



United States Department of the Interior

GEOLOGICAL SURVEY
P. O. Drawer 1857
Roswell, New Mexico 88201

August 26, 1977

No. 159

El Paso Natural Gas Company
Attention: Mr. James R. Permenter
P. O. Box 1492
El Paso, Texas 79978

Gentlemen:

The twentieth revision of the Pictured Cliffs participating area for the Lindrith unit agreement, Rio Arriba County, New Mexico, was approved on this date by the Acting Area Oil and Gas Supervisor, U. S. Geological Survey, effective December 1, 1976.

The twentieth revision adds 160.00 acres described as the SW $\frac{1}{4}$ sec. 11, T. 24 N., R. 3 W., B.M.P.M., based on information obtained through the completion of unit well No. 80 in the SW $\frac{1}{4}$ sec. 11 as a paying well pursuant to the terms of the unit agreement. Unit well No. 80 was tested on November 15, 1976, for an initial potential of 2,211 MCF of gas per day from the Pictured Cliffs interval 3,111 to 3,170 feet.

Copies of the approved application are being distributed to the appropriate Federal offices and three copies are returned herewith. Please furnish all interested parties with suitable evidence of this approval.

Sincerely yours,

(ORIG. SCD.) CARL C. TRAYWICK

CARL C. TRAYWICK
Acting Area Oil and Gas Supervisor

Enclosure

cc:
BLM, Santa Fe (ltr. only)
NMOCC, Santa Fe (ltr. only) ← This Copy for
Com. Pub. Lands, Santa Fe (ltr. only)
Durango (w/cy app'n)

ARStall:d1k

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

159

May 31, 1977

C El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79978

Attention: Mr. James R. Permenter

O Re: Twentieth Expansion,
Pictured Cliffs Participating
Area, Lindrith Unit, Rio
Arriba County, New Mexico

Gentlemen:

P This is to advise that the New Mexico Oil Conservation
Commission has this date approved the Twentieth Expanded
Participating Area, Pictured Cliffs Formation, for the
Lindrith Unit, Rio Arriba County, New Mexico, subject to like
approval by the United States Geological Survey and the
Commissioner of Public Lands of the State of New Mexico.

Y One approved copy of the application is returned herewith.

Very truly yours,

JOE D. RAMPEY,
Secretary-Director

JDR/JEK/dr

cc: U. S. Geological Survey - Roswell
Commissioner of Public Lands - Santa Fe



157
United States Department of the Interior

GEOLOGICAL SURVEY

Conservation Division

P. O. Box 26234

Albuquerque, New Mexico 87123

June 2, 1977

El Paso Natural Gas Company
Attention: Mr. Henry
P. O. Box 3498
El Paso, Texas 79978

Gentlemen:

Pursuant to your telephone conversation on June 2, 1977, with this office, all five copies of El Paso Natural Gas Company's request for approval of the twentieth expanded Pictured Cliffs participating area of the Linderoth unit agreement, Rio Arriba County, New Mexico, are returned herewith unapproved for correction and resubmittal.

Sincerely yours,

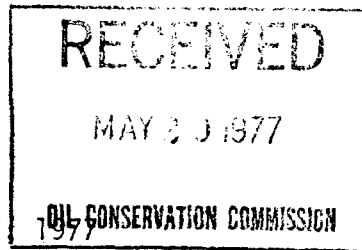
CARL E. TRAYNER
Assistant Area Oil and Gas Supervisor

Enclosure

cc:
Com. Pub. Lands, Santa Fe
NMDC, Santa Fe

← This Copy

El Paso NATURAL GAS
COMPANY



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

May 17, 1977

Regional Oil & Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

Commissioner of Public Lands
State of New Mexico
Post Office Box 1148
Santa Fe, New Mexico 87501

Oil Conservation Commission
State of New Mexico
Post Office Box 2088
Santa Fe, New Mexico 87501

Re: Lindrith Unit Agreement,
I Sec. No. 713
Rio Arriba County, New Mexico
REQUEST FOR APPROVAL OF THE
TWENTIETH EXPANDED PARTICIPATING
AREA, Pictured Cliffs Formation
Effective January 1, 1977

Gentlemen:

Pursuant to Section 10 of the Lindrith Unit Agreement, El Paso Natural Gas Company, as Unit Operator, submits for your approval the Twentieth Expanded Participating Area for the Pictured Cliffs Formation, Lindrith Unit, Rio Arriba County, New Mexico, which includes in addition to the lands previously submitted, the following selection of lands reasonably estimated to be productive in paying quantities from the Pictured Cliffs Formation:

Twentieth Expanded Participating Area - Effective Jan. 1, 1977

<u>Description of Lands</u>	<u>Acres</u>
<u>Township 24 North, Range 3 West, N.M.P.M.</u> <u>Section 11: SW/4</u>	160.00

The lands described above are proven productive by the following:

The Lindrith Unit #80 Well, located 800' from the South Line and 1040' from the West Line of Section 11, Town-

ship 24 North, Range 3 West, N.M.P.M., was spudded on September 30, 1976, and completed on November 15, 1976, in the Pictured Cliffs Formation at a total depth of 3,204'. The Pictured Cliffs Formation at the intervals 3111', 3121', 3139', 3948', 3158', 3164' and 3170', was treated with a sand-water fracturing process on October 25, 1976. The well was shut-in on November 4, 1976, and after being shut-in for eleven (11) days, the well was tested on November 15, 1976, with an after frac guage of 2211 MCF/D using the Pitot Tube method, with an SIPC of 969 psia. The spacing unit for this well is described as the SW/4 of Section 11, Township 24 North, Range 3 West, containing 160.00 acres.

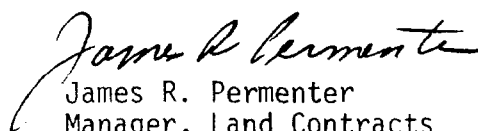
The effective date for the Twentieth Expanded Participating Area is determined as January 1, 1977, the first day of the month following the testing of the Lindrith Unit #80 Well.

Attached hereto is Schedule XXI showing the Twentieth Expanded Participating Area for the Pictured Cliffs Formation in the Lindrith Unit Area. This schedule describes the Expanded Participating Area, shows the percentage of unitized substances allocated to each unitized tract, and the exact breakdown of percentage allocated to each tract according to the various ownership in said tract.

If the Twentieth Expansion meets with your approval, please indicate such approval in the space provided on the attached sheet, and return an approved copy for our files.

A copy of this letter and schedule are being sent to the working interest owners indicated below.

Very truly yours,



James R. Permenter
Manager, Land Contracts
and Titles
Land Department
Energy Resource Development

JRP:DM:sas
Enclosures
Lindrith Unit 4.1

cc: Continental Oil Company
Post Office Box 460
Hobbs, New Mexico 88240
Attention: Mr. L.P. Thompson

Tenneco Oil Company
Suite 1200, Lincoln Tower Building
1860 Lincoln Street
Denver, Colorado
Attention: Mr. J. A. Dutton

Mobil Oil Company (3)
Post Office Box 633
Midland, Texas 79701
Attention: Mr. J. D. Howard

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: _____

The foregoing approvals are attached and made a part of the Request for Approval
of the Twentieth Expansion of the Pictured Cliffs Participating Area for the
Lindrith Unit, Rio Arriba County, New Mexico.

SCHEDULE XXI
TWENTIETH EXPANDED PARTICIPATING AREA FOR THE PICTURED CLIFFS FORMATION
LINDRITH UNIT AREA

S	R	I	A	L	N	U	M	B	D		P	P
									O	B		
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												
T												
R												
A												
C												

SCHEDULE XX1

SERIAL NUMBER	DESCRIPTION	NUMBER OF ACRES	DRILLING BLOCK		PERCENTAGE COMMITTED	PRESENT AC PARTICIPA
			OWNERSHIP	PERCENTAGE		
TRACT 6						
078912	T-24-N, R-3-W	2160.00	Royalty;*	12.50%*	12.50%	18.722956
	Sec. 10: S/2		Working Interest:			
	Sec. 11: E/2, SW/4		El Paso Natural Gas Co.;	75.00%	75.00%	
	Sec. 12: SW/4, NW/4 NW/4, S/2 SE/4, NW/4 SE/4		ORRI;	12.50%	12.50%	
	Sec. 13: E/2 NW/4, NW/4 NW/4, S/2 SW/4, NE/4		TOTAL	100.00%	100.00%	
	Sec. 14: E/2, S/2 SW/4		*W/2 SW/4 Section 11 Royalty Interest Not Committed To Unit			
	Sec. 24: NW/4, W/2 NE/4, SE/4 NE/4					
TRACT 7						
078913	T-24-N, R-3-W	2080.00	Royalty;	12.50%	12.50%	18.029513
	Sec. 15: All		Working Interest:			
	Sec. 16: All		El Paso Natural Gas Co.;	75.00%	75.00%	
	Sec. 21: W/2, NE/4		ORRI;	12.50%	12.50%	
	Sec. 22: N/2		TOTAL	100.00%	100.00%	
TRACT 8						
078914	T-24-N, R-3-W	640.00	Royalty;	12.50%	12.50%	5.547542
	Sec. 25: All		Working Interest:			
			El Paso Natural Gas Co.;	75.00%	75.00%	
			ORRI;	12.50%	12.50%	
			TOTAL	100.00%	100.00%	

SCHEDULE XXI

SERIAL NUMBER	DESCRIPTION	NUMBER OF ACRES	DRILLING BLOCK		PERCENTAGE COMMITTED	PRESENT AC- T PARTICIPAT-
			OWNERSHIP	PERCENTAGE		
<u>TRACT 9</u>						
078915	T-24-N, R-3-W Sec. 23: NW/4, E/2 Sec. 36: NE/4	640.00	Royalty; Working Interest: El Paso Natural Gas Co.; ORRI;	12.50% 75.00% 12.50% <u>100.00%</u>	12.50% 75.00% 12.50% <u>100.00%</u>	5.547542%
	TOTAL					
<u>TRACT 13</u>						
ented	T-24-N, R-2-W Sec. 29: NW/4 *Undivided 120.00 net acres committed	*160.00	Royalty; Working Interest: El Paso Natural Gas Co.; Felmont Oil Co.; ORRI;	9.375% 56.250% 25.000% 9.375% <u>100.000%</u>	6.250% 56.250% .000% 9.375% <u>71.875%</u>	1.040164%
	TOTAL					
<u>TRACT 13-B</u>						
ented	T-24-N, R-2-W Sec. 28: S/2 NW/4 *Undivided 40.00 net acres committed	*80.00	Royalty; Working Interest: El Paso Natural Gas Co.; Felmont Oil Co.; Jane P. Guild; M. Dodge; Wilb & Co.; C. W. Gillette; James S. Gardner, Augustus P. Loring, III ORRI;	6.250% 37.500% 12.500% .625% .312% 25.000% 6.250% 4.688% .625% <u>6.250%</u> <u>100.000%</u>	6.250% 37.500% .000% .000% .000% .000% .000% .000% .000% 6.250% <u>50.000%</u>	.346721%
	TOTAL					

SCHEDULE XX1

SERIAL NUMBER	DESCRIPTION	NUMBER OF ACRES	DRILLING BLOCK		PERCENTAGE COMMITTED	PRESENT AC- PARTICIPA
			OWNERSHIP	PERCENTAGE		
patented	T-24-N, R-2-W	75.96	Royalty; Working Interest; El Paso Natural Gas Co.; ORRI; TOTAL	12.50%	12.50%	<u>.658424</u>
	Sec. 18: Lot 3, NE/4 SW/4			75.00%	75.00%	
				12.50%	12.50%	
				<u>100.00%</u>	<u>100.00%</u>	
	<u>TRACT 16</u>					
patented	T-24-N, R-3-W	640.00	Royalty; Working Interest; El Paso Natural Gas Co.; ORRI; TOTAL	12.50%	12.50%	<u>5.547542</u>
	Sec. 9: All			75.00%	75.00%	
				12.50%	12.50%	
				<u>100.00%</u>	<u>100.00%</u>	
	<u>TRACT 17</u>					
patented	T-24-N, R-2-W	311.98	Royalty; Working Interest; El Paso Natural Gas Co.; ORRI; TOTAL	12.50%	6.25%	<u>2.704254</u>
	Sec. 19: Lots 1,2, E/2 NW/4, NE/4			75.00%	75.00%	
				12.50%	12.50%	
				<u>100.00%</u>	<u>93.75%</u>	
	<u>TRACT 18</u>					
patented	T-24-N, R-3-W	320.00	Royalty; Working Interest; El Paso Natural Gas Co.; ORRI; TOTAL	12.50%	12.50%	<u>2.773772</u>
	Sec. 13: SW/4 NW/4, N/2 S/2, S/2 SE/4			75.00%	75.00%	
				12.50%	12.50%	
				<u>100.00%</u>	<u>100.00%</u>	
	<u>TRACT 19</u>					

SCHEDULE XX1

SERIAL NUMBER	DESCRIPTION	NUMBER OF ACRES	DRILLING BLOCK		PERCENTAGE COMMITTED	PRESENT AC PARTICIPATION
			OWNERSHIP	PERCENTAGE		
Patented	<u>T-24-N, R-2-W</u> <u>Sec. 9: NW/4</u>	160.00	Royalty; Working Interest; El Paso Natural Gas Co.; ORRI;	12.50%	12.50%	<u>1.386886%</u>
				81.25%	81.25%	
				6.25%	6.25%	
				<u>100.00%</u>	<u>100.00%</u>	
			TOTAL			
Patented	<u>T-24-N, R-3-W</u> <u>Sec. 14: NW/4,</u> <u>N/2 SW/4</u>	240.00	Royalty; Working Interest; El Paso Natural Gas Co.; ORRI;	12.50%	00.00%	<u>2.080328%</u>
				75.00%	75.00%	
				12.50%	12.00%	
				<u>100.00%</u>	<u>87.00%</u>	
			TOTAL			
Patented	<u>T-24-N, R-2-W</u> <u>Sec. 21: NW/4</u>	160.00	Royalty; Working Interest; El Paso Natural Gas Co.; ORRI;	12.50%	3.125%	<u>1.386886%</u>
				75.00%	75.000%	
				12.50%	12.500%	
				<u>100.00%</u>	<u>90.625%</u>	
			TOTAL			
Patented	<u>T-24-N, R-3-W</u> <u>Sec. 12: NE/4 SE/4,</u> <u>S/2 NW/4,</u> <u>NE/4 NW/4</u>	160.00	Royalty; Working Interest; El Paso Natural Gas Co.; ORRI;	12.50%	12.50%	<u>1.386886%</u>
				75.00%	75.00%	
				12.50%	12.50%	
				<u>100.00%</u>	<u>100.00%</u>	
			TOTAL			

SCHEDULE XXI
 TWENTIETH EXPANDED PARTICIPATING AREA FOR THE PICTURED CLIFFS FORMATION
 LINDRITH UNIT AREA

RECAPITULATION

Description of Lands in Participating Area;

<u>Township 24 North, Range 2 West, N.M.P.M.</u>	
Section 9: NW/4	
Section 18: Lots 1,2,3,4, E/2 W/2 (W/2)	
Section 19: Lots 1,2,3,4, E/2 W/2, E/2 (A11)	
Section 20: A11	
Section 21: W/2	
Section 28: N/2	
Section 29: N/2	
Section 30: Lots 1,2,3,4, E/2 W/2, E/2 (A11)	
Section 31: Lots 1,2,3,4, E/2 W/2, E/2 (A11)	
Section 32: SE/4, W/2	
<u>Township 24 North, Range 3 West, N.M.P.M.</u>	
Section 9: A11	
Section 10: S/2	
Section 11: E/2	
Section 12: SE/4, W/2	
Section 13: A11	
Section 14: A11	
Section 15: A11	
Section 16: A11	
Section 21: W/2, NE/4	
Section 22: N/2	
Section 23: N/2, SE/4	
Section 24: A11	
Section 25: A11	
Section 36: NE/4	
Total Number of Acres in Participating Area:	11,616.64
Total Number of Acres Participating:	11,536.64



State of New Mexico



Commissioner of Public Lands

PHIL R. LUCERO
COMMISSIONER

May 23, 1977

P. O. BOX 1148
SANTA FE, NEW MEXICO 87501

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79976

Re: Lindrith Unit
Rio Arriba County, New Mexico
REQUEST FOR APPROVAL OF THE
TWENTIETH EXPANDED PARTICIPATING
AREA, Pictured Cliffs Formation
Effective January 1, 1977

ATTENTION: Mr. James R. Permenter

Gentlemen:

The Commissioner of Public Lands has this date approved the Twentieth Expanded Participating Area, Pictured Cliffs Formation, for the Lindrith Unit. This approval is subject to like approval by the United States Geological Survey and the Oil Conservation Commission.

The Twentieth Expanded Participating Area covers the SW/4 of Section 11, Township 24 North Range 3 West, and is effective as of January 1, 1977.

Enclosed is one approved copy for your files.

Very truly yours,

PHIL R. LUCERO
COMMISSIONER OF PUBLIC LANDS

BY:
RAY D. GRAHAM, Director
Oil and Gas Division

PRL/RDG/s
encls.
cc:

USGS-Roswell, New Mexico
USGS-Albuquerque, New Mexico
OCC- Santa Fe, New Mexico ✓

El Paso NATURAL GAS
COMPANY

APR 11 1977

159

P. O. BOX 1492
EL PASO, TEXAS 79978

PHONE: 915-543-2600

April 6, 1977

Regional Oil & Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

Commissioner of Public Lands
State of New Mexico
Post Office Box 1148
Santa Fe, New Mexico 87501

Oil Conservation Commission
State of New Mexico
Post Office Box 2088
Santa Fe, New Mexico 87501

Re: Lindrith Unit
Rio Arriba County, New Mexico
1977 DRILLING PROGRAM

Gentlemen:

The 1977 Drilling Program for the referenced unit was approved by the regulatory bodies on the following dates:

United States Geological Survey	April 4, 1977
Commissioner of Public Lands	March 8, 1977
Oil Conservation Commission	March 30, 1977

Copies of this letter are being sent to the working interest owners of the referenced unit.

Yours very truly,



Derold Maney
Landman
Land Department
Energy Resource Development

DM:is

Lindrith Unit 3.0

159

RECEIVED
APR - 5 1977
U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Conservation Division
P. O. Box 26124
Albuquerque, New Mexico 87125

APR 04 1977

El Paso Natural Gas Company
Attention: Mr. D. N. Canfield
P. O. Box 1492
El Paso, Texas 79978

Gentlemen:

Three approved copies of your 1977 plan of development for the Lindrith unit area, Rio Arriba County, New Mexico, are enclosed. Such plan, proposing the drilling of four Pictured Cliffs wells, three of which are on lands outside the existing participating area, was approved on this date subject to like approval by the appropriate officials of the State of New Mexico.

Sincerely yours,

(ORIG. SGD.) JAMES W. SUTHERLAND

JAMES W. SUTHERLAND
Area Oil and Gas Supervisor

Enclosures

CC:
NMOCC, Santa Fe (letter only)
Comm. Pub. Lands, Santa Fe (letter only)

Regional Oil & Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

Oil Conservation Commission
State of New Mexico
Post Office Box 2088
Santa Fe, New Mexico 87501

Commissioner of Public Lands
State of New Mexico
Post Office Box 1148
Santa Fe, New Mexico 87501

Re: Lindrith Unit Area, I Sec. No. 713
Rio Arriba County, New Mexico
Pictured Cliffs Formation -- NOTICE
OF COMPLETION OF ADDITIONAL WELLS

Gentlemen:

Pursuant to Section 10 of the Lindrith Unit Agreement, I Sec. No. 713, approved April 3, 1950, El Paso Natural Gas Company, as Unit Operator, determined on the dates set out below that one (1) additional Pictured Cliffs well has been completed upon acreage committed to this Unit. This well is as follows:

The Lindrith Unit #86 Well, located 1550' from the North Line and 850' from the West Line of Section 21, Township 24 North, Range 2 West, N.M.P.M., was spudded on October 1, 1976, and completed on December 1, 1976, in the Pictured Cliffs Formation at a total depth of 3220'. The Pictured Cliffs Formation at the intervals 3103', 3119', 3132', 3155', 3160', 3176' and 3181' was treated with a sand-water fracturing process on October 25, 1976. The well was shut-in on November 24, 1976, and after being shut-in for seven (7) days the well was tested on December 1, 1976 with an after frac gauge of 280 MDF/D using the Pitot Tube method, with an SIPC of 827 psia. The spacing unit for this well is described as the NW/4 of Section 21, Township 24 North, Range 2 West, containing 160.00 acres.

Regional Oil & Gas Supervisor
Commissioner of Public Lands
Oil Conservation Commission

March 24, 1977

Page 2.

The spacing unit for this well was included in the Lindrith Unit, Second Expanded Pictured Cliffs Participating Area effective August 1, 1956, and the completion of this well does not warrant any further expansion of the Pictured Cliffs Participating Area.

A copy of this letter is being sent to the working interest owners shown on the attached sheet.

Very truly yours,



James R. Permenter
Manager, Land Contracts
and Titles
Land Department
Energy Resource Development

JRP:DW:sas
Attachment
Lindrith Unit, 4.1.1

LINDRITH UNIT
WORKING INTEREST OWNERS

Continental Oil Company

Mobil Oil Corporation (3)

Tenneco Oil Company

OIL CONSERVATION COMMISSION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

159

March 30, 1977

C
O
P
Y

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79978

Re: 1977 Drilling Program
Lindrith Unit, Rio Arriba
County, New Mexico

Gentlemen:

This is to advise that the New Mexico Oil Conservation Commission has this date approved the Drilling Program for the calendar year 1977 providing for the drilling of four Pictured Cliffs wells for the Lindrith Unit, Rio Arriba County, 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 program is returned herewith.

Very truly yours,

JOE D. RAMEY
Secretary-Director

JDR/JEK/og

cc: Commissioner of Public Lands
Santa Fe, New Mexico

U. S. Geological Survey
Roswell, New Mexico

February 25, 1977

Regional Oil & Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

Commissioner of Public Lands
State of New Mexico
Post Office Box 1148
Santa Fe, New Mexico 87501

Oil Conservation Commission
State of New Mexico
P. O. Box 2088
Santa Fe, New Mexico 87501

Re: Lindrith Unit I Section No. 713
Rio Arriba County, New Mexico
1977 DRILLING PROGRAM

Gentlemen:

By letter dated June 25, 1976, El Paso Natural Gas Company, as Unit Operator of the Lindrith Unit, filed a Drilling Program covering the subject Unit for the calendar year 1976 providing for the drilling of four (4) Pictured Cliffs wells. All four wells were timely drilled. Well No. 86 was drilled within the boundaries of the Pictured Cliffs Participating Area and did not cause an expansion. Wells Nos. 80, 89 and 90 are currently being evaluated to determine if they will cause an expansion of the Pictured Cliffs Participating Area.

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

Pictured Cliffs (Gas)	72
Pictured Cliffs (Non-commercial)	5
Dakota	1
Gallup	1
Plugged and Abandoned	<u>12</u>
	91

Regional Oil and Gas Supervisor
Commissioner of Public Lands
Oil Conservation Commission
Page Two

Pursuant to Section 9 of the Lindrith Unit Agreement, El Paso Natural Gas Company, as Unit Operator, is submitting this Drilling Program providing for the drilling of the following wells during the calendar year 1977.

<u>Well No.</u>	<u>Drilling Block</u>	<u>Formation</u>
87	NW/4 Section 28, T-24-N, R-2-W	Pictured Cliffs
88	NW/4 Section 29, T-24-N, R-2-W	Pictured Cliffs
91	SW/4 Section 29, T-24-N, R-2-W	Pictured Cliffs
92	SW/4 Section 28, T-24-N, R-2-W	Pictured Cliffs

All working interest owners have been contacted, and this Drilling Program reflects their desires. El Paso Natural Gas Company, as Unit Operator, and the working interest owners believe that all current obligations have been satisfied.

El Paso Natural Gas Company, as Unit Operator, plans to drill any offset wells required to prevent drainage of unitized substances and any other wells deemed necessary or desirable by the Unit Operator and the working interest owners.

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 shown below.

Yours very truly,



D. N. Canfield
Director of Land
Energy Resource Development

DNC/DW/mb
Attachments
Lindrith Unit, 3.0

Cc: Mobil Oil Corporation
Attention: Mr. J. D. Howard
P. O. Box 633
Midland, Texas 79701

Tenneco Oil Company
Attention: Mr. A. D. Rial
Suite 1200, Lincoln Tower Bldg.
1860 Lincoln Street
Denver, Colorado 80203

Continental Oil Company
Attention: Mr. L. P. Thompson
P. O. Box 460
Hobbs, New Mexico 88240

APPROVED: _____

Regional Oil & Gas Supervisor
United States Geological Survey
Subject to like approval by the
Commissioner of Public Lands and
the Oil Conservation Commission

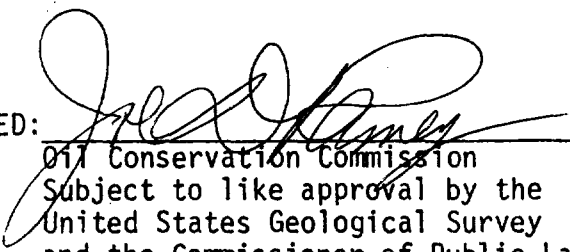
DATE: _____

APPROVED: _____

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

DATE: _____

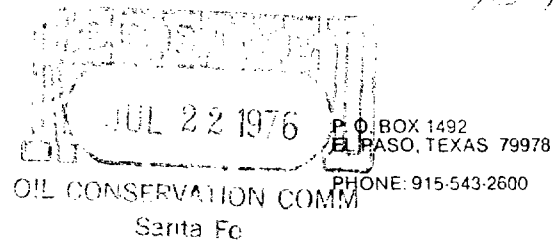
APPROVED: _____


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

DATE: March 31, 1977

The foregoing approvals are for the 1977 Drilling Program for the
Lindrith Unit, I Sec. No. 713, Rio Arriba County, New Mexico.

El Paso NATURAL GAS
COMPANY



July 20, 1976

Regional Oil & Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

Commissioner of Public Lands
State of New Mexico
P. O. Box 1148
Santa Fe, New Mexico 87501

Oil Conservation Commission
State of New Mexico
P. O. Box 2088
Santa Fe, New Mexico 87501

Re: Lindrith Unit
Rio Arriba County, New Mexico
1976 DRILLING PROGRAM

Gentlemen:

The 1976 Drilling Program for the referenced unit was approved by the regulatory bodies on the following dates:

United States Geological Survey	June 30, 1976
Commissioner of Public Lands	June 30, 1976
Oil Conservation Commission	July 13, 1976

Copies of this letter are being sent to the working interest owners of the referenced unit.

Yours very truly,

Don Wadsworth
Landman
Land Department
Energy Resource Development

DW:nm
Lindrith Unit, 3.0



DIRECTOR
JOE D. RAMEY

OIL CONSERVATION COMMISSION

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

LAND COMMISSIONER
PHIL R. LUCERO



STATE GEOLOGIST
EMERY C. ARNOLD

July 13, 1976

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79978

Attention: Mr. D. N. Canfield

Re: 1976 Drilling Program,
Lindrith Unit, Rio Arriba County,
New Mexico.

Gentlemen:

This is to advise that the New Mexico Oil Conservation Commission has this date approved the Drilling Program for the calendar year 1976 providing for the drilling of four Pictured Cliffs wells for the Lindrith Unit, Rio Arriba County, 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 program is returned herewith.

Very truly yours,

JOE D. RAMEY
Secretary-Director

JDR/JEK/og

cc: Commissioner of Public Lands
Santa Fe, New Mexico

U. S. Geological Survey
Roswell, New Mexico

June 25, 1976

Regional Oil & Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

Commissioner of Public Lands
State of New Mexico
P. O. Box 1148
Santa Fe, New Mexico 87501

Oil Conservation Commission
State of New Mexico
P. O. Box 2088
Santa Fe, New Mexico 87501

Re: Lindrith Unit I Section No. 713
Rio Arriba County, New Mexico
1976 DRILLING PROGRAM

Gentlemen:

By letter dated November 11, 1974 and an undated letter sent you in 1975 El Paso Natural Gas Company, as Unit Operator, filed a Drilling Program and Revised Drilling Program regarding the captioned unit for the calendar year 1975. Said Program provided for the drilling of four (4) Pictured Cliffs wells, which were carried forward from the 1974 Drilling Program. All four wells were timely drilled and did not cause expansions of the Pictured Cliffs Participating Area, as they were drilled within the boundaries of the Participating Area.

As of this date, the total number of wells in the Lindrith Unit on acreage committed to the Unit is as follows:

Pictured Cliffs (Gas)	64
Pictured Cliffs (Non-Commercial)	5
Dakota	1
Gallup	1
Plugged and Abandoned	12
	<u>83</u>

Pursuant to Section 9 of the Lindrith Unit Agreement, El Paso Natural Gas Company, as Unit Operator, hereby respectfully requests the approval of a Drilling Program for the calendar year 1976 providing for the drilling of the following wells during 1976.

<u>Well</u>	<u>Spacing Unit</u>	<u>Formation</u>
80	SW/4 Section 11, T-24-N, R-3-W	PC
86	NW/4 Section 21, T-24-N, R-2-W	PC
89	SE/4 Section 21, T-24-N, R-2-W	PC
90	SE/4 Section 28, T-24-N, R-2-W	PC

With the exception of well #86 which is within the boundaries of the Pictured Cliffs Participating Area, the other three wells will be drilled outside of the existing Participating Area.

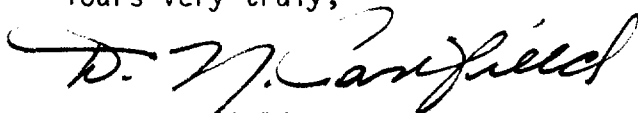
All the working interest owners have been contacted, and this Drilling Program reflects their desires. El Paso Natural Gas Company, as Unit Operator, and the working interest owners believe that all current obligations have been satisfied.

El Paso Natural Gas Company, as Unit Operator, will drill any offset wells required to prevent drainage of unitized substances and any other wells subsequently deemed necessary or which are requested by the Unit Operator and the working interest owners.

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 Drilling Program are being sent to the working interest owners shown below.

Yours very truly,



D. N. Canfield
Director of Land
Energy Resource Development

DNC:DW:nm
Enclosure
Lindrith 3.0, 4.1

cc: Continental Oil Company
Attention: Mr. L. P. Thompson
P. O. Box 460
1001 North Turner
Hobbs, New Mexico 88240

Tenneco Oil Company
Attention: Mr. A. D. Rial
Suite 1200, Lincoln Tower Bldg.
1860 Lincoln Street
Denver, Colorado 80203

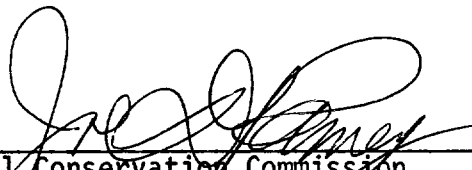
Mobil Oil Corporation
Attention: Mr. J. D. Howard
P. O. Box 633
Midland, Texas 79701

APPROVED: _____
Regional Oil & Gas Supervisor
United States Geological Survey
Subject to like approval by the
Commissioner of Public Lands and
the Oil Conservation Commission

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: July 13, 1976

The foregoing approvals are for the 1976 Drilling Program for the
Lindrith Unit, I Sec. No. 713, Rio Arriba County, New Mexico.



United States Department of the Interior

GEOLOGICAL SURVEY
P. O. Drawer 1857
Roswell, New Mexico 88201

June 30, 1976

El Paso Natural Gas Company
Attention: Mr. D. N. Canfield
P. O. Box 1492
El Paso, Texas 79978

Gentlemen:

The 1976 plan of development submitted for the Lindrith unit area, Rio Arriba County, New Mexico, was approved on this date subject to like approval by the appropriate State officials.

Such plan proposes the drilling of four Pictured Cliffs wells, and three approved copies are enclosed.

Sincerely yours,

(ORIG. SGD.) CARL C. TRAYWICK

CARL C. TRAYWICK
Acting Area Oil and Gas Supervisor

cc:

Durango (w/cy plan)

NMOCC, Santa Fe (ltr. only)

Com. Pub. Lands, Santa Fe (ltr. only)

← This copy for

JAGillham:dlk

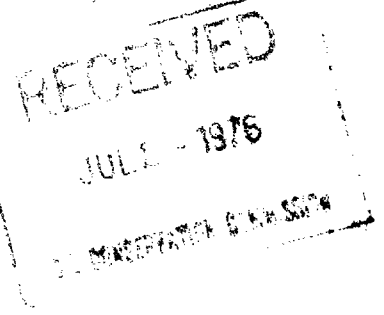


PHIL R. LUCERO
COMMISSIONER

State of New Mexico



Commissioner of Public Lands



P. O. BOX 1148
SANTA FE, NEW MEXICO 87501

June 30, 1976

El Paso Natural Gas Company
P.O. Box 1492
El Paso, Texas 79978

Re: Lindreth Unit I Section No. 713
Rio Arriba County, New Mexico
1976 Drilling Program

ATTENTION: D.W. Canfield

Gentlemen:

The Commissioner of Public Lands has this date approved your 1976 Drilling Program for the Lindreth Unit I Section NO. 713, Rio Arriba County, New Mexico. Such plans call for the drilling of wells 80,86,89, 90, during 1976. This approval is subject to like approval by the United States Geological Survey and the Oil Conservation Commission.

Enclosed is one approved copy for your files.

Please remit a Three (\$3.00) Dollar filing fee.

Very truly yours,

PHIL R. LUCERO
COMMISSIONER OF PUBLIC LANDS

BY:
RAY D. GRAHAM, Director
Oil & Gas Division

PRL/RDG/a
encl. USGS-Roswell, New Mexico
cc: OCC-Santa Fe, New Mexico ✓

El Paso NATURAL GAS
COMPANY

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

September 25, 1975

Regional Oil and Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

Commissioner of Public Lands
State of New Mexico
P. O. Box 1148
Santa Fe, New Mexico 87501

Oil Conservation Commission
State of New Mexico
P. O. Box 2088
Santa Fe, New Mexico 87501

Re: Lindrith Unit Area, I Sec. No. 713
Rio Arriba County, New Mexico
Pictured Cliffs Formation - NOTICE
OF COMPLETION OF ADDITIONAL WELLS

Gentlemen:

Pursuant to Section 10 of the Lindrith Unit Agreement, I Sec. No. 713, approved April 3, 1950, El Paso Natural Gas Company, as Unit Operator, determined on the dates set out below that four (4) additional Pictured Cliffs wells have been completed upon acreage committed to this unit. These wells are as follows:

The Lindrith Unit #81 well, located 1475' from the North line and 800' from the West line of Section 12, Township 24 North, Range 3 West, N.M.P.M., was spudded on July 21, 1975, and completed on September 16, 1975, in the Pictured Cliffs Formation at a total depth of 3329'. The Pictured Cliffs Formation at the intervals 3169', 3170', 3189', 3190', 3233', 3234', 3271' and 3272' was treated with a sand-water fracturing process on August 1, 1975. The well was shut-in on September 4, 1975, and after being shut-in for twelve (12) days the well was tested on September 16, 1975, and following a three (3) hour blow-down period, the Pictured Cliffs Formation gauged 270 MCF/D through a 3/4" choke and 270 MCF/D by the calculated absolute open-flow method, with an SIPC of 1024 psia. The spacing unit for

this well is described as the NW/4 of Section 12, Township 24 North, Range 3 West, containing 160.00 acres.

The spacing unit for this well was included in the Lindrith Unit, Eighth Expanded Pictured Cliffs Participating Area effective July 1, 1958 and the completion of this well does not warrant any further expansion of the Pictured Cliffs Participating Area.

The Lindrith Unit #82 well, located 815' from the North line and 1050' from the East line of Section 13, Township 24 North, Range 3 West, N.M.P.M., was spudded on July 5, 1975, and completed on August 20, 1975, in the Pictured Cliffs Formation at a total depth of 3316'. The Pictured Cliffs Formation at the intervals 3241', 3242', 3251', 3252', 3266', 3267', and 3268' was treated with a sand-water fracturing process on August 1, 1975. The well was shut-in on August 12, 1975, and after being shut-in for eight (8) days the well was tested on August 20, 1975, and following a three (3) hour blow-down period, the Pictured Cliffs Formation gauged 792 MCF/D through a 3/4" choke and 799 MCF/D by the calculated absolute open-flow method, with an SIPC of 847 psia. The spacing unit for this well is described as the NE/4 of Section 13, Township 24 North, Range 3 West, containing 160.00 acres.

The spacing unit for this well was included in the Lindrith Unit, Sixth Expanded Pictured Cliffs Participating Area effective June 1, 1957 and the completion of this well does not warrant any further expansion of the Pictured Cliffs Participating Area.

The Lindrith Unit #83 well, located 990' from the North line and 950' from the West line of Section 13, Township 24 North, Range 3 West, N.M.P.M., was spudded on July 14, 1975, and completed on August 2, 1975, in the Pictured Cliffs Formation at a total depth of 3242'. The Pictured Cliffs Formation at the intervals 3117', 3118', 3155', 3156', 3171', 3172', 3181' and 3182' was treated with a sand-water fracturing process on August 1, 1975. The well was shut-in on August 12, 1975, and after being shut-in for eight (8) days the well was tested on August 20, 1975, and following a three (3) hour blow-down period, the Pictured Cliffs Formation gauged 437 MCF/D through a 3/4" choke and 438 MCF/D by the calculated absolute open-flow method, with an SIPC of 1015 psia. The spacing unit for this well is described as the NW/4 of Section 13, Township 24 North, Range 3 West, containing 160.00 acres.

Regional Oil and Gas Supervisor
Commissioner of Public Lands
Oil Conservation Commission
Page Three

The spacing unit for this well was included in the Lindrith Unit, Third Expanded Pictured Cliffs Participating Area effective September 1, 1956 and the completion of this well does not warrant any further expansion of the Pictured Cliffs Participating Area.

The Lindrith Unit #85 well, located 790' from the North line and 790' from the East line of Section 29, Township 24 North, Range 2 West, N.M.P.M., was spudded on June 29, 1975, and completed on August 20, 1975, in the Pictured Cliffs Formation at a total depth of 3176'. The Pictured Cliffs Formation at the intervals 3024', 3035', 3054', 3068', 3078' and 3090' was treated with a sand-water fracturing process on August 1, 1975. The well was shut-in on August 20, 1975, and after being shut-in for eight (8) days the well was tested on August 20, 1975, and following a three (3) hour blow-down period, the Pictured Cliffs Formation gauged 913 MCF/D through a 3/4" choke and 922 MCF/D by the calculated absolute open-flow method, with an SIPC of 889 psia. The spacing unit for this well is described as the NE/4 of Section 29, Township 24 North, Range 2 West, containing 160.00 acres.

The spacing unit for this well was included in the Lindrith Unit, Second Expanded Pictured Cliffs Participating Area effective August 1, 1956 and the completion of this well does not warrant any further expansion of the Pictured Cliffs Participating Area.

A copy of this letter is being sent to the working interest owners shown on the attached sheet.

Yours very truly,



James R. Permenter
Manager, Land Contracts & Titles
Land Department
Energy Resource Development

JRP:DW:nm
Attachment
Lindrith Unit, 4.1.1

LINDRITH UNIT
WORKING INTEREST OWNERS

Continental Oil Company

Mobil Oil Corporation (3)

Tenneco Oil Company

OIL CONSERVATION COMMISSION
P. O. BOX 2088
SANTA FE NEW MEXICO 87501

159

September 17, 1975

C
O
P
Y

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79978

Attention: Mr. D. N. Canfield

Re: 1975 Revised Drilling Program,
Lindrith Unit, Rio Arriba County,
New Mexico.

Gentlemen:

This is to advise that the New Mexico Oil Conservation Commission has approved the revised Drilling Program for the calendar year 1975 providing for the drilling of those (5) wells carried forward from the 1974 Program with the exception of 80 and 84 and adding Well No. 85 for the Lindrith Unit, Rio Arriba County, 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 program is returned herewith.

Very truly yours,

JOE D. RAMEY
Secretary-Director

JDR/JEK/og

cc: United States Geological Survey
Roswell, New Mexico

Commissioner of Public Lands
Santa Fe, New Mexico

State of New Mexico

~~TELEPHONE~~
505-627-2746

159



PHIL R. LUCERO
COMMISSIONER



Commissioner of Public Lands
September 3, 1973

P. O. BOX 1148
SANTA FE, NEW MEXICO 87501

El Paso Natural Gas Company
P. O. Box 1402
El Paso, Texas 79978

Re: Lindrith Unit
Rio Arriba County, New Mexico
1973 REVISED DRILLING PROGRAM

ATTENTION: M. R. H. Confield

Gentlemen:

The Commissioner of Public Lands has this date approved your Revised 1973 Drilling Program for the Lindrith Unit, Rio Arriba County, New Mexico. Your revised plan proposes the drilling of three wells carried forward from 1974 with the exception of the No. 80 and 84 wells and in addition will drill Well No. 83. This approval is subject to like approval by the United States Geological Survey and the Oil Conservation Commission.

Enclosed is one approved copy of the plan.

Please remit a Three (\$3.00) Dollar filing fee. Also, in the future submit three copies of your plans of development.

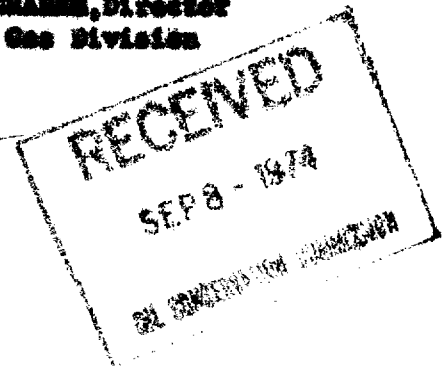
Very truly yours,

PHIL R. LUCERO
COMMISSIONER OF PUBLIC LANDS

BY:
RAY D. GRAMM, Director
Oil and Gas Division

PHL/RDG/a
encl.
cc:

EGCS-Roswell, New Mexico
OGC- Santa Fe, New Mexico



El Paso NATURAL GAS
COMPANY

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

NOV 20 1975
OIL CONSERVATION COMM.
SANTA FE

Regional Oil & Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

Commissioner of Public Lands
State of New Mexico
P. O. Box 1148
Santa Fe, New Mexico 87501

Oil Conservation Commission
State of New Mexico
P. O. Box 2088
Santa Fe, New Mexico 87501

Re: Lindrith Unit I Section No. 713
Rio Arriba County, New Mexico
1975 REVISED DRILLING PROGRAM

Gentlemen:

By letter dated November 11, 1974, El Paso Natural Gas Company, as Unit Operator, filed a Drilling Program regarding the captioned unit for the calendar year 1975. Said Program provided for the drilling of five (5) Pictured Cliffs wells, which were carried forward from the 1974 Drilling Program.

Pursuant to Section 9 of the Lindrith Unit Agreement, El Paso Natural Gas Company, as Unit Operator, hereby respectfully requests the approval of a Revised Drilling Program for the calendar year 1975 providing for the drilling of those wells carried forward from 1974 with the exception of the No. 80 and No. 84 wells and adding the following well:

<u>Well</u>	<u>Spacing Unit</u>	<u>Form</u>
#85	NE/4 Section 29, T-24-N, R-2-W	Pictured Cliffs

Well No. 85 is being drilled within the boundaries of the Lindrith Unit Pictured Cliffs Participating Area.

Regional Oil & Gas Supervisor
Commissioner of Public Lands
Oil Conservation Commission
Page Two

El Paso Natural Gas Company, as Unit Operator, will drill any offset wells required to prevent drainage of unitized substances and any other wells subsequently deemed necessary or which are requested by the Unit Operator and the working interest owners.

If this Revised 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 Revised Drilling Program are being sent to the working interest owners shown below.

Yours very truly,



D. N. Canfield
Director of Land
Energy Resource Development

DNC:DW:nm
Enclosure
Lindrith 3.0, 4.1

cc: Continental Oil Company
Attention: Mr. L. P. Thompson
P. O. Box 460
1001 North Turner
Hobbs, New Mexico 88240

Tenneco Oil Company
Attention: Mr. A. D. Rial
Suite 1200, Lincoln Tower Bldg.
1860 Lincoln Street
Denver, Colorado 80203


Mobil Oil Corporation (3)
Attention: Mr. J. D. Howard
P. O. Box 633
Midland, Texas 79701

APPROVED: _____
Regional Oil & Gas Supervisor
United States Geological Survey
Subject to like approval by the
Commissioner of Public Lands and
the Oil Conservation Commission

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: September 17, 1975

The foregoing approvals are for the 1975 Revised Drilling Program for the
Lindrith Unit, I Sec. No. 713, Rio Arriba County, New Mexico.

LINDRITH UNIT
WORKING INTEREST OWNERS

Continental Oil Company

Mobil Oil Corporation (3)

Tenneco Oil Company

El Paso Natural Gas Company

El Paso, Texas 79978

April 9, 1975

159

Regional Oil and Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

Commissioner of Public Lands
State of New Mexico
P. O. Box 1148
Santa Fe, New Mexico 87501

Oil Conservation Commission
State of New Mexico
P. O. Box 2088
Santa Fe, New Mexico 87501

Re: Lindrith Unit Area, I Sec. No. 713
Rio Arriba County, New Mexico
Pictured Cliffs Formation - NOTICE
OF COMPLETION OF ADDITIONAL WELLS

Gentlemen:

Pursuant to Section 10 of the Lindrith Unit Agreement, I Sec. No. 713, approved April 3, 1950, El Paso Natural Gas Company, as Unit Operator, determined on the dates set out below that four (4) additional wells capable of producing unitized substances in paying quantities from the Pictured Cliffs Formation have been completed upon acreage committed to this unit. These wells are as follows:

The Lindrith Unit #58 well, located 1150 feet from the South line and 990 feet from the West line of Section 20, Township 24 North, Range 2 West, N.M.P.M., was spudded on July 8, 1974, and completed on December 10, 1974, in the Pictured Cliffs Formation at a total depth of 3160 feet. The Pictured Cliffs Formation in the intervals between 3070-3094 feet was treated with a sand-water fracturing process on September 25, 1974. The well was shut-in on November 7, 1974, and after being shut-in for thirty-three (33) days the well was tested on December 10, 1974, and following a three (3) hour blow-down period, the Pictured Cliffs Formation gauged 655 MCF/D through a 3/4" choke and 658 MCF/D by the calculated absolute open-flow method, with an SIPC of 1001 psia.

The spacing unit for this well is described as the SW/4 of Section 20, Township 24 North, Range 2 West, containing 160.00 acres.

The spacing unit for this well was included in the Lindrith Unit, 2nd Expanded Pictured Cliffs Participating Area effective August 1, 1956 and the completion of this well does not warrant any further expansion of the Pictured Cliffs Participating Area.

The Lindrith Unit #77 well, located 900 feet from the South line and 1700 feet from the West line of Section 12, Township 24 North, Range 3 West, N.M.P.M., was spudded on July 3, 1974, and completed on November 12, 1974, in the Pictured Cliffs Formation at a total depth of 3374 feet. The Pictured Cliffs Formation in the intervals between 3306-3334 feet was treated with a sand-water fracturing process on September 25, 1974. The well was shut-in on November 5, 1974, and after being shut-in for seven (7) days the well was tested on November 12, 1974, and following a three (3) hour blow-down period, the Pictured Cliffs Formation gauged 1048 MCF/D through a 3/4" choke and 1060 MCF/D by the calculated absolute open-flow method, with an SIPC of 997 psia. The spacing unit for this well is described as the SW/4 of Section 12, Township 24 North, Range 3 West, containing 160.00 acres.

The spacing unit for this well was included in the Lindrith Unit, 8th Expanded Pictured Cliffs Participating Area effective July 1, 1958 and the completion of this well does not warrant any further expansion of the Pictured Cliffs Participating Area.

The Lindrith Unit #78 well, located 800 feet from the South line and 1840 feet from the East line of Section 11, Township 24 North, Range 3 West, N.M.P.M., was spudded on July 2, 1974, and completed on October 15, 1974, in the Pictured Cliffs Formation at a total depth of 3230 feet. The Pictured Cliffs Formation in the intervals between 3114-30 feet, 3154-66 feet, and 3174-84 feet was treated with a sand-water fracturing process on September 25, 1974. The well was shut-in on October 8, 1974, and after being shut-in for seven (7) days the well was tested on October 15, 1974, and following a three (3) hour blow-down period, the Pictured Cliffs Formation gauged 201 MCF/D through a 3/4" choke and 202 MCF/D by the calculated absolute open-flow method, with an SIPC of 822 psia. The spacing unit for this well is described as the SE/4 of Section 11, Township 24 North, Range 3 West, containing 160.00 acres.

Regional Oil and Gas Supervisor
Commissioner of Public Lands
Oil Conservation Commission
April 9, 1975
Page 3


The spacing unit for this well was included in the Lindrith Unit, 8th Expanded Pictured Cliffs Participating Area effective July 1, 1958 and the completion of this well does not warrant any further expansion of the Pictured Cliffs Participating Area.

The Lindrith Unit #79 well, located 1460 feet from the South line and 1840 feet from the West line of Section 18, Township 24 North, Range 2 West, N.M.P.M., was spudded on July 5, 1974, and completed on October 15, 1974, in the Pictured Cliffs Formation at a total depth of 3271 feet. The Pictured Cliffs Formation in the intervals between 3146-52 feet and 3162-72 feet was treated with a sand-water fracturing process on September 25, 1974. The well was shut-in on October 8, 1974, and after being shut-in for seven (7) days the well was tested on October 15, 1974, and following a three (3) hour blow-down period, the Pictured Cliffs Formation gauged 999 MCF/D through a 3/4" choke and 1011 MCF/D by the calculated absolute open-flow method, with and SIPC of 903 psia. The spacing unit for this well is described as the Lots 3, 4, E/2 SW/4 (SW/4) of Section 18, Township 24 North, Range 2 West, containing 151.92 acres.

The spacing unit for this well was included in the Lindrith Unit, 2nd Expanded Pictured Cliffs Participating Area effective August 1, 1956 and the completion of this well does not warrant any further expansion of the Pictured Cliffs Participating Area.

A copy of this letter is being sent to the working interest owners shown on the attached sheet.

Yours very truly,


James R. Permenter
Supervising Landman
Land Department
Energy Resource Development

JRP:DW:nm
Attachment
Lindrith Unit, 4.1.1

WORKING INTEREST OWNERS
Lindrieth Unit

Continental Oil Company

Mobil Oil Corporation (3)

Tenneco Oil Company

El Paso Natural Gas Company

El Paso, Texas 79978

RECEIVED
MAR 21 1975
OIL CONSERVATION COMM.
SANTA FE

March 21, 1975

159

Regional Oil & Gas Supervision
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

Commissioner of Public Lands
State of New Mexico
P. O. Box 1148
Santa Fe, New Mexico 87501

Oil Conservation Commission
State of New Mexico
P. O. Box 2088
Santa Fe, New Mexico 87501

Re: 1975 Drilling Programs

Gentlemen:

The 1975 Drilling Programs for the listed units were approved by the regulatory bodies on the dates indicated.

APPROVAL

<u>Unit</u>	<u>USGS</u>	<u>CPL</u>	<u>OCC</u>
San Juan 27-4	12-2-74	N/A	12-5-74
San Juan 28-4	12-2-74	N/A	12-5-74
San Juan 29-4	12-18-74	N/A	12-4-74
San Juan 29-7	1-6-75	12-3-74	12-5-74
San Juan 30-6	1-6-75	12-3-74	12-5-74
San Juan 32-5	1-6-75	11-1-74	12-5-74
Huerfanito	1-6-75	11-12-74	12-5-74
Huerfano	1-15-75	12-27-74	1-8-75
✓ Lindrith	12-18-74	11-18-74	12-5-74
Rincon	1-6-75	12-3-74	12-5-74

COPY

SCHEDULE XX
NINETEENTH EXPANDED PARTICIPATING AREA FOR THE PICTURED CLIFFS FORMATION
LINDRITH UNIT AREA

RECEIVED

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

STATE LAND OFFICE
SANTA FE, N.M.

TRACT 2

SF 078908	T-24-N, R-2-W	227.88		12.50%	12.50%	<u>2.003052%</u>
	Sec. 18: Lots 1,2,4, E/2 NW/4, SE/4 SW/4		Royalty; Working Interest; El Paso Natural Gas Co.; ORRI;	75.00% 12.50% <u>100.00%</u>	75.00% 12.50% <u>100.00%</u>	
	TOTAL					

TRACT 3

SF 078909	T-24-N, R-2-W	1504.29		12.50%	12.50%	<u>13.222621%</u>
	Sec. 19: Lots 3,4, E/2 SW/4, SE/4		Royalty; Working Interest; El Paso Natural Gas Co.; ORRI;	75.00% 12.50% <u>100.00%</u>	75.00% 12.50% <u>100.00%</u>	
	Sec. 20: A11					
	Sec. 21: SW/4					
	Sec. 30: Lots 1,2, E/2 NW/4, NE/4					
	T-24-N, R-3-W					
	Sec. 24: E/2 SE/4		TOTAL			

TRACT 4

SF 078910	T-24-N, R-2-W	2056.53		12.50%	12.50%	<u>18.076778%</u>
	Sec. 28: NE/4 N/2 NW/4		Royalty; Working Interest; El Paso Natural Gas Co.; ORRI;	75.00% 12.50% <u>100.00%</u>	75.00% 12.50% <u>100.00%</u>	
	Sec. 29: NE/4					
	Sec. 30: Lots 3,4, E/2 SW/4, SE/4					
	Sec. 31: Lots 1,2,3,4, E/2 W/2, E/2					
	Sec. 32: SE/4, W/2					
	T-24-N, R-3-W		TOTAL			
	Sec. 24: SW/4, W/2 SE/4					

UNIT AREA EXPANSION SCHEDULE — SAN JUAN BASIN

Form 21-71 (2-72)

SCHEDULE XX

SERIAL NUMBER	DESCRIPTION	NUMBER OF ACRES	DRILLING BLOCK		PERCENTAGE COMMITTED	PRESENT ACT PARTICIPATION
			OWNERSHIP	PERCENTAGE		
TRACT 6						
SF 078912	T-24-N, R-3-W	2000.00	Royalty;	12.50%	12.50%	17.579883%
	Sec. 10: S/2		Working Interest;			
	Sec. 11: E/2		El Paso Natural Gas Co.;	75.00%	75.00%	
	Sec. 12: SW/4, NW/4 NW/4, SE/4		ORRI;	12.50%	12.50%	
			TOTAL	100.00%	100.00%	
	Sec. 13: S/2 SE/4, NW/4 SE/4					
	Sec. 13: E/2 NW/4, NW/4					
		NW/4, S/2 SW/4,				
		NE/4				
	Sec. 14: E/2, S/2 SW/4					
	Sec. 24: NW/4, W/2 NE/4,					
	SE/4 NE/4					
TRACT 7						
SF 078913	T-24-N, R-3-W	2080.00	Royalty;	12.50%	12.50%	18.283078%
	Sec. 15: All		Working Interest;			
	Sec. 16: All		El Paso Natural Gas Co.;	75.00%	75.00%	
	Sec. 21: W/2, NE/4		ORRI;	12.50%	12.50%	
	Sec. 22: N/2		TOTAL	100.00%	100.00%	
TRACT 8						
SF 078914	T-24-N, R-3-W	640.00	Royalty;	12.50%	12.50%	5.625563%
	Sec. 25: All		Working Interest;			
			El Paso Natural Gas Co.;	75.00%	75.00%	
			ORRI;	12.50%	12.50%	
			TOTAL	100.00%	100.00%	

SCHEDULE XX

SERIAL NUMBER	DESCRIPTION	NUMBER OF ACRES	DRILLING BLOCK		PERCENTAGE COMMITTED	PRESENT ACT- PARTICIPATION
			OWNERSHIP	PERCENTAGE		
SF 078915	T-24-N, R-3-W	640.00				
	Sec. 23: NW/4, E/2		Royalty;	12.50%	12.50%	<u>5.625562%</u>
	Sec. 36: NE/4		Working Interest;			
			El Paso Natural Gas Co.;	75.00%	75.00%	
			ORRI;	12.50%	12.50%	
			TOTAL	<u>100.00%</u>	<u>100.00%</u>	
			<u>TRACT 9</u>			
Patented	T-24-N, R-2-W	*160.00				
	Sec. 29: NW/4		Royalty;	9.375%	6.250%	<u>1.054793%</u>
	*Undivided 120.00		Working Interest;			
	net acres committed		El Paso Natural Gas Co.;	56.250%	56.250%	
			Felmont Oil Co.;	25.000%	.000%	
			ORRI;	<u>9.375%</u>	<u>9.375%</u>	
			TOTAL	<u>100.000%</u>	<u>71.875%</u>	
			<u>TRACT 13-B</u>			
Patented	T-24-N, R-2-W	*80.00				
	Sec. 28: S/2 NW/4		Royalty;	6.250%	6.250%	<u>.351598%</u>
	*Undivided 40.00		Working Interest;			
	net acres committed		El Paso Natural Gas Co.;	37.500%	37.500%	
			Felmont Oil Co.;	12.500%	.000%	
			Jane P. Guild;	.625%	.000%	
			M. Dodge;	.312%	.000%	
			Wilb & Co.;	25.000%	.000%	
			C. W. Gillette;	6.250%	.000%	
			James S. Gardner;	4.688%	.000%	
			Augustus P. Loring, III;	.625%	.000%	
			ORRI;	<u>6.250%</u>	<u>6.250%</u>	
			TOTAL	<u>100.000%</u>	<u>50.000%</u>	

SCHEDULE XX

SERIAL NUMBER	DESCRIPTION	NUMBER OF ACRES	DRILLING BLOCK		PERCENTAGE COMMITTED	PRESENT ACTING PARTICIPATION
			OWNERSHIP	PERCENTAGE		
Patented	T-24-N, R-2-W	75.96				
	Sec. 18: Lot 3, NE/4 SW/4		Royalty; Working Interest; El Paso Natural Gas Co.; ORRI;	12.50%	12.50%	.667684%
			TOTAL	75.00% 12.50% <u>100.00%</u>	75.00% 12.50% <u>100.00%</u>	
			TRACT 16			
Patented	T-24-N, R-3-W	640.00				
	Sec. 9: All		Royalty; Working Interest; El Paso Natural Gas Co.; ORRI;	12.50%	12.50%	5.625562%
			TOTAL	75.00% 12.50% <u>100.00%</u>	75.00% 12.50% <u>100.00%</u>	
			TRACT 17			
Patented	T-24-N, R-2-W	311.98				
	Sec. 19: Lots 1,2, E/2 NW/4, NE/4		Royalty; Working Interest; El Paso Natural Gas Co.; ORRI;	12.50%	6.25%	2.742286%
			TOTAL	75.00% 12.50% <u>100.00%</u>	75.00% 12.50% <u>93.75%</u>	
			TRACT 18			
Patented	T-24-N, R-3-W	320.00				
	Sec. 13: SW/4 NW/4, N/2 S/2, S/2 SE/4		Royalty; Working Interest; El Paso Natural Gas Co.; ORRI;	12.50%	12.50%	2.812781%
	Sec. 24: NE/4 NE/4		TOTAL	75.00% 12.50% <u>100.00%</u>	75.00% 12.50% <u>100.00%</u>	
			TRACT 19			

SCHEDULE XX

SERIAL NUMBER	DESCRIPTION	NUMBER OF ACRES	DRILLING BLOCK		PERCENTAGE COMMITTED	PRESENT ACTUAL PARTICIPATION
			OWNERSHIP	PERCENTAGE		
Patented	T-24-N, R-2-W Sec. 9: NW/4	160.00	Royalty; Working Interest; El Paso Natural Gas Co.; ORRI; TOTAL	12.50%	12.50%	<u>1.406391%</u>
				81.25%	81.25%	
				6.25%	6.25%	
				<u>100.00%</u>	<u>100.00%</u>	
				<u>TRACT 22</u>		
Patented	T-24-N, R-3-W Sec. 14: NW/4, N/2 SW/4	240.00	Royalty; Working Interest; El Paso Natural Gas Co.; ORRI; TOTAL	12.50%	00.00%	<u>2.109586%</u>
				75.00%	75.00%	
				12.50%	12.00%	
				<u>100.00%</u>	<u>87.00%</u>	
				<u>TRACT 24</u>		
Patented	T-24-N, R-2-W Sec. 21: NW/4	160.00	Royalty; Working Interest; El Paso Natural Gas Co.; ORRI; TOTAL	12.50%	3.125%	<u>1.406391%</u>
				75.00%	75.000%	
				12.50%	12.500%	
				<u>100.00%</u>	<u>90.625%</u>	
				<u>TRACT 25</u>		
Patented	T-24-N, R-3-W Sec. 12: NE/4 SE/4, S/2 NW/4, NE/4 NW/4	160.00	Royalty; Working Interest; El Paso Natural Gas Co.; ORRI; TOTAL	12.50%	12.50%	<u>1.406391%</u>
				75.00%	75.00%	
				12.50%	12.50%	
				<u>100.00%</u>	<u>100.00%</u>	
				<u>TRACT 27</u>		

SCHEDULE XX
THE PICTURED CLIFFS FORMATION
NINETEENTH EXPANDED PARTICIPATING AREA FOR
LINDRITH UNIT AREA

RECAPITULATION

Description of Lands in Participating Area;

Township 24 North, Range 2 West, N.M.P.M.

Section 9: NW/4
Section 18: Lots 1,2,3,4, E/2 W/2 (W/2)
Section 19: Lots 1,2,3,4, E/2 W/2, E/2 (A11)
Section 20: A11
Section 21: W/2
Section 28: N/2
Section 29: N/2
Section 30: Lots 1,2,3,4, E/2 W/2, E/2 (A11)
Section 31: Lots 1,2,3,4, E/2 W/2, E/2 (A11)
Section 32: SE/4, W/2

Township 24 North, Range 3 West, N.M.P.M.

Section 9: A11
Section 10: S/2
Section 11: E/2
Section 12: SE/4, W/2
Section 13: A11
Section 14: A11
Section 15: A11
Section 16: A11
Section 21: W/2, NE/4
Section 22: N/2
Section 23: N/2, SE/4
Section 24: A11
Section 25: A11
Section 36: NE/4

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

11,456.64
11,376.64

EXHIBIT "B"

GEOLOGICAL REPORT CONCERNING

THE NINETEENTH EXPANSION

OF THE PICTURED CLIFFS FORMATION IN THE

EL PASO NATURAL GAS COMPANY

LINDRITH UNIT

EL PASO NATURAL GAS COMPANY

By: R. F. Lemon
R. F. Lemon, Director
Reservoir Engineering Dept.

EXHIBIT "B"

GEOLOGICAL SUMMARY PERTAINING TO THE NINETEENTH EXPANSION OF THE PICTURED CLIFFS PARTICIPATING AREA WITHIN THE LINDRITH UNIT

GENERAL INFORMATION

The Pictured Cliffs formation within the Lindrith Unit of Rio Arriba County, New Mexico is of upper Cretaceous age and is considered to be predominantly sandstone deposited in bands of varying widths. These bands have a northwest-southeast trend and are separated by zones of shaly sandstones and/or bentonitic sandstones. The Pictured Cliffs formation is erratic in development and abrupt "shale-out" of the sand can occur as well as rapid local thickening. This can cause great variance in well potentials as evidenced in the Lindrith Unit Area. Enclosed with this report is a structure map, Exhibit "C," Figure No. 1, and an isopach map as Exhibit "C," Figure No. 2.

NINETEENTH EXPANSION

Effective Date: September 1, 1973

Lindrith No. 76

SW/4 Section 25, T-24-N, R-3-W

This well was tested on August 27, 1973 for an initial potential of 1698 Mcf/D and an AOF of 1762 Mcf/D. On the basis of this test, the acreage is proven commercial and should be admitted to the Participating Area. This is further substantiated by the Isopach map, Exhibit "C," Figure No. 2, which shows the above acreage to be located on the established trend of commercial production and to have an average net pay of greater than 10 feet.