

# El Paso Natural Gas Company

El Paso, Texas

December 29, 1961

133

Mr. John A. Anderson  
Regional Oil and Gas Supervisor  
United States Geological Survey  
Drawer 1857  
Roswell, New Mexico

Commissioner of Public Lands  
Of the State of New Mexico  
P. O. Box 791  
Santa Fe, New Mexico

Oil Conservation Commission  
Of the State of New Mexico  
P. O. Box 871  
Santa Fe, New Mexico

Re: Rosa Unit  
Revised Exhibit "B"  
Effective December 1, 1961

Gentlemen:

We enclose copies of the Revised Exhibit "B" covering the Rosa Unit Area which has been revised effective December 1, 1961.

The Exhibit "B" was mailed to the working interest owners of the Rosa Unit under date of November 21, 1961, and they were advised that if they should have any corrections or changes, to notify El Paso within ten (10) days. We have made the requested changes, therefore, this Exhibit "B" is presumed to reflect the correct interests of each working interest owner.

By copy of this letter we are forwarding to each working interest owner corrected pages 1,2,3,4,15 and 20, and we ask that they insert these pages in the Exhibit "B" forwarded with our letter dated November 21, 1961.

Very truly yours,

*Charles T. Richardson*  
Charles T. Richardson  
Area Coordinator  
Land Department

CTR: JBB: js  
Enclosure

EXHIBIT "B"  
SCHEDULE SHOWING THE PERCENTAGE AND KIND OF OWNERSHIP OF OIL AND GAS INTERESTS  
IN ALL LANDS IN THE ROSA UNIT

Tract No.	Description	No. of Acres	Serial No. and Lease Date	Land Owner Percentage of Royalty	Lessee of Record	Overriding Royalty Owner & Percentage	Working Interest Owner Under Option Agreement, Operating Agreement or Assignment and Percentage of Interest
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FEDERAL LANDS

1	<u>T-31-N, R-4-W</u> Sec. 1: All Sec. 2: All Sec. 3: All	1,965.72	SF 078891	USA 12 $\frac{1}{2}$ %	Byrd-Frost	None	J. Glenn Turner All Rights
2	Sec. 4: All Sec. 5: All Sec. 6: All Sec. 7: All	2,539.56	SF 078890 4-1-48	USA 12 $\frac{1}{2}$ %	Pan American Petroleum Corp.	None	As to Sections 4 and 6: Pan American Pet. Corp.-All Rights  As to Sections 5 and 7 to base of Dakota: Irving Pasternak, et ux  Below base of Dakota: Pan American Pet. Corp.
3	Sec. 8: All Sec. 9: All Sec. 10: All Sec. 11: All	2,560.00	SF 078888 8-1-48	USA 12 $\frac{1}{2}$ %	Pan American Petroleum Corp.	None	As to Sections 8, 10, 11: Pan American Pet. Corp.-All Rights  As to Section 9 to base of Dakota: Irving Pasternak, et ux  Below base of Dakota: Pan American Pet. Corp.
4	Sec. 12: All Sec. 13: All Sec. 24: All Sec. 25: All	2,559.57	SF 078887 2-1-49	USA 12 $\frac{1}{2}$ %	Pan American Petroleum Corp.	None	Pan American Petroleum Corp. - All Rights
5	Sec. 14: All Sec. 15: All Sec. 16: All	1,920.00	SF 078892 4-1-48	USA 12 $\frac{1}{2}$ %	Pan American Petroleum Corp.	None	Pan American Petroleum Corp. - All Rights

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FEDERAL LANDS

6	Sec. 17: All Sec. 18: All Sec. 19: All Sec. 20: All	2,505.68	SF 078889 8-1-48	USA 12 1/2 %	Pan American Petroleum Corp.	None	As to Sections 18, 19, 20: Pan American Pet. Corp.-All Rights
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As to Section 17 to  
Base of Dakota:  
Irving Pasternak, et ux

Below base of Dakota:  
Pan American Pet. Corp.

7	Sec. 21: All Sec. 22: All Sec. 23: All	1,920.00	SF 078893 4-1-48	USA 12 1/2 %	Pan American Petroleum Corp.	None	Pan American Petroleum Corp. - All Rights
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8	Sec. 26: E/2 SE/4, N/2 N/2, Lots 1,2,3,4,5,6, 7,8,9,SW/4 NW/4 Sec. 27: E/2 E/2, SW/4 SE/4, NW/4 NE/4, NE/4 NW/4, Lots 1,2,3,4,5,6,7,8 Sec. 28: W/2, SE/4, W/2 NE/4, Lots 1,2 Sec. 29: All	2,284.16	SF 078894 8-1-48	USA 12 1/2 %	Pan American Petroleum Corp.	None	Pan American Petroleum Corp. - All Rights
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11	Sec. 30: E/2 Sec. 31: E/2, E/2 SW/4	716.91	SF 078777 7-1-48	USA 12 1/2 %	Pan American Petroleum Corp.	None	Pan American Petroleum Corp. - All Rights
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12	Sec. 30: E/2 W/2, Lots 1,2,3,4 Sec. 31: E/2 NW/4 Lots 1,2,3,4	508.84	SF 078774 7-1-48	USA 12 1/2 %	Pan American Petroleum Corp.	None	Pan American Petroleum Corp. - All Rights
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13	T-31-N, R-5-W Sec. 3: All Sec. 4: All Sec. 5: All	2,544.64	SF 078763 8-1-48	USA 12 1/2 %	E1 Paso Natural Gas Co.	Pan American - 5% only on Neville Penrose Interest	To base of the Pictured Cliffs Formation: Gas & Oil Rights Neville Penrose - All
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13 Continued  
 Sec. 8: E/2, SW/4  
 Sec. 9: A11  
 Sec. 10: N/2

From the base of the Pictured Cliffs to base of the Mesaverde Formation:  
 Gas Rights  
 El Paso Natural Gas Co. A11\*\*

Oil Rights  
 Colorado Oil & Gas 1/2  
 El Paso Natural Gas Co. 1/2

Below base Mesaverde Formation:  
 Pan American Pet. Corp.-All Rights

14 T-31-N, R-5-W 2,518.04 SF 078767 USA 12 2/3% El Paso Natural Gas Co.  
 Sec. 6: A11  
 Sec. 7: A11  
 Sec. 8: NW/4

As to NW/4 Section 8  
 To base of Pictured Cliffs Formation:  
 Gas & Oil Rights-Neville Penrose

T-31-N, R-6-W  
 Sec. 12: A11  
 Sec. 13: A11  
 Sec. 24: A11

From base of the Pictured Cliffs to base of Mesaverde Formation:  
 Gas Rights  
 El Paso Natural Gas Co. A11\*\*  
 Oil Rights  
 Colorado Oil & Gas 1/2  
 El Paso Natural Gas Co. 1/2

Below base Mesaverde Formation:  
 Pan American Pet. Corp.-All Rights

As to all lands other than NW/4 Section 8  
 From surface to base of Mesaverde Formation  
 Gas Rights  
 El Paso Natural Gas Co. A11\*\*

Oil Rights  
 Colorado Oil & Gas 1/2  
 El Paso Natural Gas Co. 1/2

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14 Continued

15	T-31-N, R-5-W	2,560.00	SF 078762 7-1-48	USA 12 <sup>1</sup> / <sub>2</sub> %	Pan American Petroleum Corp.	None	<u>Below Base Mesaverde Formation:</u> Pan American Pet. Corp.-All Rights
	Sec. 11: All						As to Sections 12 and 14: Pan American Pet. Corp.-All Rights
	Sec. 12: All						As to Sections 11 and 13 to Base of Dakota:
	Sec. 13: All						Irving Pasternak, et ux

Below base of Dakota:  
Pan American Pet. Corp.

16	Sec. 10: S/2	2,560.00	SF 078770 5-1-48	USA 12 <sup>1</sup> / <sub>2</sub> %	El Paso Natural Gas Co.	Pan American 5% only on Neville Penrose Interest	As to Section 10: S/2 Section 15: All
	Sec. 15: All						To base of Pictured Cliffs:
	Sec. 22: All						Gas & Oil Rights
	Sec. 23: N/2						Neville Penrose All

From base of Pictured Cliffs to Base of Mesaverde Formation:  
Gas Rights  
El Paso Natural Gas Co. All\*\*

Oil Rights  
Colorado Oil & Gas 1/2  
El Paso Natural Gas Co. 1/2

Below Base Mesaverde Formation:  
Pan American Pet. Corp.-All Rights

As to all other lands:  
From surface to base Mesaverde Formation:  
Gas Rights  
El Paso Natural Gas Co. All\*\*

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16	Continued						Oil Rights: Colorado Oil & Gas Co. 1/2 El Paso Natural Gas Co. 1/2
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Below Base Mesaverde Formation:  
All Rights  
Pan American Petroleum Corp.

17	<u>T-31-N, R-5-W</u> Sec. 16: All Sec. 17: All Sec. 21: All Sec. 28: All	2,560.00	SF 078769 5-1-48	USA 12 1/2%	El Paso Natural Gas Co.	Pan American 5% only on Neville Penrose Interest	As to Section 16: All Section 17: All To base of Pictured Cliffs: Gas & Oil Rights Neville Penrose All
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From Base of Pictured Cliffs to Base of Mesaverde Formation:  
Gas Rights  
El Paso Natural Gas Co. All\*\*

Oil Rights  
Colorado Oil & Gas Co. 1/2  
El Paso Natural Gas Co. 1/2

Below Base Mesaverde Formation:  
All Rights  
Pan American Petroleum Corp.

As to all other lands:

From surface to base of Mesaverde Formation:  
Gas Rights  
El Paso Natural Gas Co. All\*\*

Oil Rights  
Colorado Oil & Gas Co. 1/2  
El Paso Natural Gas Co. 1/2

Tract No.	Description	No. of Acres	Serial No. and Lease Date	Land Owner Percentage of Royalty	Lessee of Record	Overriding Royalty Owner & Percentage	Working Interest Owner Under Option Agreement, Operating Agreement or Assignment and Percentage of Interest
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17 Continued

Below base Mesaverde Formation:  
All Rights  
Pan American Petroleum Corp.

18 T-31-N, R-5-W 2,507.30 SF 078764 USA 12<sup>1</sup>/<sub>2</sub>% E1 Paso Natural Gas Company None  
Sec. 18: All  
Sec. 19: E/2 E/2, NW/4  
NE/4, SW/4  
SE/4, Lots 1,4  
Sec. 20: N/2, SE/4  
Sec. 29: N/2 NE/4, W/2  
SE/4, SW/4  
Sec. 30: All  
Sec. 31: All

From surface to base of Mesaverde Formation:  
Gas Rights  
E1 Paso Natural Gas Co.  
All\*\*

Oil Rights  
Colorado Oil & Gas Co. 1/2  
E1 Paso Natural Gas Co. 1/2  
Below base Mesaverde Formation:  
All Rights  
Pan American Petroleum Corp.

21 Sec. 29: S/2 NE/4, E/2 SE/4 160.00 SF 079165 USA 12<sup>1</sup>/<sub>2</sub>% E1 Paso Natural Gas Company None

From surface to base of Mesaverde Formation:  
Gas Rights  
E1 Paso Natural Gas Co.  
All\*\*

Oil Rights  
Colorado Oil & Gas Co. 1/2  
E1 Paso Natural Gas Co. 1/2

Below Base Mesaverde Formation:  
Pan American Petroleum Corp.  
All Rights

22 Sec. 23: S/2 2,560.00 SF 078768 USA 12<sup>1</sup>/<sub>2</sub>% Pan American Petroleum Corp. None  
Sec. 24: All  
Sec. 25: W/2, SE/4  
Sec. 26: W/2, SE/4  
Sec. 36: All

Pan American Petroleum Corp.  
All Rights





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33 Continued

37	Sec. 11: All Sec. 14: All Sec. 23: All Sec. 26: All	2,560.00	SF 078771 4-1-48	USA 12 1/2%	EI Paso Natural Gas Co.	None	Below Base of Mesaverde Formation: All Rights Pan American Petroleum Corp.  From surface to Base of Mesaverde Formation: Gas Rights EI Paso Natural Gas Co. All**
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39	T-31-N, R-6-W Sec. 16: Lots 1,2,3, N/2 NE/4, N/2 NW/4, SW/4 NW/4 W/2 SW/4 Sec. 17: All Sec. 21: Lots 1,2,3, W/2 NW/4, S/2 Sec. 22: Lot 1, S/2 NE/4, E/2 NW/4 Sec. 25: All	2,552.71	SF 078766 4-1-48	USA 12 1/2%	EI Paso Natural Gas Co.	None	Oil Rights Colorado Oil & Gas 1/2 EI Paso Natural Gas Co. 1/2  Below Base Mesaverde Formation: All Rights Pan American Petroleum Corp.  From surface to base of Mesaverde Formation: Gas Rights EI Paso Natural Gas Co. All**  Oil Rights Colorado Oil & Gas 1/2 EI Paso Natural Gas Co. 1/2  Below Base Mesaverde Formation: All Rights Pan American Petroleum Corp.
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TOTAL FEDERAL LANDS 49,505.22 acres or 91.32% of UNIT AREA

Tract No.	Description	No. of Acres	Serial No. and Lease Date	Land Owner Percentage of Royalty	Lessee of Record	Overriding Royalty Owner & Percentage	Working Interest Owner Under Option Agreement, Operating Agreement or Assignment and Percentage of Interest
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STATE LANDS

25	<u>T-31-N, R-5-W</u> <u>Sec. 32: NW/4</u>	160.00	E-347-33 6-1-45	State of New Mexico 12 1/2%	El Paso Natural Gas Co.	<u>Before payout</u> John R. Brenmand Dan R. Ponder	5.468750% 5.468750%	<u>Gas Rights before payout</u> <u>To Base of Mesaverde Formation:</u> El Paso Natural Gas Co. All
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After payout  
None

Below Base Mesaverde Formation:  
El Paso Natural Gas Co. 1/2  
J. Glenn Turner 1/2

Gas Rights after payout  
El Paso Natural Gas Co. 3/10  
J. Glenn Turner 3/10  
John R. Brenmand 2/10  
Dan R. Ponder 2/10

Oil Rights before payout  
El Paso Natural Gas Co. 1/2  
J. Glenn Turner 1/2

Oil Rights after payout  
El Paso Natural Gas Co. 3/10  
J. Glenn Turner 3/10  
John R. Brenmand 2/10  
Dan R. Ponder 2/10

From surface to base of  
Mesaverde Formation:  
Gas and Oil Rights  
El Paso Natural Gas Co. All

Below Base Mesaverde Formation:  
All Rights  
Pan American Petroleum Corp.

26	<u>T-31-N, R-5W</u> <u>Sec. 32: NE/4</u>	160.00	E-347-28 6-1-48	State of New Mexico 12 1/2%	El Paso Natural Gas Co.	None	
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STATE LANDS

27	Sec. 32: S/2	320.00	E-347-32 6-1-45	State of New Mexico 12 1/2%	E1 Paso Natural Gas Co.	New York Life Insurance Co. in the form of a Production Payment from Delht-Taylor Oil Corp. Squire Production Company	Gas Rights before payout To Base of Mesaverde Formation: E1 Paso Natural Gas Co. All Below Base Mesaverde Formation: E1 Paso Natural Gas Co. 1/2 J. Glenn Turner 1/2
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Gas Rights after payout  
E1 Paso Natural Gas Co. 1/2  
J. Glenn Turner 1/2

Oil Rights - All depths  
E1 Paso Natural Gas Co. 1/2  
J. Glenn Turner 1/2

From surface to base of  
Mesaverde Formation:  
Gas Rights  
E1 Paso Natural Gas Co.  
All\*\*

Oil Rights  
Colorado Oil & Gas 1/2  
E1 Paso Natural Gas Co. 1/2

Below Base Mesaverde Formation:  
All Rights  
Pan American Petroleum Corp.

L. A. Smith All Rights \*\*\*\*\*

30	T-31-N, R-6-W Sec. 2: All except Lot 5	346.91	E-289-37 5-2-45	State of New Mexico 12 1/2%	E1 Paso Natural Gas Co.	Francis L. Harvey	2.5%
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31	Sec. 2: Lot 5	9.35		State of New Mexico 12 1/2%	L. A. Smith	None	
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STATE LANDS

40	Sec. 16: N/2 NW/4	80.00	E-346-20 6-1-45	State of New Mexico 12 1/2%	El Paso Natural Gas Company 1/2 J. Glenn Turner 1/2	New York Life Insurance Co. in the form of a Production Payment from Delhi-Taylor Oil Corp. 10.937500% Squire Production Co. 10.937500%	El Paso Natural Gas Co. 1/2 J. Glenn Turner 1/2
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40-A	Sec. 16: SW/4 NW/4 NW/4 NE/4	80.00	E-346-22 6-1-45	State of New Mexico 12 1/2%	El Paso Natural Gas Company 1/2 J. Glenn Turner 1/2	New York Life Insurance Co. in the form of a Production Payment from Delhi-Taylor Oil Corp. 10.937500% Squire Production Co. 10.937500%	El Paso Natural Gas Co. 1/2 J. Glenn Turner 1/2
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41	Sec. 16*	160.00		State of New Mexico 12 1/2%	Southern Petroleum Exploration, Inc.	None	Southern Petroleum Exploration, Inc. All Rights
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42	Sec. 16 and 21*	80.00	E-289-37 5-2-45	State of New Mexico 12 1/2%	El Paso Natural Gas Co.	Francis L. Harvey 2.5%	From surface to base of Mesaverde Formation: Gas Rights El Paso Natural Gas Co. All**
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Oil Rights  
Colorado Oil & Gas 1/2  
El Paso Natural Gas Co. 1/2

Below Base Mesaverde Formation:  
All Rights  
Pan American Petroleum Corp.

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STATE LANDS

43	T-31-N <sub>2</sub> R-6-W Sec. 15 and 22*	80.00	E-289-31 5-2-45	State of New Mexico 12 1/2%	El Paso Natural Gas Co.	Hondo Oil & Gas Co.	5.0%	From the surface to the base of the Mesaverde Formation: All Rights El Paso Natural Gas Co.***
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Below Base Mesaverde Formation:  
Before Payout and/or 90%  
Depletion  
All Rights  
El Paso Natural Gas Co.\*\*\*

After Payout and/or 90%  
Depletion  
El Paso Natural Gas Co.  
1/2\*\*\*\*  
Phillips Petroleum Company  
1/2

From the surface to the base  
of the Mesaverde Formation:  
All Rights  
El Paso Natural Gas Co.\*\*\*

Below Base Mesaverde Formation:  
Before Payout and/or 90%  
Depletion  
All Rights  
El Paso Natural Gas Co.\*\*\*\*  
After Payout and/or 90%  
Depletion  
El Paso Natural Gas Co.  
1/2\*\*\*\*  
Phillips Petroleum Company  
1/2

44	T-32-N <sub>2</sub> R-6-W Sec. 32: W/2	320.00	E-504-11 8-21-45	State of New Mexico 12 1/2%	El Paso Natural Gas Co.	C. L. Collins E. H. Dellinger	2.0% 1.0%
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STATE LANDS

45	<u>T-32-N, R-6-W</u> Sec. 32: E/2	320.00	E-504-13 8-21-45	State of New Mexico 12 <sup>1</sup> / <sub>2</sub> %	El Paso Natural Gas Co.	New York Life Insurance Co. in the form of a Production Payment from Delhi-Taylor Oil Corp. 10.937500% Squire Production Co. 10.937500%	<u>From the surface to the base of the Mesaverde Formation:</u> Gas Rights El Paso Natural Gas Co. All
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Oil Rights  
El Paso Natural Gas Co. 1/2  
J. Glenn Turner 1/2

Below Base Mesaverde Formation:  
Oil and Gas Rights  
J. Glenn Turner 50%  
Frank A. Schultz 45%  
William G. Webb 5%

From surface to base of Mesaverde Formation:  
Gas Rights  
El Paso Natural Gas Co. All\*\*

Oil Rights  
Colorado Oil & Gas 1/2  
El Paso Natural Gas Co. 1/2

Below Base Mesaverde Formation:  
All Rights  
Pan American Petroleum Corp.

47	Sec. 36: W/2	320.00	E-346-19 6-1-45	State of New Mexico 12 <sup>1</sup> / <sub>2</sub> %	El Paso Natural Gas Co.	None	
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STATE LANDS

48	<u>T-32-N, R-6-W</u> Sec. 36: E/2	320.00	E-346-24 6-1-45	State of New Mexico 12 1/2%	El Paso Natural Gas Co.	New York Life Insurance Co. in the form of a Production Payment from Delhi-Taylor Oil Corp. 10.937500%	Gas Rights to base of <u>Mesaverde Formation:</u> El Paso Natural Gas Co. All
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Squire Production Co. 10.937500%	Gas Rights below base of <u>Mesaverde &amp; All Oil Rights:</u> J. Glenn Turner 50% William G. Webb 5% Frank A. Schultz 45%
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TOTAL STATE LANDS 2,756.26 acres or 5.08% of UNIT AREA

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PATENTED LANDS

9	<u>T-31-N, R-4-W</u> Sec. 26: H.E. #282	156.80	Patented 5-20-53 5 year	Lewis W. Lynch 12 1/2%	Pan American Petroleum Corp.	None	Pan American Pet. Corp. All Rights
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10	Sec. 27 and 28: H.E. #277	120.63	Patented 3-5-47 10 year 5-19-47 10 year	Ruth Scammahorn et vir 6.25%  Horace F. McKay, Jr., et ux 6.25%	Pan American Petroleum Corp.	None	Pan American Pet. Corp. All Rights
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19	<u>T-31-N, R-5-W</u> Sec. 19: SW/4 NE/4 NW/4 SE/4 Lots 2, 3	152.22	Patented 11-10-47 10 year	Miguel A. Gonzales 12 1/2%	El Paso Natural Gas Co.	None	From surface to base of Mesaverde Formation: Gas Rights El Paso Natural Gas Co. All**
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Oil Rights  
Colorado Oil & Gas 1/2  
El Paso Natural Gas Co. 1/2

Below Base Mesaverde Formation:  
All Rights  
Pan American Petroleum Corp.

20	<u>T-31-N, R-5-W</u> Sec. 20: SW/4 Sec. 29: NW/4	320.00	Patented 11-21-46 10 year	Manuel C. Candelaria 1.562500% Allen M. Tonkin 1.562500% W. P. McDonald 1.562500% Dee Forehand .260417% R. E. Beamon .434028% Alma Beamon Anderson .217014% Texas National Petroleum Co. .325521%	El Paso Natural Gas Co.	None	From surface to base of Mesaverde Formation: Gas Rights El Paso Natural Gas Co. All**
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Oil Rights  
Colorado Oil & Gas 1/2  
El Paso Natural Gas Co. 1/2

Below Base Mesaverde Formation:  
All Rights  
Pan American Petroleum Corp.



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PATENTED LANDS

20 Continued

1st Nat'l Bank of  
Ft. Worth (Trustee)  
for Eula Mae Johnston)  
.162761%  
Ralph A. Johnston  
.081380%  
Orville C. Rogers  
.013563%  
Veva Jean Gibbard  
.013563%  
V. A. Johnston  
.040690%  
Lillie Leona Rogers  
.013563%  
Brookhaven Oil Co.  
1.367188%  
Paul H. Umbach  
1.367187%  
Dacresa Corporation  
3.515625%  
12.500000%

23 T-31-N, R-5-W  
Sec. 25: NE/4

160.00 Patented

Undivided Interest in  
12.5% owned equally  
as follows:  
Mrs. Josefa A. Abeyta  
Mrs. Filbradita A. Rivera  
Mike A. Abeyta  
Tiva Abeyata Garcia  
Estifanito A. Serrano  
Atachilta Abeyta

Unknown

Unknown

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24 Sec. 26: NE/4

160.00 Patented

Jose J. Sanchez,  
et ux 12 1/2%

Unknown

Unknown

Unknown

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PAGE 16

Tract No.	Description	No. of Acres	Serial No. and Lease Date	Land Owner Percentage of Royalty	Lessee of Record	Overriding Royalty Owner & Percentage	Working Interest Owner Under Option Agreement, Operating Agreement or Assignment and Percentage of Interest
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PATENTED LANDS

32	T-31-N, R-6-W Sec. 3 & 4: Tract 37	158.36	Fee	T. H. McElvain John & Gladys Greene D. A. & Helen Greene	5/16 11/32 11/32	Unknown	Unknown	*****
	T-32-N, R-6-W Sec. 33: E/2 SE/4 Sec. 34: NW/4 SW/4							

34	T-31-N, R-6-W Sec. 8: W/2 E/2	160.00	Fee 1-26-48	Thomas B. Miller B. H. Wise H. F. Axtell	4.68750% 4.68750% 3.12500%	El Paso Natural Gas Co.	None	From surface to base of Mesaverde Formation: Gas Rights El Paso Natural Gas Co. All**
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Oil Rights  
Colorado Oil & Gas 1/2  
El Paso Natural Gas Co. 1/2

Below base Mesaverde Formation:  
All Rights  
Pan American Petroleum Corp.

35	T-31-N, R-6-W Sec. 10: W/2 E/2	160.00	Fee 11-7-47	Nee Forehand R. E. Beamon Alma M. Beamon Anderson	.781250% 1.822917% .911458%	El Paso Natural Gas Co.	None	From surface to base of Mesaverde Formation: Gas Rights El Paso Natural Gas Co. All**
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Oil Rights  
Colorado Oil & Gas Co. 1/2  
El Paso Natural Gas Co. 1/2  
Below base Mesaverde Formation:  
All Rights  
Pan American Petroleum Corp.

First Nat'l Bank of  
Ft. Worth, Texas,  
Trustee for Eula  
Mae Johnston  
.292969%  
V. A. Johnston  
.073242%

Tract No.	Description	No. of Acres	Serial No. and Lease Date	Land Owner Percentage of Royalty	Lessee of Record	Overriding Royalty Owner & Percentage	Working Interest Owner Under Option Agreement, Operating Agreement or Assignment and Percentage of Interest
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PATENTED LANDS

35 Continued

Mrs. Willie Johnston  
.073242%  
Lillie Leona Rogers  
.024414%  
Orville C. Rogers  
.024414%  
Veva Jean Gibbard  
.024414%  
C. H. Nye  
1.562500%  
Allen M. Tonkin  
& Nancy P. Tonkin,  
Joint Tenants  
3.125000%  
Gifford H. &  
Margaret Nigh  
3.125000%

36 Sec. 10 &  
15: Tr. 38 161.52 Fee 2-1-49

Ruth Covert, as  
executrix of Estate  
of J. S. Covert,  
Deceased  
6.250000%  
S. P. Johnson  
6.250000%

El Paso Natural  
Gas Company  
Covert & Johnson  
1/16 of 7/8 until  
\$200.00 per acre  
received.

From surface to base of  
Mesaverde Formation:  
Gas Rights  
El Paso Natural Gas Co.  
All\*\*  
Oil Rights  
Colorado Oil & Gas 1/2  
El Paso Natural Gas Co. 1/2

Below Base Mesaverde Formation:  
All Rights  
Pen American Petroleum Corp.

38 T-31-N, R-6-W  
Sec. 15 & 16: 160.00 Fee 8-6-47  
Tract 39

Albuquerque Nat'l  
Bank as Guardian of  
Estate of Jose Lopez  
2.343750%

El Paso Natural  
Gas Company  
None

From surface to base of  
Mesaverde Formation:  
Gas Rights  
El Paso Natural Gas Co.  
All\*\*

Tract	No. of Acres	Serial No. and Lease Date	Land Owner Percentage of Royalty	Lessee of Record	Overriding Royalty Owner & Percentage	Working Interest Owner Under Option Agreement, Operating Agreement or Assignment and Percentage of Interest
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PATENTED LANDS

38	Continued		Dacresa Corp. 3.515625% Paul Umbach 1.367187% Margarito Lopez 3.906250% Brookhaven Oil Corp. 1.367187%			Oil Rights Colorado Oil and Gas 1/2 El Paso Natural Gas Co. 1/2
46	T-32-N, R-6-W Sec. 34: W/2 NW/4	80.00	Fee 1-18-47	Celestino Mascartinas 12.500000% El Paso Natural Gas Company	None	From surface to base of Mesaverde Formation: Gas Rights El Paso Natural Gas Co. All**

Oil Rights  
Colorado Oil & Gas 1/2  
El Paso Natural Gas Co. 1/2

Below Base Mesaverde Formation:  
All Rights  
Pan American Petroleum Corp.

TOTAL FEE LANDS: 1,949.53 acres or 3.60% of UNIT AREA

\* Resurvey plat, dated June 30, 1919, approved August 27, 1919, shows "School Section" to be parts of Sections 15, 16, 21, and 22, T-31-N, R-6-W, but is carried on State of New Mexico records as Section 16, T-31-N, R-6-W, and is leased as follows:

N/2 NW/4	leased to J. Glenn Turner, et al - 160.00 acres - Unit Tract 40
SW/4 NW/4, NW/4 NE/4	Unit Tract 40-A
SW/4	leased to J. Glenn Turner, et al -
W/2 SE/4	leased to Southern Petroleum Exploration, Inc. - 160 acres - Unit Tract 41
E/2 SE/4	leased to El Paso Natural Gas Company - 80 acres - Unit Tract 42
	leased to El Paso Natural Gas Company - 80 acres - Unit Tract 43

\*\* Subject to Colorado Oil and Gas Corporation Reversional Interest and Pan American's scaled overriding royalty interest.

\*\*\* Subject to Sublease and Operating Agreement dated February 23, 1955, as amended, between Phillips Petroleum Company and Pacific Northwest Pipeline Corporation (now El Paso Natural Gas Company), which provided, among other things, for certain Overriding Royalties from the surface to the base of the Mesaverde Formation.

\*\*\*\* Subject to a Letter Agreement, dated 4-21-59, as amended, between Phillips Petroleum Company and El Paso Natural Gas Company which provided, among other things, for certain overriding royalties and a reversionary interest in favor of Phillips Petroleum Company below the base of the Mesaverde Formation.

\*\*\*\*\* Acreage not committed to Unit - Tracts 23, 24, 31, 32 are not committed to Rosa Unit.

EXHIBIT "B"  
ROSA UNIT

TOTAL LANDS      54,211.01

<u>RECAPITULATION</u>		
<u>Land</u>	<u>Acres in Unit</u>	<u>Percentage of Unit Area</u>
FEDERAL	49,505.22	91.32%
STATE	2,756.26	5.08%
FEE	<u>1,949.53</u>	<u>3.60%</u>
TOTAL	54,211.01	100.00%

Revised:    Effective December 1, 1961

# *El Paso Natural Gas Company*

*El Paso, Texas*

August 22, 1961

*133*

Oil Conservation Commission  
Of the State of New Mexico  
P. O. Box 871  
Santa Fe, New Mexico

Re: Designation of Sub-Operator  
Rosa Unit Area, I Sec. 587  
Rio Arriba County, New Mexico

Gentlemen:

We enclose one (1) executed copy of a Designation of Sub-Operator dated August 15, 1961 wherein El Paso Natural Gas Company, as Rosa Unit Operator, designates Mr. Irving Pasternak as Sub-Operator of the oil and gas operating rights under the E/2 of Section 19, Township 31 North, Range 4 West, N.M.P.M., Rio Arriba County, New Mexico for the purpose of drilling a Mesaverde-Dakota dual test well.

Very truly yours,

*Charles Higgins*

Charles Higgins  
Area Coordinator  
Land Department

CH: JBB:js  
Enclosure

Rosa Unit, 5.0

DESIGNATION OF SUB-OPERATOR

THIS DESIGNATION is made and entered into this 15th day of August, 1961, by and between EL PASO NATURAL GAS COMPANY, a Delaware corporation, whose address is Post Office Box 1492, El Paso, Texas, hereinafter sometimes referred to as "Operator", and IRVING PASTERNAK, an individual, whose address is 1402 Denver U. S. National Center, Denver, Colorado, hereinafter sometimes referred to as "Sub-Operator".

WHEREAS, Operator is Unit Operator for the Rosa Unit, I Sec. No. 587, Counties of Rio Arriba and San Juan, State of New Mexico; and

WHEREAS, Sub-Operator is holder of the oil and gas operating rights under the following described tract of land:

Rio Arriba County, New Mexico  
Township 31 North, Range 4 West, N.M.P.M.  
Section 19: E/2  
Containing 320.00 acres, more or less; and

WHEREAS, the above described tract of land is committed to the terms and conditions of the Rosa Unit Agreement and Rosa Unit Operating Agreement; and

WHEREAS, Sub-Operator desires to drill a dual, Mesaverde-Dakota test on the above described tract of land pursuant to the provisions of Section twelve (12) of the Rosa Unit Agreement; and

WHEREAS, Sub-Operator has been furnished Notice of Operator's election not to drill the said dual, Mesaverde-Dakota test as Unit Operator under the terms of the Rosa Unit Agreement; and

WHEREAS, Sub-Operator has requested that Operator execute this Designation in order that said dual, Mesaverde-Dakota test may be drilled by Sub-Operator.

NOW, THEREFORE, in order to permit Irving Pasternak to drill the said dual, Mesaverde-Dakota test, El Paso Natural Gas Company, as Unit Operator of the Rosa Unit, hereby designates Irving Pasternak as Sub-Operator for the sole and only purpose of drilling the said dual, Mesaverde-Dakota test on the above described land pursuant to Section twelve (12) of the Rosa Unit Agreement.

Sub-Operator indicates his acceptance of this Designation by placing his signature in the space provided below and agrees to drill, complete, and/or plug and abandon said test as a reasonable and prudent operator in accordance with the terms and conditions of the Rosa Unit Agreement and the Rosa Unit Operating Agreement and also agrees to the following conditions:



1. Notify Operator when drilling operations are commenced.
2. Furnish Operator with complete daily driller's report, at Sub-Operator's expense.
3. Furnish Operator with daily reports by telephone call or telegram at Sub-Operator's expense, as to the formation or formations penetrated during the previous day's drilling, the depth at which each formation is encountered, and the depth at which the report is made.
4. Allow representatives of Operator access to the derrick floor at all times.
5. Notify Operator of intentions to core, drill stem test or run well surveys in sufficient time to enable Operator's representative to be present.
6. Adequately test and/or core all possible productive formations to the satisfaction of Operator upon request.
7. Have any core having shows of oil or gas analyzed by a competent core analysis laboratory, and have such laboratory send three preliminary copies and three final copies of the analysis report to Operator.
8. Furnish Operator three field prints and three final prints of all well surveys made during drilling or upon completion of the well.
9. Permit Operator, at its cost and for its sole use, including full rig time, to make any additional surveys including a geophysical velocity survey as it may desire.
10. Furnish Operator a representative and adequate cut of all cores and ditch samples taken during the drilling of a well.
11. Provide Operator with copies of drilling time records, hole deviation tests and all records required by the governmental agencies having jurisdiction of the well.
12. Notify Operator of any intentions to plug and abandon the well and allow Operator forty-eight (48) hours in which to concur.
13. Carry adequate and proper insurance of the types and in the amounts as specified in Section 6 of the Rosa Unit Operating Agreement.
14. Provide the Commissioner of Public Lands of New Mexico and the New Mexico Oil Conservation Commission copies of all reports and other well data submitted to the United States Geological Survey.

All notices, samples, or other information required to be furnished shall be sent to:

El Paso Natural Gas Company  
Post Office Box 1492  
El Paso, Texas  
Attention: Land Department

With a copy to:

El Paso Natural Gas Company  
Post Office Box 990  
Farmington, New Mexico  
Attention: Area Manager

Sub-Operator shall comply with all applicable laws, rules and regulations of any governmental authority having jurisdiction over operations performed under this Designation, and shall indemnify, protect and hold Operator harmless from and against any and all claims, demands or causes of action for injuries or death to persons or damage to property occurring in connection with or in any manner incident to operations conducted by the Sub-Operator hereunder.

Simultaneously with the execution of this agreement, Sub-Operator shall furnish to Operator a performance bond in the amount of \$10,000.00 executed by Sub-Operator and a reputable corporate surety, satisfactory to Operator, conditioned upon faithful performance of the duties and obligations of this agreement. Failure to comply with the duties and obligations of this agreement shall cause this agreement to terminate and said performance bond shall become immediately due and payable to Operator in its full amount of \$10,000.00; provided, however, that the payment of this amount shall not relieve or absolve Sub-Operator of its obligations imposed by the preceding paragraph of this agreement to indemnify, protect and hold Operator harmless from and against all claims, demands or causes of action for injuries or death to persons or damage to property occurring in connection with or in any manner incident to operations conducted by the Sub-Operator hereunder.

THE DRILLING of the said dual, Mesaverde-Dakota test is subject to approval by the Oil and Gas Conservation Commission, the Commissioner of Public Lands of the State of New Mexico, and the Supervisor of the United States Geological Survey, Roswell, New Mexico.

THIS DESIGNATION shall be effective for a period of time not to exceed three (3) months from the date hereof, or until said dual, Mesaverde-Dakota test is completed and/or plugged and abandoned.

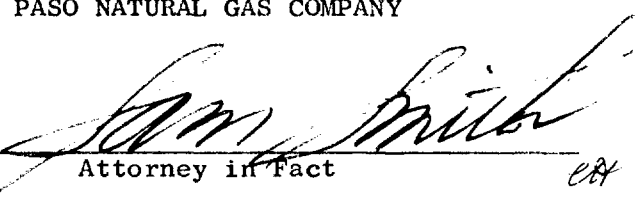
THIS DESIGNATION is personal and cannot be assigned in whole or in part by Sub-Operator without the written consent of Operator having first been obtained.

IN WITNESS WHEREOF, this Designation is executed as of the day and year first hereinabove written.

OPERATOR

EL PASO NATURAL GAS COMPANY

By

  
Attorney in Fact

ea

SUB-OPERATOR

Irving Pasternak  
IRVING PASTERNAK

STATE OF TEXAS )

COUNTY OF EL PASO )

The foregoing instrument was acknowledged before me this 21<sup>st</sup> day of August, 1961, by SAM SMITH, as Attorney in Fact on behalf of EL PASO NATURAL GAS COMPANY, a Delaware corporation

My Commission expires:

NATALIE TAYLOR

Notary Public in and for El Paso County, Texas  
My Commission Expires June 1, 1963

Natalie Taylor  
Notary Public

STATE OF COLORADO )

COUNTY OF Arapahoe )

The foregoing instrument was acknowledged before me this 15 day of August, 1961, by IRVING PASTERNAK.

My Commission expires:

Lorraine Sabatini  
Notary Public

6-24-63

# El Paso Natural Gas Company

El Paso, Texas

August 7, 1961

Case 125

Mr. John Anderson  
Regional Oil and Gas Supervisor  
United States Geological Survey  
P. O. Box 1857  
Roswell, New Mexico

Commissioner of Public Lands  
State of New Mexico  
P. O. Box 791  
Santa Fe, New Mexico

Oil Conservation Commission  
State of New Mexico  
P. O. Box 871  
Santa Fe, New Mexico

Re: ROSA UNIT - 1961 DRILLING PROGRAM  
San Juan and Rio Arriba Counties, N. M.

Gentlemen:

The 1961 Drilling Program for the Rosa Unit, San Juan and Rio Arriba Counties, New Mexico, was approved by the regulatory bodies on the following dates:

United States Geological Survey	-	April 11, 1961
Commissioner of Public Lands	-	April 14, 1961
Oil Conservation Commission	-	July 2, 1961

Copies of this letter are being sent to all working interest owners of the Rosa Unit.

Very truly yours,

*Charles Higgins*

Charles Higgins  
Area Coordinator  
Land Department

CH:JBB:fsc

Rosa Unit 3.0

OIL CONSERVATION COMMISSION

P. O. BOX 871

SANTA FE, NEW MEXICO

*Case # 178*

August 2, 1961

El Paso Natural Gas Company  
P. O. Box 1492  
El Paso, Texas

Attention: Mr. Sam Smith

Re: 1961 Drilling Program,  
Rosa Unit, Rio Arriba  
and San Juan Counties,  
New Mexico

Gentlemen:

This is to advise that the New Mexico Oil Conservation Commission has this date approved the 1961 Drilling Program for the Rosa Unit, Rio Arriba and San Juan Counties, New Mexico, subject to like approval by the United States Geological Survey and the Commissioner of Public Lands of the State of New Mexico.

One approved copy of the plan is returned herewith.

Very truly yours,

A. L. PORTER, Jr.,  
Secretary-Director

ALP/JEK/esr  
Enclosure

cc: United States Geological Survey  
Roswell, New Mexico

Commissioner of Public Lands  
Santa Fe, New Mexico

C  
O  
P  
Y

123

April 17, 1961

El Paso Natural Gas Company  
P. O. Box 1492  
El Paso, Texas

Re: Rosa Unit  
San Juan & Rio Arriba  
Counties, New Mexico  
1961 Drilling Program

Attention: Mr. Sam Smith

Gentlemen:

The Commissioner of Public Lands has approved as of April 14, 1961, your 1961 Drilling Program for the Rosa Unit Area.

This plan makes mention of the La Plata well, we received an intention on this well, please furnish a further report of abandonment. We have received no reports on a well you mention having been drilled in Section 6. May we please be furnished reports on this well.

We are enclosing one approved copy of this plan.

Very truly yours,  
E. S. JOHNNY WALKER  
COMMISSIONER OF PUBLIC LANDS

BY:  
Ted Bilberry, Supervisor  
Oil and Gas Division

ESW/nmr/s  
cc:

USGS- Roswell  
OCC - Santa Fe

C  
O  
P  
Y

# El Paso Natural Gas Company

El Paso, Texas

February 9, 1961

Mr. John A. Anderson  
Regional Oil and Gas Supervisor  
United States Geological Survey  
Post Office Box 6721  
Roswell, New Mexico

Commissioner of Public Lands  
Of the State of New Mexico  
Capitol Annex Building  
Santa Fe, New Mexico

Oil Conservation Commission  
Of the State of New Mexico  
Capitol Annex Building  
Santa Fe, New Mexico

Re: Rosa Unit I Sec. No. 587  
San Juan and Rio Arriba  
Counties, New Mexico  
1961 DRILLING PROGRAM

Gentlemen:

By letter dated September 23, 1960, El Paso Natural Gas Company, as Unit Operator, filed a Drilling Program regarding the captioned unit for the calendar year 1960. Said program provided for the drilling of one Dakota Well and one Mesaverde-Dakota Dual Well. The Dakota Well which was to be drilled pursuant to Section 6 of the Unit Agreement by La Plata Gathering System was staked, but was not drilled because of the recent completion of a low potential Dakota Well in the area. The Mesaverde-Dakota Dual Well which was drilled pursuant to Section 6 of the Unit Agreement by Irvin Pasternak was, at last report, waiting on completion tools to complete in the Dakota Formation. The Mesaverde Formation was dry in Pasternak's well.

As of this date, not including the well which is waiting on completion tools, the total number of wells in the Rosa Unit is as follows:

<u>Commercial:</u>		
Mesaverde		23
<u>Non-Commercial:</u>		
Mesaverde		1
Mesaverde	P&A	3
Dakota	P&A	<u>1</u>
		28

Pursuant to Section 9 of the Rosa Unit Agreement, El Paso Natural Gas Company, as Unit Operator, is submitting this drilling program providing for the drilling of the following described well during the period from January 1, 1961 to December 31, 1961:

DRILLING BLOCK

FORMATION

All  
(Fractional)  
Section 5  
T-31-N, R-5-W

Mesaverde

El Paso Natural Gas Company, as Unit Operator, intends to drill the Mesaverde well to the base of the Mesaverde Formation using rotary tools. Surface casing will be set to approximately 150' below the surface and an intermediate string will be set through the Pictured Cliffs Formation to a depth of approximately 3200'. A production liner will be set through the Mesaverde Formation, and the casing of the Mesaverde Formation will then be selectively perforated and the Mesaverde Formation will be subjected to a hydraulic fracturing process. Mud will be used in setting the intermediate string of casing, and the hole below the intermediate string will be drilled with gas. Due care will be taken to protect all horizons.

In addition to the above well, El Paso Natural Gas Company, as Unit Operator, also plans to drill any offset wells required to prevent drainage of unitized substances and any other wells being necessary or desirable by the Unit Operator and the working interest owners in the affected drilling blocks.

All of the working interest owners have been contacted and this drilling program reflects, insofar as possible, their requests for additional drilling.

If this Drilling Program is acceptable, please signify your approval as required under Section 9 of the Unit Agreement, in the space provided on the attached sheet and return an approved copy to El Paso Natural Gas Company.

Copies of this letter are being sent to the working interest owners of the Rosa Unit.

Very truly yours,

EL PASO NATURAL GAS COMPANY

By

  
Sam Smith, Manager  
Land Department

SS:JBB:js



APPROVED: \_\_\_\_\_  
United States Geological Survey

DATE: \_\_\_\_\_

Subject to like approval by the appropriate  
State Officials.

APPROVED: \_\_\_\_\_  
Commissioner of Public Lands

DATE: \_\_\_\_\_

Subject to like approval by the United States  
Geological Survey and the Oil Conservation  
Commission.

APPROVED: A. L. Porter, Jr.  
Oil Conservation Commission

DATE: 7.2.61

Subject to like approval by the United States  
Geological Survey and the Commissioner of  
Public Lands.

The foregoing approvals are for the Rosa Unit 1961 Drilling Program, San Juan and Rio  
Arriba Counties, New Mexico.

ROSA UNIT

Working Interest Owners

Mr. Neville G. Penrose  
1813 Fair Building  
Fort Worth 2, Texas

Mr. J. Glenn Turner  
1900 Mercantile Dallas Building  
Dallas 1, Texas

Southern Petroleum Exploration, Inc.  
P.O. Box 192  
Sistersville, West Virginia

Colorado Oil & Gas Company  
Denver Club Building  
Denver, Colorado  
Attention: Mr. Charles Titus

Pan American Petroleum Corporation (12)  
Post Office Box 480  
Farmington, New Mexico  
Attention: Mr. L.O. Speer, Jr.

Phillips Petroleum Company  
508 Bank Building  
Bartlesville, Oklahoma  
Attention: Mr. R. F. Rood or  
Mr. R. A. Brown

Mr. Frank A. Schultz  
2630 Fidelity Union Tower  
Akard and Pacific Streets  
Dallas, Texas

Mr. William G. Webb  
1900 Mercantile Dallas Building  
Dallas 1, Texas

Mr. John R. Brennand  
P. O. Box 1706  
Santa Fe, New Mexico

Mr. Dan R. Ponder  
P. O. Box 344  
El Paso, Texas

# El Paso Natural Gas Company

El Paso, Texas

February 20, 1961

*Case # 103*

Mr. John A. Anderson  
Regional Oil and Gas Supervisor  
United States Geological Survey  
P.O. Box 6721  
Roswell, New Mexico

Commissioner of Public Lands  
Of the State of New Mexico  
Capitol Annex Building  
Santa Fe, New Mexico

Oil Conservation Commission  
Of the State of New Mexico  
Capitol Annex Building  
Santa Fe, New Mexico

Re: Rosa Unit  
Exhibit "B"

Gentlemen:

Enclosed for your information and files is a copy of a Revised Exhibit "B" for the Rosa Unit which has been revised effective December 1, 1960. We believe that the enclosed Exhibit "B" reflects the correct ownership of the various interests within the Rosa Unit Area.

Copies of this letter are being sent to the working interest owners of the Rosa Unit.

Very truly yours,

EL PASO NATURAL GAS COMPANY

By Charles Higgins  
Charles Higgins  
Area Coordinator  
Land Department

CH: JBB:cah

EXHIBIT "B"

SCHEDULE SHOWING THE PERCENTAGE AND KIND OF OWNERSHIP OF OIL AND GAS INTERESTS  
IN ALL LANDS IN THE ROSA UNIT

Tract No.	Description	No. of Acres	Serial No. and Lease Date	Land Owner Percentage of Royalty	Lessee of Record	Overriding Royalty Owner & Percentage	Working Interest Owner Under Option Agreement, Operating Agreement or Assignment and Percentage of Interest
FEDERAL LANDS							
1	T-31-N, R-4-W Sec. 1: All Sec. 2: All Sec. 3: All	1,965.72	SF 078891	USA 12½%	Byrd-Frost	None	J. Glenn Turner All Rights
2	Sec. 4: All Sec. 5: All Sec. 6: All Sec. 7: All	2,539.56	SF 078890 4-1-48	USA 12½%	Pan American Petroleum Corp.	None	Pan American Petroleum Corp. - All Rights
3	Sec. 8: All Sec. 9: All Sec. 10: All Sec. 11: All	2,560.00	SF 078888 8-1-48	USA 12½%	Pan American Petroleum Corp.	None	Pan American Petroleum Corp. - All Rights
4	Sec. 12: All Sec. 13: All Sec. 24: All Sec. 25: All	2,559.57	SF 078887 2-1-49	USA 12½%	Pan American Petroleum Corp.	None	Pan American Petroleum Corp. - All Rights
5	Sec. 14: All Sec. 15: All Sec. 16: All	1,920.00	SF 078892 4-1-48	USA 12½%	Pan American Petroleum Corp.	None	Pan American Petroleum Corp. - All Rights
6	Sec. 17: All Sec. 18: All Sec. 19: All Sec. 20: All	2,505.68	SF 078889 8-1-48	USA 12½%	Pan American Petroleum Corp.	None	Pan American Petroleum Corp. - All Rights

Tract No.	Description	No. of Acres	Serial No. and Lease Date	Land Owner Percentage of Royalty	Lessee of Record	Overriding Royalty Owner & Percentage	Working Interest Owner Under Option Agreement, Operating Agreement or Assignment and Percentage of Interest
<u>FEDERAL LANDS</u>							
7	Sec. 21: All	1,920.00	SF 078893 4-1-48	USA 12½%	Pan American Petroleum Corp.	None	Pan American Petroleum Corp. - All Rights
	Sec. 22: All						
	Sec. 23: All						
8	Sec. 26: E/2 SE/4, N/2 N/2, Lots 1,2,3,4,5,6,7, 8,9, & SW/4 NW/4	2,284.16	SF 078894 8-1-48	USA 12½%	Pan American Petroleum Corp.	None	Pan American Petroleum Corp. - All Rights
	Sec. 27: E/2 E/2, SW/4 SE/4, NW/4 NE/4, NE/4 NW/4, Lots 1,2,3,4,5,6,7,8						
	Sec. 28: W/2, SE/4, W/2 NE/4, Lots 1,2						
	Sec. 29: All						
11	Sec. 30: E/2	716.91	SF 078777 7-1-48	USA 12½%	Pan American Petroleum Corp.	None	Pan American Petroleum Corp. - All Rights
	Sec. 31: E/2, E/2 SW/4						
12	Sec. 30: E/2 W/2, Lots 1,2,3,4	508.84	SF 078774 7-1-48	USA 12½%	Pan American Petroleum Corp.	None	Pan American Petroleum Corp. - All Rights
	Sec. 31: E/2 NW/4, Lots 1,2,3,4						
13	T-31-N, R-5-W	2,544.64	SF 078763 8-1-48	USA 12½%	El Paso Natural Gas Co.	None	To base of the Pictured Cliffs Formation: Gas & Oil Rights Neville Penrose - All
	Sec. 3: All						From the base of the Pictured Cliffs to base of the Mesaverde Formation: Gas Rights El Paso Natural Gas Co. All**
	Sec. 4: All						
	Sec. 5: All						
	Sec. 8: E/2, SW/4						
	Sec. 9: All						
	Sec. 10: N/2						

Tract No.	Description	No. of Acres	Serial No. and Lease Date	Land Owner Percentage of Royalty	Lessee of Record	Overriding Royalty Owner & Percentage	Working Interest Owner Under Option Agreement, Operating Agreement or Assignment and Percentage of Interest
13	Continued						Below base Mesaverde Formation: All Rights Pan American Petroleum Corp.
14	T-31-N, R-5-W Sec. 6: All Sec. 7: All Sec. 8: NW/4	2,518.04	SF 078767 8-1-48	USA 12½%	El Paso Natural Gas Co.	None	As to NW/4 Section 8 To base of Pictured Cliffs Formation: Gas & Oil Rights Neville Penrose From base of the Pictured Cliffs to base of Mesaverde Formation: Gas Rights El Paso Natural Gas Co. All**
	T-31-N, R-6-W Sec. 12: All Sec. 13: All Sec. 24: All						Oil Rights Colorado Oil & Gas 1/2 El Paso Natural Gas Co. 1/2
							Below base Mesaverde Formation: All Rights Pan American Petroleum Corp.
							As to all lands other than NW/4 Section 8 From surface to base of Mesaverde Formation Gas Rights El Paso Natural Gas Co. All**
							Oil Rights Colorado Oil & Gas 1/2 El Paso Natural Gas Co. 1/2
							Below Base Mesaverde Formation: All Rights Pan American Petroleum Corp.

Tract No.	Description	No. of Acres	Serial No. and Lease Date	Land Owner Percentage of Royalty	Lessee of Record	Overriding Royalty Owner & Percentage	Working Interest Owner Under Option Agreement, Operating Agreement or Assignment and Percentage of Interest
FEDERAL LANDS							
15	T-31-N, R-5-W	2,560.00	SF 078762 7-1-48	USA 12½%	Pan American Petroleum Corp.	None	Pan American Petroleum Corp. - All Rights
	Sec. 11: All						
	Sec. 12: All						
	Sec. 13: All						
	Sec. 14: All						
16	Sec. 10: S/2	2,560.00	SF 078770 5-1-48	USA 12½%	El Paso Natural Gas Co.	None	As to Section 10: S/2 Section 15: All <u>To base of Pictured Cliffs:</u> <u>Gas &amp; Oil Rights</u> Neville Penrose All
	Sec. 15: All						
	Sec. 22: All						
	Sec. 23: N/2						
	Sec. 27: All						
							<u>From base of Pictured Cliffs to</u> <u>Base of Mesaverde Formation:</u> <u>Gas Rights</u> El Paso Natural Gas Co. All**
							Oil Rights Colorado Oil & Gas 1/2 El Paso Natural Gas Co. 1/2
							<u>Below Base Mesaverde Formation:</u> <u>All Rights</u> Pan American Petroleum Corp.
							<u>As to all other lands:</u> <u>From surface to base Mesaverde</u> <u>Formation:</u> <u>Gas Rights</u> El Paso Natural Gas Co. All**
							Oil Rights: Colorado Oil & Gas Co. 1/2 El Paso Natural Gas Co. 1/2
							<u>Below Base Mesaverde Formation:</u> <u>All Rights</u> Pan American Petroleum Corp.

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Tract No.	Description	No. of Acres	Serial No. and Lease Date	Land Owner Percentage of Royalty	Lessee of Record	Overriding Royalty Owner & Percentage	Working Interest Owner Under Option Agreement, Operating Agreement or Assignment and Percentage of Interest
17	T-31-N, R-5-W	2,560.00	SF 078769 5-1-48	USA 12½%	El Paso Natural Gas Co.	None	As to Section 16: All
	Sec. 16: All						Section 17: All
	Sec. 17: All						To base of Pictured Cliffs:
	Sec. 21: All						Gas & Oil Rights
	Sec. 28: All						Neville Penrose All
							From Base of Pictured Cliffs to
							Base of Mesaverde Formation:
							Gas Rights
							El Paso Natural Gas Co. All**
							Oil Rights
							Colorado Oil & Gas Co. 1/2
							El Paso Natural Gas Co. 1/2
							Below Base Mesaverde Formation:
							All Rights
							Pan American Petroleum Corp.
							As to all other lands:
							From surface to base of
							Mesaverde Formation:
							Gas Rights
							El Paso Natural Gas Co. All**
							Oil Rights
							Colorado Oil & Gas Co. 1/2
							El Paso Natural Gas Co. 1/2
							Below base Mesaverde Formation:
							All Rights
							Pan American Petroleum Corp.



Tract No.		Description	No. of Acres	Serial No. and Lease Date	Land Owner Percentage of Royalty	Lessee of Record	Overriding Royalty Owner & Percentage	Working Interest Owner Under Option Agreement, Operating Agreement or Assignment and Percentage of Interest
FEDERAL LANDS								
18	T-31-N, R-5-W		2,507.30	SF 078764	USA 12½%	El Paso Natural Gas Company	None	From surface to base of Mesaverde Formation: Gas Rights El Paso Natural Gas Co. All**
	Sec. 18: All			8-1-48				Oil Rights
	Sec. 19: E/2 E/2, NW/4 NE/4, SW/4 SE/4, Lots 1,4							Colorado Oil & Gas Co. 1/2
	Sec. 20: N/2, SE/4							El Paso Natural Gas Co. 1/2
	Sec. 29: N/2 NE/4, W/2 SE/4, SW/4							Below base Mesaverde Formation: All Rights Pan American Petroleum Corp.
	Sec. 30: All							
	Sec. 31: All							
21	Sec. 29: S/2 NE/4, E/2 SE/4		160.00	SF 079165	USA 12½%	El Paso Natural Gas Company	None	From surface to base of Mesaverde Formation: Gas Rights El Paso Natural Gas Co. All**
				5-1-48				Oil Rights
								Colorado Oil & Gas Co. 1/2
								El Paso Natural Gas Co. 1/2
								Below Base Mesaverde Formation: Pan American Petroleum Corp. All Rights
22	Sec. 23: S/2		2,560.00	SF 078768	USA 12½%	Pan American Petroleum Corp.	None	Pan American Petroleum Corp. All Rights
	Sec. 24: All			8-1-48				
	Sec. 25: W/2, SE/4							
	Sec. 26: W/2, SE/4							
	Sec. 36: All							
28	Sec. 33: All		1,920.00	SF 078773	USA 12½%	El Paso Natural Gas Company	None	From surface to base of Mesaverde Formation: Gas Rights El Paso Natural Gas Co. All**
	Sec. 34: All			8-1-48				Oil Rights
	Sec. 35: All							Colorado Oil & Gas Co. 1/2
								El Paso Natural Gas Co. 1/2
								Below Base Mesaverde Formation: All Rights - Pan American

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Tract No.	Description	No. of Acres	Serial No. and Lease Date	Land Owner Percentage of Royalty	Lessee of Record	Overriding Royalty Owner & Percentage	Working Interest Owner Under Option Agreement, Operating Agreement or Assignment and Percentage of Interest
FEDERAL LANDS							
29	T-31-N, R-6-W	2,561.86	SF 078772 4-1-48	USA 12½%	El Paso Natural Gas Co.	None	From surface to base of Mesaverde Formation: Gas Rights El Paso Natural Gas Co. All**
	Sec. 1: All						
	Sec. 3: Lots 5,6,7,8,9, SE/4, E/2 SW/4, SW/4 SW/4						
	Sec. 4: Lots 5,6,7,8,9, N/2 SW/4, NW/4 SE/4, SE/4 SE/4						Oil Rights Colorado Oil & Gas 1/2 El Paso Natural Gas Co. 1/2
	T-32-N, R-6-W						Below Base Mesaverde Formation: All Rights Pan American Petroleum Corp.
	Sec. 33: W/2, NE/4, W/2 SE/4						
	Sec. 34: E/2, E/2 W/2, SW/4 SW/4						
	Sec. 35: All						
33	T-31-N, R-6-W	2,460.23	SF 078765 4-1-48	USA 12½%	El Paso Natural Gas Co.	None	From surface to base of Mesaverde Formation: Gas Rights El Paso Natural Gas Co. All**
	Sec. 4: S/2 SW/4, SW/4 SE/4						
	Sec. 5: All						
	Sec. 8: W/2, E/2 E/2						Oil Rights Colorado Oil & Gas 1/2 El Paso Natural Gas Co. 1/2
	Sec. 9: All						
	Sec. 10: Lots 1,2,3, E/2 E/2, NW/4						
	Sec. 15: Lots 1,2, E/2, E/2 SW/4						Below Base Mesaverde Formation: All Rights Pan American Petroleum Corp.
37	Sec. 11: All	2,560.00	SF 078771 4-1-48	USA 12½%	El Paso Natural Gas Co.	None	From surface to Base of Mesaverde Formation: Gas Rights El Paso Natural Gas Co. All**
	Sec. 14: All						
	Sec. 23: All						Oil Rights Colorado Oil & Gas 1/2 El Paso Natural Gas Co. 1/2
	Sec. 26: All						

Tract No.	Description	No. of Acres	Serial No. and Lease Date	Land Owner of Royalty	Lessee of Record	Overriding Royalty	
						Owner & Percentage	Percentage of interest

Working Interest Owner Under Option Agreement, Operating Agreement or Assignment and Percentage of interest

FEDERAL LANDS							
37	Continued						
39	T-31-N, R-6-W	2,552.71	SF 078766	USA 12 $\frac{1}{2}$ %	El Paso Natural Gas Co.	None	
	Sec. 16: Lots 1,2,3, NW/4, SW/4 NW/4, W/2 SW/4		4-1-48				
	Sec. 17: All						
	Sec. 21: Lots 1,2,3, W/2 NW/4, S/2						
	Sec. 22: Lot 1, S/2						
	Sec. 25: All						
<div> <div>From surface to base of Mesaverde Formation:</div> <div>Gas Rights</div> <div>El Paso Natural Gas Co. All**</div> <div>Oil Rights</div> <div>Colorado Oil &amp; Gas 1/2</div> <div>El Paso Natural Gas Co. 1/2</div> </div> <div> <div>Below Base Mesaverde Formation:</div> <div>All Rights</div> <div>Pan American Petroleum Corp.</div> </div>							
TOTAL FEDERAL LANDS 49,505.22 acres or 91.32% of UNIT AREA							

STATE LANDS							
25	T-31-N, R-5-W	160.00	E-347-30	State of New Mexico 12 $\frac{1}{2}$ %	El Paso Natural Gas Co. 1/2	Before payout	
	Sec. 32: NW/4		6-1-45		J. Glenn Turner 1/2	John R. Brennand 5.468750%	
						Dan R. Ponder 5.468750%	
						After payout	
						None	
<div> <div>Gas Rights before payout</div> <div>To Base of Mesaverde Formation:</div> <div>El Paso Natural Gas Co. All</div> </div> <div> <div>Below Base Mesaverde Formation:</div> <div>El Paso Natural Gas Co. 1/2</div> <div>J. Glenn Turner 1/2</div> </div> <div> <div>Gas Rights after payout</div> <div>El Paso Natural Gas Co. 3/10</div> <div>J. Glenn Turner 3/10</div> <div>John R. Brennand 2/10</div> <div>Dan R. Ponder 2/10</div> </div>							

Tract No.	Description	No. of Acres	Serial No. and Lease Date	Land Owner Percentage of Royalty	Lessee of Record	Overriding Royalty Owner & Percentage	Working Interest Owner Under Option Agreement, Operating Agreement or Assignment and Percentage of Interest
STATE LANDS							
25	Continued						Oil Rights before payout El Paso Natural Gas Co. 1/2 J. Glenn Turner 1/2  Oil Rights after payout El Paso Natural Gas Co. 3/10 J. Glenn Turner 3/10 John R. Brennand 2/10 Dan R. Ponder 2/10  From surface to base of Mesaverde Formation: Gas and Oil Rights El Paso Natural Gas Co. All  Below Base Mesaverde Formation: All Rights Pan American Petroleum Corp.
26	T-31-N, R-5-W Sec. 32: NE/4	160.00	E-347-28 6-1-48	State of New Mexico 12½%	El Paso Natural Gas Co.	M. B. Armer 5.0%	
27	Sec. 32: S/2	320.00	E-347-32 6-1-45	State of New Mexico 12½%	El Paso Natural Gas Company 1/2 J. Glenn Turner 1/2	First National Bank of Dallas, Trustee for the account of Three States Natural Gas Company 10.937500% Squire Production Company 10.937500%	Gas rights before payout To Base of Mesaverde Formation: El Paso Natural Gas Co. All  Below Base Mesaverde Formation: El Paso Natural Gas Co. 1/2 J. Glenn Turner 1/2  Gas rights after payout El Paso Natural Gas Co. 1/2 J. Glenn Turner 1/2  Oil Rights - All depths El Paso Natural Gas Co. 1/2 J. Glenn Turner 1/2

Tract No.	Description	No. of Acres	Serial No. and Lease Date	Land Owner Percentage of Royalty	Lessee of Record	Overriding Royalty Owner & Percentage	Working Interest Owner Under Option Agreement, Operating Agreement or Assignment and Percentage of Interest
30	T-31-N, R-6-W Sec. 2: All except lot 5	346.91	E-289-37 5-2-45	State of New Mexico 12½%	El Paso Natural Gas Co.	Francis L. Harvey 2.5%	From surface to base of Mesaverde Formation: Gas Rights El Paso Natural Gas Co. All**
31	Sec. 2: Lot 5	9.35		State of New Mexico 12½%	L. A. Smith	None	Oil Rights Colorado Oil & Gas 1/2 El Paso Natural Gas Co. 1/2  Below Base Mesaverde Formation: All Rights Pan American Petroleum Corp.  L. A. Smith All Rights
40	Sec. 16: N/2 NW/4	80.00	E-346-20 6-1-45	State of New Mexico 12½%	El Paso Natural Gas Company 1/2 J. Glenn Turner 1/2	Three States Natural Gas Company 10.937500% Squire Production Co. 10.937500%	El Paso Natural Gas Co. 1/2 J. Glenn Turner 1/2
40-A	Sec. 16: SW/4 NW/4, NW/4 NE/4	80.00	E-346-22 6-1-45	State of New Mexico 12½%	El Paso Natural Gas Company 1/2 J. Glenn Turner 1/2	Three States Natural Gas Company 10.937500% Squire Production Co. 10.937500%	El Paso Natural Gas Co. 1/2 J. Glenn Turner 1/2
41	Sec. 16*	160.00		State of New Mexico 12½%	Southern Petroleum Exploration, Inc.	None	Southern Petroleum Exploration, Inc. All Rights
42	Sec. 16 and 21*	80.00	E-289-37 5-2-45	State of New Mexico 12½%	El Paso Natural Gas Co.	Francis L. Harvey 2.5%	From surface to base of Mesaverde Formation: Gas Rights El Paso Natural Gas Co. All**  Oil Rights Colorado Oil & Gas 1/2 El Paso Natural Gas Co. 1/2

Tract No.	Description	No. of Acres	Serial No. and Lease Date	Land Owner Percentage of Royalty	Lessee of Record	Overriding Royalty Owner & Percentage	Working Interest Owner Under Option Agreement, Operating Agreement or Assignment and Percentage of Interest
42	Continued						Below Base Mesaverde Formation; All Rights Pan American Petroleum Corp.
43	T-31-N, R-6-W Sec. 15 and 22*	80.00	E-289-31 5-2-45	State of New Mexico 12½%	El Paso Natural Gas Co.	Levi Hughes	All Rights El Paso Natural Gas Co.
44	T-32-N, R-6-W Sec. 32: W/2	320.00	E-504-11 8-21-45	State of New Mexico 12½%	El Paso Natural Gas Co.	Las Vegas Savings Bank of Las Vegas, New Mexico E. H. Dellinger	All Rights El Paso Natural Gas Co.
45	T-32-N, R-6-W Sec. 32: E/2	320.00	E-504-13 8-21-45	State of New Mexico 12½%	El Paso Natural Gas Company J. Glenn Turner 1/2	Three States Natural Gas Company Squire Production Co. 10.937500% 10.937500%	From the surface to the base of the Mesaverde Formation; Gas Rights El Paso Natural Gas Co. All
							Oil Rights El Paso Natural Gas Co. 1/2 J. Glenn Turner 1/2
							Below Base Mesaverde Formation; Oil and Gas Rights J. Glenn Turner 1/2 Frank A. Schultz 45% William G. Webb 5%
47	Sec. 36: W/2	320.00	E-346-19 6-1-45	State of New Mexico 12½%	El Paso Natural Gas Co.	None	From surface to base of Mesaverde Formation; Gas Rights El Paso Natural Gas Co. All**
							Oil Rights Colorado Oil & Gas 1/2 El Paso Natural Gas Co. 1/2
							Below Base Mesaverde Formation; All Rights Pan American Petroleum Corp.

Tract No.	Description	No. of Acres	Serial No. and Lease Date	Land Owner Percentage of Royalty	Lessee of Record	Overriding Royalty Owner & Percentage	Working Interest Owner Under Option Agreement, Operating Agreement or Assignment and Percentage of Interest
<u>STATE LANDS</u>							
48	T-32-N, R-6-W Sec. 36: E/2	320.00	E-346-14 6-1-45	State of New Mexico 12½%	El Paso Natural Gas Company J. Glenn Turner 1/2	Three States Natural Gas Company Squire Production Co. 10.937500%	Gas Rights to base of Mesaverde Formation: El Paso Natural Gas Co. All
							Gas rights below base of Mesaverde & All Oil Rights: J. Glenn Turner 50% William G. Webb 5% Frank A. Schultz 45%
<u>TOTAL STATE LANDS 2,756.26 acres or 5.08% of UNIT AREA</u>							
<u>PATENTED LANDS</u>							
9	T-31-N, R-4-W Sec. 26: H.E. #282	156.80	Patented 5-20-53 5 year	Lewis W. Lynch 12½%	Pan American Petroleum Corp.	None	Pan American Petroleum Corp. All Rights
10	Sec. 27 and 28: H.E. #277	120.63	Patented 3-5-47 10 year 5-19-47 10 year	Ruth Scamahorn et vir 6.25% Horace F. McKay, Jr., et ux 6.25%	Pan American Petroleum Corp.	None	Pan American Petroleum Corp. All Rights
19	T-31-N, R-5-W Sec. 19: SW/4 NE/4, NW/4 SE/4, Lots 2, 3	152.22	Patented 11-10-47 10 year	Miguel A. Gonzales 12½%	El Paso Natural Gas Company	None	From surface to base of Mesaverde Formation: Gas Rights El Paso Natural Gas Co. All**  Oil Rights Colorado Oil & Gas 1/2 El Paso Natural Gas Co. 1/2
							Below Base Mesaverde Formation: All Rights Pan American Petroleum Corp.

Tract No.	Description	No. of Acres	Serial No. and Lease Date	Land Owner Percentage of Royalty	Lessee of Record	Overriding Royalty Owner & Percentage	Working Interest Owner Under Option Agreement, Operating Agreement or Assignment and Percentage of Interest	
							From surface to base of Mesaverde Formation:	
PATENTED LANDS								
20	T-31-N, R-5-W Sec. 20: SW/4 Sec. 29: NW/4	320.00	Patented 11-21-46 10 year	Manuel C. Candelario 1.56250 Allen M. Tonkin 1.56250 W. P. McDonald 1.56250 Dee Forehand .26041 R. E. Beamon .65104 Johnston Oil & Gas .32552 1st Nat'l Bank of Ft. Worth (Trustee for Eula Mae Johnston) .16281 Ralph A. Johnston .08139 Orville C. Rogers .01356 Veva Jean Gibbard .01356 V. A. Johnston .04069 Lillie Leona Rogers .01356 Brookhaven Oil Co. 1.36718 Paul H. Umbach 1.36718 Dacresa Corporation 3.51560 12.50000	El Paso Natural Gas Company	None	From surface to base of Mesaverde Formation: Gas Rights El Paso Natural Gas Co. All**  Oil Rights Colorado Oil & Gas 1/2 El Paso Natural Gas Co. 1/2  Below Base Mesaverde Formation: All Rights Pan American Petroleum Corp.	



Tract No.	Description	No. of Acres	Serial No. and Lease Date	Land Owner Percentage of Royalty	Lessee of Record	Overriding Royalty Owner & Percentage	Working Interest Owner Under Option Agreement, Operating Agreement or Assignment and Percentage of Interest
PATENTED LANDS							
23	T-31-N, R-5-W Sec. 25: NE/4	160.00	Patented	Undivided Interest in 12.5% owned equally as follows: Mrs. Josefa A. Abeyta Mrs. Fibradita A. Rivera Mike A. Abeyta Tiva Abeyata Garcia Estifanito A. Serrano Atachita Abeyta	Unknown	Unknown	Unknown
24	Sec. 26: NE/4	160.00	Patented	Jose J. Sanchez, et ux 12 $\frac{1}{2}$ %	Unknown	Unknown	Unknown
32	T-31-N, R-6-W Sec. 3 & 4: Tract 37	158.36	Fee	T. H. McElvain 5/16 John & Gladys Greene 11/32 D. A. & Helen Greene 11/32	Unknown	Unknown	Unknown
34	T-31-N, R-6-W Sec. 8: W/2 E/2	160.00	Fee 1-26-48	Miller 3/8 Wise 3/8 Axtell 2/8	El Paso Natural Gas Co.	None	From surface to base of Mesaverde Formation: Gas Rights El Paso Natural Gas Co. All**
Oil Rights Colorado Oil & Gas 1/2 El Paso Natural Gas Co. 1/2							
Below base Mesaverde Formation: All Rights Pan American Petroleum Corp.							

Tract No.	Description	No. of Acres	Serial No. and Lease Date	Land Owner Percentage of Royalty	Lessee of Record	Overriding Royalty Owner & Percentage	Working Interest Owner Under Option Agreement, Operating Agreement or Assignment and Percentage of Interest
35	T-31-N, R-6-W Sec. 10: W/2 E/2	160.00	Fee 11-7-47	Dee Forehand R. E. Beamon Alma M. Beamon Anderson Ralph A. Johnston Texas Nat'l Pet. Company First Nat'l Bank of Ft. Worth, Texas, Trustee for Eula Mae Johnston & Mary Louise Brown under Trust Indenture of December 20, 1955 V. A. Johnston Mrs. Willie Johnston Lillie Leona Rogers Orville C. Rogers Veva Jean Gibbard C. H. Nye Allen M. Tonkin & Nancy P. Tonkin, Joint Tenants W. B. Comegys	1/16 14/96 7/96 3/512 3/64 3/512 3/128 3/512 3/512 1/512 1/512 1/512 1/8	El Paso Natural Gas Co. Gas Rights El Paso Natural Gas Co. All** None El Paso Natural Gas Co. Oil Rights Colorado Oil & Gas Co. 1/2 El Paso Natural Gas Co. 1/2 Below base Mesaverde Formation: All Rights Pan American Petroleum Corp.	From surface to base of Mesaverde Formation: Gas Rights El Paso Natural Gas Co. All** Oil Rights Colorado Oil & Gas Co. 1/2 El Paso Natural Gas Co. 1/2 Below base Mesaverde Formation: All Rights Pan American Petroleum Corp.
36	Sec. 10 & 15: Tr. 38 Sec. 10: W/2 E/2	161.52	Fee 2-1-49	Covert & Johnson 12 1/2%	El Paso Natural Gas Company	Covert & Johnson 1/16 of 7/8 until \$200.00 per acre received.	From surface to base of Mesaverde Formation: Gas Rights El Paso Natural Gas Co. All** Oil Rights Colorado Oil & Gas Co. 1/2 El Paso Natural Gas Co. 1/2

Tract No.	Description	No. of Acres	Serial No. and Lease Date	Land Owner Percentage of Royalty	Lessee of Record	Overriding Royalty Owner & Percentage	Working Interest Owner Under Option Agreement, Operating Agreement or Assignment and Percentage of Interest

PATENTED LANDS

36 Continued

38	T-31-N, R-6-W Sec. 15 & 16: Tract 39	160.00	Fee 8-6-47	Jose Lopez	3/16 El Paso Natural Gas Company	None	From surface to base of Mesaverde Formation: Gas Rights El Paso Natural Gas Co. All**
				Dacresa Corp.			
				Paul Umbach			
				Margarito Lopez Brookhaven Oil Corp.			
					7/64		Oil Rights Colorado Oil and Gas 1/2 El Paso Natural Gas Co. 1/2

Below Base Mesaverde Formation:  
All Rights  
Pan American Petroleum Corp.

46	T-32-N, R-6-W Sec. 34: W/2 NW/4	80.00	Fee 1-18-47	Mascarinas	El Paso Natural Gas Company	None	From surface to base of Mesaverde Formation: Gas Rights El Paso Natural Gas Co. All**
				12 1/2%			

Oil Rights  
Colorado Oil & Gas 1/2  
El Paso Natural Gas Co. 1/2

Below Base Mesaverde Formation:  
All Rights  
Pan American Petroleum Corp.

TOTAL FEE LANDS: 1,949.53 acres or 3.60% of UNIT AREA

\* Resurvey plat, dated June 30, 1919, approved August 27, 1919 shows "School Section" to be parts of Sections 15, 16, 21, and 22, T-31-N, R-6-W, but is carried on State of New Mexico records as Section 16, T-31-N, R-6-W, and is leased as follows:

N/2 NW/4	leased to J. Glenn Turner, et al - 160.00 acres - Unit Tract 40
SW/4 NW/4, NW/4 NE/4	leased to J. Glenn Turner, et al - Unit Tract 40-A
SW/4	leased to Southern Petroleum Exploration, Inc. - 160 acres - Unit Tract 41
W/2 SE/4	leased to El Paso Natural Gas Company - 80 acres - Unit Tract 42
E/2 SE/4	leased to El Paso Natural Gas Company - 80 acres - Unit Tract 43
Balance of Section is Patented	

\*\*Subject to Colorado Oil and Gas Corporation Reversional Interest.

EXHIBIT "B"  
ROSA UNIT

TOTAL LANDS      54,211.01

<u>RECAPITULATION:</u>		
<u>Land</u>	<u>Acres in Unit</u>	<u>Percentage of Unit Area</u>
FEDERAL	49,505.22	91.32%
STATE	2,756.26	5.08%
FEE	<u>1,949.53</u>	<u>3.60%</u>
Total	54,211.01	100.00%

Revised: Effective December 1, 1960

*El Paso Natural Gas Company*  
*El Paso, Texas*

RECEIVED  
OCT 31 1960

October 31, 1960

Mr. John A. Anderson  
Regional Oil and Gas Supervisor  
United States Geological Survey  
Post Office Box 6721  
Roswell, New Mexico

Commissioner of Public Lands  
Of the State of New Mexico  
Capitol Annex Building  
Santa Fe, New Mexico

Oil Conservation Commission  
Of the State of New Mexico  
Capitol Annex Building  
Santa Fe, New Mexico

Re: Rosa Unit I Sec. 587  
San Juan and Rio Arriba  
Counties, New Mexico  
Approval of 1960 Drilling Program

Gentlemen:

This is to advise that the 1960 Plan of Development for the Rosa Unit has been approved as follows:

1. Supervisor, United States Geological Survey, approval dated October 17, 1960.
2. Commissioner of Public Lands, approval dated September 29, 1960.
3. Oil Conservation Commission, approval dated September 28, 1960.

Copies of this letter are being sent to all working interest owners within the Rosa Unit Area.

Very truly yours,

*Charles Higgins*

Charles Higgins  
Area Coordinator  
Land Department

CH: JBB: cah

# El Paso Natural Gas Company

El Paso, Texas

October 19, 1960

Mr. John A. Anderson  
Regional Oil and Gas Supervisor  
United States Geological Survey  
Post Office Box 6721  
Roswell, New Mexico

Commissioner of Public Lands  
Of the State of New Mexico  
Capitol Annex Building  
Santa Fe, New Mexico

Oil Conservation Commission  
Of the State of New Mexico  
Capitol Annex Building  
Santa Fe, New Mexico

Re: Rosa Unit Area I Sec. 587  
Rio Arriba County, New Mexico  
DESIGNATION OF SUB-OPERATOR

Gentlemen:

Mr. Irvin Pasternak has notified El Paso Natural Gas Company, Unit Operator of the Rosa Unit, of his desire to drill a well within the Unit Area pursuant to Paragraph 12 of the Rosa Unit Agreement.

The drilling block for proposed #40-11 Well is the W/2 of Section 11, Township 31 North, Range 5 West, N.M.P.M., Rio Arriba County, New Mexico. Mr. Pasternak desires to drill a dual, Mesaverde-Dakota test.

Since the proposed drilling block is not within the Rosa Unit Participating Area and El Paso, as Unit Operator, does not desire to drill the well, we enclose herewith copies of the Designation of Sub-Operator for your files.

Very truly yours,

EL PASO NATURAL GAS COMPANY

By \_\_\_\_\_  
Charles Higgins  
Area Coordinator  
Land Department

CH: JBB:cah

cc: Working Interest Owners

DESIGNATION OF SUB-OPERATOR

THIS DESIGNATION is made and entered into this 17th day of October, 1960, by and between EL PASO NATURAL GAS COMPANY, a Delaware corporation, whose address is Post Office Box 1492, El Paso, Texas, hereinafter sometimes referred to as "Operator", and ~~SHAR-ALAN OIL COMPANY, a~~ Irving Pasternak ~~corporation,~~ whose address is 1402 Denver U. S. National Center, Denver, Colorado, hereinafter sometimes referred to as "Sub-Operator".

WHEREAS, Operator is Unit Operator for the Rosa Unit, I Sec. No. 587, Counties of Rio Arriba and San Juan, State of New Mexico; and

WHEREAS, Sub-Operator is holder of the oil and gas operating rights under the following described tract of land:

Rio Arriba County, New Mexico  
Township 31 North, Range 5 West, N.M.P.M.  
Section 11: W/2  
Containing 320.00 acres, more or less; and

WHEREAS, the above described tract of land is committed to the terms and conditions of the Rosa Unit Agreement and Rosa Unit Operating Agreement; and

WHEREAS, Sub-Operator desires to drill a Dual, Mesaverde-Dakota test on the above described tract of land pursuant to the provisions of Section twelve (12) of the Rosa Unit Agreement; and

WHEREAS, Sub-Operator has been furnished Notice of Operator's election not to drill the said Dual, Mesaverde-Dakota test as Unit Operator under the terms of the Rosa Unit Agreement; and

WHEREAS, Sub-Operator has requested that Operator execute this Designation in order that said Dual, Mesaverde-Dakota test may be drilled by Sub-Operator.

NOW, THEREFORE, in order to permit ~~Shar-Alan Oil Company~~ Irving Pasternak to drill the said Dual, Mesaverde-Dakota test, El Paso Natural Gas Company, ~~as~~ Unit Operator of the Rosa Unit, hereby designates ~~Shar-Alan Oil Company~~ Irving Pasternak as Sub-Operator for the sole and only purpose of drilling the said Dual, Mesaverde-Dakota test on the above described land pursuant to Section twelve (12) of the Rosa Unit Agreement.

Sub-Operator indicates its acceptance of this Designation by placing its signature in the space provided below and agrees to drill, complete, and/or plug and abandon said test as a reasonable and prudent operator in accordance with the terms and conditions of the Rosa Unit Agreement and the Rosa Unit Operating Agreement and also agrees to the following conditions:

1. Notify Operator when drilling operations are commenced.



2. Furnish Operator with complete daily driller's report, at Sub-Operator's expense.
3. Furnish Operator with daily reports by telephone call or telegram at Sub-Operator's expense, as to the formation or formations penetrated during the previous day's drilling, the depth at which each formation is encountered, and the depth at which the report is made.
4. Allow representatives of Operator access to the derrick floor at all times.
5. Notify Operator of intentions to core, drill stem test or run well surveys in sufficient time to enable Operator's representative to be present.
6. Adequately test and/or core all possible productive formations to the satisfaction of Operator upon request.
7. Have any core having shows of oil or gas analyzed by a competent core analysis laboratory, and have such laboratory send three preliminary copies and three final copies of the analysis report to Operator.
8. Furnish Operator three field prints and three final prints of all well surveys made during drilling or upon completion of the well.
9. Permit Operator, at its cost and for its sole use, including full rig time, to make any additional surveys including a geophysical velocity survey as it may desire.
10. Furnish Operator a representative and adequate cut of all cores and ditch samples taken during the drilling of a well.
11. Provide Operator with copies of drilling time records, hole deviation tests and all records required by the governmental agencies having jurisdiction of the well.
12. Notify Operator of any intentions to plug and abandon the well and allow Operator forty-eight (48) hours in which to concur.
13. Carry adequate and proper insurance of the types and in the amounts as specified in Section 6 of the Rosa Unit Operating Agreement.

All notices, samples, or other information required to be furnished shall be sent to:

El Paso Natural Gas Company  
Division Geologist  
Post Office Box 990  
Farmington, New Mexico

Sub-Operator shall comply with all applicable laws, rules and regulations of any governmental authority having jurisdiction over operations performed under this Designation, and shall indemnify, protect and hold Operator harmless from and against any and all claims, demands or causes of action for injuries or death to persons or damage to property occurring in connection with or in any manner incident to operations conducted by the Sub-Operator hereunder.

Simultaneously with the execution of this agreement, Sub-Operator shall furnish to Operator a performance bond in the amount of \$10,000.00 executed by Sub-Operator and a reputable corporate surety, satisfactory to Operator, conditioned upon faithful performance of the duties and obligations of this agreement. Failure to comply with the duties and obligations of this agreement shall cause this agreement to terminate and said performance bond shall become immediately due and payable to Operator in its full amount of \$10,000.00; provided, however, that the payment of this amount shall not relieve or absolve Sub-Operator of its obligations imposed by the preceding paragraph of this agreement to indemnify, protect and hold Operator harmless from and against all claims, demands or causes of action for injuries or death to persons or damage to property occurring in connection with or in any manner incident to operations conducted by the Sub-Operator hereunder.

THE DRILLING of the said Dual, Mesaverde-Dakota test is subject to approval by the Oil and Gas Conservation Commission, the Commissioner of Public Lands of the State of New Mexico, and the Supervisor of the United States Geological Survey, Roswell, New Mexico.

THIS DESIGNATION shall be effective for a period of time not to exceed three (3) months from the date hereof, or until said Dual, Mesaverde-Dakota test is completed and/or plugged and abandoned.

THIS DESIGNATION is personal and cannot be assigned in whole or in part by Sub-Operator without the written consent of Operator having first being obtained.

IN WITNESS WHEREOF, this Designation is executed as of the day and year first hereinabove written.

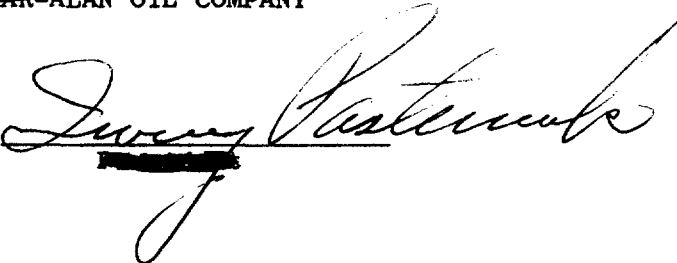
OPERATOR

EL PASO NATURAL GAS COMPANY

By   
Attorney in Fact

SUB-OPERATOR

~~SHAR-ALAN OIL COMPANY~~

By 

ATTEST:

\_\_\_\_\_  
Secretary

STATE OF TEXAS            )  
                                  )  
COUNTY OF EL PASO        )

The foregoing instrument was acknowledged before me this 14th day of Oct., 1960, by Sam Smith, as Attorney in Fact on behalf of EL PASO NATURAL GAS COMPANY, a Delaware corporation.

My Commission expires:

Natalie Taylor  
Notary Public

NATALIE TAYLOR

Notary Public in and for El Paso County, Texas  
My Commission Expires June 1, 1961

STATE OF California        )  
                                  )  
COUNTY OF Orange        )

The foregoing instrument was acknowledged before me this 11th day of October, 1960, by Irving Pasternak, President of SHAR-ALAN OIL COMPANY, a corporation, on behalf of said corporation.

My Commission expires:

Lorraine Schestney  
Notary Public

6-24-63



IN REPLY REFER TO:

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

*Case # 133*

P. O. Box 6721  
Roswell, New Mexico

October 17, 1960

El Paso Natural Gas Company  
P. O. Box 1492  
El Paso, Texas

Attention: Mr. Sam Smith

Gentlemen:

Your plan of development for 1960, dated September 23, 1960, for the Rosa unit area (I-Sec. No. 387), San Juan and Rio Arriba Counties, New Mexico, which proposes the drilling of one dually completed Masaverde-Dakota well and one Dakota test well has been approved on this date subject to like approval by the appropriate State officials.

Two approved copies of the plan are enclosed.

Very truly yours,

*Carl C. Traywick*

CARL C. TRAYWICK  
Acting Oil and Gas Supervisor

Copy to: Wash. (w/cy of plan)  
NMGCC, Santa Fe, (ltr. only)

7

In reply refer to:  
Unit Division

MAIL OFFICE OCC  
1960 SEP 30 AM 8:20

September 30, 1960

Case #133

C  
O  
P  
Y  
El Paso Natural Gas Company  
P. O. Box 1492  
El Paso, Texas

Re: 1960 Drilling Program  
Rosa Unit  
San Juan and Rio Arriba  
Counties, New Mexico

ATTENTION: Mr. Sam Smith

Gentlemen:

We are enclosing one copy of your 1960 Drilling Program for the Rosa Unit Area, which was approved by the Commissioner of Public Lands as of September 29, 1960, subject to like approval by the Oil Conservation Commission and the United States Geological Survey.

This plan of production is for the period January 1, 1960 to December 31, 1960. Therefore, we request a 1961 Plan of Development to be filed directly after the first of January, 1961.

Very truly yours,  
MURRAY E. MORGAN  
Commissioner of Public Lands

BY:  
Ted Bilberry, Supervisor  
Oil and Gas Division

MEM/MMR/s

cc:

Oil Conservation Commission ✓  
Santa Fe, New Mexico

United States Geological Survey  
Roswell, New Mexico

( . CONSERVATION COMMISSION )

P. O. BOX 871

SANTA FE, NEW MEXICO

*Case #133*

September 20, 1960

C  
El Paso Natural Gas Company  
P. O. Box 1492  
El Paso, Texas

O  
ATTENTION: MR. SAM SMITH

RE: 1960 Plan of Development  
Rosa Unit San Juan & Rio  
Arriba Counties, New Mexico.

P  
Gentlemen:

Y  
This is to advise that the New Mexico Oil Conservation Commission has this date approved the 1960 Plan of Development for the Rosa Unit San Juan and Rio Arriba Counties, New Mexico, subject to like approval by the United States Geological Survey and the Commissioner of Public Lands of the State of New Mexico.

One approved copy of the plan is returned herewith.

Very truly yours,

A. L. PORTER, Jr.,  
Secretary-Director

ALP/JEK/lq

cc: US Geological Survey - Roswell, New Mexico  
Commissioner of Public Lands - Santa Fe, New Mexico

# El Paso Natural Gas Company

El Paso, Texas

September 23, 1960

Mr. John A. Anderson  
Regional Oil and Gas Supervisor  
United States Geological Survey  
Post Office Box 6721  
Roswell, New Mexico

Commissioner of Public Lands  
Of the State of New Mexico  
Capitol Annex Building  
Santa Fe, New Mexico

Oil Conservation Commission  
Of the State of New Mexico  
Capitol Annex Building  
Santa Fe, New Mexico

Re: Rosa Unit, I-Sec. No. 587,  
San Juan and Rio Arriba Counties,  
New Mexico  
1960 DRILLING PROGRAM

Gentlemen:

By letter dated January 15, 1959, Pacific Northwest Pipeline Corporation, as Unit Operator, filed a Drilling Program regarding the captioned unit for the calendar year 1959. Said Program provided for the drilling of two Dakota wells. One Dakota well was drilled, however, it resulted in a dry hole as to the Dakota Formation and was plugged back to the Mesaverde Formation where it was completed as a commercial well. Since this well was dry in the Dakota Formation, the second Dakota well was not drilled. On March 25, 1959, Pacific Northwest Pipeline Corporation, as Unit Operator, submitted a Supplemental Plan of Development for 1959 providing for one additional Mesaverde well. This well was completed as a commercial well in the Mesaverde Formation and has been admitted to the Mesaverde Participating Area.

Pursuant to Section 6 of the Unit Agreement, El Paso has succeeded Pacific as Unit Operator.

As of this date, the total number of wells in the Rosa Unit is as follows:

<u>Commercial:</u>	
Mesaverde	23
<u>Non-Commercial:</u>	
Mesaverde	1
Plugged & Abandoned	<u>4</u>
	28

Pursuant to Section 9 of the Rosa Unit Agreement, El Paso Natural Gas Company, as Unit Operator, is submitting this Drilling Program providing for the drilling of the following described wells during the period from January 1, 1960 to December 31, 1960:

<u>WELL NAME</u>	<u>DRILLING BLOCK</u>	<u>FORMATION</u>
Rosa Unit #39-36 Well	E/2 of Section 36, T-32-N, R-6-W, N.M.P.M.	Dakota
Rosa Unit #40-11 Well	W/2 of Section 11, T-31-N, R-5-W, N.M.P.M.	Dual, Mesaverde- Dakota

La Plata Gathering System, Inc. has requested permission to drill the Rosa Unit #39-36 Well and Shar-Alan Oil Company has requested permission to drill the Rosa Unit #40-11 Well under the provisions of Section 12 of the Unit Agreement, which provides that the working interest owners of non-participating lands may drill at their own expense in the absence of an election by the Unit Operator to undertake such drilling. El Paso will waive its Operator's right to drill these two wells, but will assume their operation if the wells are commercial and, in any event, will fulfill its duties and responsibilities as Unit Operator.

In addition to the above wells, El Paso Natural Gas Company, as Unit Operator, also plans to drill any offset wells required to prevent drainage of unitized substances, and any other wells being necessary or desirable by the Unit Operator and the Working Interest Owners in the affected drilling blocks.

All of the Working Interest Owners have been contacted and this Drilling Program reflects, insofar as possible, their requests for additional drilling.

If this Drilling Program is acceptable, please signify your approval as required under Section 9 of the Unit Agreement, in the space provided on the attached sheet and return an approved copy to El Paso Natural Gas Company.

Very truly yours,

EL PASO NATURAL GAS COMPANY

By   
Sam Smith, Manager  
Land Department

SS:JBB:nl

cc: Working Interest Owners



Rosa Unit  
Working Interest Owners

Mr. Neville G. Penrose  
1815 Fair Building  
Fort Worth 2, Texas

Colorado Oil and Gas Company  
Denver Club Building  
Denver, Colorado  
Attention: Mr. Charles Titus

Mr. J. Glenn Turner  
La Plata Gathering System, Inc.  
1900 Mercantile Dallas Building  
Dallas 1, Texas

Pan American Petroleum Corporation  
P. O. Box 1410  
Fort Worth, Texas  
Attention: Mr. J. L. Hoyt, Jr.

Southern Petroleum Exploration, Inc.  
P. O. Box 192  
Sistersville, West Virginia  
Attention: Mr. Paul W. Neuenschwander

Phillips Petroleum Company  
508 Bank Building  
Bartlesville, Oklahoma  
Attention: Mr. R. F. Rood or  
Mr. R. A. Brown

Shar-Alan Oil Company  
1402 Denver U.S. National Center  
Denver, Colorado

APPROVED: \_\_\_\_\_  
Supervisor, United States Geological Survey  
Subject to like approval by the appropriate  
State Officials.

DATE \_\_\_\_\_

APPROVED: \_\_\_\_\_  
Commissioner of Public Lands  
Subject to like approval by the United States  
Geological Survey and the Oil Conservation  
Commission.

DATE \_\_\_\_\_

APPROVED: A. H. Carter, Jr.  
Oil Conservation Commission  
Subject to like approval by the United States  
Geological Survey and the Commissioner of  
Public Lands.

DATE 9-28-60

The foregoing approvals are for the 1960 Drilling Program for the Rosa Unit,  
I-Sec. No. 587, San Juan and Rio Arriba Counties, New Mexico.

643 120  
MAIL OFFICE 900  
P. O. Box 6721  
Roswell, New Mexico  
1960 SEP 9 PM 1:40

September 7, 1960

La Plata Gathering System, Inc.,  
1940 Mercantile Dallas Building  
Dallas 1, Texas

Attention: Mr. William G. Webb

Gentlemen:

Your letter of August 15 transmitted three copies of an instrument entitled "Designation of Sub-Operator" and three copies of a "Designation of Agent" by which El Paso Natural Gas Company, as unit operator under the Rosa unit agreement, designates La Plata Gathering System, Inc., the working interest owner of a State of New Mexico lease covering the E $\frac{1}{2}$  sec. 36, T. 32 N., R. 6 W., N.M.P.M., Rio Arriba County, New Mexico, suboperator and agent for the sole purpose of drilling a Bakota formation well on said lease pursuant to section 12 of the unit agreement.

The designations you have submitted are being accepted as evidence that El Paso Natural Gas Company as unit operator elects not to drill a Bakota formation well in the E $\frac{1}{2}$  sec. 36, T. 32 N., R. 6 W., and that La Plata Gathering System, Inc. will, at its sole risk and expense, drill said well. Duplicate copies of the well log should be furnished the District Engineer, U. S. Geological Survey, Farmington, New Mexico.

Very truly yours,

(Orig. 884) JOHN A. ANDERSON

JOHN A. ANDERSON  
Regional Oil and Gas Supervisor

Copy to: Wash. (w/cys Designations)  
Farmington ( " )  
Comm. Pub. Lands-Santa Fe (ltr. only)  
NMOCC-Santa Fe (ltr. only) ✓

*El Paso Natural Gas Company*  
MAIN OFFICE OCC

*El Paso, Texas*

1960 JUN 22 AM 9:01 June 17, 1960

Case # 133

Mr. John Anderson  
Regional Oil and Gas Supervisor  
United States Geological Survey  
P. O. Box 6721  
Roswell, New Mexico

Commissioner of Public Lands  
Of the State of New Mexico  
Capitol Annex Building  
Santa Fe, New Mexico

Oil Conservation Commission  
Of the State of New Mexico  
Capitol Annex Building  
Santa Fe, New Mexico

Re: Rosa Unit  
I-Sec. No. 587

Gentlemen:

You will find set out below the dates that action was taken by the regulatory bodies recognizing El Paso Natural Gas Company as the Unit Operator of the Rosa Unit:

1. Acting Director of the United States Geological Survey  
on May 20, 1960.
2. Commissioner of Public Lands of the State of New Mexico  
on April 6, 1960.
3. Oil Conservation Commission of the State of New Mexico  
on April 22, 1960.

Copies of this letter are being sent to the working interest owners shown on the attached sheet.

Very truly yours,

*Charles Higgins*  
Charles Higgins  
Area Coordinator  
Land Department

CH:GWO:nl

Rosa Unit  
Working Interest Owners

Mr. Neville G. Penrose  
1815 Fair Building  
Fort Worth 2, Texas

Colorado Oil & Gas Company  
Denver Club Building  
Denver, Colorado  
Attention: Mr. Charles Titus

Mr. J. Glenn Turner  
1900 Mercantile Dallas Building  
Dallas 1, Texas

Pan American Petroleum Corporation  
P. O. Box 1410  
Fort Worth, Texas  
Attention: Mr. J. L. Hoyt, Jr.

Southern Petroleum Exploration, Inc.  
P. O. Box 192  
Sistersville, West Virginia  
Attention: Mr. Paul W. Neuenschwander

Phillips Petroleum Company  
508 Bank Building  
Bartlesville, Oklahoma  
Attention: Mr. R. F. Rood or  
              Mr. R. A. Brown

# El Paso Natural Gas Company

El Paso, Texas

May 9, 1960

*Can # 123*

Commissioner of Public Lands  
Of the State of New Mexico  
Capitol Annex Building  
Santa Fe, New Mexico

Oil Conservation Commission  
Of the State of New Mexico  
Capitol Annex Building  
Santa Fe, New Mexico

Re: APPLICATION FOR APPROVAL OF EIGHTH  
AND NINTH EXPANSIONS, MESAVERDE  
PARTICIPATING AREA, Rosa Unit  
San Juan and Rio Arriba Counties,  
New Mexico.

---

Gentlemen:

This is to inform you that the Eighth Expansion of the Mesaverde Participating Area with an effective date of September 1, 1959 and the Ninth Expansion of the Mesaverde Participating Area with an effective date of December 1, 1959 have been approved by the regulatory bodies on the dates as set out below:

Approved by Director, United States Geological Survey  
April 28, 1960

Approved by Commissioner of Public Lands  
February 23, 1960

Approved by Oil Conservation Commission  
February 25, 1960

A fully approved copy of the application and schedule is enclosed for your files and information.

Copies of this letter are being sent to the Working Interest Owners shown on the attached list.

Very truly yours,

*Charles Higgins*

Charles Higgins  
Area Landman  
Land Department

CH:GWO:js  
Enclosures

ROSA UNIT

WORKING INTEREST OWNERS

Mr. Neville G. Penrose  
1815 Fair Building  
Fort Worth 2, Texas

Colorado Oil and Gas Company  
Denver Club Building  
Denver, Colorado  
Attention: Mr. Charles Titus

Mr. J. Glenn Turner  
Turner, White, Atwood, McLane & Francis  
19th Floor, Mercantile Dallas Building  
Dallas 1, Texas

Pan American Petroleum Corporation  
Post Office Box 487  
Farmington, New Mexico  
Attention: Mr. L. O. Speer, Jr.

Southern Petroleum Exploration, Inc.  
Post Office Box 192  
Sistersville, West Virginia  
Attention: Mr. Paul W. Neuenschwander

Phillips Petroleum Company  
508 Bank Building  
Bartlesville, Oklahoma  
Attention: Mr. R. F. Rood or  
              Mr. R. A. Brown

# El Paso Natural Gas Company



El Paso, Texas

January 7, 1960

REPLY TO:  
P. O. Box 1526  
SALT LAKE CITY 10, UTAH

RECEIVED  
MAR 3 1960

Director  
United States Geological Survey  
Post Office Box 6721  
Roswell, New Mexico

Commissioner of Public Lands  
State of New Mexico  
Post Office Box 791  
Santa Fe, New Mexico

Oil Conservation Commission  
State of New Mexico  
Post Office Box 871  
Santa Fe, New Mexico

U. S. GEOLOGICAL SURVEY  
ROSWELL, NEW MEXICO  
Re: APPLICATION FOR APPROVAL OF EIGHTH  
AND NINTH EXPANSIONS, MESAVERDE  
PARTICIPATING AREA, Rosa Unit  
San Juan and Rio Arriba Counties  
New Mexico

Gentlemen:

Pursuant to the provisions of Section 10 of the Rosa Unit Agreement, approved by the Director of the United States Geological Survey, the Commissioner of Public Lands of the State of New Mexico, and the Oil Conservation Commissioner of the State of New Mexico, affecting lands in the Rosa Unit Area in San Juan and Rio Arriba Counties, New Mexico, El Paso Natural Gas Company, as Unit Operator, hereby submits for your approval a selection of lands to constitute the Eighth and Ninth Expansions of the Participating Area for the Mesaverde zone.

The lands selected for the proposed Eighth Expansion, Mesaverde Participating Area, Rosa Unit, were reasonably proved to be productive of unitized substances by the completion on August 20, 1959, of Rosa Unit Well #34-36 located in the NE/4 of Section 36, Township 32 North, Range 6 West. This well was completed in the Mesaverde zone from 5758' to 6105' for an initial potential of 4418 MCFGPD, CAOF. Shut-in tubing pressure was 1152#, and shut-in casing pressure 1152#. With the completion of Well #34-36 in commercial quantities, the Unit Operator has determined that the following described lands are reasonably proved productive and should be included in the Eighth Expansion of the Mesaverde Participating Area, effective as of September 1, 1959.

<u>Township 32 North, Range 6 West</u>	<u>Acres</u>
Section 36: All	640.00
<u>Township 31 North, Range 5 West</u>	
Section 5: All	367.96
Section 6: All	264.56
Section 7: All	463.76
Section 8: NW/4	160.00



Application for Approval of Eighth  
and Ninth Expansions, Mesaverde  
Participating Area  
January 7, 1960  
Page 2

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U.S. GEOLOGICAL SURVEY  
FEDERAL BUREAU OF REVENUE

<u>Township 31 North, Range 6 West</u>	<u>Acres</u>
Section 1: All	303.88
Section 2: All	356.26 *
Section 12: All	542.52
Total Acres	3,098.94
Participating Total Acres	3,089.59

\* 9.35 acres (Lot 5) not committed to unit and is deducted from Exhibit "B" participation.

The lands selected for the proposed Ninth Expansion, Mesaverde Participating Area, were reasonably proved to be productive of unitized substances by the completion on November 11, 1959 of Rosa Unit Well #35-5X located in the SW/4 of Section 5, Township 31 North, Range 6 West. This well was completed in the Mesaverde zone from 5600' to 5684' for an initial potential of 3467 MCFGPD, CAOF. Shut-in casing and tubing pressure each registered 1205#. This well was also drilled to the Dakota formation where tests failed to establish reserves of gas in commercial quantities. This portion of the well bore was cemented off and is considered plugged and abandoned. With the Mesaverde completion of Well #35-5X in commercial quantities, the Unit Operator has determined that the following described lands are reasonably proved productive and should be included in a Ninth Expansion of the Mesaverde Participating Area, effective as of December 1, 1959.

<u>Township 31 North, Range 6 West</u>	<u>Acres</u>
Section 3: All	349.95 **
Section 4: All	346.15 ***
Section 5: All	350.16
Section 8: N/2	320.00
Section 9: All	640.00
Section 10: All	640.00
Total Acres	2,646.26
Participating Total Acres	2,608.14

\*\* 35.20 acres (Tract 37) not committed and is deducted from Exhibit "B" participation.

\*\*\* 2.92 acres (Tract 37) not committed and is deducted from Exhibit "B" participation.

In support of the applicant's recommendations for the Eighth and Ninth Expansions to the Mesaverde Participating Area for the Rosa Unit, the applicant attaches hereto and makes a part hereof the following items:

- (1) A map of the Rosa Unit indicating the present Participating Area and the proposed Eighth and Ninth Expansions of the Participating Area for the Mesaverde zone.

Application for Approval of Eighth  
and Ninth Expansions, Mesaverde  
Participating Area  
January 7, 1960  
Page 3

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MAR 3 1960  
U. S. GEOLOGICAL SURVEY  
ROSWELL, NEW MEXICO

- (2) Separate schedules marked Exhibit "B" showing the leases included in the proposed Eighth and Ninth participating areas and setting forth a percentage of unitized substances to be allocated to each unitized tract within the proposed participating areas.
- (3) A brief geological and engineering report discussing the general area of the proposed Eighth and Ninth Expansions in the participating area for the Mesaverde zone.

El Paso Natural Gas Company, as Unit Operator of the Rosa Unit, respectfully requests that the Director, the Commissioner and the Oil Conservation Commission approve the selection of lands to constitute the Eighth and Ninth Expansions of the Mesaverde Participating Area for the Rosa Unit to be effective as of September 1, 1959, and December 1, 1959 respectively.

Very truly yours,

EL PASO NATURAL GAS COMPANY  
Successor by merger as of December  
31, 1959 to Pacific Northwest Pipeline  
Corporation

By [Signature]  
R. N. Richey  
Land Department  
Rocky Mountain Region

RNR:CVD:kfb  
Enc.

APPROVED: [Signature]  
Acting Director, United States Geological Survey

DATE: APR 28 1960

Subject to like approval by the appropriate State officials.

APPROVED: [Signature]  
Commissioner of Public Lands

DATE: 2-23-60

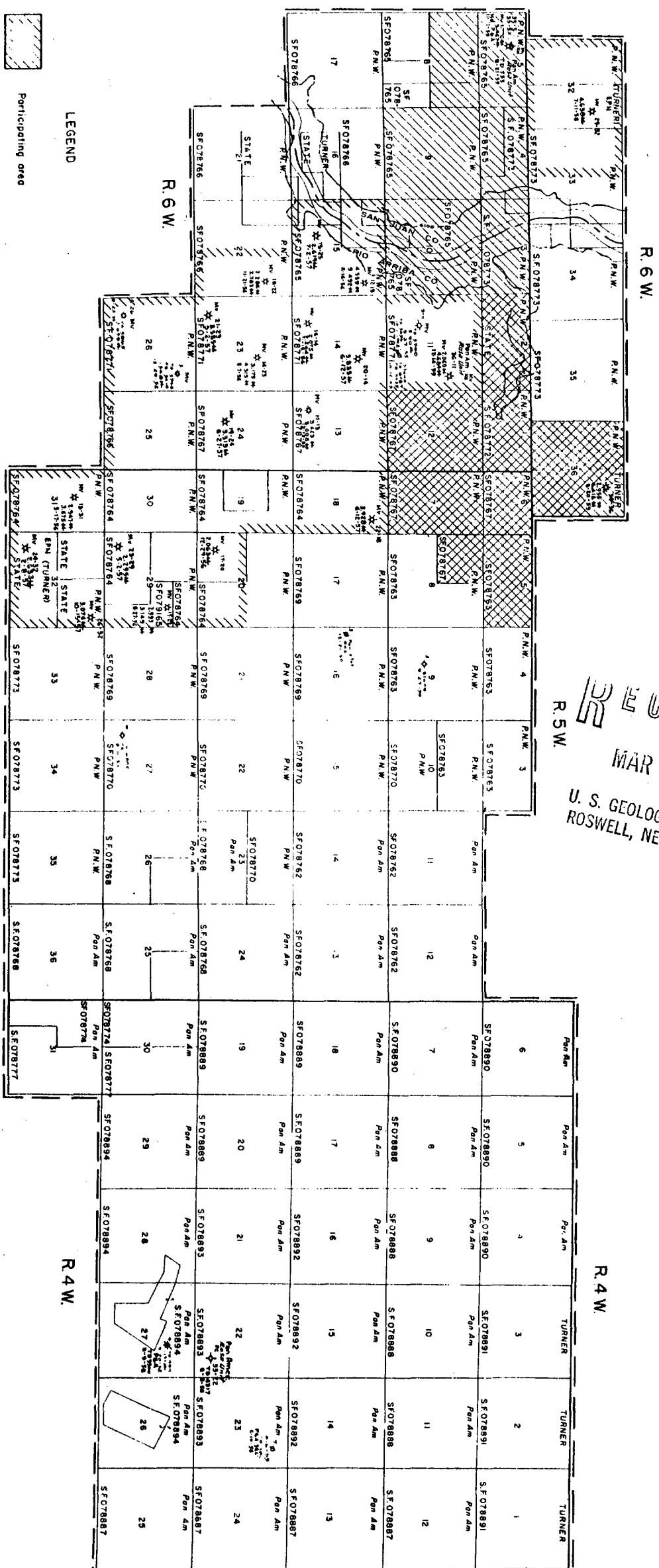
Subject to like approval by the U.S.G.S. and Oil Conservation Commission.

APPROVED: [Signature]  
Oil Conservation Commission

DATE: 2-25-60

Subject to like approval by the U.S.G.S. and Commissioner of Public Lands.

RECEIVED  
MAR 3 1960  
U. S. GEOLOGICAL SURVEY  
ROSWell, NEW MEXICO



LEGEND

- Participating area
- Proposed drilling blocks added to participating area by Eighth Revision effective 9-1-59
- Proposed drilling blocks added to participating area by Ninth Revision effective 12-1-59

ROSA UNIT

SAN JUAN & RIO ARRIBA COUNTIES, NEW MEXICO

Mesaverde Participating Area

SCALE IN MILES

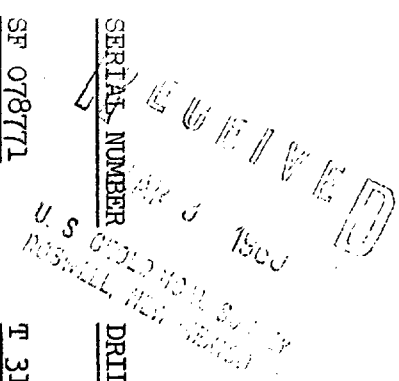


EXHIBIT "B"  
SCHEDULE OF LANDS SHOWING OWNERSHIP OF OIL & GAS INTERESTS WITHIN PROPOSED MESAVARDE  
EIGHTH EXPANDED PARTICIPATING AREA FOR ROSA UNIT, RIO ARRIBA & SAN JUAN COUNTIES, NEW MEXICO  
Effective September 1, 1959

SERIAL NUMBER	DRILLING BLOCK	NUMBER OF ACRES	DRILLING BLOCK		COMMITTED	TOTAL TRACT PARTICIPATION
			OWNERSHIP	AND PERCENTAGE*		
<u>Tract 37</u>						
SF 078771	T 31 N, R 6 W	2560.00	Working Interest:	87.50%	87.50%	20.219907 %
	Sec. 11: All		Pacific Northwest Pipeline Corp.	12.50%	12.50%	
	Sec. 14: All		Royalty:			
	Sec. 23: All					
	Sec. 26: All					
<u>Tract 14</u>						
SF 078767	T 31 N, R 5 W	2518.04	Working Interest:	87.50%	87.50%	19.888490 %
	Sec. 6: All		Pacific Northwest Pipeline Corp.	12.50%	12.50%	
	Sec. 7: All		Royalty:			
	Sec. 8: NW/4					
<u>Tract 33</u>						
SF 078765	T 31 N, R 6 W	438.97	Working Interest:	87.50%	87.50%	3.467161 %
	Sec. 15: Lots 1, 2, E/2		Pacific Northwest Pipeline Corp.:	12.50%	12.50%	
	E/2 SW/4, E/2		Royalty:			

Proposed Eighth Expansion - Mesaverde  
Rosa Unit

<u>SERIAL NUMBER</u>	<u>DRILLING BLOCK</u>	<u>NUMBER OF ACRES</u>	<u>DRILLING BLOCK OWNERSHIP AND PERCENTAGE *</u>	<u>COMMITTED</u>	<u>TOTAL TRACT PARTICIPATION</u>
<u>Tract 18</u>					
SF 078764	T 31 N, R 5 W Sec. 18: All Sec. 19: E/2 E/2, NW/4 NE/4, SW/4 SE/4 Sec. 20: SE/4 Sec. 29: N/2 NE/4, SW/4, W/2 SE/4 Sec. 30: E/2, Lots 1, 2, 3, 4 Sec. 31: E/2, Lots 1, 2, 3, 4	2187.30	Working Interest: Pacific Northwest Pipeline Corp.: 87.50% Royalty: 12.50%	87.50% 12.50%	17.276173 %
<u>Tract 39</u>					
SF 078766	T 31 N, R 6 W Sec. 22: E/2 Sec. 25: W/2, W/2 E/2, Lots 1, 2, 3, 4	864.48	Working Interest: Pacific Northwest Pipeline Corp.: 87.50% Royalty: 12.50%	87.50% 12.50%	6.828010 %
<u>Tract 21</u>					
SF 079165	T 31 N, R 5 W Sec. 29: S/2 NE/4, E/2 SE/4	160.00	Working Interest: Pacific Northwest Pipeline Corp.: 87.50% Royalty: 12.50%	87.50% 12.50%	1.263744 %
<u>Tract 20</u>					
Fee	T 31 N, R 5 W Sec. 20: SW/4 Sec. 29: NW/4	320.00	Working Interest: Pacific Northwest Pipeline Corp.: 87.50% Royalty: 12.50%	87.50% 12.50%	2.527489 %

Proposed Eighth Expansion - Mesaverde  
Rosa Unit

<u>SERIAL NUMBER</u>		<u>DRILLING BLOCK</u>	<u>NUMBER OF ACRES</u>	<u>DRILLING BLOCK OWNERSHIP AND PERCENTAGE *</u>		<u>COMMITTED</u>	<u>TOTAL TRACT PARTICIPATION</u>
Fee		<u>T 31 N, R 5 W</u> Sec. 19: Lots 2, 3 SW/4 NE/4, NW/4 SE/4	152.22	<u>Tract 19</u>  Working Interest: Pacific Northwest Pipeline Corp.: 87.50% Royalty: 12.50%		87.50% 12.50%	1.202295 %
E-347-30		<u>T 31 N, R 5 W</u> Sec. 32: NW/4	160.00	<u>Tract 25</u>  Working Interest: El Paso Natural Gas Company: Royalty: 87.50% 12.50%		87.50% 12.50%	1.263744 %
E-347-31		<u>T 31 N, R 5 W</u> Sec. 32: S/2	320.00	<u>Tract 27</u>  Working Interest: El Paso Natural Gas Company: Royalty: 87.50% 12.50%		87.50% 12.50%	2.527489 %
Fee		<u>T 31 N, R 6 W</u> Sec. 15: Tr 38	112.62	<u>Tract 36</u>  Working Interest: Pacific Northwest Pipeline Corp.: 87.50% Royalty: 12.50%		87.50% 12.50%	.889518 %
Fee		<u>T 31 N, R 6 W</u> Sec. 15: Tr. 39	80.00	<u>Tract 38</u>  Working Interest: Pacific Northwest Pipeline Corp.: 87.50% Royalty: 12.50%		87.50% 12.50%	.631872 %

Proposed Eighth Expansion - Mesaverde  
Rosa Unit

<u>SERIAL NUMBER</u>	<u>DRILLING BLOCK</u>	<u>NUMBER OF ACRES</u>	<u>DRILLING BLOCK OWNERSHIP AND PERCENTAGE*</u>	<u>COMMITTED</u>	<u>TOTAL TRACT PARTICIPATION</u>
E-289	<u>T 31 N, R 6 W</u> Sec. 15: 8.41 acres out of S/2 S/2 SW/4 SW/4	8.41	<u>Tract 43</u>  Working Interest: Pacific Northwest Pipeline Corp.: 87.50% Royalty: 12.50%	87.50% 12.50%	.066425 %
E-347-28	<u>T 31 N, R 5 W</u> Sec. 32: NE/4	160.00	<u>Tract 26</u>  Working Interest: Pacific Northwest Pipeline Corp.: 87.50% Royalty: 12.50%	87.50% 12.50%	1.263744 %
E-504-11	<u>T 32 N, R 6 W</u> Sec. 32: W/2	320.00	<u>Tract 44</u>  Working Interest: Pacific Northwest Pipeline Corp.: 87.50% Royalty: 12.50%	87.50% 12.50%	2.527489 %
E-504-12	<u>T 32 N, R 6 W</u> Sec. 32: E/2	320.00	<u>Tract 45</u>  Working Interest: El Paso Natural Gas Company Royalty: 87.50% 12.50%	87.50% 12.50%	2.527489 %
SF 078772	<u>T 31 N, R 6 W</u> Sec. 1: All  <u>T 32 N, R 6 W</u> Sec. 33: W/2	623.88	<u>Tract 29</u>  Working Interest: Pacific Northwest Pipeline Corp.: 87.50% Royalty: 12.50%	87.50% 12.50%	4.927654 %

Proposed Eighth Expansion - Mesaverde  
Rosa Unit

SERIAL NUMBER	DRILLING BLOCK	NUMBER OF ACRES	DRILLING BLOCK OWNERSHIP AND PERCENTAGE*	COMMITTED	TOTAL TRACT PARTICIPATION	
E-346-14	T 32 N, R 6 W Sec. 36: E/2	320.00	Tract 48			
			Working Interest:			
			J. Glenn Turner:	43.750%	43.750%	
			Frank Schultz:	39.375%	39.375%	
			W. G. Webb:	4.375%	4.375%	
			Royalty:	12.500%	12.500%	
			Tract 47			
E-346-19	T 32 N, R 6 W Sec. 36: W/2	320.00	Working Interest:			
			Pacific Northwest Pipeline Corp.:	87.50%	87.50%	
			Royalty:	12.50%	12.50%	
			Tract 13			
SF 078763	T 31 N, R 5 W Sec. 5: All	367.96	Working Interest:			
			Pacific Northwest Pipeline Corp.:	87.50%	87.50%	
			Royalty:	12.50%	12.50%	
			Tract 30			
E-289-37	T 31 N, R 6 W Sec. 2: Lots 6,7,8 S/2	346.91	Working Interest:			
			Pacific Northwest Pipeline Corp.:	87.50%	87.50%	
			Royalty:	12.50%	12.50%	
			TOTALS		12,660.79	
					100.000000 %	

\* The percentage of unit production allocated to the working interest owner of each tract is subject to all outstanding overriding interest of record against the subject lands.



RECEIVED  
MAR 3 1960  
U. S. GEOLOGICAL SURVEY  
ROSWELL, NEW MEXICO

EXHIBIT "B"  
SCHEDULE OF LANDS SHOWING OWNERSHIP OF OIL & GAS INTERESTS WITHIN PROPOSED MESAVERDE  
NINTH EXPANDED PARTICIPATING AREA FOR ROSA UNIT, RIO ARRIBA & SAN JUAN COUNTIES, NEW MEXICO  
Effective December 1, 1959

SERIAL NUMBER	DRILLING BLOCK	NUMBER OF ACRES	OWNERSHIP AND PERCENTAGE*	COMMITTED	TOTAL TRACT PARTICIPATION
<u>Tract 37</u>					
SF 078771	T 31 N, R 6 W	2560.00	Working Interest: Pacific Northwest Pipeline Corp.: Royalty:	87.50% 12.50%	16.766073 %
<u>Tract 14</u>					
SF 078767	T 31 N, R 5 W	2518.04	Working Interest: Pacific Northwest Pipeline Corp. Royalty:	87.50% 12.50%	16.491267 %
<u>Tract 33</u>					
SF 078765	T 31 N, R 6 W	2220.23	Working Interest: Pacific Northwest Pipeline Corp.: Royalty:	87.50% 12.50%	14.540836 %

Proposed Ninth Expansion -- Mesaverde  
Rosa Unit

<u>SERIAL NUMBER</u>	<u>DRILLING BLOCK</u>	<u>NUMBER OF ACRES</u>	<u>OWNERSHIP AND PERCENTAGE*</u>	<u>COMMITTED</u>	<u>TOTAL TRACT PARTICIPATION</u>
<u>Tract 18</u>					
SF 078764	T 31 N, R 5 W		Working Interest:		
	Sec. 18: All	2187.30	Pacific Northwest Pipeline Corp.:	87.50%	14.325169 %
	Sec. 19: E/2 E/2, NW/4 NE/4, SW/4 SE/4		Royalty:	12.50%	
	Sec. 20: SE/4				
	Sec. 29: N/2 NE/4, SW/4 W/2 SE/4				
	Sec. 30: E/2, Lots 1, 2, 3, 4				
	Sec. 31: E/2, Lots 1, 2, 3, 4				
<u>Tract 39</u>					
SF 078766	T 31 N, R 6 W		Working Interest:		
	Sec. 22: E/2	864.48	Pacific Northwest Pipeline Corp.:	87.50%	5.661693 %
	Sec. 25: W/2, W/2 E/2, Lots 1, 2, 3, 4		Royalty:	12.50%	
<u>Tract 21</u>					
SF 079165	T 31 N, R 5 W		Working Interest:		
	Sec. 29: S/2 NE/4, E/2 SE/4	160.00	Pacific Northwest Pipeline Corp.:	87.50%	1.047880 %
			Royalty:	12.50%	
<u>Tract 20</u>					
Fee	T 31 N, R 5 W		Working Interest:		
	Sec. 20: SW/4	320.00	Pacific Northwest Pipeline Corp.:	87.50%	2.095759 %
	Sec. 29: NW/4		Royalty:	12.50%	

Proposed Ninth Expansion - Mesaverde  
Rosa Unit

<u>SERIAL NUMBER</u>	<u>DRILLING BLOCK</u>	<u>NUMBER OF ACRES</u>	<u>DRILLING BLOCK</u>		<u>COMMITTED</u>	<u>TOTAL TRACT PARTICIPATION</u>
			<u>OWNERSHIP</u>	<u>AND PERCENTAGE*</u>		
Fee	<u>T 31 N, R 5 W</u> Sec. 19: <u>Lots 2, 3</u> <u>SW/4 NE/4,</u> <u>NW/4 SE/4</u>	152.22	<u>Tract 19</u> Working Interest: Pacific Northwest Pipeline Corp.: Royalty:		87.50% 12.50%	87.50% 12.50%
						.996926 %
E-347-30	<u>T 31 N, R 5 W</u> Sec. 32: <u>NW/4</u>	160.00	<u>Tract 25</u> Working Interest: El Paso Natural Gas Company: Royalty:		87.50% 12.50%	87.50% 12.50%
						1.047880 %
E-347-31	<u>T 31 N, R 5 W</u> Sec. 32: <u>S/2</u>	320.00	<u>Tract 27</u> Working Interest: El Paso Natural Gas Company: Royalty:		87.50% 12.50%	87.50% 12.50%
						2.095759 %
Fee	<u>T 31 N, R 6 W</u> Sec. 10: <u>Tr. 38</u> Sec. 15: <u>Tr. 38</u>	161.52	<u>Tract 36</u> Working Interest: Pacific Northwest Pipeline Corp.: Royalty:		87.50% 12.50%	87.50% 12.50%
						1.057834 %
Fee	<u>T 31 N, R 6 W</u> Sec. 15: <u>Tr. 39</u>	80.00	<u>Tract 38</u> Working Interest: Pacific Northwest Pipeline Corp.: Royalty:		87.50% 12.50%	87.50% 12.50%
						.523940 %

Proposed Ninth Expansion - Mesaverde  
Rosa Unit

<u>SERIAL NUMBER</u>	<u>DRILLING BLOCK</u>	<u>NUMBER OF ACRES</u>	<u>DRILLING BLOCK OWNERSHIP AND PERCENTAGE*</u>	<u>COMMITTED</u>	<u>TOTAL TRACT PARTICIPATION</u>
E-289	<u>T 31 N, R 6 W</u> Sec. 15: 8.41 acres out of S/2 S/2 SW/4 SW/4	8.41	<u>Tract 43</u> Working Interest: Pacific Northwest Pipeline Corp.: Royalty:	87.50% 12.50%	.055079 %
E-347-28	<u>T 31 N, R 5 W</u> Sec. 32: NE/4	160.00	<u>Tract 26</u> Working Interest: Pacific Northwest Pipeline Corp.: Royalty:	87.50% 12.50%	1.047880 %
E-504-11	<u>T 32 N, R 6 W</u> Sec. 32: W/2	320.00	<u>Tract 44</u> Working Interest: Pacific Northwest Pipeline Corp.: Royalty:	87.50% 12.50%	2.095759 %
E-504-12	<u>T 32 N, R 6 W</u> Sec. 32: E/2	320.00	<u>Tract 45</u> Working Interest: El Paso Natural Gas Company Royalty:	87.50% 12.50%	2.095759 %
SF 078772	<u>T 31 N, R 6 W</u> Sec. 1: All Sec. 3: Lots 5, 6, 7, 8, 9, SE/4, E/2 SW/4, SW/4 Sec. 4: Lots 5, 6, 7, 8, 9, N/2 SW/4, NW/4 SE/4, SE/4 SE/4	1161.86	<u>Tract 29</u> Working Interest: Pacific Northwest Pipeline Corp.: Royalty:	87.50% 12.50%	7.609309 %

Proposed Ninth Expansion - Mesaverde  
Rosa Unit

<u>SERIAL NUMBER</u>	<u>DRILLING BLOCK</u>	<u>NUMBER OF ACRES</u>	<u>DRILLING BLOCK</u>		<u>COMMITTED</u>	<u>TOTAL TRACT PARTICIPATION</u>
			<u>OWNERSHIP</u>	<u>AND PERCENTAGE*</u>		
E-346-14	<u>T 32 N, R 6 W</u> <u>Sec. 36: E/2</u>	320.00	<u>Tract 48</u> Working Interest: J. Glenn Turner: Frank Schultz: W. G. Webb: Royalty:	43.750% 39.375% 4.375% 12.500%	43.750% 39.375% 4.375% 12.500%	2.095759 %
E-346-19	<u>T 32 N, R 6 W</u> <u>Sec. 36: W/2</u>	320.00	<u>Tract 47</u> Working Interest: Pacific Northwest Pipeline Corp.: Royalty:	87.50% 12.50%	87.50% 12.50%	2.095759 %
SF 078763	<u>T 31 N, R 5 W</u> <u>Sec. 5: All</u>	367.96	<u>Tract 13</u> Working Interest: Pacific Northwest Pipeline Corp.: Royalty:	87.50% 12.50%	87.50% 12.50%	2.409861 %
E-289-37	<u>T 31 N, R 6 W</u> <u>Sec. 2: Lots 6, 7, 8</u> <u>S/2</u>	346.91	<u>Tract 30</u> Working Interest: Pacific Northwest Pipeline Corp.: Royalty:	87.50% 12.50%	87.50% 12.50%	2.271999 %
Fee	<u>T 31 N, R 6 W</u> <u>Sec. 8: W/2 NE/4</u>	80.00	<u>Tract 34</u> Working Interest: Pacific Northwest Pipeline Corp.: Royalty:	87.50% 12.50%	87.50% 12.50%	•523940 %

Proposed Ninth Expansion - Mesaverde  
Rosa Unit

<u>SERIAL NUMBER</u>	<u>DRIILLING BLOCK</u>	<u>NUMBER OF ACRES</u>	<u>DRIILLING BLOCK OWNERSHIP AND PERCENTAGE*</u>	<u>COMMITTED</u>	<u>TOTAL TRACT PARTICIPATION</u>
Fee	<u>T 31 N, R 6 W</u> Sec. 10: <u>W/2 E/2</u>	160.00	<u>Tract 35</u>  Working Interest: Pacific Northwest Pipeline Corp.: Royalty:	-  87.50% 12.50%	1.047880 %
TOTALS		<u>15,268.93</u>			<u>100.000000</u>

\* The percentage of unit production allocated to the working interest owner of each tract is subject to all outstanding overriding interest of record against the subject lands.

EXHIBIT

Geological Report On the Eighth and Ninth Expansions  
of Mesaverde Participating Area of the Rosa Unit,  
San Juan and Rio Arriba Counties, New Mexico

RECEIVED  
MAR 3 1960  
U.S. GEOLOGICAL SURVEY  
COWELL NEW MEXICO

Since the Seventh Expansion of the Mesaverde Participating Area of the Rosa Unit several new wells have been completed which will influence the determination of the proven Mesaverde gas producing area.

Immediately offsetting the Rosa Unit on the north the La Plata #1-26 Well in the NW/4 Section 26, Township 32 North, Range 6 West was completed June 10, 1959 for a CAOF of 1410 MCF/d from the Mesaverde formation. Also, the La Plata #1-32 Well in the SW/4 Section 32, Township 32 North, Range 5 West was completed August 20, 1959 for a Mesaverde CAOF of 6164 MCF/d. The Schultz #14-32 State Well in the NE/4 Section 32, Township 32 North, Range 5 West, however, achieved a CAOF from the Mesaverde of only 380 MCF/d. It was completed October 30, 1959.

Inside the Unit boundary, the Turner #34-36 Unit Well in the NE/4 Section 36, Township 32 North, Range 6 West was completed August 20, 1959 for a Mesaverde CAOF of 4919 MCF/d and the Pan American #36-11 Unit Well in the NE/4 Section 11, Township 31 North, Range 6 West was completed December 14, 1959 for a CAOF of 4684 MCF/d from the same formation. Pan American also established a Mesaverde CAOF of 3467 MCF/d at the #35-5X Unit Well in the W/2 Section 5, Township 31 North, Range 6 West. This well was completed November 11, 1959.

The electric logs of the additional Mesaverde completions have been compared with the wells in the present participating area both by individual well and by the construction of cross sections. This study shows that apparently all the wells are completed in correlative sand intervals in the Mesaverde formation.

An examination of the geologic structure of the Rosa Area shows the Rosa Unit wells to be located on the flanks and in the trough of a broad syncline which plunges to the south-east. There is no indication that the structure of the area has anything to do with the accumulation of gas in the Mesaverde formation in the Rosa Unit. The accumulations of gas in the area is most likely controlled by sand conditions. That is, gas will be found where sufficient sand has been deposited and where porosity and permeability (and possibly fractures) are present.

In view of the above data, the following recommendations are made regarding the expansion of the Mesaverde Participating Area of the Rosa Unit:

Recommended for inclusion in the Eighth Revision are:

T-32-N, R-6-W	- Section 36:	All
T-32-N, R-5-W	- Section 5:	All
	Section 6:	All
	Section 7:	All
	Section 8:	NW/4
T-31-N, R-6-W	- Section 1:	All
	Section 2:	All
	Section 12:	All

Recommended for inclusion in the Ninth Revision are:

T-31-N, R-6-W - Section 3: All  
Section 4: All  
Section 5: All  
Section 8: N/2  
Section 9: All  
Section 10: All

A handwritten signature in cursive script, appearing to read "V. H. Zabel".

V. H. Zabel



P. O. Box 6721  
Roswell, New Mexico

133  
May 4, 1960

El Paso Natural Gas Company  
P. O. 1492  
El Paso, Texas

Gentlemen:

Your application of January 7, 1960, for approval of the eighth revision (3,098.94 acres) and the ninth revision (2,646.26 acres) of the Manzaneros participating area (now total 15,316.40 acres) under the Rosa unit agreement, New Mexico (I-Sec. No. 587) was approved by the Acting Director, U. S. Geological Survey on April 28, 1960.

It is noted that the eighth revision contains a noncommitted parcel described as lot 4, sec. 2, T. 31 N., R. 6 W., N.M.P.M. (unit tract No. 31), and the ninth revision includes 38.12 acres of noncommitted land in secs. 3 and 4, T. 31 N., R. 6 W., N.M.P.M. (unit tract No. 32). However, the participation schedule accompanying the eighth and ninth revisions does not contain the description of these noncommitted tracts. It is also noted that the lands described in the participation schedule are not listed in any apparent order.

On future applications for participating area revisions, please include in the participation schedule all lands included in the participating area, as revised, even though this will necessitate assigning a "zero" allocation percentage to any noncommitted tract. Also, please arrange the future allocation schedules so that the tracts are in numerical order. Such an arrangement will facilitate checking the commitment status with Exhibit "B".

One approved copy of the application is enclosed. Please furnish all other interested parties with appropriate evidence of this approval.

Very truly yours,

Copy to: Washington, ltr. only  
Farmington, w/cy approved application  
NLM-Santa Fe, "  
Comm. Pub. Lands, ltr. only  
Attn: Mrs. Rhea  
NMCC-Santa Fe, ltr. only

EDWIN M. THOMASSON  
Acting Oil and Gas Supervisor

U. S. CONSERVATION COMMISSION

P. O. BOX 871

SANTA FE, NEW MEXICO

Case # 133

April 22, 1960

C  
O  
P  
Y  
  
El Paso Natural Gas Company  
P. O. Box 1492  
El Paso, Texas

Attention: Mr. Sam Smith

Re: Change of Unit Operator,  
Rosa Unit, Rio Arriba  
County, New Mexico.

Gentlemen:

This is to advise that the New Mexico Oil Conservation Commission approves El Paso Natural Gas Company as Unit Operator for Rosa Unit.

As the surviving corporation by Merger with Pacific Northwest, El Paso Natural Gas Company complies fully with the terms of the Rosa Unit Agreement allowing El Paso's assumption of rights, duties, obligations and responsibility of Unit Operator.

The approval of this change of Unit Operator is made subject to like approval by the Director of the United States Geological Survey and the Commissioner of Public Lands.

One approved copy is enclosed.

Very truly yours,

A. L. PORTER, Jr.,  
Secretary-Director

ALP/JEK/pj

cc: United States Geological Survey - Roswell

State Land Office - Santa Fe

In Reply refer to:  
Unit Division

April 6, 1960

El Paso Natural Gas Company  
El Paso, Texas

ATTENTION: Mr. Sam Smith

Re: Rosa Unit  
Rio Arriba County, New Mexico

Gentlemen:

*New Mexico OCC*  
The Commissioner of Public Lands approves the designation of El Paso Natural Gas Company, as operator of the above designated unit.

Change of operator of this unit being due to Pacific Northwest Pipeline Corporation being merged with and into El Paso Natural Gas Company, El Paso, Texas, as the surviving Corporation.

Section 6 of the unit agreement, has been complied with and the working interest owners of the unit have confirmed El Paso as being acceptable as unit operator.

We are enclosing two approved copies of this designation. Please remit a two dollars (\$2.00) filing fee to cover handling of these documents.

Very truly yours,  
MURRAY E. MORGAN  
Commissioner of Public Lands  
BY:  
Ted Bilberry, Supervisor  
Oil and Gas Division

MEM/MMR/s

cc: OCC-Santa Fe  
USGS-Roswell

# El Paso Natural Gas Company

El Paso, Texas

March 28, 1960

Mr. John A. Anderson  
Regional Oil and Gas Supervisor  
United States Geological Survey  
Post Office Box 6721  
Roswell, New Mexico

Commissioner of Public Lands  
Of the State of New Mexico  
Capitol Annex Building  
Santa Fe, New Mexico

Oil Conservation Commission  
Of the State of New Mexico  
Capitol Annex Building  
Santa Fe, New Mexico

Re: Rosa Unit, I-Sec. No. 587  
Rio Arriba and San Juan Counties,  
New Mexico

Gentlemen:

Since December 31, 1959, on which date Pacific Northwest Pipeline Corporation was merged with and into El Paso Natural Gas Company, El Paso, as the surviving corporation, has been acting in the capacity of Operator of the captioned Unit.

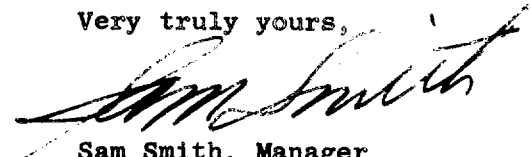
In compliance with Section 6 of the Unit Agreement, the working interest owners were polled to ascertain if El Paso was acceptable to succeed Pacific as Unit Operator. The results of voting by a majority of the working interest ownership has confirmed El Paso as Unit Operator.

In the event El Paso's confirmation as Unit Operator is approved by the regulatory agencies, El Paso assumes and accepts all of the rights, duties, obligations and responsibilities attendant upon the Operator of the captioned Unit pursuant to the terms of the Unit Agreement and Unit Operating Agreement.

We herewith respectfully request that El Paso Natural Gas Company be approved as Unit Operator in the space provided on the attached sheet and that one copy be returned to this office.

A copy of this letter is being sent to all working interest owners within this Unit.

Very truly yours,

  
Sam Smith, Manager  
Land Department

SS:GWO:n1

cc: Attached List

Rosa Unit  
Working Interest Owners

Mr. Neville G. Penrose  
1815 Fair Building  
Fort Worth 2, Texas

Colorado Oil and Gas Company  
Denver Club Building  
Denver, Colorado  
Attention: Mr. Charles Titus

Mr. J. Glenn Turner  
Turner, White, Atwood, McLane & Francis  
19th Floor, Mercantile Dallas Building  
Dallas 1, Texas

Pan American Petroleum Corporation  
P. O. Box 487  
Farmington, New Mexico  
Attention: Mr. L. O. Speer, Jr.

Southern Petroleum Exploration, Inc.  
Post Office Box 192  
Sistersville, West Virginia  
Attention: Mr. Paul W. Neuenschwander

Phillips Petroleum Company  
508 Bank Building  
Bartlesville, Oklahoma  
Attention: Mr. R. F. Rood or  
Mr. R. A. Brown

APPROVED: \_\_\_\_\_

Director, United States Geological Survey  
Subject to like approval by the appropriate  
State Officials.

DATE: \_\_\_\_\_

APPROVED: \_\_\_\_\_

Commissioner of Public Lands  
Subject to like approval by the United States  
Geological Survey and the Oil Conservation  
Commission.

DATE: \_\_\_\_\_

APPROVED: \_\_\_\_\_

*Oil Conservation Commission*  
Subject to like approval by the United States  
Geological Survey and the Commissioner of  
Public Lands.

DATE: *4-10-61*

NEW MEXICO OIL CONSERVATION COMMISSION

P. O. BOX 871

SANTA FE, NEW MEXICO

*Case #133*

February 23, 1960

El Paso Natural Gas Company  
P. O. Box 1526  
Salt Lake City 10, Utah

Attention: Mr. Claude Van Dyke

Re: Eighth and Ninth Expansions,  
Mesaverde Participating Area,  
Rosa Unit, San Juan and Rio  
Arriba Counties, New Mexico.

Gentlemen:

This is to advise that the New Mexico Oil Conservation Commission has this date approved the Eighth and Ninth Expansions, Mesaverde Participating Area for the Rosa Unit, San Juan and Rio Arriba Counties, New Mexico, subject to like approval by the United States Geological Survey and the Commissioner of Public Lands of the State of New Mexico.

Ten approved copies of the application are returned herewith.

Very truly yours,

A. L. PORTER, Jr.,  
Secretary-Director

ALP/JEK/pj

cc: State Land Office  
Santa Fe, New Mexico

United States Geological Survey  
Roswell, New Mexico

C  
O  
P  
Y

C  
February 23, 1960

O  
El Paso Natural Gas Company  
P. O. Box 1526  
Salt Lake City 10, Utah

ATTENTION: Mr. Claude Van Dyke

P  
Re: Revised Eight Expansion and  
Ninth Expansion Mesaverde Formation,  
Rosa Unit, San Juan and Rio Arriba  
Counties, New Mexico

Y  
Gentlemen:

We are handing to Mr. Pete Porter, Director of the Oil Conservation Commission, eleven copies of the above designated Participating Area, which the Commissioner of Public Lands approved February 23, 1960.

This approval being subject to like approval by the United States Geological Survey and the Oil Conservation Commission.

Please furnish us another copy of this document at such time as it has been fully executed.

Very truly yours,  
MURRAY E. MORGAN  
Commissioner of Public Lands

BY:  
Ted Bilberry, Supervisor  
Oil and Gas Division

MEM/MMR/m

cc:

OCC-Santa Fe  
USGS-Roswell



# El Paso Natural Gas Company

El Paso, Texas

January 22, 1960

ADDRESS REPLY TO:  
POST OFFICE BOX 1526  
SALT LAKE CITY 10, UTAH

Mr. Murray E. Morgan  
Commissioner of Public Lands  
State of New Mexico  
Post Office Box 791  
Santa Fe, New Mexico

Mr. A. L. Porter, Jr. ✓  
Secretary  
Oil Conservation Commission  
State of New Mexico  
Post Office Box 871  
Santa Fe, New Mexico

Re: Application for Approval of  
Eighth Expansion (Revised)  
and Ninth Expansion  
Mesaverde Participating Area  
Rosa Unit  
San Juan and Rio Arriba Counties,  
New Mexico

Gentlemen:

Enclosed are twelve copies of the proposed Eighth (Revised) and Ninth Expansions of the Mesaverde Participating Area for the subject unit. If these expansions meet with your approval, we respectfully request that you indicate such approval by executing six copies of the applications and then forward them, plus three copies, to Mr. Porter of the Oil Conservation Commission for his consideration and approval.

You may retain three copies of this application for your files as may the Oil Conservation Commission and it is requested that six fully executed copies be returned to us for forwarding to the United States Geological Survey office for final approval.

If you should need additional applications, we will gladly furnish them upon request. When the application is fully approved by all agencies, you will be notified of such approval dates.

Very truly yours,

EL PASO NATURAL GAS COMPANY  
Successor by merger as of December 31,  
1959, to Pacific Northwest Pipeline  
Corporation

CVD:kfb  
Enc.

Claude Van Dyke  
Land Department  
Rocky Mountain Region

cc: Mr. John A. Anderson  
Regional Supervisor  
United States Geological Survey  
Post Office Box 6721  
Roswell, New Mexico

COPY

75-72-6

# El Paso Natural Gas Company

El Paso, Texas

REPLY TO:  
P. O. Box 1526  
SALT LAKE CITY 10, UTAH

January 7, 1960

# 133

Director  
United States Geological Survey  
Post Office Box 6721  
Roswell, New Mexico

Commissioner of Public Lands  
State of New Mexico  
Post Office Box 791  
Santa Fe, New Mexico

Re: APPLICATION FOR APPROVAL OF EIGHTH  
AND NINTH EXPANSIONS, MESAVERDE  
PARTICIPATING AREA, Rosa Unit  
San Juan and Rio Arriba Counties  
New Mexico

Oil Conservation Commission  
State of New Mexico  
Post Office Box 871  
Santa Fe, New Mexico

Gentlemen:

Pursuant to the provisions of Section 10 of the Rosa Unit Agreement, approved by the Director of the United States Geological Survey, the Commissioner of Public Lands of the State of New Mexico, and the Oil Conservation Commissioner of the State of New Mexico, affecting lands in the Rosa Unit Area in San Juan and Rio Arriba Counties, New Mexico, El Paso Natural Gas Company, as Unit Operator, hereby submits for your approval a selection of lands to constitute the Eighth and Ninth Expansions of the Participating Area for the Mesaverde zone.

The lands selected for the proposed Eighth Expansion, Mesaverde Participating Area, Rosa Unit, were reasonably proved to be productive of unitized substances by the completion on August 20, 1959, of Rosa Unit Well #34-36 located in the NE/4 of Section 36, Township 32 North, Range 6 West. This well was completed in the Mesaverde zone from 5758' to 6105' for an initial potential of 4418 MCFGPD, CAOF. Shut-in tubing pressure was 1152#, and shut-in casing pressure 1152#. With the completion of Well #34-36 in commercial quantities, the Unit Operator has determined that the following described lands are reasonably proved productive and should be included in the Eighth Expansion of the Mesaverde Participating Area, effective as of September 1, 1959.

<u>Township 32 North, Range 6 West</u>	<u>Acres</u>
Section 36: All	640.00
<u>Township 31 North, Range 5 West</u>	
Section 5: All	367.96
Section 6: All	264.56
Section 7: All	463.76
Section 8: NW/4	160.00

Application for Approval of Eighth  
and Ninth Expansions, Mesaverde  
Participating Area  
January 7, 1960  
Page 2

<u>Township 31 North, Range 6 West</u>		Acres
Section 1: All		303.88
Section 2: All		356.26 *
Section 12: All		542.52
Total Acres		3,098.94
Participating Total Acres		3,089.59

\* 9.35 acres (Lot 5) not committed to unit and is deducted from Exhibit "B" participation.

The lands selected for the proposed Ninth Expansion, Mesaverde Participating Area, were reasonably proved to be productive of unitized substances by the completion on November 11, 1959 of Rosa Unit Well #35-5X located in the SW/4 of Section 5, Township 31 North, Range 6 West. This well was completed in the Mesaverde zone from 5600' to 5684' for an initial potential of 3467 MCFGPD, CAOF. Shut-in casing and tubing pressure each registered 1205#. This well was also drilled to the Dakota formation where tests failed to establish reserves of gas in commercial quantities. This portion of the well bore was cemented off and is considered plugged and abandoned. With the Mesaverde completion of Well #35-5X in commercial quantities, the Unit Operator has determined that the following described lands are reasonably proved productive and should be included in a Ninth Expansion of the Mesaverde Participating Area, effective as of December 1, 1959.

*Comm in MV  
35-5X  
dual  
non Comm Dak*

<u>Township 31 North, Range 6 West</u>		Acres
Section 3: All		349.95 **
Section 4: All		346.15 ***
Section 5: All		350.16
Section 8: N/2		320.00
Section 9: All		640.00
Section 10: All		640.00
Total Acres		2,646.26
Participating Total Acres		2,608.14

\*\* 35.20 acres (Tract 37) not committed and is deducted from Exhibit "B" participation.

\*\*\* 2.92 acres (Tract 37) not committed and is deducted from Exhibit "B" participation.

In support of the applicant's recommendations for the Eighth and Ninth Expansions to the Mesaverde Participating Area for the Rosa Unit, the applicant attaches hereto and makes a part hereof the following items:

- (1) A map of the Rosa Unit indicating the present Participating Area and the proposed Eighth and Ninth Expansions of the Participating Area for the Mesaverde zone.

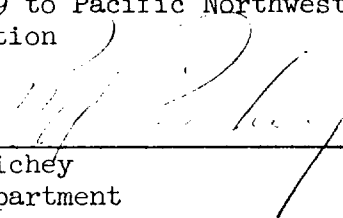
Application for Approval of Eighth  
and Ninth Expansions, Mesaverde  
Participating Area  
January 7, 1960  
Page 3

- (2) Separate schedules marked Exhibit "B" showing the leases included in the proposed Eighth and Ninth participating areas and setting forth a percentage of unitized substances to be allocated to each unitized tract within the proposed participating areas.
- (3) A brief geological and engineering report discussing the general area of the proposed Eighth and Ninth Expansions in the participating area for the Mesaverde zone.

El Paso Natural Gas Company, as Unit Operator of the Rosa Unit, respectfully requests that the Director, the Commissioner and the Oil Conservation Commission approve the selection of lands to constitute the Eighth and Ninth Expansions of the Mesaverde Participating Area for the Rosa Unit to be effective as of September 1, 1959, and December 1, 1959 respectively.

Very truly yours,

EL PASO NATURAL GAS COMPANY  
Successor by merger as of December  
31, 1959 to Pacific Northwest Pipeline  
Corporation


By   
R. N. Richey  
Land Department  
Rocky Mountain Region

RNR:CVD:kfb  
Enc.

APPROVED: \_\_\_\_\_  
Director, United States Geological Survey


DATE: \_\_\_\_\_

Subject to like approval by the appropriate State officials.

APPROVED:   
Commissioner of Public Lands

DATE: 2-23-60

Subject to like approval by the U.S.G.S. and Oil Conservation Commission.

APPROVED:   
Oil Conservation Commission

DATE: 2-25-60

Subject to like approval by the U.S.G.S. and Commissioner of Public Lands.

12-1-59

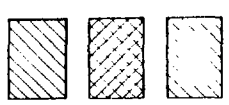
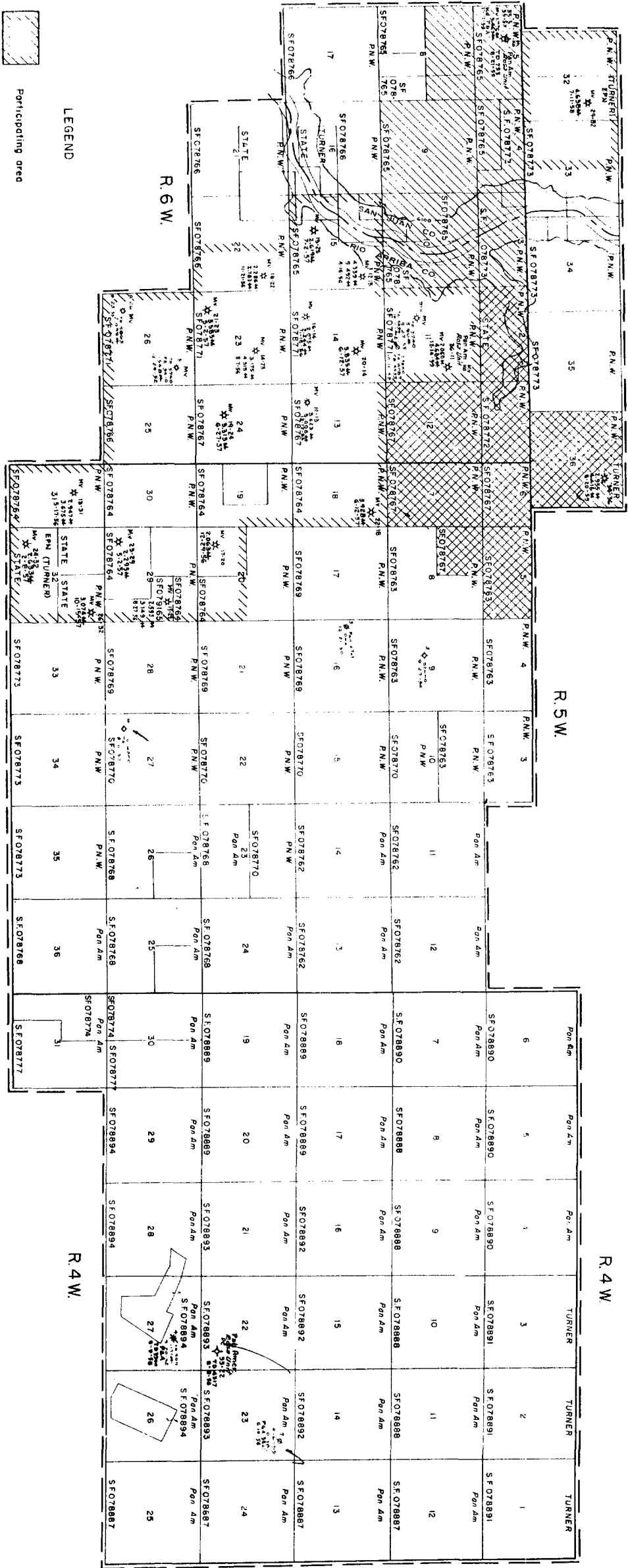
R. 6 W.

R. 4 W.

R. 5 W.

T. 31 N.

T. 31 N.



SAN JUAN & RIO ARriba COUNTIES, NEW MEXICO

Mesaverde Participating Area

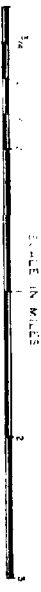


EXHIBIT "B"

SCHEDULE OF LANDS SHOWING OWNERSHIP OF OIL & GAS INTERESTS WITHIN PROPOSED MESAVERDE  
EIGHTH EXPANDED PARTICIPATING AREA FOR ROSA UNIT, RIO ARRIBA & SAN JUAN COUNTIES, NEW MEXICO

Effective September 1, 1959

SERIAL NUMBER	DRILLING BLOCK	NUMBER OF ACRES	DRILLING BLOCK OWNERSHIP AND PERCENTAGE*	COMMITTED	TOTAL TRACT PARTICIPATION
<u>SF 078771</u>	<u>T 31 N, R 6 W</u>	2560.00	<u>Tract 37</u>	87.50% 12.50%	20.219907 %
	<u>Sec. 11: All</u>		Working Interest:		
	<u>Sec. 14: All</u>		Pacific Northwest Pipeline Corp.		
	<u>Sec. 23: All</u>		Royalty:		
	<u>Sec. 26: All</u>				
<u>SF 078767</u>	<u>T 31 N, R 5 W</u>	2518.04	<u>Tract 14</u>	87.50% 12.50%	19.888490 %
	<u>Sec. 6: All</u>		Working Interest:		
	<u>Sec. 7: All</u>		Pacific Northwest Pipeline Corp.		
	<u>Sec. 8: NW/4</u>		Royalty:		
	<u>T 31 N, R 6 W</u>				
<u>SF 078765</u>	<u>Sec. 12: All</u>	438.97	<u>Tract 33</u>	87.50% 12.50%	3.467161 %
	<u>Sec. 13: Lots 1,2,3,4,</u>		Working Interest:		
	<u>W/2, W/2 E/2</u>		Pacific Northwest Pipeline Corp. :		
	<u>Sec. 24: Lots 1,2,3,4,</u>		Royalty:		
	<u>W/2, W/2 E/2</u>				
<u>SF 078765</u>	<u>T 31 N, R 6 W</u>	438.97		87.50% 12.50%	3.467161 %
	<u>Sec. 15: Lots 1, 2, E/2</u>				

Proposed Eighth Expansion - Mesaverde  
Rosa Unit

<u>SERIAL NUMBER</u>	<u>DRILLING BLOCK</u>	<u>NUMBER OF ACRES</u>	<u>DRILLING BLOCK</u>		<u>COMMITTED</u>	<u>TOTAL TRACT PARTICIPATION</u>
			<u>OWNERSHIP</u>	<u>AND PERCENTAGE *</u>		
SF 078764	<u>T 31 N, R 5 W</u>	2187.30	<u>Tract 18</u>		87.50% 12.50%	17.276173 %
	<u>Sec. 18: All</u>		Working Interest:			
	<u>Sec. 19: E/2 E/2, NW/4 NE/4,</u>		Pacific Northwest Pipeline Corp.:	87.50%		
	<u>SW/4 SE/4</u>		Royalty:	12.50%		
	<u>Sec. 20: SE/4</u>					
	<u>Sec. 29: N/2 NE/4, SW/4,</u>		<u>Tract 39</u>		87.50% 12.50%	6.828010 %
	<u>Sec. 30: E/2, Lots 1, 2, 3, 4</u>		Working Interest:			
	<u>Sec. 31: E/2, Lots 1, 2, 3, 4</u>		Pacific Northwest Pipeline Corp.:	87.50%		
			Royalty:	12.50%		
SF 078766	<u>T 31 N, R 6 W</u>	864.48	<u>Tract 21</u>		87.50% 12.50%	1.263744 %
	<u>Sec. 22: E/2</u>		Working Interest:			
	<u>Sec. 25: W/2, W/2 E/2,</u>		Pacific Northwest Pipeline Corp.:	87.50%		
	<u>Lots 1, 2, 3, 4</u>		Royalty:	12.50%		
SF 079165	<u>T 31 N, R 5 W</u>	160.00	<u>Tract 20</u>		87.50% 12.50%	2.527489 %
	<u>Sec. 29: S/2 NE/4,</u>		Working Interest:			
	<u>E/2 SE/4</u>		Pacific Northwest Pipeline Corp.:	87.50%		
			Royalty:	12.50%		
Fee	<u>T 31 N, R 5 W</u>	320.00	<u>Tract 20</u>		87.50% 12.50%	2.527489 %
	<u>Sec. 20: SW/4</u>		Working Interest:			
	<u>Sec. 29: NW/4</u>		Pacific Northwest Pipeline Corp.:	87.50%		
			Royalty:	12.50%		

Proposed Eighth Expansion - Mesaverde  
Rosa Unit

<u>SERIAL NUMBER</u>		<u>DRILLING BLOCK</u>	<u>NUMBER OF ACRES</u>	<u>DRILLING BLOCK OWNERSHIP AND PERCENTAGE *</u>		<u>COMMITTED</u>	<u>TOTAL TRACT PARTICIPATION</u>
Fee		<u>T 31 N, R 5 W</u> Sec. 19: <u>Lots 2, 3</u> <u>SW/4 NE/4,</u> <u>NW/4 SE/4</u>	152.22	<u>Tract 19</u>  Working Interest: Pacific Northwest Pipeline Corp.: 87.50% Royalty: 12.50%		87.50% 12.50%	1.202295 %
E-347-30		<u>T 31 N, R 5 W</u> Sec. 32: <u>NW/4</u>	160.00	<u>Tract 25</u>  Working Interest: El Paso Natural Gas Company: Royalty: 87.50% 12.50%		87.50% 12.50%	1.263744 %
E-347-31		<u>T 31 N, R 5 W</u> Sec. 32: <u>S/2</u>	320.00	<u>Tract 27</u>  Working Interest: El Paso Natural Gas Company: Royalty: 87.50% 12.50%		87.50% 12.50%	2.527489 %
Fee		<u>T 31 N, R 6 W</u> Sec. 15: <u>Tr 38</u>	112.62	<u>Tract 36</u>  Working Interest: Pacific Northwest Pipeline Corp.: 87.50% Royalty: 12.50%		87.50% 12.50%	.889518 %
Fee		<u>T 31 N, R 6 W</u> Sec. 15: <u>Tr. 39</u>	80.00	<u>Tract 38</u>  Working Interest: Pacific Northwest Pipeline Corp.: 87.50% Royalty: 12.50%		87.50% 12.50%	.631872 %



Proposed Eighth Expansion - Mesaverde  
Rosa Unit

<u>SERIAL NUMBER</u>	<u>DRILLING BLOCK</u>	<u>NUMBER OF ACRES</u>	<u>DRILLING BLOCK OWNERSHIP AND PERCENTAGE*</u>	<u>COMMITTED</u>	<u>TOTAL TRACT PARTICIPATION</u>
E-289	<u>T 31 N, R 6 W</u> <u>Sec. 15: 8.41 acres out</u> of S/2 S/2 SW/4 SW/4	8.41	<u>Tract 43</u>  Working Interest: Pacific Northwest Pipeline Corp.: 87.50% Royalty: 12.50%	87.50% 12.50%	.066425 %
E-347-28	<u>T 31 N, R 5 W</u> <u>Sec. 32: NE/4</u>	160.00	<u>Tract 26</u>  Working Interest: Pacific Northwest Pipeline Corp.: 87.50% Royalty: 12.50%	87.50% 12.50%	1.263744 %
E-504-11	<u>T 32 N, R 6 W</u> <u>Sec. 32: W/2</u>	320.00	<u>Tract 44</u>  Working Interest: Pacific Northwest Pipeline Corp.: 87.50% Royalty: 12.50%	87.50% 12.50%	2.527489 %
E-504-12	<u>T 32 N, R 6 W</u> <u>Sec. 32: E/2</u>	320.00	<u>Tract 45</u>  Working Interest: El Paso Natural Gas Company Royalty: 12.50%	87.50% 12.50%	2.527489 %
SF 078772	<u>T 31 N, R 6 W</u> <u>Sec. 1: All</u>  <u>T 32 N, R 6 W</u> <u>Sec. 33: W/2</u>	623.88	<u>Tract 29</u>  Working Interest: Pacific Northwest Pipeline Corp.: 87.50% Royalty: 12.50%	87.50% 12.50%	4.927654 %

Proposed Eighth Expansion - Mesaverde  
Rosa Unit

<u>SERIAL NUMBER</u>	<u>DRILLING BLOCK</u>	<u>NUMBER OF ACRES</u>	<u>DRILLING BLOCK OWNERSHIP AND PERCENTAGE*</u>	<u>COMMITTED</u>	<u>TOTAL TRACT PARTICIPATION</u>
E-346-14	<u>T 32 N, R 6 W</u> <u>Sec. 36: E/2</u>	320.00	<u>Tract 48</u>  Working Interest: J. Glenn Turner: Frank Schultz: W. G. Webb: Royalty:	43.750% 39.375% 4.375% 12.500%	2.527489 %
E-346-19	<u>T 32 N, R 6 W</u> <u>Sec. 36: W/2</u>	320.00	<u>Tract 47</u>  Working Interest: Pacific Northwest Pipeline Corp.: Royalty:	87.50% 12.50%	2.527488 %
SF 078763	<u>T 31 N, R 5 W</u> <u>Sec. 5: All</u>	367.96	<u>Tract 13</u>  Working Interest: Pacific Northwest Pipeline Corp.: Royalty:	87.50% 12.50%	2.906296 %
E-289-37	<u>T 31 N, R 6 W</u> <u>Sec. 2: Lots 6,7,8</u> <u>s/2</u>	346.91	<u>Tract 30</u>  Working Interest: Pacific Northwest Pipeline Corp.: Royalty:	87.50% 12.50%	2.740034 %
TOTALS		12,660.79			100.000000 %

\* The percentage of unit production allocated to the working interest owner of each tract  
is subject to all outstanding overriding interest of record against the subject lands.

**PACIFIC NORTHWEST PIPELINE CORPORATION**

SALT LAKE CITY, UTAH

October 12, 1959

REPLY TO:  
P. O. Box 1526  
SALT LAKE CITY 10, UTAH

Mr. John A. Anderson  
United States Geological Survey  
Post Office Box 6721  
Roswell, New Mexico

Dear Mr. Anderson:

Re: Application for approval of the  
Eighth Expansion to the Mesaverde  
Participating Area, Rosa Unit  
San Juan and Rio Arriba Counties,  
New Mexico

We enclose herewith for your further handling five (5) copies of our application for approval of the Eighth Expansion to the Mesaverde Participating Area for the subject unit.

Pursuant to the requirement for Geological Inference type units such as the Rosa Unit, we have obtained the prior approval of this application by the Commissioner of Public Lands and the Oil Conservation Commission of the State of New Mexico.

It is our understanding that this application will be forwarded by your office to the Director of the United States Geological Survey Office in Washington, D.C. for final approval. When this is accomplished, please furnish us with one copy of the application.

Very truly yours,

PACIFIC NORTHWEST PIPELINE CORPORATION

APPROVED BY  
THE VICE PRESIDENT

Claude Van Dyke  
District Manager, Land Department

CVD:je

Enc.

CC: Oil Conservation Commission  
Commissioner of Public Lands  
State of New Mexico

**ILLEGIBLE**

OIL CONSERVATION COMMISSION

P. O. BOX 871

SANTA FE, NEW MEXICO

October 9, 1959

Pacific Northwest Pipeline Corporation  
P. O. Box 1526  
Salt Lake City, Utah

Attention: Mr. Claude Van Dyke

Re: Application For Approval Of  
Eighth Expansion, Mesaverde  
Participating Area, Rosa Unit  
San Juan and Rio Arriba Counties,  
New Mexico

Gentlemen:

This is to advise that the New Mexico Oil Conservation Commission has this date approved the Eighth Expansion, Mesaverde Participating Area for the Rosa Unit - San Juan and Rio Arriba Counties, New Mexico, subject to like approval by the United States Geological Survey and the Commissioner of Public Lands of the State of New Mexico.

The Commission's approval of the inclusion of Sections 5 and 6, Township 31 North, Range 5 West, in this Participating Area does not in any way relieve the operator of the obligation of offsetting wells outside the Unit Area thus preventing outside drainage. To provide adequate protection a well will undoubtedly be scheduled in the near future.

Six approved copies of the application are returned herewith.

Very truly yours,

A. L. PORTER, Jr.  
Secretary-Director

ALP/OEP/1r

In reply refer to:  
Unit Division

October 8, 1959

Pacific Northwest Pipeline Corporation  
P. O. Box 1526  
Salt Lake City, Utah

ATTENTION: Mr. Claude Van Dyke

Re: APPLICATION FOR APPROVAL OF  
EIGHTH EXPANSION, MESAVERDE  
PARTICIPATING AREA, Rosa Unit  
San Juan and Rio Arriba Counties  
New Mexico

Gentlemen:

We have received your application for approval of the Eighth Expansion, Mesaverde Participating Area, Rosa Unit Area, San Juan and Rio Arriba Counties, New Mexico.

The Commissioner of Public Lands has approved this Expansion as of October 8, 1959, subject to like approval by the proper officials.

Our approval of the inclusion of Sections 5 and 6, Township 31-North, Range 5-West, in this Participating Area does not in any way relieve the operator of an offset obligation in order to protect the Rosa Unit from outside drainage and undoubtedly a well will be scheduled in the very near future or on your 1960 Drilling Program.

We are forwarding nine approved copies to the New Mexico Oil Conservation Commission for their consideration.

C  
O  
P  
Y

Pacific Northwest Pipeline Corporation  
Salt Lake City, Utah

Page (2)  
10-8-59

Very truly yours,  
MURRAY E. MORGAN  
Commissioner of Public Lands

BY:  
Ted Bilberry, Supervisor  
Oil and Gas Division

MEM/MMR/m

cc: Oil Conservation Commission  
Santa Fe, New Mexico

United States Geological Survey  
Roswell, New Mexico

C  
O  
P  
Y

PACIFIC NORTHWEST PIPELINE CORPORATION

SALT LAKE CITY, UTAH

October 2, 1959

REPLY TO:  
P. O. Box 1526  
SALT LAKE CITY 10, UTAH

Mr. Murray E. Morgan  
Commissioner of Public Lands  
State of New Mexico  
Post Office Box 791  
Santa Fe, New Mexico

Mr. A. L. Porter, Jr., Secretary  
Oil Conservation Commission  
State of New Mexico  
Post Office Box 871  
Santa Fe, New Mexico

Gentlemen:

Re: APPLICATION FOR APPROVAL OF  
EIGHTH EXPANSION, MESAVERDE  
PARTICIPATING AREA, Rosa Unit  
San Juan and Rio Arriba Counties  
New Mexico

Enclosed are twelve copies of the proposed Eighth Expansion of the Mesaverde Participating Area for the subject unit. If this expansion meets with your approval, we respectfully request that you indicate such approval by executing six copies of the application and then forward them, plus three copies, to Mr. Porter of the Oil Conservation Commission for his consideration and approval.

You may retain three copies of this application for your files as may the Oil Conservation Commission and it is requested that six fully executed copies be returned to us for forwarding to the United States Geological Survey Office for final approval.

If you should need additional copies of this application, we will gladly furnish them upon request.

Very truly yours,

PACIFIC NORTHWEST PIPELINE CORPORATION

*Claude Van Dyke*  
Claude Van Dyke  
District Manager, Land Department

CVD:jc

Enc.

CC: John Anderson  
Director  
United States Geological Survey  
Post Office Box 6721  
Roswell, New Mexico

# PACIFIC NORTHWEST PIPELINE CORPORATION

SALT LAKE CITY, UTAH

September 25, 1959

REPLY TO:  
P. O. Box 1526  
SALT LAKE CITY 10, UTAH

Director  
United States Geological Survey  
Post Office Box 6721  
Roswell, New Mexico

*1000 133*

Commissioner of Public Lands  
State of New Mexico  
Post Office Box 791  
Santa Fe, New Mexico

Re: APPLICATION FOR APPROVAL OF EIGHTH  
EXPANSION, MESAVERDE PARTICIPATING  
AREA  
Rosa Unit  
San Juan and Rio Arriba Counties  
New Mexico

Oil Conservation Commission  
State of New Mexico  
Post Office Box 871  
Santa Fe, New Mexico

Gentlemen:

Pursuant to the provisions of Section 10 of the Rosa Unit Agreement, approved by the Director of the United States Geological Survey, the Commissioner of Public Lands of the State of New Mexico, and the Oil Conservation Commissioner of the State of New Mexico, affecting lands in the Rosa Unit Area in San Juan and Rio Arriba Counties, New Mexico, Pacific Northwest Pipeline Corporation, as Unit Operator, hereby submits for your approval a selection of lands to constitute the Eighth Expansion of the Participating Area for the Mesaverde zone.

The lands to be included in the Eighth Expansion, Mesaverde Participating Area, Rosa Unit, were proved to be productive by the completion on August 20, 1959, of Rosa Unit Well #34-36 located in the NE/4 of Section 36, Township 32 North, Range 6 West. This well was completed in the Mesaverde zone from 5758' to 6105' for an initial potential of 4418 MCFGPD, CAOF. Shut-in tubing pressure was 1152#, and shut-in casing pressure 1152#. By the completion of Well #34-36 in commercial quantities, the Unit Operator has determined that the following described lands are reasonably proved productive and should be included in the Eighth Expansion of the Mesaverde Participating Area, effective as of September 1, 1959.

<u>Township 32 North, Range 6 West</u>	<u>Acres</u>
Section 36: All	640.00
<u>Township 31 North, Range 5 West</u>	
Section 5: All	367.96
Section 6: All	264.56
Total Acres	1,272.52

In support of the applicant's recommendations for the Eighth Expansion to the Mesaverde Participating Area for the Rosa Unit, the applicant attaches hereto



Page 2  
United States Geological Survey  
Commission of Public Lands  
Oil Conservation Commission  
September 25, 1959

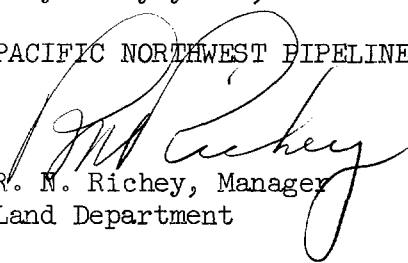
and makes a part hereof the following items:

- (1) A map of the Rosa Unit indicating the present Participating Area and the proposed Eighth Expansion of the Participating Area for the Mesaverde zone.
- (2) Schedule marked Exhibit "B" showing the leases included in the proposed participating area and setting forth a percentage of unitized substances to be allocated to each unitized tract within the proposed participating area.
- (3) A brief geological and engineering report discussing the general area of the proposed Eighth Expansion in the participating area for the Mesaverde zone.

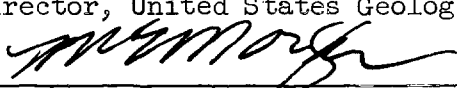
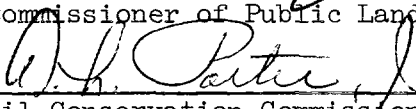
Pacific Northwest Pipeline Corporation, as Unit Operator of the Rosa Unit, respectfully requests that the Director, the Commissioner and the Oil Conservation Commission approve the selection of lands to constitute the Eighth Expansion of the Mesaverde Participating Area for the Rosa Unit to be effective as of September 1, 1959.

Very truly yours,

PACIFIC NORTHWEST PIPELINE CORPORATION

  
R. N. Richey, Manager  
Land Department

RNR:CVD:jc  
Enc.

APPROVED: \_\_\_\_\_  
Director, United States Geological Survey  
  
\_\_\_\_\_  
Commissioner of Public Lands  
  
\_\_\_\_\_  
Oil Conservation Commission

DATE: \_\_\_\_\_  
DATE: 10-8-59  
DATE: 10-9-59



EXHIBIT "B"

SCHEDULE OF LANDS SHOWING OWNERSHIP OF OIL & GAS INTERESTS WITHIN PROPOSED MESAVERDE  
EIGHTH EXPANDED PARTICIPATING AREA FOR ROSA UNIT, RIO ARriba & SAN JUAN COUNTIES, NEW MEXICO

Description Of Lands	Number Of Acres	Serial Number	Basic Royalty	Unit Participation	Working Interest*	Unit Participation	Total Tract Participation	Tract Number
T 31 N, R 6 W					Pacific NW Pipeline			
Sec. 11: All								
Sec. 14: All	2560.00	SF 078771	12.5%	2.951017 %	87.5%	20.657117 %	23.608134 %	XXXVII
Sec. 23: All								
Sec. 26: All								
T 31 N, R 6 W								
Sec. 13: W/2, W/2 E/2	1087.20	SF 078767	12.5%	1.253260 %	87.5%	8.772820 %	10.026080 %	XIV
Lots 1,2,3,4,								
Sec. 24: W/2, W/2 E/2								
Lots 1,2,3,4.								
T 31 N, R 6 W								
Sec. 15: E/2	320.00	SF 078765	12.5%	.368878 %	87.5%	2.582139 %	2.951017 %	XXXIII
T 31 N, R 6 W								
Sec. 22: E/2	864.48	SF 078766	12.5%	.996521 %	87.5%	6.975651 %	7.972172 %	XXXIX
Sec. 25: W/2, W/2 E/2								
Lots 1,2,3,4								
T 31 N, R 5 W								
Sec. 19: E/2 E/2, NW/4	1723.58	SF 078764	12.5%	1.986841 %	87.5%	13.907889 %	15.894730 %	XVIII
NE/4, SW/4 SE/4								
Sec. 20: SE/4								
Sec. 29: N/2 NE/4, SW/4,								
W/2 SE/4								
Sec. 30: E/2, Lots 1,2,3,4,								
Sec. 31: E/2, Lots 1,2,3,4								
T 31 N, R 5 W								
Sec. 29: S/2 NE/4	160.00	SF 079165	12.5%	.184438 %	87.5%	1.291070 %	1.475508 %	XXI
E/2 SE/4								
T 31 N, R 5 W								
Sec. 20: SW/4	320.00	FEE	12.5%	.368878 %	87.5 %	2.582139 %	2.951017 %	XX
Sec. 29: NW/4								
T 31 N, R 5 W								
Sec. 19: Lots 2,3,	152.22	FEE	12.5%	.175470 %	87.5 %	1.228292 %	1.403762 %	XIX
SW/4 NE/4,								
NW/4 SE/4								

Description Of Lands	Number Of Acres	Serial Number	Basic Royalty	Unit Participation	Working Interest*	Unit Participation	Total Tract Participation	Tract Number
T 31 N, R 5 W Section 32: NW/4	160.00		12.5%	.184439 %	El Paso Natural Gas 43.75% J. Glenn Turner 43.75%	.645535 % .645534 %	1.475508 %	XXV
T 31 N, R 5 W Section 32: S/2	320.00	E-347	12.5%	.368877 %	El Paso Natural Gas 43.75% J. Glenn Turner 43.75%	1.291070 % 1.291070 %	2.951017 %	XXVII
T 31 N, R 5 W Section 18: All	463.72	SF 078764	12.5%	.534549 %	Pacific North- west Pipeline Corporation 87.5%	3.741843 %	4.276392 %	XVIII
T 31 N, R 6 W Section 15: Lots 1 and 2, E/2 SW/4	118.97	SF 078765	12.5%	.137142 %	Pacific North- west Pipeline Corporation 87.5 %	.959991 %	1.097133 %	XXXIII
T 31 N, R 6 W Section 15: Tract #38	112.62	Fee	12.5%	.129822 %	Pacific North- west Pipeline Corporation 87.5%	.908751 %	1.038573 %	XXXVI
T 31 N, R 6 W Section 15: Tract #39	80.00	FEE	12.5%	.092219 %	Pacific North- west Pipeline Corporation 87.5%	.645535 %	.737754 %	XXXVIII
T 31 N, R 6 W Section 15: 8.41 acres out of S/2 S/2 SW/4 SW/4	8.41	E-289	12.5%	.009694 %	Pacific North- west Pipeline Corporation 87.5%	.067862 %	.077556 %	XLIII

Description Of Lands	Number Of Acres	Serial Number	Basic Royalty	Unit Participation	Working Interest*	Unit Participation	Total Tract Participation	Tract Number
T 31 N, R 5 W Sec. 32: NE/4	160.00	E-347-28	12.5%	.184438 %	Pacific NW Pipeline 87.5%	1.291070 %	1.475508 %	XXVI
T 32 N, R 6 W Sec. 32: W/2	320.00	E-504-11	12.5%	.368878 %	Pacific NW Pipeline 87.5%	2.582139 %	2.951017 %	XLIV
T 32 N, R 6 W Sec. 32: E/2	320.00	E-504-12	12.5%	.368877 %	El Paso Natural Gas 43.75% J. Glenn Turner 43.75%	1.291070 %	2.951017 %	XLV
T 32 N, R 6 W Sec. 33: W/2	320.00	SF 078765	12.5%	.368877 %	Pacific NW Pipeline 87.5%	2.582140 %	2.951017 %	XXIX
T 32 N, R 6 W Sec. 36: E/2	320.00	E-346-14	12.5%	.368877 %	J. Glenn Turner 50.00% Frank A. Schultz 45.00% William G. Webb 5.00%	1.291070 % 1.161963 % .129107 %	2.951017 %	XLVIII
T 32 N, R 6 W Sec. 36: W/2	320.00	E-346-19	12.5%	.368877 %	Pacific NW Pipeline 87.5%	2.582140 %	2.951017 %	XLVII

Description Of Lands	Number Of Acres	Serial Number	Basic Royalty	Unit Participation	Working Interest*	Unit Participation	Total Tract Participation	Tract Number
T 31 N, R 5 W Sec. 5: All	367.96	SF 078763	12.5%	.424162 %	Pacific NW Pipeline 87.5 %	2.969138 %	3.393300 %	XIII
T 31 N, R 5 W Sec. 6: All	264.56	SF 078767	12.5%	.304969 %	Pacific NW Pipeline 87.5%	2.134785 %	2.439754 %	XIV
TOTALS	10,843.72			12.500000 %		87.500000 %	100.000000 %	

\*The percentage of unit production allocated to the working interest owner of each tract is subject to all outstanding overriding interest of record against the subject lands.

EIGHTH EXPANSION OF THE ROSA UNIT, MESA VERDE PARTICIPATING AREA.

Since the 7th expansion of the Mesa Verde Participating Area one new well has been completed. The Turner #34-36 well was drilled in the NE quarter of Sec. 36, T-32N, R-6W, Rio Arriba County, New Mexico. This well was completed in the Menefee and Point Lookout members of the Mesa Verde formation for a CAOF of 4418 MCF/d.

Northwest of the Turner well, La Plata Gathering System drilled a well, #1-26, San Juan Unit 32-5 in Sec. 26, T-32N, R-6W. This well was completed in the Cliff House, Menefee and Point Lookout members of the Mesa Verde formation for a CAOF of 1410 MCF/d.

The same company drilled, and completed in the Menefee and Point Lookout members of the Mesa Verde formation, well #1-32 in Sec. 32, T-32N, R-5W for a CAOF of 6144 MCF/d.

The completion of these 3 new wells establishes a new productive trend across the Northern edge of the Rosa Unit. There is not enough evidence, to date, to establish any connection with the present Mesa Verde Participating Area in Sec. 11, T-32N, R-6W.

In view of these facts it is geologically recommended that all of Sec. 36, T-32N, R-6W, and all of partial sections 5 and 6 in T-31N, R-5W be admitted to the Mesa Verde Participating Area of the Rosa Unit.

  
V. H. Zabel

VHZ:lp

**PACIFIC NORTHWEST PIPELINE CORPORATION**

**SALT LAKE CITY, UTAH**

May 4, 1959

REPLY TO:  
P. O. Box 1526  
SALT LAKE CITY 10, UTAH

Regional Supervisor  
United States Geological Survey  
Post Office Box 6721  
Roswell, New Mexico

Commissioner of Public Lands  
State of New Mexico  
Post Office Box 791  
Santa Fe, New Mexico

Oil Conservation Commission  
State of New Mexico  
Post Office Box 871  
Santa Fe, New Mexico

Gentlemen:

Re: Rosa Unit Supplement to  
1959 Plan of Development

This is to advise that the Supplement to the 1959 Plan of Development for the Rosa Unit has been approved as follows:

1. Supervisor, United States Geological Survey, April 28, 1959.
2. Commissioner of Public Lands, State of New Mexico, April 1, 1959.
3. Oil Conservation Commission, State of New Mexico, April 2, 1959.

Copies of this letter are being sent to all Working Interest Owners within the Rosa Unit.

Very truly yours,

PACIFIC NORTHWEST PIPELINE CORPORATION

*Claude Van Dyke*  
Claude Van Dyke  
District Manager, Land Department

CVD:jc



P. O. Box 6721  
Roswell, New Mexico

File 133

April 28, 1959

Pacific Northwest Pipeline Corporation  
P. O. Box 1526  
Salt Lake City 10, Utah

Attention: Mr. R. N. Richey

Gentlemen:

Your letter of March 25, 1959, proposes an amendment to your 1959 plan of development for the Rosa unit area, I-sec-No. 587, San Juan and Rio Arriba Counties, New Mexico, providing for the drilling of a Masoverde well in the NE $\frac{1}{4}$  sec. 36, T. 32 N., R. 6 W., N.M.P.M. by the working interest owners pursuant to sec. 12 of the Rosa unit agreement. This land is State acreage committed to the Rosa unit agreement. Said supplement to your 1959 plan of development has been approved on this date subject to like approval by the appropriate State officials.

Two approved copies of the plan are enclosed.

Very truly yours,

(Orig. Sgd.) JOHN A. ANDERSON

JOHN A. ANDERSON  
Regional Oil and Gas Supervisor

Enclosure: 2

Copy to: Washington (w/cy of plan)  
Farmington (w/cy of plan)  
NRGCC (letter only) ✓  
Comm. of Pub. Land, Santa Fe (letter only)

**PACIFIC NORTHWEST PIPELINE CORPORATION**

**SALT LAKE CITY, UTAH**

April 6, 1959

REPLY TO:  
P. O. Box 1526  
SALT LAKE CITY 10, UTAH

Regional Supervisor  
United States Geological Survey  
Post Office Box 6721  
Roswell, New Mexico

*File 133*

Commissioner of Public Lands  
State of New Mexico  
Post Office Box 791  
Santa Fe, New Mexico

Oil Conservation Commission  
State of New Mexico  
Post Office Box 871  
Santa Fe, New Mexico

Gentlemen:

Re: Rosa Unit  
1959 Plan of Development

This is to advise that the 1959 Plan of Development for the Rosa Unit has been approved as follows:

1. Supervisor, United States Geological Survey, March 23, 1959.
2. Commissioner of Public Lands, State of New Mexico, April 1, 1959.
3. Oil Conservation Commission, State of New Mexico, March 5, 1959.

Copies of this letter are being sent to all Working Interest Owners within the Rosa Unit.

Very truly yours,

PACIFIC NORTHWEST PIPELINE CORPORATION

*Claude Van Dyke*

Claude Van Dyke  
District Manager, Land Department

CVD:jc

**PACIFIC NORTHWEST PIPELINE CORPORATION**

**SALT LAKE CITY, UTAH**

March 25, 1959

REPLY TO:  
P. O. Box 1526  
SALT LAKE CITY 10, UTAH

Regional Supervisor  
United States Geological Survey  
Post Office Box 6721  
Roswell, New Mexico

Commissioner of Public Lands  
State of New Mexico  
Post Office Box 791  
Santa Fe, New Mexico

Oil Conservation Commission  
State of New Mexico  
Post Office Box 871  
Santa Fe, New Mexico

Gentlemen:

Re: Rosa Unit  
Supplement to 1959 Plan  
of Development  
Mesaverde Formation

Pacific Northwest Pipeline Corporation, Operator of the Rosa Unit, has been requested by the working interest owners in the following described lands, that they be allowed to drill a Mesaverde well in this unit pursuant to the terms of Section 12 of the Unit Agreement. Pacific has granted approval for these working interest owners to drill this well subject to the approval of the appropriate regulatory bodies. We herewith submit, as a supplement to our 1959 Plan of Development, the following location:

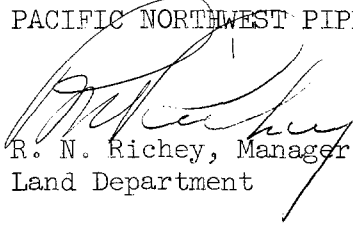
Township 32 North, Range 6 West  
Section 36: NE/4

Rio Arriba County, New Mexico

Copies of this letter are being sent to all working interest owners within the Rosa Unit.

Very truly yours,

PACIFIC NORTHWEST PIPELINE CORPORATION

  
R. N. Richey, Manager  
Land Department

RNR:CVD:jc  
Attachment

Page 2  
March 25, 1959  
Re: Rosa Unit  
Supplement to 1959 Plan of Development  
Mesaverde Formation

APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_  
Supervisor, United States Geological Survey

Subject to like approval by the appropriate State officials

APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_  
Commissioner of Public Lands

Subject to like approval by the U.S.G.S. and Oil Conservation  
Commission

APPROVED: Al Peter J. DATE: 4. 2 - 59  
Oil Conservation Commission

Subject to like approval by the U.S.G.S and Commissioner of  
Public Lands

In reply refer to:  
Unit Division

April 1, 1959

File  
133

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Pacific Northwest Pipeline Corporation  
Salt Lake City, Utah

ATTENTION: Mr. R. N. Richey

Re: Supplement to 1959 Plan of  
Development Rosa Unit, San  
Juan and Rio Arriba Counties

Gentlemen:

We are enclosing one copy of your Supplement to the  
1959 Plan of Development on the Rosa Unit Area, which was  
approved by the Commissioner of Public Lands as of this date.

This supplement is an approval for the working interest  
owners to drill a Masaverde well under the terms of Section 12,  
of the Unit Agreement to be located in the NE/4 of Section 36,  
Township 32-North, Range 6-West, Rio Arriba County, New Mexico.

Very truly yours,  
MURRAY E. MORGAN  
Commissioner of Public Lands

BY:  
Ted Bilberry, Supervisor  
Oil and Gas Division

MEM/AMR/m  
cc:

OCC- Santa Fe  
USGS- Reswell

In reply refer to:  
Unit Division

April 1, 1959

FK  
133

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Pacific Northwest Pipeline Corporation  
P. O. Box 1526  
Salt Lake City 10, Utah

ATTENTION: Mr. R. M. Richey

Re: Plan of Development for 1959  
Rosa Unit Agreement  
San Juan and Rio Arriba  
Counties, New Mexico

Gentlemen:

We are enclosing one copy of the 1959 Plan of Development for the San Juan Area. This plan was approved by the Commissioner of Public Lands as of this date and calls for the drilling of two Dakota test wells during the year 1959.

Very truly yours,  
MURRAY E. MORGAN  
Commissioner of Public Lands

BY:  
Ted Bilberry, Supervisor  
Oil and Gas Division

MEM/MSR/m

cc:

OCC- Santa Fe  
USGS- Rowell

P. O. Box 6721  
Roswell, New Mexico

March 23, 1959  
File 135

Pacific Northwest Pipeline Corporation  
P. O. Box 1526  
Salt Lake City 10, Utah


Attention: Mr. R. N. Richey

Gentlemen:

Your Plan of Development for 1959, dated January 15, 1959, for the Mesa unit area, I-Sec. No. 587, San Juan and Rio Arriba Counties, New Mexico, which proposes the drilling of two Dakota formation wells, has been approved on this date subject to like approval by the appropriate State Officials.

Two approved copies of the plan are enclosed.

Very truly yours,

  
EDWIN M. ROBINSON  
Acting Oil and Gas Supervisor

Enclosure 2

Copy to: Washington (w/cy of plan)  
Farmington (w/cy of plan)  
NMOCC, Santa Fe (letter only)  
Comm. of Pub Lands, Santa Fe (letter only)

OIL CONSERVATION COMMISSION

P. O. BOX 871

SANTA FE, NEW MEXICO

March 5, 1959

File  
133

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Pacific Northwest Pipeline Corporation  
P. O. Box 1526  
Salt Lake City, Utah

ATTENTION: Mr. R. N. Richey

RE: Plan of Development For  
Calendar Year 1959 Rosa  
Unit San Juan & Rio Arriba  
Counties, New Mexico.

Gentlemen:

This is to advise that the New Mexico Oil Conservation Commission has this date approved the 1959 Plan of Development for the Rosa Unit San Juan and Rio Arriba Counties, New Mexico, subject to like approval by the United States Geological Survey and the Commissioner of Public Lands of the State of New Mexico.

One approved copy of the application is returned herewith.

Very truly yours,

A. L. PORTER, Jr.,  
Secretary-Director

RLS/ALP/lq

cc: State Land Office - Santa Fe  
U. S. Geological Survey - Roswell



# PACIFIC NORTHWEST PIPELINE CORPORATION

SALT LAKE CITY, UTAH

January 15, 1959

REPLY TO:  
P. O. Box 1526  
SALT LAKE CITY 10, UTAH

Director  
United States Geological Survey  
Department of the Interior  
Roswell, New Mexico

Commissioner of Public Lands  
State of New Mexico  
Post Office Box 791  
Santa Fe, New Mexico

Re: Rosa Unit - Federal Unit No. I-Sec. No. 587  
San Juan and Rio Arriba Counties, N. M.  
PLAN OF DEVELOPMENT FOR CALENDAR YEAR 1959

Oil Conservation Commission  
State of New Mexico  
Post Office Box 871  
Santa Fe, New Mexico

Gentlemen:

Under date of December 4, 1957, Pacific, as Unit Operator, filed a Plan of Development calling for the drilling of four Mesaverde wells and one Pictured Cliffs test well during the year 1958. One Mesaverde well was drilled in Section 32, Township 32 North, Range 6 West, completed with a potential of 4638 MCF (CAOF), and admitted to the Mesaverde participating area, together with 960 acres of surrounding lands. The Pictured Cliffs test well was drilled in Section 22, Township 31 North, Range 4 West, and abandoned after failing to produce commercially.

By our letter of August 15, 1958, you were advised that the drilling of the remaining three Mesaverde wells was not economically justifiable because of then existing market conditions and because of the relatively low deliverability of the eighteen unit wells then connected to pipelines. You were also advised that Pacific was mindful of deeper possibilities within the unit and was cooperating with the owner of a majority of the rights below the Mesaverde in order to obtain deeper exploration and more economic development through dual zone completions.

Pan American Petroleum Corporation, as the majority owner of deeper rights, desires to resume exploration of the Dakota during 1959 and proposes to drill two Dakota test wells under the provisions of Section 12 of the Unit Agreement for the Rosa Unit, which provides that the working interest owners of non-participating lands may drill at their own expense in the absence of an election by the Unit Operator to undertake such drilling. Pacific will waive its Operator's right to drill these two wells but will assume their operation if successful and, in any event, will fulfill its duties and responsibilities as Unit Operator.

The first Dakota test will be drilled in Section 5, Township 31 North, Range 6 West, where Pan American owns all of the working interest below the base of the Mesaverde. After evaluating results of the first well, Pan American proposes to drill a second well on similarly owned unitized acreage at a step-out location to be determined from data then available from previous drilling. Both wells will be drilled in such manner as to permit completion in the Mesaverde in the event that it is feasible to do so. Detailed proposals for each well will be furnished you at the time of filing of a notice of intention to drill.

Page 2

Rosa Unit - Plan of Development for 1959

January 15, 1959


Pacific Northwest Pipeline Corporation owns Mesaverde rights within Section 5, Township 31 North, Range 6 West, as well as substantially all of the acreage located in the westerly half of the unit in which Pan American owns deeper rights. In view of the economic advantages to be obtained from multiple zone completions, Pan American and Pacific plan to cooperate toward the end of dually completing the test wells in the Mesaverde as well as the Dakota whenever practicable. If commercial production is found by either or both test wells in the Dakota formation, an appropriate participating area will be created for that horizon. Should either or both wells be commercially productive from the Mesaverde, the existing participating area for that formation will be appropriately enlarged.

The drilling and operating of wells completed in two or more zones, each under separate ownership and subject to different participating areas, presents problems new at least to the San Juan Basin. We trust that the experience gained from the pilot program here proposed will provide solutions to these problems and thereby facilitate development of the Rosa Unit.

Your approval of this Plan of Development for 1959 is respectfully solicited.

Very truly yours,

PACIFIC NORTHWEST PIPELINE CORPORATION

  
R. N. Richey, Manager  
Land Department

RNR:mdc

APPROVED: \_\_\_\_\_  
Supervisor, United States Geological Survey

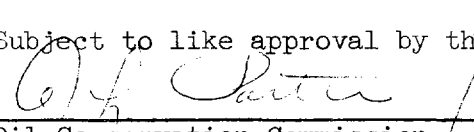
DATE: \_\_\_\_\_

Subject to like approval by the appropriate State officials.

APPROVED: \_\_\_\_\_  
Commissioner of Public Lands

DATE: \_\_\_\_\_

Subject to like approval by the U.S.G.S. and Oil Conservation Commission.

APPROVED:  \_\_\_\_\_  
Oil Conservation Commission

DATE: 27 March 1959

Subject to like approval by the U.S.G.S. and Commissioner of Public Lands.

**PACIFIC NORTHWEST PIPELINE CORPORATION**

SALT LAKE CITY, UTAH

December 22, 1958

REPLY TO:  
P. O. Box 1526  
SALT LAKE CITY 10, UTAH

Regional Supervisor  
United States Geological Survey  
Post Office Box 6721  
Roswell, New Mexico

Commissioner of Public Lands  
State of New Mexico  
Post Office Box 791  
Santa Fe, New Mexico

Oil Conservation Commission  
State of New Mexico  
Post Office Box 871  
Santa Fe, New Mexico

Gentlemen:

Re: Rosa Unit  
SEVENTH EXPANSION MESAVERDE  
PARTICIPATING AREA  
San Juan and Rio Arriba Counties  
New Mexico

This is to advise that the Application for Approval of the Seventh ~~Expanded~~ Participating Area for the Mesaverde formation, Rosa Unit, has been approved effective August 1, 1958, as follows:

1. Approved by the Acting Director, United States Geological Survey, December 12, 1958.
2. Approved by the Commissioner of Public Lands, State of New Mexico, September 9, 1958.
3. Approved by the Oil Conservation Commission, State of New Mexico, September 18, 1958.

Copies of this letter are being sent to all working interest owners within the Rosa Unit.

Very truly yours,

PACIFIC NORTHWEST PIPELINE CORPORATION

*Claude Van Dyke*

Claude Van Dyke  
District Manager, Land Department

CVD:jc

**PACIFIC NORTHWEST PIPELINE CORPORATION**

**SALT LAKE CITY, UTAH**

December 18, 1958

FILE  
133  
REPLY TO:  
P. O. Box 1526  
SALT LAKE CITY 10, UTAH

Mr. A. L. Porter, Jr., Secretary  
Oil Conservation Commission  
State of New Mexico  
Post Office Box 791  
Santa Fe, New Mexico

Dear Sir:

Re: Rosa Unit  
San Juan and Rio Arriba  
Counties, New Mexico  
PLAN OF DEVELOPMENT FOR  
CALENDAR YEAR 1959

The Plans of Development for units operated by Pacific Northwest Pipeline Corporation in the San Juan Basin of New Mexico, with the exception of the Rosa Unit, have been formulated and are in the process of being approved by the working interest owners prior to submittal to your agency. We feel reasonably certain these plans will reach your office by January 1, 1959.

Pacific, as Unit Operator and majority interest owner of the Mesaverde formation in the Rosa Unit has been negotiating with the majority interest owner of the Dakota formation in this unit for the purpose of formulating a program for dual completing of Mesaverde-Dakota wells in the unit during 1959. At this writing we are setting up a final conference for the purpose of working out a satisfactory agreement for the sharing of drilling and operating costs pertinent to dual completed wells in these zones, and, the final selection of mutually satisfactory (geologically) drill sites.

We regret that it will be impossible for us to conclude our negotiations for this proposed program prior to January 1, 1959. We hope to have this final conference on this subject during the month of January, and as soon thereafter as possible, we will submit to you a Plan of Development which we trust will be acceptable to your agency.

Very truly yours,

PACIFIC NORTHWEST PIPELINE CORPORATION

*Claude Van Dyke*

Claude Van Dyke  
District Manager, Land Department

CVD:jc

132  
PACIFIC NORTHWEST PIPELINE CORPORATION

MAIN OFFICE OCC

SALT LAKE CITY, UTAH

September 24, 1958

1958 SEP 25 AM 8:25

REPLY TO:  
P. O. Box 1526  
SALT LAKE CITY 10, UTAH

Mr. John A. Anderson  
United States Geological Survey  
Post Office Box 6721  
Roswell, New Mexico

Dear Mr. Anderson:

Re: Application for Approval  
of Seventh Expansion to the  
Mesaverde Participating Area  
Rosa Unit  
San Juan and Rio Arriba Counties  
New Mexico

We enclose herewith, for your further handling, five (5) copies of our Application for approval of the Seventh Expansion to the Mesaverde Participating Area for the subject unit.

Pursuant to the requirement for Geological Inference type units such as the Rosa Unit, we have obtained the prior approval of this application by the Commissioner of Public Lands and the Oil Conservation Commission of the State of New Mexico.

It is our understanding that this application will be forwarded by your office to the Director of the United States Geological Survey Office in Washington D. C. for final approval. When this is accomplished, please furnish us with one copy of the application.

Very truly yours,

PACIFIC NORTHWEST PIPELINE CORPORATION

COPIES 1 SIGNED BY  
CLAUDE VAN DYKE

Claude Van Dyke  
District Manager, Land Department

CVD:je

Enc.

CC: New Mexico Oil Conservation Commission  
New Mexico Commissioner of Public Lands

OIL CONSERVATION COMMISSION

P. O. BOX 871

SANTA FE, NEW MEXICO

*File*  
*133*

September 16, 1958

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Pacific Northwest Pipeline Corp.  
P. O. Box 1526  
Salt Lake City 10, Utah

Attention: Mr. R. N. Richey

Re: Seventh Expansion of the  
Mesaverde participating  
area for the Rosa Unit  
San Juan & Rio Arriba  
Counties, New Mexico.

Gentlemen:

This is to advise that the New Mexico Oil Conservation Commission has this date approved the Seventh Expansion of the Mesaverde Participating Area for the Rosa Unit San Juan & Rio Arriba Counties, New Mexico, subject to like approval by the United States Geological Survey and the Commissioner of Public Lands of the State of New Mexico.

Seven approved copies of the application are returned herewith.

Very truly yours,

A. L. Porter, Jr.,  
Secretary-Director

cc: U. S. Geological Survey, Roswell, New Mexico  
Commissioner of Public Lands, Santa Fe, New Mexico

File Copy

**PACIFIC NORTHWEST PIPELINE CORPORATION**

MAIN OFFICE 666 LAKE CITY, UTAH

August 20, 1958

1958 SEP 14 AM 11:14

REPLY TO:  
P. O. Box 1526  
SALT LAKE CITY 10, UTAH

Director  
United States Geological Survey  
Post Office Box 6721  
Roswell, New Mexico

Commissioner of Public Lands  
State of New Mexico  
Post Office Box 791  
Santa Fe, New Mexico

Re: Application for Approval of Seventh  
Expansion of the Mesaverde Participating  
Area for the Rosa Unit.  
San Juan and Rio Arriba Counties  
New Mexico

Oil Conservation Commission  
State of New Mexico  
Post Office Box 871  
Santa Fe, New Mexico

Gentlemen:

Pursuant to the provisions of Section 10 of the Rosa Unit Agreement, approved by the Director of the United States Geological Survey, the Commissioner of Public Lands of the State of New Mexico, and the Oil Conservation Commissioner of the State of New Mexico, affecting lands in the Rosa Unit Area in San Juan and Rio Arriba Counties, New Mexico, Pacific Northwest Pipeline Corporation, as Unit Operator, hereby submits for your approval a selection of lands to constitute the Seventh Expansion of the Participating Area for the Mesaverde zone.

The lands to be included in the Seventh Expansion of the Mesaverde Participating Area for the Rosa Unit were proved to be productive by the completion on July 11, 1958, of Rosa Unit Well # 29-32 located in the NE/4 of Section 32, Township 32 North, Range 6 West. This well was completed in the Mesaverde zone from 5726' to 5900' for an initial potential of 4638 MCFGPD, CAOF. Shut-in tubing pressure was 1,148#, and shut-in casing pressure 1,145#. By the completion of Well #29-32 in commercial quantities, the Unit Operator has determined that the following described lands are reasonably proved productive and should be included in the Seventh Expansion of the Mesaverde Participating Area, effective as of August 1, 1958:

<u>Township 32 North, Range 6 West</u>	<u>Acres</u>
Section 32: All	640.00
Section 33: W/2	320.00
Total Acres	<u>960.00</u>

In support of the applicant's recommendations for the Seventh Expansion to the Mesaverde Participating Area for the Rosa Unit, the applicant attaches hereto and makes a part hereof the following items:

Page 2

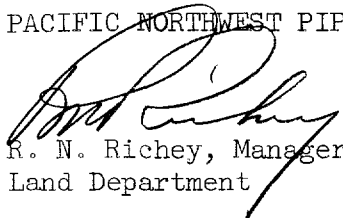
United States Geological Survey  
Commissioner of Public Lands  
Oil Conservation Commission  
August 20, 1958

- (1) A map of the Rosa Unit indicating the present Participating Area and the proposed Seventh Expansion of the Participating Area for the Mesaverde zone.
- (2) Schedule marked Exhibit "B" showing the leases included in the proposed participating area and setting forth a percentage of unitized substances to be allocated to each unitized tract within the proposed participating area.
- (3) A brief geological and engineering report discussing the general area of the proposed Seventh Expansion in the participating area for the Mesaverde zone.

Pacific Northwest Pipeline Corporation, as Unit Operator of the Rosa Unit, respectfully requests that the Director, the Commissioner and the Oil Conservation Commission approve the selection of lands to constitute the Seventh Expansion of the Mesaverde Participating Area for the Rosa Unit to be effective as of August 1, 1958.

Very truly yours,

PACIFIC NORTHWEST PIPELINE CORPORATION

  
R. N. Richey, Manager  
Land Department


RNR:CVD:jc  
Enc.

APPROVED: \_\_\_\_\_  
Director, United States Geological Survey

DATE: \_\_\_\_\_

  
\_\_\_\_\_  
Commissioner of Public Lands

DATE: Sept. 9, 1958

  
\_\_\_\_\_  
Oil Conservation Commission

DATE: Sept 15, 1958



EXHIBIT "B"

SCHEDULE OF LANDS SHOWING OWNERSHIP OF OIL & GAS INTERESTS WITHIN PROPOSED MESAVERDE  
SEVENTH EXPANDED PARTICIPATING AREA FOR ROSA UNIT, RIO ARriba & SAN JUAN COUNTIES, NEW MEXICO

Description Of Lands	Number Of Acres	Serial Number	Basic Royalty	Unit Participation	Working Interest*	Unit Participation	Total Tract Participation	Tract Number
T 31 N, R 6 W					Pacific NW Pipeline			
Sec. 11: All	2560.00	SF 078771	12.5%	3.343363 %	87.5%	23.403545 %	26.746908 %	XXXVII
Sec. 14: All								
Sec. 23: All								
Sec. 26: All								
T 31 N, R 6 W								
Sec. 13: W/2, W/2 E/2 Lots 1,2,3,4,	1087.20	SF 078767	12.5%	1.419884 %	87.5%	9.939193 %	11.359077 %	XIV
Sec. 24: W/2, W/2 E/2 Lots 1,2,3,4.								
T 31 N, R 6 W								
Sec. 15: E/2	320.00	SF 078765	12.5%	.417921 %	87.5%	2.925442 %	3.343363 %	XXXIII
T 31 N, R 6 W								
Sec. 22: E/2	864.48	SF 078766	12.5%	1.129011 %	87.5%	7.903085 %	9.032096 %	XXXIX
Sec. 25: W/2, W/2 E/2 Lots 1,2,3,4								
T 31 N, R 5 W								
Sec. 19: E/2 E/2, NW/4 NE/4, SW/4 SE/4	1723.58	SF 078764	12.5%	2.250997 %	87.5%	15.756985 %	18.007982 %	XVIII
Sec. 20: SE/4								
Sec. 29: N/2 NE/4, SW/4, W/2 SE/4								
Sec. 30: E/2, Lots 1,2,3,4,								
Sec. 31: E/2, Lots 1,2,3,4								
T 31 N, R 5 W								
Sec. 29: S/2 NE/4 E/2 SE/4	160.00	SF 079165	12.5%	.208960 %	87.5%	1.462722 %	1.671682 %	XXI
T 31 N, R 5 W								
Sec. 20: SW/4	320.00	FEE	12.5%	.417921 %	87.5 %	2.925442 %	3.343363 %	XX
Sec. 29: NW/4								
T 31 N, R 5 W								
Sec. 19: Lots 2,3, SW/4 NE/4, NW/4 SE/4	152.22	FEE	12.5%	.198800 %	87.5 %	1.391596 %	1.590396 %	XIX

Description Of Lands	Number Of Acres	Serial Number	Basic Royalty	Unit Participation	Working Interest*	Unit Participation	Total Tract Participation	Tract Number
T 31 N, R 5 W Section 32:	NW/4				El Paso Natural Gas 43.75% J. Glenn Turner 43.75%	.731361 % .731361 %	1.671682 %	XXV
T 31 N, R 5 W Section 32:	S/2	E-347	12.5%	.417921 %	El Paso Natural Gas 43.75% J. Glenn Turner 43.75%	1.462722 % 1.462721 %	3.343364 %	XXVII
T 31 N, R 5 W Section 18:	All	SF 078764	12.5%	.605618 %	Pacific North- west Pipeline Corporation 87.5%	4.239333 %	4.844951 %	XVIII
T 31 N, R 6 W Section 15:	Lots 1 and 2, E/2 SW/4	SF 078765	12.5%	.155375 %	Pacific North- west Pipeline Corporation 87.5 %	1.087625 %	1.243000 %	XXXIII
T 31 N, R 6 W Section 15:	Tract #38	Fee	12.5%	.147082 %	Pacific North- west Pipeline Corporation 87.5%	1.029574 %	1.176656 %	XXXVI
T 31 N, R 6 W Section 15:	Tract #39	FEE	12.5%	.104480 %	Pacific North- west Pipeline Corporation 87.5%	.731361 %	.835841 %	XXXVIII
T 31 N, R 6 W Section 15:	8.41 acres out of S/2 S/2 SW/4 SW/4	E-289	12.5%	.010984 %	Pacific North- west Pipeline Corporation 87.5%	.076884 %	.087868 %	XLIII

Description Of Lands	Number Of Acres	Serial Number	Basic Royalty	Unit Participation	Working Interest*	Unit Participation	Total Tract Participation	Tract Number
T 31 N, R 5 W Sec. 32: NE/4	160.00	E-347-28	12.5%	.208960 %	Pacific NW Pipeline 87.5%	1.462722 %	1.671682 %	XXVI
T 32 N, R 6 W Sec. 32: W/2	320.00	E-504-11	12.5%	.417921 %	Pacific NW Pipeline 87.5%	2.925442 %	3.343363 %	XLIV
T 32 N, R 6 W Sec. 32: E/2	320.00	E-504-12	12.5%	.417921 %	El Paso Natural Gas 43.75% J. Glenn Turner 43.75 %	1.462721 %	3.343363 %	XLV
T 32 N, R 6 W Sec. 33: W/2	320.00	SF 078765	12.5%	.417921 %	Pacific NW Pipeline 87.5%	2.925442 %	3.343363 %	XXIX
TOTALS 9,571.20					12.500000 %	87.500000 %	100.000000 %	

\*The percentage of unit production allocated to the working interest owner of each tract is subject to all outstanding overriding interest of record against the subject lands.

SEVENTH EXPANSION OF THE ROSA UNIT, MESA VERDE PARTICIPATING AREA.

One additional well has been completed in the Rosa Unit. This is the Rosa Unit No. 29-33 well. It was completed in the Point Lookout member of the Mesa Verde formation for an initial potential of 3461 MCF/D thru a 3/4" choke with a calculated absolute open flow of 4638 MCF/D.

A correlation of the electric and radioactivity logs of the wells completed in the Mesa Verde in the Rosa Unit shows that all the wells are producing generally from the same formation. However, subsurface studies indicate that the Mesa Verde under the No. 29-32 well is apparently an extension of sand development in the Mesa Verde extending southeastward from the Allison Unit. There are indications that a "trashy" or tight sand zone may occur in the Mesa Verde between the No. 29-32 well and the wells in the present Rosa Unit participating area.

It is possible, of course, that future drilling will prove that the two areas do connect. However, on the basis of the geologic information available at the present time, it is felt that only Section 32 and the west half of Section 33, T 32N, R 6W, are proved capable of Mesa Verde production by the Rosa Unit No. 29-32 well.

It is, therefore, recommended that all of Section 32, and W/2 Section 33, T 32N, R 6W, San Juan County, New Mexico, be added to the Mesa Verde participating area in the Rosa Unit.

VHZ:bl



V. H. Zabel, Manager  
Geological Department  
Pacific Northwest Pipeline Corp.

FILE  
133  
v refer to:  
Division

September 12, 1958

C  
O  
P  
Y

Pacific Northwest Pipeline Corporation  
P. O. Box 1526  
Salt Lake City 10, Utah

Re: Application for approval  
Seventh Expansion for the  
Verde Participating Area  
Unit.

Attention: Mr. Claude Van Dyke

Gentlemen:

We are forwarding to the Oil Conservation Commission  
nine copies of the above application, which was approved  
September 9, 1958 by the Commissioner of Public Lands.

Your attention is called to Tract No. 43 of your Exhibit  
"B" which is undoubtedly in error.

May we have another copy of this expansion at such  
time as it is fully executed.

Very truly yours,  
MURRAY E. MORGAN  
Commissioner of Public Lands

BY:  
Ted Bilberry, Supervisor  
Oil and Gas Division

MEM/MMR/m  
cc: OCC-Santa Fe

F-1 133

PACIFIC NORTHWEST PIPELINE CORPORATION  
MAIN OFFICE OCC  
SALT LAKE CITY, UTAH

1958 AUG 22 1958  
8:47

REPLY TO:  
P. O. Box 1526  
SALT LAKE CITY 10, UTAH

Mr. Murray E. Morgan  
Commissioner of Public Lands  
State of New Mexico  
Santa Fe, New Mexico

Gentlemen:

Re: Application for Approval of  
the Seventh Expansion for the  
Mesaverde Participating Area  
Rosa Unit  
San Juan and Rio Arriba Counties  
New Mexico

Enclosed herewith are ten copies of the proposed Seventh Expansion to the Mesaverde Participating Area for the subject unit. If this expansion meets with your approval, we respectfully request that you indicate your approval by signing six copies of the application and forward them to Mr. Porter of the Oil Conservation Commission in Santa Fe for like approval signature on the same copies of the Application approved by you.

You may retain two copies for your files as can the Oil Conservation Commission and it is requested that the six executed copies be returned to us for forwarding to the United States Geological Survey Office for their approval.

If you should need extra copies of this Application, we will gladly furnish them upon your request.

Very truly yours,

PACIFIC NORTHWEST PIPELINE CORPORATION

COPIES SIGNED BY  
CLAUDE VAN DYKE

Claude Van Dyke  
District Manager, Land Department

CVD:jc  
Enc.

CC: A. L. Porter, Jr., Secretary  
Oil Conservation Commission  
Post Office Box 871  
Santa Fe, New Mexico

**PACIFIC NORTHWEST PIPELINE CORPORATION**

**MAIN OFFICE** SALT LAKE CITY, UTAH  
August 15, 1958

REPLY TO:  
P. O. Box 1526  
SALT LAKE CITY 10, UTAH

Regional Supervisor 1958 AUG 13 AM 8:53  
United States Geological Survey  
P. O. Box 8721  
Roswell, New Mexico

Oil Conservation Commission  
State of New Mexico  
P. O. Box 871  
Santa Fe, New Mexico

Commissioner of Public Lands  
State of New Mexico  
P. O. Box 791  
Santa Fe, New Mexico

Gentlemen:

Re: Plan of Development  
Rosa Unit  
San Juan and Rio Arriba Counties,  
New Mexico

Under date of December 4, 1957, Pacific Northwest Pipeline Corporation, as Operator of the referenced unit, submitted a Plan of Development calling for the drilling of wells during 1958 on the following-listed drilling blocks:

W/2 Section 17, Township 31 North, Range 5 West - Mesaverde  
W/2 Section 12, Township 31 North, Range 6 West - Mesaverde  
E/2 Section 21, Township 31 North, Range 6 West - Mesaverde  
E/2 Section 32, Township 32 North, Range 6 West - Mesaverde  
SW/4 Section 22, Township 31 North, Range 4 West - Pictured Cliffs  
(Location subsequently changed to SE/4 Section 22, Township 31 North, Range 4 West)

The Mesaverde well scheduled for E/2 Section 32, Township 32 North, Range 6 West, has been completed with an initial potential of 3461 Mcfd through a 3/4" choke and a calculated open flow of 4638 Mcfd. The Pictured Cliffs test was drilled to 4317' and is being abandoned after obtaining noncommercial gas flows from Fruitland and Pictured Cliffs sands. Because of the adverse factors discussed below, Pacific does not now plan to drill during 1958 the Mesaverde wells scheduled for the W/2 Section 17, Township 31 North, Range 5 West, the W/2 Section 12, Township 31 North, Range 6 West, and E/2 Section 21, Township 31 North, Range 6 West.

When the Plan of Development was formulated in late 1957, Pacific believed that additional sales of natural gas amounting to 100 million cubic feet per day for which an application was then pending before the Federal Power Commission would result in a substantially increased take of San Juan Basin gas, and that the drilling of all the scheduled Mesaverde wells was necessary to augment the then available supply. This proposed sale has not yet materialized.

Page 2.  
Re: Rosa Unit  
August 15, 1958

Since formulation of the Plan, it has been demonstrated that Pacific's established markets are much smaller than originally estimated. Abnormally warm weather during the past winter, together with unforeseen adverse effects of the general business recession in sales territories, have combined with failure to obtain expected new markets to further depress actual sales to a point substantially below forecasts. Altogether, these unfavorable sales factors have seriously affected Pacific's anticipated ability to move gas from the San Juan Basin and have, in turn, reduced Pacific's operating income to a point requiring a corresponding reduction in drilling expenditures programed for 1958.

In an effort to balance production against sales, and income against expenditures, Pacific has completed a comprehensive review of all wells planned for drilling during the remainder of this year. This review shows that none of the three undrilled wells is required to protect the unit from drainage and that because of low deliverability of the producing wells in the unit, it is apparent that all three are among the least economic wells programed for the year.

The attached unit plat shows the locations of wells programed for 1958 and the twenty-six wells previously drilled within the unit. Shown also is the initial potential and current average deliverability for each of the eighteen wells with pipeline connections. A check of this plat will show that in Township 31 North, Range 4 West, three wells (including one this year) have been drilled to the Pictured Cliffs formation. All three obtained noncommercial flows of gas accompanied by varying quantities of water. Prior to 1954 two Pictured Cliffs wells were drilled in Township 31 North, Range 5 West, without finding commercial production, but seven low deliverability Mesaverde wells have been completed in the westerly portion of that Township. In Section 11 of Township 31 North, Range 6 West, the original unit operator found in Rosa #1 considerable quantities of Dakota gas. The Pictured Cliffs test in the same section failed to obtain substantial showings. The successor unit operator completed Rosa #5, Section 26, Township 31 North, Range 6 West, as a small Mesaverde well. Since Pacific assumed the unit operatorship in 1955, twelve Mesaverde wells have been completed in this Township including one drilled this year which is not yet connected to a pipeline. While recent Mesaverde developments have resulted in completions with initial potentials ranging up to 9 million cubic feet per day (calculated open flow), the average daily deliverability per well has been substandard in comparison with the central area of the San Juan Basin. The averaged deliveries shown on the plat are for the four-month period ending June 30, 1958. Preliminary data for July indicates that averages for that month will be substantially the same except for Well #26-32. This well, first produced in June at an average rate of 860 Mcfd, declined to 500 Mcfd for the full month of July. The average daily deliverability per well for the month of July, it now appears, will approximate 225 Mcfd.

Although deliverabilities are low, development has proved the existence of large reserves in the Mesaverde and some promise of commercial production in both shallower and deeper horizons. It is particularly pointed out that Rosa #1, drilled in 1949 into the top of the Morrison formation, obtained flows from the Dakota formation ranging from 240 Mcfd to 796 Mcfd while testing between 7686' and bottom at 8087'. It is highly possible that this well would have produced commercially had it been



Page 3.  
Re: Rosa Unit  
August 15, 1958

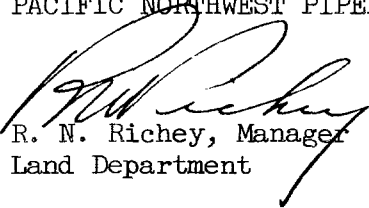
handled in the same manner as wells now being completed in the Allison Unit. This, together with the fact that most Rosa wells have shown a considerable gas kick while drilling through the Fruitland-Pictured Cliffs, leads Pacific to believe the time is not distant when multi-zone exploration can be undertaken and drilling costs apportioned to two or more horizons. This belief is strengthened by the successful Mesaverde-Dakota dual completions in the Allison unit along with a prolongation of the Ignacio nose which appears to extend in a southeasterly direction into the Rosa Unit. Since multiple zone completions will result in substantial savings in development costs chargeable to all tested horizons, Pacific is cooperating with the owners of rights below the Mesaverde with a view to commencing such operations as soon as practicable.

At the time the Plan of Development was submitted, it was assumed that title difficulties involving the location proposed for Section 21, Township 31 North, Range 6 West, would be cleared within a very short time. It does not now appear that those difficulties will be cleared during the current year.

We are hopeful that the business recession in our sales territories will be short lived and that additional sales for which an application will shortly be filed with the Federal Power Commission will be authorized. Realization of these hopes in subsequent years, together with a consummation of arrangements of multiple zone operations will, we believe, improve the economical outlook for and stimulate development of the Rosa Unit.

Very truly yours,

PACIFIC NORTHWEST PIPELINE CORPORATION



R. N. Richey, Manager  
Land Department

RNR:mdc  
Encl.