EXHIBIT "B"

SAN JUAN 30-5 UNIT RIO ARRIBA COUNTY, NEW MEXICO

GEOLOGIC REPORT
DAKOTA PRODUCING INTERVAL

SEVENTH AND EIGHTH EXPANSIONS OF THE DAKOTA PARTICIPATING AREA

Prepared by Carolyn Hurst

NORTHWEST PIPELINE CORPORATION

APPROVED BY

Kenneth J. Stracke

Director

Production Division

EXHIBIT "B"

SAN JUAN 30-5 UNIT RIO ARRIBA COUNTY, NEW MEXICO

GEOLOGIC REPORT DAKOTA PRODUCING INTERVAL

SEVENTH AND EIGHTH EXPANSIONS OF THE DAKOTA PARTICIPATING AREA

GENERAL INFORMATION

The San Juan 30-5 Unit is located in the east central portion of the productive area of the San Juan Basin. The unit includes 20,092.24 acres in Township 30 North, Range 5 West. All or parts of Sections 1, 2, 3, 4, and 12 (2.329.56 acres) have been eliminated from the unit.

Within the present unit area, the "Dakota Producing Interval" has been tested in 29 wells, resulting in three non-commercial wells, two plugged and abandoned wells, 19 commercial wells, and five wells awaiting completion and/or pipeline connection. Log data from the five new wells were used in preparing the structure and isopachous maps.

The "Dakota Producing Interval" consists of the Graneros Shale (located immediately below the Greenhorn Limestone), the Dakota Sandstone, and the Upper Morrison formation. This interval has been defined and the lithology and stratigraphy have been discussed in geologic reports for adjacent units.

Included in this report as Exhibit "C" are two maps (Figures 1 and 2). Figure 1 is a Dakota structure map contoured on the top of the Graneros Shale using mean sea level as the datum plane and a contour interval of 20 feet. The major structural features include an anticlinal nose plunging northward through the east half of the unit, which is bordered on the west by a north-to-northeast plunging syncline. A saddle trending northwest-southeast occupies the syncline in the northwest quarter of the township. Regional strike is approximately N65°W, and regional dip is approximately 50 feet per mile (0.5°) to the northeast.

Figure 2 is an isopachous map of the net productive upper Dakota Sandstone as determined from radioactive and electric logs of wells drilled within the unit and the surrounding area. Two major sands trend northwest-southwest through the unit. Sand thickness decreases to the south.

Exhibit "D" (Table 1) is a tabulation of the Dakota gas production for all wells within the original unit boundary. Monthly gas production for the 12-month period ending April 30, 1983 is shown, as well as cumulative production. Excluding gas produced from wells in Sections 1-4, the San Juan 30-5 Unit has produced 3,995,597 Mcf of gas from the Dakota Producing Interval as of May 1, 1983.

San Juan 30-5 Dakota June 1983 Page 2

PROPOSED SEVENTH EXPANSION OF THE DAKOTA PARTICIPATING AREA

Effective Date: September 1, 1981

Proposed Acreage: Township 30 North, Range 5 West, N.M.P.M.

Section 5 (640 acres) Total Acres: 640

The Seventh Expansion of the Dakota Participating Area is based on log interpretation and 12 months of production of the Northwest Pipeline Corporation San Juan 30-5 Unit well #79. From this data, it is inferred that the proposed acreage is capable of producing unitized substances in commercial quantities from Dakota Producing Interval. The well is described as follows:

The San Juan 30-5 Unit #79 well is located 1000 feet from the north line and 1720 feet from the east line, Section 5, Township 30 North, Range 5 West, N.M.P.M., Rio Arriba County, New Mexico. This well was spudded on April 20, 1981 and completed on September 3, 1981. The Dakota Formation was perforated with 19 holes between the following depths:

7932' and 8028'

These perforations were treated with 1500 gal HCl and fractured with 70,000 lbs. of 40/60 sand, 10,000 lbs of 20/40 sand, and 20,000 gallons of pad water. This well has one tubing string. The well was shut-in with a SIPT of 2492 psig and SIPC of 2473 psig. On September 3, 1981 the well was tested, and after flowing for three hours through a 3/4 inch variable choke on the 2 3/8 inch tubing, the well gauged 2366 Mcf/D with a calculated AOF of 2549 Mcf/D.

On the basis of this well and the surrounding geology, Section 5 (640 acres) is recommended as the Seventh Expansion of the Dakota Participating Area.

PROPOSED EIGHTH EXPANSION OF THE DAKOTA PARTICIPATING AREA

Effective Date: October 1, 1981

Proposed Acreage: Township 30 North, Range 5 West, N.M.P.M.

Section 22: E/2 (320 acres) Section 23: W/2 (320 acres)

Total Acres: 640

San Juan 30-5 Dakota June 1983 Page 3

The Eighth Expansion of the Dakota Participating Area is based on log interpretation, initial test results, and 12 months of production of the Northwest Pipeline Corporation San Juan 30-5 Unit well #83. Production histories and log interpretation from surrounding wells were also used in determining the extent of this expansion. From this data, it is inferred that the proposed acreage is capable of producing unitized substances in commercial quantities from the Dakota Producing Interval. The well is described as follows:

The San Juan 30-5 Unit #83 well is located 1480 feet from the south line and 950 feet from the west line, Section 23, Township 30 North, Range 5 West, N.M.P.M., Rio Arriba County, New Mexico. This well was spudded on May 6, 1981 and completed on October 13, 1981. The Dakota Formation was perforated with 12 holes between the following depths:

8092' and 8184'

These perforations were treated with 20,000 gallons of pad water and fractured with 22,600 lbs. of 40/60 sand. This well has one tubing string. The well was shut-in with a SIPT of 2720 psig and SIPC of 2731 psig. On October 13, 1981 the well was tested, and after flowing for three hours through a 3/4 inch variable choke on the 2 3/8 inch tubing, the well gauged 3407 Mcf/D with a calculated AOF of 3804 Mcf/D.

On the basis of the above well and the surrounding geology, the E/2 of Section 22 (320 acres) and the W/2 of Section 23 (320 acres) are recommended as the Eighth Expansion of the Dakota Participating Area.

EXHIBIT "D"

TABLE NO. 1

SAN JUAN 30-5 UNIT: DAKOTA GAS PRODUCTION RIO ARRIBA COUNTY, NEW MEXICO

GAS VOLUMES IN MCF @ 14.73 PSIA & 60° F

CUMULATIVE PRODUCTION TO 5-1-83	67424	168708	587323	111147	64600	221796	109872	120773	185781	338383	120549		317088	268286	193180	73364		88736	33918	40813	100775		609887	371354	122705	10000	112353	568207	
APR 83	2938	2573	4105	3181	3727	11749	4753	6318	10387	3826	5028	:	18097	0	11639	6393	ł	4033	3618	1438	4412		316	3186	4683	000	8458	5577	
MAR 83	7528	272	1216	5355	0	16388	7311	8991	0	5498	6154	1 1	0	0	14024	0	;	6241	0	0	10037		0	0	7327	000	-	· c	•
FEB 83	1272	7.4	0	8078	19	17420	8555	2625	0	1166	8543	1	10578	10	9953	0	;	2663	0	0	15186		2827	1810	8038	1000	5563	3429	
JAN 83	5015	2484	3436	1150	2868	2852	1035	7807	14149	5585	٥	;	22502	560	0	3548	1	5971	2682	3209	0		4733	3818	6538	0/0	8878 8878	6351	
DEC 82	6412	2764	2583	3636	3250	10647	4026	11735	8387	5804	4484	! !	5172	724	10574	2732	!!!	10883	3463	3621	0		3169	2557	5847	970	609	4247	<u> </u>
NOV 82	4497	3102	4704	8933	4683	27287	9567	3659	8062	5204	11476	;	0	823	19985	5168	;	3233	1236	3384	C		4213	<u>,</u>	0.0	904	> c	· c	,
OCT 82	0 8123	2160	2644	2645	3517	4349	2431	0	2644	3495	444	!	18688	510	426	125	1	0	1566	4681	0		5735	3223	7049	6621	7766	4672	9
SEP 82	6315	· c	0	0	909	0	2003	3204	0	1290	0	!	14153	613	0	1234	1	7443	3183	4963	16616		181	1781	5/36	96	5002	4090 4090	
AUG 82	3638	2	2169	5025	1310	3851	625	5039	0	0	4386	:	0	142	3440	2303	1	5228	1930	1840	27274		1403	158	304	770	317	374	5
JUL 82	7785	1900	3231	4723	3385	13374	4541	62 2 3	7726	1778	3829	1	17049	447	9919	5330	!	5908	3710	4468	27250		3199	2573	1066	000 -	5070	4165	2
JUN 82	6237	829	2630	2794	1615	7605	2518	2997	5722	2461	3243	!	10915	207	1886	2269	ì	10217	4190	4512	!		1658	1530	7559	000	6633	2447	
MAY 82	15600	1452	790	4550	1162	19775	5382	7125	0	3211	0	;	0	363	0	4	; !	26843	8340	8659	;		439	1455	0//9	000	6118	2559	1
I.D. DATE	4/82	1/1/	2/74	18/8	18/6	12/81	18/6	18/6	ا8/9	17/1	و/8ا	₹ ∞ 4	6/83	2/60	6/81	10/81	P & A	4/82	4/82	4/82	28/9		6/70					•	
LOCATION	5-30N-5W 6-30N-5W	7-30N-5W	8-30N-5W	9-30N-5W	9-30N-5W	10-30N-5W	10-30N-5W	15-30N-5W	16-30N-5W	17-30N-5W	18-30N-5W	19-30N-5W	20-30N-5W	20-30N-5W	21-30N-5W	22-30N-5W	23-30N-5W	23-30N-5W	25-30N-5W	27-30N-5W	36-30N-5W	REASE	1-30N-5W-all	2-30N-5W-all	2-30N-5M-311	7-304-JW-par	12-30N-5W-par	12-30N-5W-nar	
UNIT WELL NO.	79 50	33	37	70	49	72	73	52	533	47	38	9	48	27*	51	7.1	28	83	*28	*18	7.1	EL IMINATED ACREASE	Carson #1	Schalk 54-1	SCHAIK 54-1E	Condin July	Schalk 57-1F	Schalk 57-1	•

*non-commercial

State of New Mexico





Commissioner of Public Lands
March 25, 1985

#417

P.O. BOX 1148
SANTA FE, NEW MEXICO 87504-1148
Express Mail Delivery Uses
310 Old Santa Fe Trail
Santa Fe, New Yexico 87501

Northwest Pipeline Corporation P. O. Box 1526 Salt Lake City, Utah 84110-1526

Re: San Juan 30-5 Unit
Rio Arriba County, New Mexico
Application for Approval of the
Third Expanded Participating Area
Pictured Cliffs Formation
Effective November 1, 1981

ATTENTION: Mr. Darrell L. Gillen

Gentlemen:

This office is in receipt of one copy of the Third Expanded Particpating Area for the Pictured Cliffs Formation, for the San Juan 30-5 Unit, Rio Arriba County, New Mexico. The Third Expanded Participating Area is 320.00 acres described as the E/2 of Section 33, Township 30 North, Range 5 West and is based upon the completion of the unit well No. 84. The effective date is November 1, 1981.

Inasmuch as this needs no official approval we have this date filed it in our unit files. Enclosed is a copy for your files reflecting the date received in this office.

Very truly yours,

JIM BACA

COMMISSIONER OF PUBLIC LANDS

RAY D. GRAHAM, Director Oil and Gas Division

AC 505/827-5744

JB/RDG/pm enc1s.

cc:

OCD-Santa Fe, New Mexico

BLM-Albuquerque, New Mexico Attn: Fluids Branch BLM-Roswell, New Mexico Attn: Mr. Armando Lopez

OGAD-Santa Fe, New Mexico



P.O. BOX 1526 SALT LAKE CITY, UTAH 84110-1526 801-583-8800 631-84

July 17, 1984

#417

Assistant Area Oil and Gas Supervisor Bureau of Land Management Attn: Fluids Branch P. O. Box 6770 Albuquerque, NM 87107

State of New Mexico Commissioner of Public Lands Attn: Mr. Ray D. Graham P. O. Box 1148 Santa Fe, NM 87501

State of New Mexico
Oil Conservation Commission
Attn: Mr. Joe Ramey
P. O. Box 2088
Santa Fe, NM 87501

Re: San Juan 30-5 Unit #14-08-001-436
Rio Arriba County, New Mexico
Fourth Expanded Participating Area,
Dakota Formation
Effective December 1, 1980

Fifth Expanded Participating Area, Dakota Formation Effective March 1, 1981

Sixth Expanded Participating Area, Dakota Formation Effective April 1, 1981

Gentlemen:

Enclosed is amended Schedules V, VI and VII in connection with the captioned Fourth, Fifth and Sixth Expansions.

Please substitute the enclosed Schedules for the copies furnished with our letter of March 1, 1984. We apologize for any inconvenience this may have caused you.

BLM Commissioner of Public Lands Oil Conservation Commission July 17, 1984 Page 2

Copies of this letter and enclosures are being mailed to the Working Interest Owners shown on the attached sheet.

Sincerely,

Panell Lyeller

Darrell L. Gillen Land Coordinator

DLG:dh

Enclosures

cc: Working Interest Owners

SAN JUAN 30-5 WORKING INTEREST OWNERS

AMOCO PRODUCTION COMPANY Attn: J. C. Burnside 1670 Broadway - Suite 1914 Amoco Building Denver, CO 80202

PHILLIPS OIL COMPANY
Attn: T. C. Doughty
8055 E. Tufts Avenue Parkway
Denver, CO 80237

PHILLIPS PETROLEUM COMPANY Attn: T. C. Doughty 8055 E. Tufts Avenue Parkway Denver, CO 80237

EL PASO EXPLORATION COMPANY Attn: James R. Permenter P. O. Box 1492 El Paso, TX 79978

GETTY OIL COMPANY
Attn: Mr. T. L. Ditmore
Three Park Central - Suite 700
Denver, CO 80202

Larry H. Williams ARAPAHOE DRILLING COMPANY 200 Lomas, NW - Suite 440 Albuquerque, NM 87102

Lt. Col. Langdon Dewey Harrison, Trustee for Mrs. Omega E. Quinn 7517 Tamarron Place, N.E. Albuquerque, NM 87109

SCHEDULE V FOURTH EXPANDED PARTICIPATING AREA FOR THE DAKOTA FORMATION SAN JUAN 30-5 UNIT AREA

11.666667%	12.500000% 82.500000% 5.000000% 100.000000%	12.500000% 82.500000% 5.000000%	Royalty; Working Interest: Phillips Petroleum Co., ORRI;	560.00	T-30-N, R-5-W Sec. 17: SW/4, S/2NW/4 Sec. 18: E/2	SF-078994
			TRACT 6			
	82.500000% 5.000000% 100.000000%	82.500000% 5.000000% 100.000000%	Phillips Petroleum Co., ORRI; Total		Sec. 20: E/2	
6.666667%	12.500000%	12.500000%	Royalty;	320.00	T-30-N, R-5-W	SF-078740
			TRACT 5			
	85.000000% 2.500000% 100.000000%	85.000000% 2.500000% 100.000000%	Phillips Petroleum Co., ORRI;		Sec. 55. W/ 5	
	12.500000%	12.500000%	Royalty;		T-30-N, R-5-W	SF-078739
	84.500000% 3.000000% 100.000000%	84.500000% 3.000000% 100.000000%	Phillips Petroleum Co., ORRI;		3ec. cl. c/c, 3m/+	
16.666667%	12.500000%	12.500000%	Royalty;	800.00	T-30-N, R-5-W	SF-078739
			TRACT 4			
PRESENT ACTUAL PARTICIPATION	PERCENTAGE COMMITTED	K PERCENTAGE	OWNERSHIP DRILLING BLOCK	NUMBER OF ACRES	DESCRIPTION	SERIAL NUMBER

SERIAL NUMBER	DESCRIPTION	NUMBER OF ACRES	OWNERSHIP DRILLING BLOCK	PERCENTAGE	PERCENTAGE COMMITTED	PRESENT ACTUAL PARTICIPATION
			TRACT 7			
SF-078997	T-30-N, R-5-W	1,360.00	Royalty; Working Interest:	12.500000%	12.500000%	28.333333%
	•	N/2SE/4,	Phillips Petroleum Co., ORRI;	82.500000% 5.000000%	82.500000% 5.000000%	
	Sec. 8: NW/4, N/2SW/4 Sec. 9: All	SW/4	Total	100.000000%	100.000000%	
			TRACT 17			
State of NM	T-30-N, R-5-W	160.00	Royalty;	12.500000%	12.500000%	3.333333%
			Amoco Production Co., ORRI;	87.500000% 0.000000% 100.000000%	87.500000% 0.000000% 100.000000%	
			TRACT 17-A			
State of NM	T-30-N, R-5-W	80.00	• •	12.500000%	12.500000%	1.666667%
34/40	Sec. 10. W/ ENW/ T		Getty Oil Co., ORRI; Total	82.750000% 4.750000% 100.000000%	82.750000% 4.750000% 100.000000%	
			TRACT 17-D			
State of NM	T-30-N, R-5-W	80.00	Royalty;	12.500000%	12.500000%	1.666667%
	0000 100 0/ ENR/ 1		Amoco Production Co., ORRI; Total	82.500000% 5.000000% 700.000000%	82.500000% 5.000000% 100.000000%	

SCHEDULE V FOURTH EXPANDED PARTICIPATING AREA FOR THE DAKOTA FORMATION SAN JUAN 30-5 UNIT AREA

Fee T-		<u>v</u>	Fee T-		<u>ç</u>	Fee T-			State of NM T-		SERIAL NUMBER DE
T-30-N, R-5-W Sec. 17: NE/4		NE/4SW/4, SW/4SE/4	T-30-N, R-5-W		Sec. O. E/E	T-30-N, R-5-W			T-30-N, R-5-W		DESCRIPTION
160.00			160.00			320.00			320.00		NUMBER OF ACRES
Royalty; Working Interest: Amoco Production Co., ORRI;	TRACT 20	Amoco Production Co., ORRI; Total	Royalty;	TRACT 19	Amoco Production Co., ORRI;	Royalty;	TRACT 18	Phillips Petroleum Co., ORRI;	Royalty; Working Interest:	TRACT 17-F	OWNERSHIP DRILLING BLOCK
12.500000% 87.500000% 0.000000% 100.000000%		87.500000% 0.000000% 100.000000%	12.500000%		87.500000% 0.000000% 100.000000%	12.500000%		82.500000% 5.000000% 100.000000%	12.500000%		R PERCENTAGE
12.500000% 87.500000% 0.000000% 100.000000%		87.500000% 0.000000% 100.000000%	12.500000%		87.500000% 0.000000% 100.000000%	12.500000%		82.500000% 5.000000% 100.000000%	12.500000%		PERCENTAGE COMMITTED
3.333333%			3.333333%			6.666667%			6.666667%		PRESENT ACTUAL PARTICIPATION

SCHEDULE V FOURTH EXPANDED PARTICIPATING AREA FOR THE DAKOTA FORMATION SAN JUAN 30-5 UNIT AREA

Fee			Fee		Fee	Fee		SERIAL NUMBER
T-30-N, R-5-W A tract of land 1200' long by 450' wide containing 4 acres, more or less, lying in NW/4 of Sec. 17		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ 	T-30-N. R-5-W	- 1	T-30-N, R-5-W	T-30-N, R-5-W Sec. 17: SE/4		DESCRIPTION
4.00 ide in			156.00		160.00	160.00		NUMBER OF ACRES
Royalty; Working Interest: Amoco Production Co., Phillips Petroleum Co., ORRI; Total	TRACT 25-A	Working Interest: Amoco Production Co., Phillips Petroleum Co., ORRI; Total	Rovalty:		TRACT 22 Royalty;	Royalty; Working Interest: Amoco Production Co., ORRI; Total	TRACT 21	OWNERSHIP DRILLING BLOCK
12.500000% 43.750000% 43.750000% 0.000000%		43.750000% 43.750000% 0.000000% 100.000000%	12.500000%	87.500000% 0.000000% 100.000000%	12.500000%	12.500000% 87.500000% 0.000000% 100.000000%		K PERCENTAGE
12.500000% 43.750000% 43.750000% 0.0000000%		43.750000% 43.750000% 0.000000% 100.000000%	12.500000%	87.500000% 0.000000% 100.000000%	12.500000%	12.500000% 87.500000% 0.000000% 100.000000%		PERCENTAGE COMMITTED
0.083333%			3.250000%		3.33333%	3.333333%		PRESENT ACTUAL PARTICIPATION

DESCRIPTION NUMBER OF ACRES OWNERSHIP DRILLING BLOCK PERCENTAGE PERCENTAGE COMMITTED PRESENT ACTUAL **PARTICIPATION**

SERIAL NUMBER

RECAP ITULATION

Description of Lands in Participating Area:

Township 30 North, Range 5 West, N.M.P.M. Sections 7, 8, 9, 16, 17, 21: All Sections 18, 20: E/2 Section 22: W/2

Total Number of Acres in Participating Area: Total Number of Acres Committed in Participating Area:

4,800.00 4,800.00

SCHEDULE VI FIFTH EXPANDED PARTICIPATING AREA FOR THE DAKOTA FORMATION SAN JUAN 30-5 UNIT AREA

SERIAL NUMBER SF-078739 SF-078739	DESCRIPTION T-30-N, R-5-W Sec. 21: E/2, SW/4 T-30-N, R-5-W Sec. 22: W/2	NUMBER OF ACRES 800.00	OWNERSHIP TRACT 4 Royalty; Working Interest: Phillips Petroleum ORRI; Royalty; Working Interest: Phillips Petroleum		G BLOCK Co.,
SF-078739	T-30-N, R-5-W Sec. 22: W/2		Total y; ng Interest: ips Petroleum Total	•••	
SF-078740	T-30-N, R-5-W Sec. 20: E/2	320.00	TRACT 5 Royalty; Working Interest: Phillips Petroleum CORRI; Total	Co.,	12.500000% 5.000000% 100.000000%
SF-078994	T-30-N, R-5-W Sec. 15: SW/4, SW/4NW/4 Sec. 17: SW/4, S/2NW/4 Sec. 18: E/2	760.00	TRACT 6 Royalty; Working Interest: Phillips Petroleum ORRI; Total		12.500000% Co., 82.500000% 5.000000%

SCHEDULE VI FIFTH EXPANDED PARTICIPATING AREA FOR THE DAKOTA FORMATION SAN JUAN 30-5 UNIT AREA

	87.500000% 0.000000% 100.000000%	87.500000% 0.000000% 100.000000%	Amoco Production Co., ORRI; Total		Sec. 10: NE/4	E-34/-41
2.631579%	12.500000%	12.500000%	Royalty;	160.00	T-30-N, R-5-W	State of NM
			TRACT 17			
	82.500000% 5.000000% 100.000000%	82.500000% 5.000000% 100.000000%	Phillips Petroleum Co., ORRI;		SW/4SW/4	
3.289474%	12.500000%	12.500000%	Royalty;	200.00	ī	SF-080066
			TRACT 11			
				44	Sec. 9: All Sec. 10: N/2 Sec. 15: E/2, E/2NW/4, NW/4NW/4	
				1/4		
	82.500000% 5.000000% 100.000000%	82.500000% 5.000000% 100.000000%	Phillips Petroleum Co., ORRI; Total	1/2SE/4,	7:	
36.842105%	12.500000%	12.500000%	Royalty; Working Interest:	2,240.00	T-30-N, R-5-W Sec. 6: S/2SE/4,	SF-078997
			TRACT 7			
PRESENT ACTUAL PARTICIPATION	PERCENTAGE COMMITTED	PERCENTAGE	OWNERSHIP DRILLING BLOCK	NUMBER OF ACRES	DESCRIPTION	SERIAL NUMBER

5.263158%	12.500000% 87.500000% 0.000000%	12.500000% 87.500000% 0.000000%	Royalty; Working Interest: Amoco Production Co., ORRI; Total	320.00	T-30-N, R-5-W Sec. 8: E/2	Fee
5.263158%	12.500000% 82.500000% 5.000000%	12.500000% 82.500000% 5.000000%	TRACT 17-F Royalty; Working Interest: Phillips Petroleum Co., ORRI; Total	320.00	T-30-N, R-5-W Sec. 16: S/2	State of NM E-347-39
1.315789%	12.500000% 82.500000% 5.000000%	12.500000% 82.500000% 5.000000%	Royalty; Working Interest: Amoco Production Co., ORRI; Total	80.00	T-30-N, R-5-W Sec. 16: S/2NW/4	State of NM E-347-41
1.315789%	12,500000% 82,750000% 4,750000% 100,0000000%	12.500000% 82.750000% 4.750000%	Royalty; Working Interest: Getty Oil Co., ORRI; Total	80.00	T-30-N, R-5-W Sec. 16: N/2NW/4	State of NM E-347-40
PRESENT ACTUAL PARTICIPATION	PERCENTAGE COMMITTED	PERCENTAGE	OWNERSHIP DRILLING BLOCK	NUMBER OF ACRES	DESCRIPTION	SERIAL NUMBER

Fee	Fee	Fee	Fee	SERIAL NUMBER
T-30-N, R-5-W Sec. 21: NW/4	T-30-N, R-5-W Sec. 17: SE/4	T-30-N, R-5-W Sec. 17: NE/4	T-30-N, R-5-W Sec. 7: S/2SW/4, NE/4SW/4, SW/4SE/4	DESCRIPTION
160.00	160.00	160.00	160.00	NUMBER OF ACRES
TRACT 22 Royalty; Working Interest: Amoco Production Co., ORRI; Total	Royalty; Working Interest: Amoco Production Co., ORRI; Total	TRACT 20 Royalty; Working Interest: Amoco Production Co., ORRI; Total	Royalty; Working Interest: Amoco Production Co., ORRI; Total	OWNERSHIP DRILLING BLOCK
12.500000% 87.500000% 0.000000%	12.500000% 87.500000% 0.000000% 100.000000%	12.500000% 87.500000% 0.000000%	12.500000% 87.500000% 0.000000%	PERCENTAGE
12.500000% 87.500000% 0.000000% 100.000000%	12.500000% 87.500000% 0.000000% 100.000000%	12.500000% 87.500000% 0.000000% 100.0000000%	12.500000% 87.500000% 0.000000%	PERCENTAGE COMMITTED
2.631579%	2.631579%	2.631579%	2.631579%	PRESENT ACTUAL PARTICIPATION

Fee	ree	SERIAL NUMBER
T-30-N, R-5-W A tract of land 1200' long by 450' wide containing 4 acres, more or less, lying in NW/4 of Sec. 17	Sec. 8: S/2SW/4 Sec. 17: N/2NW/4 (except 4 acres out of NW/4NW/4)	DESCRIPTION
4.00 de n	90.00	NUMBER OF ACRES
Royalty; Working Interest: Amoco Production Co., Phillips Petroleum Co., ORRI; Total	Working Interest: Amoco Production Co., Phillips Petroleum Co., ORRI; TRACT 25-A	P DRILLING BLOOT
12.500000% 43.750000% 43.750000% 0.000000% 700.000000%	43.750000% 43.750000% 43.750000% 0.000000% 100.000000%	[m]
12.500000% 43.750000% 43.750000% 0.000000% 100.000000%	43.750000% 43.750000% 43.750000% 0.000000% 100.0000000%	PERCENTAGE COMMITTED
0.065790%	2.505/89%	PRESENT ACTUAL PARTICIPATION

PARTICIPATION	COMMITTED	PERCENTAGE	OWNERSHIP	OF ACRES	DESCRIPTION	SERIAL NUMBER
PRESENT ACTUAL	PERCENTAGE			NUMBER		

RECAPITULATION

Description of Lands in Participating Area:

Township 30 North, Range 5 West, N.M.P.M. Section 6: \$/2
Sections 7, 8, 9, 15, 16, 17, 21: All Section 10: N/2
Sections 18, 20: E/2
Section 22: W/2

Total Number of Acres in Participating Area: Total Number of Acres Committed in Participating Area:

6,080.00 6,080.00

SF-078994	SF-078740	SF-078739	SF-078739	SERIAL NUMBER
T-30-N, R-5-W 7 Sec. 15: SW/4, SW/4NW/4 Sec. 17: SW/4, S/2NW/4 Sec. 18: E/2	T-30-N, R-5-W Sec. 20: E/2	T-30-N, R-5-W Sec. 22: W/2	T-30-N, R-5-W Sec. 21: E/2, SW/4	DESCRIPTION
760.00	320.00		800.00	NUMBER OF ACRES
Royalty; Working Interest: Phillips Petroleum Co., ORRI; Total	TRACT 5 Royalty; Working Interest: Phillips Petroleum Co., ORRI; Total	Royalty; Working Interest: Phillips Petroleum Co., ORRI; Total	Royalty; Working Interest: Phillips Petroleum Co., ORRI; Total	OWNERSHIP DRILLING BLOCK P TRACT 4
12.500000% 82.500000% 5.000000%	12.500000% 82.500000% 5.000000% 700.000000%	12.500000% 85.000000% 2.500000% 100.000000%	12.500000% 84.500000% 3.000000% 100.000000%	PERCENTAGE
12.500000% 82.500000% 5.000000%	12.500000% 82.500000% 5.000000%	12.500000% 85.000000% 2.500000% 100.000000%	12.500000% 84.500000% 3.000000%	PERCENTAGE COMMITTED
11.875000%	5.000000%		12.500000%	PRESENT ACTUAL PARTICIPATION

State of NM E-347-41	SF-080066	SF-078997	SERIAL NUMBER
T-30-N, R-5-W Sec. 16: NE/4	T-30-N, R-5-W Sec. 6: N/2S/2, SW/4SW/4	T-30-N, R-5-W 2,560 Sec. 6: S/2SE/4, Sec. 7: N/2, NW/4SW/4, N/2SE/4, Sec. 8: NW/4, N/2SW/4 Sec. 9: All Sec. 10: All Sec. 15: E/2, E/2NW/4, NW/4NW/4	DESCRIPTION
160.00	200.00	2,560.00 /2SE/4, /4	NUMBER OF ACRES
Royalty; Working Interest: Amoco Production Co., ORRI; Total	Royalty; Working Interest: Phillips Petroleum Co., ORRI; Total	Royalty; Working Interest: Phillips Petroleum Co., ORRI; Total	OWNERSHIP DRILLING BLOCK TRACT 7
12.500000% 87.500000% 0.000000% 100.000000%	12.500000% 82.500000% 5.000000%	12.500000% 82.500000% 5.000000% 100.000000%	K PERCENTAGE
12.500000% 87.500000% 0.000000% 100.000000%	12.500000% 82.500000% 5.000000%	12.500000% 82.500000% 5.000000% 100.000000%	PERCENTAGE COMMITTED
2.500000%	3.125000%	40.000000%	PRESENT ACTUAL PARTICIPATION

Fee			State of NM			State of NM			State of NM E-347-40		SERIAL NUMBER
T-30-N, R-5-W Sec. 8: E/2		366. 10. 3/4	T-30-N, R-5-W		000. 10. 0/ EMM/ T	T-30-N, R-5-W			T-30-N, R-5-W Sec. 16: N/2NW/4		DESCRIPTION
320.00			320.00			80.00			80.00		NUMBER OF ACRES
Royalty; Working Interest: Amoco Production Co., ORRI; Total	TRACT 18	Phillips Petroleum Co., ORRI; Total	Royalty;	TRACT 17-F	Amoco Production Co., ORRI;	Royalty;	TRACT 17-D	Getty Oil Co., ORRI;	Royalty; Working Interest:	TRACT 17-A	OWNERSHIP DRILLING BLOCK
12.500000% 87.500000% 0.000000% 100.000000%		82.500000% 5.000000% 100.000000%	12.500000%		82.500000% 5.000000% 100.000000%	12.500000%		82.750000% 4.750000% 100.000000%	12.500000%		PERCENTAGE
12.500000% 87.500000% 0.000000% 100.000000%		82.500000% 5.000000% 100.000000%	12.500000%		82.500000% 5.000000% 100.000000%	12.500000%		82.750000% 4.750000% 100.000000%	12.500000%		PERCENTAGE COMMITTED
5.000000%			5.000000%			1.250000%			1.250000%		PRESENT ACTUAL PARTICIPATION

SCHEDULE VII SIXTH EXPANDED PARTICIPATING AREA FOR THE DAKOTA FORMATION SAN JUAN 30-5 UNIT AREA

SERIAL NUMBER	DESCRIPTION	NUMBER OF ACRES	OWNERSHIP DRILLING BLOCK	PERCENTAGE	PERCENTAGE COMMITTED	PRESENT ACTUAL PARTICIPATION
			TRACT 19			
Fee	T-30-N, R-5-W	160.00	Royalty;	12.500000%	12.500000%	2.500000%
	Sec. /: 3/25W/4, NE/4SW/4, SW/4SE/4		Amoco Production Co., ORRI;	87.500000% 0.0000000% 100.0000000%	87.500000% 0.000000% 100.000000%	
			TRACT 20			
Fee	T-30-N, R-5-W	160.00	Royalty;	12.500000%	12.500000%	2.500000%
	Sec. 1/: Nc/4		Amoco Production Co., ORRI; Total	87.500000% 0.000000% 100.000000%	87.500000% 0.000000% 100.000000%	
			TRACT 21			
Fee	T-30-N, R-5-W	160.00	Royalty;	12.500000%	12.500000%	2.500000%
	Sec. 1/: SE/4		Amoco Production Co., ORRI; Total	87.500000% 0.000000% 100.000000%	87.500000% 0.000000% 100.000000%	
			TRACT 22			
Fee	T-30-N, R-5-W	160.00	Royalty;	12.500000%	12.500000%	2.500000%
	Sec. ZI: NW/4		Amoco Production Co., ORRI; Total	87.500000% 0.000000% 100.000000%	87.500000% 0.000000% 100.000000%	

Fee	Fee	SERIAL NUMBER
T-30-N, R-5-W A tract of land 1200' long by 450' wide containing 4 acres, more or less, lying in NW/4 of Sec. 17	T-30-N, R-5-W Sec. 8: S/2SW/4 Sec. 17: N/2NW/4 (except 4 acres out of NW/4NW/4)	DESCRIPTION
4.00 de	156.00	NUMBER OF ACRES
Royalty; Working Interest: Amoco Production Co., Phillips Petroleum Co., ORRI; Total	Royalty; Working Interest: Amoco Production Co., Phillips Petroleum Co., ORRI; Total	OWNERSHIP DRILLING BLOCK TRACT 25
12.500000% 43.750000% 43.750000% 0.000000% 100.000000%	12.500000% 43.750000% 43.750000% 0.000000% 100.000000%	X PERCENTAGE
12.500000% 43.750000% 43.750000% 0.000000% 700.000000%	12.500000% 43.750000% 43.750000% 0.000000% 100.000000%	PERCENTAGE COMMITTED
0.062500%	2.437500%	PRESENT ACTUAL PARTICIPATION

SCHEDULE VII SIXTH EXPANDED PARTICIPATING AREA FOR THE SAN JUAN 30-5 UNIT AREA DAKOTA FORMATION

SERIAL NUMBER DESCRIPTION NUMBER OF ACRES **OWNERSHIP** DRILLING BLOCK PERCENTAGE PERCENTAGE COMMITTED PRESENT ACTUAL PARTICIPATION

R Fi C A P ITULA TION

Description of Lands in Participating Area:

Township 30 North, Range 5 West, N.M.P.M.
Section 6: S/2
Sections 7, 8, 9, 10, 15, 16, 17, 21: All
Sections 18, 20: E/2
Section 22: W/2

Total Number of Acres in Participating Area: Total Number of Acres Committed in Participating Area:

6,400.00 6,400.00



P.O. BOX 1526 SALT LAKE CITY, UTAH 84110-1526 801-583-8800

5140-218-84/26720

#417

December 19, 1984

Re: San Juan 30-5 Unit #14-08-001-346

Rio Arriba County, New Mexico <u>APPLICATION FOR APPROVAL OF THE</u> THIRD EXPANDED PARTICIPATING AREA

Pictured Cliffs Formation Effective November 1, 1982

Assistant Area Oil and Gas Supervisor Bureau of Land Management Western National Bank Building 505 Marquette NW, Suite 815 Albuquerque, NM 87102

State of New Mexico Commissioner of Public Lands Attention: Mr. Ray D. Graham P. O. Box 1148 Santa Fe. NM 87501

State of New Mexico Oil Conservation Commission Attention: Mr. Richard L. Stamets P. O. Box 2088 Santa Fe, NM 87501

Gentlemen:

Pursuant to Section 11(a) of the San Juan 30-5 Unit Agreement, Northwest Pipeline Corporation, as Unit Operator, determined on the date indicated below that the following well, which is capable of producing unitized substances in paying quantities from the Pictured Cliffs Formation, has been completed upon a Drilling Block committed to this Unit:

THIRD EXPANDED PARTICIPATING AREA - Effective November 1, 1982

<u>Description of Lands</u>

Acres

Well Name

Township 30 North, Range 5 West
Section 33: E/2

320.00

San Juan 30-5 Unit No. 84

Assistant Area Oil and Gas Supervisor Commissioner of Public Lands Oil Conservation Commission Page 2 December 19, 1984

The well data is as follows:

The San Juan 30-5 Unit #84 Well is located 1840 feet from the south line and 1730 feet from the east line, Section 33, Township 30 North, Range 5 West, N.M.P.M., Rio Arriba County, New Mexico. This well was spudded on August 28, 1982. The Mesaverde Formation was completed on October 8, 1982, with a dual completion in the Pictured Cliffs Formation. The Mesaverde Formation was perforated with 30 holes at the following depths:

```
5542', 5558', 5606', 5628', 5636', 5644', 5652', 5676', 5740', 5750'
5758', 5840', 5844', 5848', 5852', 5856', 5860', 5864', 5868', 5872' 5876', 5880', 5884', 5888', 5902', 5980', 5914', 5920', 5927', 5940'
```

These perforations were treated with 118,270 gallons pad water followed by 100,000 pounds of 20/40 sand. The well was tested on October 21, 1982, using a positive choke in a three hour test. The well was tested at a 3360 MCFD flow rate with a calculated AOF of 4076 MCFD. The ISIP was measured at 1121 psiq.

Attached is Schedule IV and Ownership Map showing the Third Expanded Participating Area for the Pictured Cliffs Formation of the San Juan 30-5 Unit Area. This Schedule describes the Participating Area and shows the percentage of unitized substances allocated to each unitized tract. Inasmuch as this needs no official approval, no provision is made therefor, and in the absence of disapproval, this Third Expanded Participating Area will become effective November 1, 1982.

Copies of this letter, schedule and map are being sent to the Working Interest Owners shown on the attached sheet.

Very truly yours,

Darrell L. Gillen Proration/Land

Darell Laillen

jawc Attachments

cc: Working Interest Owners

UNIT AREA EXPANSION SCHEDULE

SCHEDULE IV
THIRD EXPANDED PARTICIPATING AREA FOR THE PICTURED CLIFFS FORMATION
SAN JUAN 30-5 UNIT AREA

SERIAL NUMBER	DESCRIPTION	NUMBER OF ACRES	DRILLING BLOCK OWNERSHIP	PERCENTAGE	PERCENTAGE COMMITTED	PRESENT ACTUAL PARTICIPATION
			TRACT 1			
NM-012331	T-30-N, R-5-W Sec. 31: N/2	320.00	Royalty Working Interest	12.500000%	12.500000%	25.0000%
			Northwest Pipeline Corp. ORRI	82.500000% 5.000000%	82.500000% 5.000000%	
			Total	100.000000%	100.000000%	
			TRACT 2			
NM-012332	T-30-N, R-5-W Sec. 34: W/2	320.00	Royalty Working Interest	12.500000%	12.500000%	25.0000%
			Northwest Pipeline Corp. ORRI	83.000000% 4.500000%	83.000000% 4.500000%	
			Total	100.00000%	100.000000%	
			TRACT 4			
SF-078740	<u>T-30-N, R-5-W</u> Sec. 33: E/2	320.00	Royalty Working Interest	12.500000%	12.500000%	25.0000%
			Northwest Pipeline Corp. ORRI	86.000000% 1.500000%	86.000000% 1.500000%	
			Total	100.00000%	100.00000%	
			TRACT 12			
NM-102335	T-30-N, R-5-W Sec. 31: S/2	320.00	Royalty Working Interest	12.500000%	12.500000%	25.0000%
			Northwest Pipeline Corp. ORRI	82.500000% 5.000000%	82.500000% 5.000000%	
			Total	100.00000%	100.00000%	

Effective November 1, 1982

SCHEDULE IV THIRD EXPANDED PARTICIPATING AREA FOR THE PICTURED CLIFFS FORMATION SAN JUAN 30-5 UNIT AREA

RECAPITULATION

1280.00

Township 30	North, Rang	e 5 West	
Section 31:	All	640.00	
Section 33:	E/2	320.00	
Section 34:	W/2	320.00	
Total Number	of Acres i	n Participating Area	1280.00

Total Number of Acres Committed to Participating Area

SAN JUAN 30-5 WORKING INTEREST OWNERS

AMOCO PRODUCTION COMPANY Attn: J. C. Burnside 1670 Broadway - Suite 1914 Amoco Building Denver, CO 80202

PHILLIPS OIL COMPANY Attn: T. C. Doughty 8055 E. Tufts Avenue Parkway Denver, CO 80237

PHILLIPS PETROLEUM COMPANY Attn: T. C. Doughty 8055 E. Tufts Avenue Parkway Denver, CO 80237

EL PASO EXPLORATION COMPANY Attn: Land Department P. O. Box 4289 Farmington, NM 87499-4289

GETTY OIL COMPANY Attn: Mr. T. L. Ditmore Three Park Central - Suite 700 Denver, CO 80202

Larry H. Williams ARAPAHOE DRILLING COMPANY 200 Lomas, NW - Suite 440 Albuquerque, NM 87102

Lt. Col. Langdon Dewey Harrison, Trustee for Mrs. Omega E. Quinn 7517 Tamarron Place, N.E. Albuquerque, NM 87109