jicarilla "A" Well No. 9 at an unorthodox location 790 feet from the North line and 1670 feet from the West line of Section 14, Township 26 North, Range 4 West, NMPM, Rio Arriba County, New Mexico.

(2) That the applicant is hereby authorized to complete the subject well as a dual completion (conventional) to produce gas from the Blanco-Mesaverde Gas Pool and the Basin-Dakota Gas Pool through parallel strings of 1 1/2-inch tubing, with separation of zones by a packer set at approximately 7660 feet;

**PROVIDED HOWEVER**, that the applicant shall complete, operate, and produce said well in accordance with the provisions of Rule 112-A of the Commission Rules and Regulations insofar as said rule is not inconsistent with this order;

PROVIDED FURTHER, that the applicant shall take packerleakage tests upon completion and annually thereafter during the Deliverability Test Period for the Basin Dakota Gas Pool. -3-CASE No. 3865 Order No. R-3510

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(3) 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 CARGO, Chairman DAVID 5.

GUYTON B. HAYS Membe

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

GOVERNOR DAVID F. CARGO CHAIRMAN

	State of New	a Mexico
( <b>P</b> il	Conservation	n Commission



STATE GEOLOGIST A. L. PORTER, JR. Secretary - Director

SANTA FE

October 2, 1968

Mr. Richard S. Morris Montgomery, Federici, Andrews, Hannahs & Morris Attorneys at Law Post Office Box 2307 Santa Fe, New Mexico

Case No	3865
Order No.	R-3510
Applicant:	

Southern Union Production Co.

#### Dear Sir:

LAND COMMISSIONER GUYTON B. HAYS MEMBER

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

> > Very truly yours,

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A. L. PORTER, Jr. Secretary-Director

# ALP/ir

Carbon copy of drder also sent to:

Hobbs OCC x Artesia OCC\_ Astec OCC X Other\_

Page 2 Docket No. 28-68 September 25, 1968 Examiner Hearing

CASE 3865:

Application of Southern Union Production Company for an unorthodox location and a dual completion, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval of the dual completion (conventional) of its Jicarilla "A" Well No. 9 to produce gas from the Blanco-Mesaverde and Basin Dakota Pools at an unorthodox location for the Blanco-Mesaverde Pool 790 feet from the North line and 1670 feet from the West line of Section 14, Township 26 North, Range 4 West, Rio Arriba County, New Mexico.

CASE 3866:

Application of Shell Oil Company for salt water disposal, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres formation in the perforated interval from approximately 3360 feet to 3512 feet in its Thelma Crosby "F" Well No. 1 located in Unit H of Section 17, Township 9 South, Range 30 East, Cato-San Andres Pool area, Chaves County, New Mexico.

CASE 3867:

Application of Tenreco Oil Company for a unit agreement, McKinley County, New Mexico. Applicant, in the above-styled cause, seeks approval of the South Hospah Unit Area comprising 475 acres, more or less, of federal lands in Section 12, Township 17 North, Range 9 West, South Hospah Upper Sand Oil Pool, McKinley County, New Mexico.

CASE 3868:

Application of Texaco, Inc., for a waterflood expansion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks expansion of the Texaco BV Waterflood Project, Lazy J-Pennsylvanian Pool, by the conversion to water injection of its "BV" State (NCT-1) Well No. 5 located in Unit M of Section 26, Township 13 South, Range 33 East, Lea County, New Mexico.

CASE 3869:

Application of Texaco, Inc., for a down-hole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle the marginal production from the Blinebry and Paddock Oil Pools in the wellbore of its C. H. Lockhart Federal NCT-1 Well No. 3 located in Unit O of Section 18, Township 22 South, Range 38 East, Lea County, New Mexico.

# OIL CONSERVATION COMMISSION 1000 Rio Brazos Rd. Aztec, New Mexico

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NEW MEXICO OIL CONSERVATION COMMISSION SANTA FE, NEW MEXICO APPLICATION FOR MULTIPLE COMPLETION

Operator	······································	County	1			Date		
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2. If answer is yes, identify one such in	stance: Order No	1	; O	erator Le	ase, and	ell No	5	
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3. The following facts are submitted:	Upper			Intermed	ate			Lower
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b. Top and Bottom of			T		l í í l			
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(Perforations)	5744 - 5826						1 77	SO - 7920
c. Type of production (Oil or Gas)	GAS	11	1			111	1.1.11	GAS
d. Method of Production			1					
(Flowing of Artificial Lift)	FLOWING		i.				1100	LOVING
4. The following are attached. (Please of		<u>l</u>	E	1 1		111	TI	
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Original signed by GILBERT D. NOLAND, JR.

sin C-107 5-1-61

•Should waivers from all offset operators not accompany an application for administrative approval, the New Slexico Oil Conservation Commis-sion will hold the application for a period of twenty (20) days from date of receipt by the Commission's Santa Fe office. If after said twenty-day period, no protest nor request for hearing is received by the Santa Fe office, the application will then be processed. NOTE: If the proposed multiple completion will result in an unorthodox well wation and/or a non-standard protection unit in One on more of the producing zones, then separate application for approval of the same should be filed simultaneously with this application.

# SOUTHERN UNION PRODUCTION COMPANY POST OFFICE BOX 808 but for bearing FARMINGTON, NEW MEXICO 87401

August 30, 1968

New Mexico Oil Conservation Commission P. 0. Box 2088 Santa Fe, New Mexico 87501

Attention: Mr. A. L. Porter

Dear Sir:

Enclosed are three (3) copies each of the following forms to cover Southern Union Production Company's Jicarilla "A" No. 9 well located 760 feet from the North-line and 1670 feet from the West line of Section 14, Township 26 North, Range 4 West, N.M.P.M., Rio Arriba County, New Mexico:

1. Application for Multiple Completion - Form C-107

2. Offset Operator's Plat

3. Schematic Diagram of Well Completion

Also enclosed is one (1) copy each of the electrical log and Packer-Setting Affidavit.

Mesaverde is unorthodox as to location and a hearing will be necessary.

Yours very truly,

SOUTHERN UNION PRODUCTION COMPANY

B.R. Vanderstie

B. R. Vanderslice Area Superintendent

BRV :ml Enclosures

1.18

cc? Benny E. Bechtol - Exploration New Mexico Oil Conservation Commission

1000 Rio Brazos Road, Aztec, N. M. 87410

Aztec Oil & Gas Company

P. O. Drawer 570, Farmington, N. M. 87401

Aztec Oil & Gas Company

2000 First National Bank Bldg., Dallas, Texas 75202

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DOCKET MAILED

Date 9-13-68

NEW MEXICO OIL CONSERVATION COMMISSION 3ANTA FE, NEW MEXICO APPLICATION FOR MULTIPLE COMPLETION

Operator		· ·	1	10e 3865
and the second		County	Date	CX. CO
SOUTHERN UNION PRODUCTION	COMPANY	RIO ARRIBA	8/5/68 Well No.	
Location	NEW MEXICO 87401	JICARILLA #A"	9 Range	
of Well C	14	26 NORTH		WEST
<ol> <li>Has the New Mexico Oil Conservation zones within one mile of the subject</li> <li>If answer is yes, identify one such in</li> </ol>	t well? YES	authorized the multiple completion		-
3. The following facts are submitted:	Upper Zone	Intermedjate Zone		Lower Zoile
a. Name of Pool and Formation	BLANCO MESAVERDE			BASIN DAKOTA
b. Top and Bottom of				DADIN VORVIN
Pay Section (Perforations)	5744 - 5826			7780 - 7980
c. Type of production (Oil or Gas)	GAS			Gas
d. Method of Production				
(Flowing or Artificial Lift) f. The following are attached. (Please	Check YES of NO)			FLOWING
5. List all offset operators to the lease	e on which this well is loca	the time application is filed it slated together with their correct ma		
PAN AMERICAN PETROLEUM	CORPORATION.		<u></u>	
P. 0. Box 509				68 SEP 3 AN 8 2
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P. 0. Box 509				
P. 0. Box 509				<u> </u>
P. O. Box 509 Denver, Colorado 8020	3			
P. 0. Box 509	3	l a copy of this application? YE	es XX _ No	If answer is yes, give
P. O. Box 509 DENVER, COLORADO 80202 5. Were all operators listed in Item 5 a date of such notification CERTIFICATE: I, the undersigned,	3 above notified and furnished 8/7/68 , state that I am the DRILLI company), and that I am au	LING SUPERINTENDENT on make	of the <b>SOUTHER</b>	. If answer is yes, give <u>N UNION PRODUCTION</u> that this report was prepared
P. O. Box 509 DENVER, COLORADO 80202 5. Were all operators listed in Item 5 a date of such notification CERTIFICATE: I, the undersigned, COMPANY (C	3 above notified and furnished 8/7/68 , state that I am the DRILLI company), and that I am au	LING SUPERINTENDENT on make	of the <b>SOUTHER</b>	. If answer is yes, give <u>N UNION PRODUCTION</u> that this report was prepared
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P. O. Box 509 DENVER, COLORADO 80202 5. Were all operators listed in Item 5 a date of such notification CERTIFICATE: I, the undersigned, <u>COMP ANY</u> (curder my supervision and direction and direction and direction for a per sion will hold the application for a per day period, no protest nor request for hor to be a supervised multiple complexity of the supervised multiplexity of the supervised multiple complexity of the supervised multiple complexity of the supervised multiple complexity of the supervised multiple c	3 above notified and furnished 8/7/68 , state that I am the DRILL company), and that I am au that the facts stated therein that the facts stated therein the facts stated therein the facts stated therein the facts stated therein the facts stated the facts the facts stated the facts state that I am the facts stated the facts the facts stated the facts stated the facts the facts stated the facts stated the facts the facts stated the facts stated the facts stated the facts the facts stated the facts stated	ation for administrative approval, make of receipt by the commission without the context of the context of the commission of the commissio	of the <u>SOUTHER</u> this report; and the best of my <u>Augusta</u> <b>R.</b> Signature , the New Mexic sion's Santa Fe sill then be proce	. If answer is yes, give 

Form C-107 5-1-61

# OFFSET OPERATOR S PLAT



SOUTHERN UNION PRODUCTION COMPANY'S

WELL: JICARILLA MAM NO 9

LOCATION: 790 FT. FROM NORTH LINE & 1670 FT. FROM WEST LINE Section 14, Township 26 North, Range 4 West, N M.P.M. Rio Arriba County, New Mexico



SOUTHERN UNION PRODUCTION COMPANY JICARILLA MAM NO. 9 SURFACE HOLE SIZE - 13-3/4" INTERMEDIATE HOLE SIZE-9-7/8" 790 FT. FROM NORTH LINE & 1670 FT. FROM WEST LINE OF SECTION 14, TOWNSHIP 26 NORTH Range 4 West, N.M.P.M., RIO ARRIBA COUNTY PRODUCTION HOLE SIZE - 6-3/4" NEW MEXICO. BASIN DAKOTA - BLANCO MESAVERDE DUAL COMPLETION SURFACE CASING: 10-3/4",40.50#,H-40, SET AT 314 FT. R.K.B. CEMENTED TO SURFACE W/400 SACKS CEMENT. TOP CEMENT ON 7-5/8" CASING AT 2500 FT. R.K.B. TOP LINER 5-1/2", 15.50#, J-55 CSG. AT 3705 FT. R.K.B. LARKIN FIG. 905, 7-5/8" CASING CENTRALIZERS RUN ON 30 FT. TOP CEMENT ON 5-1/2" LINER AT 3705 FT. SPACING ON 7-5/8" CASING FROM R.K.B. 3534 FT. TO 3834 FT. R.K.B. INTERMEDIATE CASING: 7-5/8", 26.40#, J-55 SET AT 3834 FT. R.K.B. CEMENTED W/350 CU. FT. CEMENT. VIV ANAN 1-1/2" INTEGRAL JOINT, 2.75#, JCW TBG. SET TO WESAVERDE. LANDED AT 5800 FT. RKB. MESAVERDE PERFORATIONS 5744 FT. 2-1/16" O.D. BAKER BLAST JOINTS RUN ACROSS TO 5826 FT. R.K.B. MESAVERDE PERFORATIONS. TOP AT 5735 FT. BOTTOM AT 5835 FT. R.K.B. 1-1/2", E.U.E., 2.90#, JCW TBG. SET TO DAKOTA, LANDED AT 7899 FT. R.K.B. BAKER 5-1/2" MODEL "D" PRODUCTION PACKER SET AT 7660 FT. R.K.B. DAKOTA PERFORATIONS 7780 FT. TO 7980 FT. R.K.B. BOTTOM 5-1/2", 15.50#, J-55 LINER AT 8034 FT. R.K.B. CEMENTED TO TOP OF LINER W/600 CU. FT. CEMENT. P.B.T.D. 8020 FT. R.K.B. TOTAL DEPTH 8035 FT. R.K.B. Care 3865

#### BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION

APPLICATION OF SOUTHERN UNION PRODUCTION COMPANY FOR APPROVAL OF AN UNORTHODOX LOCATION, BLANCO-MESA VERDE GAS POOL, RIO ARRIBA COUNTY, NEW MEXICO.

Case No. 3865

#### APPLICATION

Comes now Southern Union Production Company, by its attorneys, and applies to the New Mexico Oil Conservation Commission for approval of an unorthodox location in the Blanco-Mesa Verde Gas Pool, Rio Arriba County, New Mexico, and in support of its application states:

1. Southern Union Production Company is the operator of the Jicarilla "A" well No. 9, located 790 feet from the north line and 1670 feet from the west line of Section 14, Township 26 North, Range 4 West, Rio Arriba County, New Mexico.

2. The said Jicarilla "A" well No. 9, originally was projected to the Dakota formation and has been completed in the Dakota formation. The location of the said well is orthodox for the **B**asin -Dakota gas pool.

3. During the drilling and completion of the subject well, the Mesa Verde formation was tested and found to be productive, and the subject well also has been completed in the Mesa Verde formation.

4. The location of the subject well is unorthodox under the rules and regulations governing the location of wells in the Blanco -Mesa Verde gas pool in that the well is located in the northwest quarter of the section rather than in the southwest quarter or the northeast quarter of the section, as required by the rules for the said pool.

5. Approval of the subject application will enable the

-1-

applicant to recover gas from the Blanco-Mesa Verde gas pool that otherwise probably would not be recovered and will otherwise prevent waste. The correlative rights of all said operators will not be adversely affected by the granting of this application. WHEREFORE, Southern Union Production Company requests that this application be set for hearing before the Commission or one of its examiners, and that the Commission enter its order approving this application.

-2-

MONTGOMERY, FEDERICI, ANDREWS, HANNAHS & MORRIS

B Box 230' ٥.

Santa Fe, New Mexico 87501

Attorneys for Southern Union Production Company.

CONVENTION BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION COFY. Santa Fe, New Mexico September 25, 1968 MONY, DAILY MEYICO dearnley-meier reporting service, EXAMINER HEARING ALBUQUEROUE, NEW TEST EXPERT STATE MENTS. 1444-645 IN THE MATTER OF: HEARINGS, NOH Application of Southern Union Production Company for an Case No. 3865 BOX 1092 -DEPOSITIONS, unorthodox location and a dual completion, Rio Arriba County, New Mexico. TI 20 SIMMS BLDG. . P. O. SPECIALIZING IN BEFORF: Daniel S. Nutter, Examiner TRANSCRIPT OF HEARING

MR. NUTTER: The hearing will come to order, please. The next case will be 3865.

MR. HATCH: Case 3865, application of Southern Union Production Company for an unorthodox location and a dual completion, Rio Arriba County, New Mexico.

MR. MORRIS: Mr. Examiner, I am Dick Morris of Montgomery, Federici, Andrews, Hannahs and Morris, of Santa Fe, appearing for the applicant, Southern Union Production Company. We will have one witness, Mr. Benny Bechtol. I ask that he stand and be sworn at this time, please.

(Witness sworn.)

(Whereupon, Applicant's Exhibits Numbers 1 and 2 were marked for identification.)

2

#### BENNY E. BECHTOL

called as a witness, having been first duly sworn, was examined and testified as follows:

#### DIRECT EXAMINATION

#### BY MR. MORRIS:

Q Mr. Bechtol, will you please state your name, where you reside, by whom you are employed and in what capacity?

A Benny Bechtol, Dallas, Texas. I am employed as manager of drilling and production for Southern Union Production Company.

Q Would you please state briefly to the Examiner your

education and your experience in the petroleum industry?

A I graduated from Texas Tech with a B.S. Degree in Petroleum Engineering in 1959. I went to work for Shamrock Oil and Gas as a production engineer. Worked for them for seven years. At the time I left them, I was district engineer in Vernal, Utah. Went to work for this company in 1955 as district engineer.

3

MR. NUTTER: Sixty-five.

THE WITNESS: Sixty-five. Did I say '55? MR: NUTTER: Yes, sir.

THE WITNESS: Sixty-five, as a production engineer or district engineer and was transferred to Dallas in the capacity that I now serve in 1966.

MR. MORRIS: Are the witness's qualifications acceptable?

MR. NUTTER: Yes, they are.

Q Mr. Bechtol, are you familiar with the application of Southern Union Production Company in this case?

A Yes.

Q And have you prepared or has there been prepared under your supervision some exhibits in support of this application?

A Yes.

Q I'll ask you to refer to what has been marked as Exhibit Number 1 in this case. Please point out the location of the subject well and state its footage location in the section.

A Let's see. It's in Section 14. It's 790 from the north, 670 from the west, Section 14, 26 North, Range 4 West. Q Now, this is an off-pattern location under the rules for the Blanco-Mesaverde Pool, is that right?

A That's correct.

Q Will you point out the legend that is shown on this exhibit with respect to the other wells that are in this area? A This well is so marked by a square, whereas the other producing Mesaverde wells are encircled.

Q And they're shown in red on the exhibit, are they not?

A Yes, on the exhibit. They're shown in red.

Q To what formation or formations was this well

originally projected?

A Originally, the Pictured Clifs-Dakota.

Q How has the well been drilled and completed?

A The well was drilled with mud to 3850 at which time we set seven and five-eighths inch casing and then we gasdrilled the well down to a TD of 8,035 feet. Upon logging the well, we noticed the Mesaverde Formation had good porosity and we talked to the Commission by phone, informed them we'd like to try a Mesaverde completion here. They informed us that we should have no problem in obtaining an unorthodox location; but, however, we would have to do this on our own, of course, and at our own risk, which we did.

Q And how is the well presently completed?

A Let's see. I believe, if you'll refer to page three on Exhibit 2, we have the --

Q That's the diagrammatic sketch?

A Yes, that's the diagrammatic sketch. The conventional dual-type completion --

Q I believe that's page four of Exhibit 2.

A Page four?

Q Yes, page four.

A We have the conventional-type dual corpletion with two strings of tubing with production packer, permanent production packer, isolating the two zones.

Q In a little more detail, point out your casing program and your down-hole equipment in this well.

A All right. The surface pipe was 13 and three-quarter inch. It should be approximately 300 feet or -- let me see a minute. MR. NUTTER: I believe I saw it on your exhibit on the right-hand side there, Mr. Bechtol.

THE WITNESS: Is it?

MR. NUTTER: Surface casing at ten and three-quarters at 314?

THE WITNESS: Yes. Surface casing, ten and threequarters, 314 feet, cemented with 400 sacks. And then we had the seven and five-eighths inch intermediate strings set at 3534 and cemented with 350 cubic feet. We ran a liner from 3705 to 3,034 feet and cemented it from top to bottom with 600 cubic feet of cement. Do you want me to go into the perforations again?

Q Yes.

A Then we perforated and completed the Dakota zone from 7780 to 7980, set a Model D production packer, then perforated the Mesaverde Section from 5744 to 5826, then ran both strings of tubing.

Q What is the pressure in each of these zones?

A The Mesaverde zone is 1140, roughly. The Dakota zone, around 2200 in this well.

Q Is there anything at all unusual about the dual completion of this well compared to the normal Mesaverde-Dakota completion in the basin?

6

No.

Α

Q Has a log on this well previously been furnished to the Commission?

A Yes.

Q What acreage do you propose to dedicate to this well both in the Dakota and in the Mesaverde formations?

A It would be the west half of Section 14.

Q One thing I neglected to ask you to point out, Mr. Bechtol, with respect to your Exhibit Number 1, are there off-pattern Mesaverde locations in the immediate area of your well?

A Yes. In Section 11, Southern Union Aztec farmout to consolidate oil and gas has two unorthodox locations there. I don't have the exact footage. I believe they're marked hare on the exhibit.

Q Yes. In your opinion, Mr. Bechtol, will approval of this application in any way cause waste or impair correlative rights?

A No.

MR. MORRIS: At this time, Mr. Examiner, we'd offer into evidence Applicant's Exhibits 1 and 2.

MR. NUTTER: Two is the packet, the number of pages, is that correct?

7

MR. MORRIS: That's correct.

MR. NUTTER: Southern Union Production's Exhibits

Numbers 1 and 2 will be admitted in evidence.

(Whereupon, Applicant's Exhibits Numbers 1 and 2 were admitted in evidence.)

8

MR. MORRIS: That's all I have of this witness at

this time.

### CROSS EXAMINATION

#### BY MR. NUTTER:

Q Mr. Bechtol, as I gathered from this Exhibit Number 1, this would be on the approximate southern boundary of the productive limits of the Blanco-Mesaverde pool?

A Yes, that's correct. Yes, sir.

Q And, in effect, what has happened there in Section 11, the normal pattern for the Mesaverde has been reversed?

A That's right.

Q And you are continuing a reversal of this pattern

right on into the edge of the pool, is that correct?

A Yes, sir, that's correct.

Q Now, the well was projected as a Pictured Cliffs --

A Pictured Cliffs.

Q -- Dakota dual completion?

A Yes.

Q And it would have been on pattern for either of those

pools?

A That's correct.

Q No completion was made on the Pictured Cliffs?

A Not as yet, no. We don't plan --

Q What is the potential of the well in the two zones? Have you tested it?

A Four million in the Mesaverde and seven or eight in the Dakota. The Dakota was seven million.

Q So you've got a pretty good well in both zones, then,

is that correct?

Α

Yes, sir.

MR. NUTTER: Are there any other questions of the witness? He may be excused. Do you have anything further, Mr. Morris?

MR. MORRIS: No, sir.

MR. NUTTER: Does anyone have anything they wish to offer in case Number 3865? We'll take the case under advisement.

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and and and a second	WITNESS			PAGE
	BENNY E. BECHTOL			
	Direct Examination b	y Mr. Morris	-	2
	Cross Examination by	Mr. Nutter		8
		* *		1 
	EXHIBITS	MARKED		OFFERED AND ADMITTED
April 1997 1997 - State State 1997 - State State			<u>.</u>	
	Applicant's Exhibits Numbers 1 and 2	2	194 - J.	8
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STATE OF NEW MEXICO COUNTY OF BERNALILLO )

I CHARLOTTE MACIAS, Court Reporter in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me; and that the same is a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.

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SS

Tipeal Court Reporter

A Go hereby cortify that the foregoing is a complete record of the tracestics in the Esaminer bε

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New Morico Cil Concervation Correlation

New Mexico Oil Consulvation Commission P. C. Box 2008 Santa Fe, New Maxico 87501

Attention: H. A. L. Porter

Dear Sir:

Analosed are three (3) copies each of the following forms to cover Southern Union Preduction Company's Jicarilla "A" No. 9 well located 790 fost from the North line and 1670 feet from the lost line of Section 14, Township 26 North, dangs 4 host, R.H.P.M., do Arribe County, New Maxicos

1. application for Multiple Completion - Form C-107 2. Offset Operator's Plat

3. Schematic Diagram of Well Completion

Also enclosed is one (1) copy each of the electrical log and Packer-Setting Affidavit.

Messverde is uporthodox as to location and a hearing will be necessary.

Yours very truly,

SOUTHERN UNION PRODUCTION COMPANY

B. H. Vonderslick Ares Superintendent

BELV mil Spelosures

cci Berry E. Bechtol - Exploration New Mexico Oil Conservation Coursesion

1.00 alo Brazos Road, A tec, N. H. 8741.

Astes Oil & Gas Company

P. C. Braver 570, Farmington, N. M. 87401

Aster Oil & Gas Company

2000 First National Bank Bldg., Dailas, Texns 75202

BEFORE I	XAMINER NUTTER
	RVATION COMMISSION
APPL	EXHIBIT NO. 2
CASE NO.	3865

NEW MEXICO OIL CONSERVATION COMMISSION SANTA FE, NEW MEXICO APPLICATION FOR MULTIPLE COMPLETION

· (\*) -

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57 A		County	Date	
SOUTHERN UNION PRODUCTION	COMPANY	RIO ABRIBA	8/5	/68
P. O. BOX 808, FARMINGTONS	NEW MEXICO 87401	Wishlp		8
of Well		26 NORTH		/. WE OT
1. Has the New Mexico Oil Conservati	ion Commission he stofore a		ion of a well	
zones within one mile of the subjec 2. If answer is yes, identify one such		NO_XX; Operator Lea	se, and Well	No.:
3. The following facts are submitted:	Upper Zone	Intermedia Zone	te	Lower Zore
a. Name of Pool and Formation	BLANCO MESAVERDE			BASIN DAKOTA
b. Top and Bottom of				
Pay Section (Perforations)	5744 - 5826			7780 - 1980
c. Type of production (Oil or Gas)	GAS	·····	<u> </u>	Gae
d. Method of Production	UA5			UN3
(Flowing or Artificial Lift) 4. The following are attached. (Please	FLOWING	<u> </u>		FLOWING
Yes   No		. · · · · ·		and a start of the second start
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<ul> <li>dicated thereon. (If</li> <li>List all offset operators to the leas</li> <li>PAN AMERICAN PETROLEUM</li> <li>P. O. Box 509</li> <li>DENVER, COLORADO 8020</li> <li>6. Were all operators listed in Item 5 date of such notification</li> </ul>	e well of other acceptable such log is not available at se on which this well is loca <b>CORPORATION</b> 3 3 above notified and furnished <b>8/7/68</b>	log with tops and bottoms of p the time application is filed in ated together with their correct and a copy of this application?	t shall be su mailing addr	bmitted as provided by Rule 11.
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NOTE: If the proposed multiple completion will result in an unorthodox well location and/or a non-standard proration unit in One or more of the producing zones, then separate application for approval of the same should be filed simultaneously with this application.

# OFFSET OPERATOR'S PLAT

TO SOUTHERN UNION PRODUCTION COMPANY'S

WELL: JICARILLA "A" No. 9

LOCATION: 790 FT. FROM NORTH LINE & 1670 FT. FROM WEST LINE Section 14, Township 26 North, Range 4 West, N.M.P.M. Rio Arriba County, New Mexico

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	PAN AN	S.U.P AZTEC	S.U.P	AZTEC	. <u></u> . 4
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		PROPOSED DAKOTA-HEBAN	VERDE DUAL COMP	LETION	
	4	DAKOTA-GALLUP DUAL			
		DAKOTA PICTURED CLIFFS			
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		DAKOTA-HESAVERDE DUAL			
			-		

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S. 16

SOUTHERN ' ON PRODUCTION COMPANY JICARILLA AN NO. 9 SURFACE HOLE SIZE - 13-3/4" 790 FT. FROM NORTH LINE & 1670 FT. FROM INTERMEDIATE HOLE SIZE-9-7/8" WEST LINE OF SECTION 14, TOWNSHIP 26 NORTH RANGE 4 WEST, N.M.P.M., RIO ARRIBA COUNTY PRODUCTION HOLE SIZE - 6-3/4" NEW MEXICO. BASIN DAKOTA - BLANCO MESAVERDE DUAL COMPLETION SURFACE CASING: 10-3/4",40.50#,H-40, Set at 314 ft. R.K.B. CEMENTED TO SURFACE W/200 SACKS CEMENT. TOP CEMENT ON 7-5/8" CASING LE 2500 FT. 8.K.B. Top LINER 5-1/2", 15. 50#, J-55 CSG. AT 3705 FT. R.K.8. LARKIN FIG. 905, 7-5/8" CASING CENTRAL (ZERS RUN ON 30 FT. SPACING ON 7-5/8" CASING FROM TOP CEMENT ON 5-1/2" LINER AT 3705 FT. R.K.B. 3534 FT. TO 3834 FT. R.K.B. INTERMEDIATE CASING: 7-5/8", 26.40#, J-55 SET AT 3834 FT. R.K.B. CEMENTED W/350 CU. FT. CEMENT. 1-1/2" INTEGRAL JOINT, 2.75#, JCW TBG. Set to Vesaverde. Landed at 5800 ft. PKB. 3 MESAVERDE PERFORATIONS 5744 FT. 2-1/16" O.D. BAKER BLAST JOINTS RUN ACROSS Mesaverde Perforations. Top at 5735 ft. TO 5826 FT. R.K.B. BMP 1140 BOTTOM AT 5835 FT. R.K.B. 1-1/2", E.U.E., 2.90#, JCW TBG. SET TO DAKOTA, LANDED AT 7899 FT. R.K.B. BAKER 5-1/2" MODEL "D" PRODUCTION PACKER SET AT 7660 FT. R.K.B. DAKOTA PERFORATIONS '7780 FT. TO 7980 FT. R.K.B. BHP 2200 BOTTOM 5-1/2", 15.50#, J-55 LINER AT 8034 FT. R.K.B. CEMENTED TO TOP OF LINER W/600 CU. FT. GEMENT. P.B.T.D. 8020 FT. R.K.B. TOTAL DEPTH 8035 FT. R.K.B.

## SOUTHERN UNION PRODUCTION COMPANY

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August 6, 1968

PAN AMERICAN PETROLEUM CORPORATION = P - Que Brief Scarry life Bldg DENVER, GOLORADO 80201

ATTENTIONS MR. R. B. GILES

DEAR SIRE

cor

Southern Union Production Company proposes to DUALLY COMPLETE THEIR JIGARILLA "A" No. 9 WELL IN THE BASIN DAKOTA AND BLANCO MESAVENDE FORMATIONS. This WELL IS LOGATED 790 FEET FROM THE NORTH LINE AND 1670 FEET FROM THE WEST LINE OF SECTION 14, TOWNSHIP 26 NORTH, RANGE & WEST, N.M.P.M., RIO ARRIBA COUNTY, NEW MEXICO.

OUR REGERDE INDIGATE THAT YOU ARE THE OTHER AND OPERATOR OF THE AGREAGE WHICH ADJOINS THIS BRILLING SLOOK. IF YOU HAVE NO OBJECTIONS TO THIS PROPOSED DUAL COMPLETION, WE WOULD APPRECIATE YOUR SIGNING THE ATTACHED TWO COFIES OF THIS LETTER AND RETURNING SAME TO THIS OFFICE.

YOUR PROMPT CONSIDERATION OF THIS WILL BE APPRECIATED.

YOURS VERY TRULY,

SOUTHERN UNION PRODUCTION COMPANY 1010

GILBERT D. NOLAND, JR. DRILLING SUPERINTENDENT

GDNJALAY ATTACHENTO

THE ABOVE DUAL COMPLETION WELL IS HEREBY APPROVED.

PAN AMERICAN PETROLEUM CORPORATION Bva P N TITLES\_

Đì DATE:

PACKER_SETTING	AFFIDAVIT
(Dual Comple	tions)

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County of 8		}	-			
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set out.			3			
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said depth measurement having been furnished by Schluberger

That the purpose of setting this packer was to effect a seal in the annular space between the two strings of pipe where the packer was set so as to prevent the commingling, within the well-bore, of fluids produced from a stratum below the packer with fluids produced from a stratum above the packer. That this packer was properly set and that it did, when set, effectively and absolutely seal off the annular space between the two strings of pipe where it was set in such manner as that it prevented any movement of fluids across the packer.

BAKER OIL TOOLS (Company) (its Agent) 100 Subscribed and sworn to before me this the 711 day of Anglet, AD,

Notary Public in and for the Sounty

MY COMMISSION EXPIRES APRIL 4, 197

My Commission Expires\_\_\_\_\_

SEPTEMER 9, 1968

NEW MEXICO OIL CONSERVATION COMMISSION 1000 RIO BRAZOS ROAD AZTEC, NEW MEXICO 87410

ATTENTIONS MR. E. C. ANNOLD

DEAR SIRI

ENGLOWED, AS REQUESTED, ANE FOUR (4) COPIES OF WELL LOCATION AND AGREAGE DEDIGATION PLAT TO GOVER THE BASIN DAROTA AND BLANCO MESAVERDE FORMATIONS OF SOUTHERN UNION PRODUCTION COMPANY'S JIGARIELA "A" NO. 9 WELL LOCATED IN UNIT G. 1670 FEET FROM THE WEST AND 790 FEET FROM THE NORTH LINE OF SECTION 14, TOUNSHIP 26 NORTH, RANGE 4 WEST, N.M.P.M., RIO ARMIBA COUNTY, NEW MEXICO.

YOURS VERY TAULY,

SOUTHERN UNION PRODUCTION COMPANY

GILBERT D. NOLAND, JR. DRILLING SUPERINTENDENT

GDNJRSAY ENGLOGURES

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OCI BENNY E. BEONTOL - EXPLORATION

W ME2.ICO OIL CONSERVATION COMMIL       JN       Form C-102         WELL LOCATION AND ACREAGE DEDICATION PLAT       Supersedes C-12         All distances must be from the outer boundaries of the Section       Effective 1-1-65         All distances must be from the outer boundaries of the Section       Well No.	· (++)				
definition     d	Ket 1	· · · · ·			Supersedes C+128
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	Operator Senttherm Union Promotor				Well No.
the tree the North tree of the second bactors been consolidated to the subject well been bactors been consolidated to the subject well by colored pencil or bactors marks on the plat below.     I former than one leave is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).     If more than one leave is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).     If more than one leave is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).     If more than one leave is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).     If more than one leave is dedicated to the well, outline cach and identify the ownership thereof (both as to working interest and royalty).     If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary).     No allowable will be assigned to the well until all interests have been consolidated (by communitization, untitation, forced-pooling, or otherwise) or until a non-studend unit, climinating such interests, have been approved by the Commission.     Deterstore D. Annot D. Light D.	hit Letter Section.	Township	Pange		194
Find Live. The behavior and promiter Date of 7.0 Products and provide prov		10 f 11	1430		
1. Outline the areage dedicated to the subject well by colored pencil or hachare marks on the plat below. 2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty). 3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communification, unitization, force-pooling, etc? 32. Yes into it answer is "yes," type of consolidation Communification interests of all owners been consolidated by communitization, and tract descriptions which have actually been consolidated. (Use reverse side of this form in faced-sny). No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, faced-pooling, or otherwise) or until a non-stundard multi, elimipating such interests, has been approved by the Commission. Destarts Dataset Assignment for the well well well and there is the advected of the destart of the best of multi-communitization, unitization, introduced on the information control of the based of the well and the information control of the based of the well and the information control of the based of the twell between the interests. The information control of the based of the tween the information control of the based of the tween the information control of the based of the tween the information control of the based of the tween the information control of the based of the tween the information control of the based of the tween the information control of the based of the tween the information control of the based of the tween the information control of the based of the tween the information control of the based of the tween the information control of the based of the tween the information control of the based of the tween the information control of the based of the tween the information control of the based of the tween the information control of the based of the tween the information	ound Lovet Elev. Producing F	ormation DANOTA			
<ul> <li>If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).</li> <li>If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?</li> <li>Yes No If answer is "yes," type of cansolidation Consent (S 1247100)</li> <li>If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.)</li> <li>No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or unil a non-standard unit, etimating such interests, has been approved by the Commission.</li> <li>Distention D. Marke Stateston And Call and Complete to the information continued herein to its two and complete to the posterion D. Marke Stateston And Call and Cal</li></ul>					
If answer is "no?" list the owners and tract descriptions which have actually been consolidated. (I'se reverse side of this form if necessary.) No allowable will be assigned to the well until all interests have been consolidated (by comminization, unitization, forced-pooling, or otherwise) or until a non-standard unit. eliminating such interests, has been approved by the Commission. Distances Designed to the well until all interests have been consolidated (by comminization, unitization, forced-pooling, or otherwise) or until a non-standard unit. eliminating such interests, has been approved by the Commission. Distances Designed to the well back of the second of t	interest and royalty). 3. If more than one lease of dated by communitization,	different ownership is unitization, force-poo	dedicated to the welt, ling.etc?	have the interests	
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I hereby certify that the information con- tained herein is true and complete to the Higher D. Markey of before. Of Name Construct 1005		DEDISAT	ED DANOTA AOREAGE		
JIGARILLA APACHE Contract NOS Contract Nos				toined	herein is true and complete to the
Date BESTENSER 9, 1968 I harnby certify that the well location shown on this plot was plotted from field notes of octual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief. Date Surveyed May 6, 1968 Registered Professional Engineer and/or Land Surveyor Junco P. Lance Certificate No.	UIGARILLA APAONE Common / //105		internation i i i i i i i i i i i i i	Position Daill II Company	
RELIEVED RELIEVED SEP 1/0 1968 OIL CON. COM. DIST. 3 Date Surveyed May 6, 1968 Registered Professional Engineer and/or Land Surveyor Using P. Legan Certificate No.	n de la seguir de la della d Norma della della Norma della del			Date	the state of the second se
DIST. 3 Date Surveyed May 6, 1960 Registered Professional Engineer and/or Land Surveyor Junte P. Level Certificate No.				shawn c notes o under m is true	n this plot was plotted from field f actual surveys made by me or y supervision, and that the same and correct to the best of my
Certificate No.			OIL CON. COM. DIST. 3	Registere	1 Professional Engineer
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