

Northwest Pipeline Corporation



ONE PARK CENTRAL
SUITE 1487
DENVER, COLORADO 80202
303-623-9303

March 25, 1976

To All Dakota Working Interest Owners:

Re: San Juan 29-6 Unit
Proposed Initial Dakota "A"
Participating Area
Effective December 31, 1974

On February 6, 1976, Northwest Pipeline Corporation, as Unit Operator of the San Juan 29-6 Unit, submitted for approval of all working interest owners our recommendation that application be made to the regulatory agencies for approval of the Initial Dakota Participating Area "A", covering the S $\frac{1}{2}$ and NW $\frac{1}{4}$ Section 31-29N-6W. This proposal was based on the completion of the San Juan 29-6 Unit #106 Well in the S $\frac{1}{2}$ Section 31-29N-6W.

By letter of March 6, 1976, El Paso Natural Gas Company advised Northwest they do not approve of the establishment of the "A" Participating Area for the Dakota Formation. All working interest owners of the San Juan 29-6 Unit received a copy of El Paso's letter.

All remaining working interests responding to our letter of February 6 concurred in our recommendation. We do need the consent of all Dakota interest owners prior to filing the Application with the regulatory agencies.

Pursuant to Section 7 of the San Juan 29-6 Unit Operating Agreement, Northwest Pipeline Corporation, as Unit Operator, is hereby polling all Dakota working interest owners for a decision on our recommended course of action.

The creation of the Proposed Initial Dakota Participating Area "A" is based upon the completion by Northwest Pipeline Corporation of the San Juan 29-6 Unit No. 106 well which is located 800 feet from the south line and 990 feet from the west line, Section 31, Township 29 North, Range 6 West, N.M.P.M., Rio Arriba County, New Mexico. The well was spudded on December 8, 1974 and completed

December 31, 1974 in the Dakota Formation at a drilled total depth of 8100 feet and a cleaned out total depth of 8050 feet. The "Dakota Producing Interval" was perforated in four (4) zones with eighteen holes per zone. The zones are: 7882'-7894', 7902'-7908' and 7922'-7928' and 7998'-8016'. These zones were perforated after spotting 300 gallons of 7-½% hydrochloric acid. The gross interval from 7882 feet to 8016 feet was hydraulically fractured with 50,000 pounds of 20/40 sand and 51,450 gallons of treated water followed by a flush of 128 barrels of water. During the Treatment, three (3) sets of eighteen (18) 7/8 inch RCN balls were dropped. The well was shut-in on December 24, 1974 and tested on December 31, 1974 for three hours through a 0.75 inch choke on the 4-½ inch casing. The test results were:

Shut-In	7 days
SIPC	2,522 psia
SIPT	2,515 psia
FPC	291 psia
WPT	468 psia
Choke Volume	3,718 MCF/D @ 15.025 psia
Absolute Open Flow	3,817 MCF/D @ 15.025 psia

The establishment of the Proposed Initial Dakota Participating Area "A" is predicated upon the following facts and geologic inferences.

1. The San Juan 29-6 Unit No. 106 well is located 2 1/4 miles west of the boundary of the present Dakota Participating Area, hereafter referred to as Area No. 1, and 2 3/4 miles west of the nearest commercial Dakota completion, Well. No. 87, NE/4 Section 33.

2. Four (4) non-commercial Dakota wells define the western boundary of the Area No. 1. These wells are:

<u>Well No. & Location</u>	<u>Date of 1st Delivery</u>	<u>12/1/75 Cumulative Production</u>
No. 94 - SW¼, Section 16	1/24/66	222,761 MCF
No. 47 - NE¼, Section 28	1959 (Temporarily Abandoned October 1961)	80,209 MCF
No. 105 - SW¼, Section 28	6/26/73	26,207 MCF
No. 88 - SW¼, Section 33	7/16/65	368,844 MCF

3. The San Juan 29-6 Unit No. 106 well should have producing characteristics similar to the west and south offset wells in San Juan 29-7 Unit and San Juan 28-6 Unit. A summary of the production history of these commercial wells follows:

San Juan 29-7 Unit No. 105

NE $\frac{1}{4}$, 36-29N-7W

Date of First Delivery: January, 1974

1/1/76 Cumulative Production: 215,809 MCF

Days Produced: 345

Average Daily Production: 626 MCF/D

San Juan 29-7 Unit No. 106

SW $\frac{1}{4}$, 36-29N-7W

Date of First Delivery: September, 1973

1/1/75 Cumulative Production: 220,493 MCF

Days Produced: 324

Average Daily Production: 681 MCF/D

San Juan 28-6 Unit No. 184

SW $\frac{1}{4}$, 7-28N-6W

Date of First Delivery: September, 1973

1/1/75 Cumulative Production: 235,692 MCF

Days Produced: 296

Average Daily Production: 796 MCF/D

4. The lenticularity of the sandstone members of the "Dakota Producing Interval" and the rapid lateral changes in porosity, permeability and effective porosity of the same member have been recognized for many years. The forty feet of net reservoir sand ascribed to San Juan 29-6 Unit No. 106 well is found in the Graneros and Dakota "A" zones. The Graneros net sand decreases both eastward and northeastward from well No. 106. The Dakota "A" net sand decreases northeasterly and increases slightly to the east of well No. 106. Present data does not justify the inference that the acreage intervening between the present participating Area and the proposed participating Area "A" is capable of producing unitized substances in paying quantities.

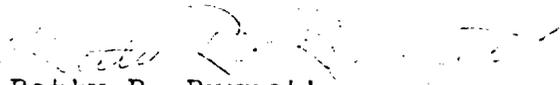
San Juan 29-6 Unit No. 106 well is a commercial completion and the surrounding acreage should be in a Dakota Participating Area. The Proposed Initial Dakota Participating Area "A" effective as of the date of first production, should be established at this time for well No. 106. If future development in the western portion of the unit should prove that the existing Dakota Participating Area and Area "A" should be combined into one, then this may be done in accordance with the conditions as stated on Page 14 of the San Juan 29-6 Unit Agreement.

To All Dakota Working Interest Owners
March 25, 1976
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Please advise Northwest of your recommendation on this matter within ten (10) days by indicating your recommendation in the space provided below and return one (1) copy of this letter to this office.

Yours very truly,

NORTHWEST PIPELINE CORPORATION


Betty R. Burnett
Supervisor of Contracts and Units

BRB:sjm

Enclosure

cc: United States Geological Survey
Post Office Drawer 1857
Roswell, New Mexico 88201

CONCUR _____

DO NOT CONCUR _____

THIS _____ DAY OF _____, 1976

BY: _____

Union Oil and Gas Division: Central Region
Southern Rocky Mountain District

Union Oil Company of California
P.O. Box 3279, Casper, Wyoming 82601
Telephone: (307) 234-1563

union



March 16, 1976

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

Attn: Mr. D. N. Canfield

Re: San Juan 29-6 Unit
Proposed Initial Dakota "A"
Participating Area
Rio Arriba County, New Mexico

Gentlemen:

Reference is made to your letter of March 5, 1976, in which you advised that the Unit Agreement does not provide for the establishment of the "A" Participating Area for the Dakota Formation; also that the completion of the # 106 Well should cause the Eleventh Dakota Expansion.

It appears that there may be different interpretations of the provisions in Section 11 (b) (Participation after discovery, from Formations Below the Mesaverde) 29-6 Unit Agreement, which provides:

1. Upon completion of a well capable of producing unitized substances from formations lying below the base of the Mesaverde in paying quantities, the Unit Operator shall submit a schedule of all unitized land then regarded as reasonably proved to be productive of unitized substances in paying quantities, which, when approved will constitute a participating area;
2. A separate participating area shall be established in like manner for each separate pool or deposit of unitized substances or for any group thereof produced as a single pool or zone, and any two or more participating areas so established may be combined into one with the consent of the owners of all working interests in the lands within the participating areas so to be combined, on approval of the Director, Commissioner and the Commission.

The participating area or areas so established shall be revised from time to time, subject to like approval whenever such action appears proper as a result of further drilling operations or otherwise, to include additional land then regarded as reasonably proved to be productive in paying quantities, etc.;

El Paso Natural Gas Company
March 16, 1976
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3. It is the intent of this subsection (b) that a participating area shall represent the area known or reasonably estimated to be productive in paying quantities;
4. A well drilled under this agreement, which is not capable of production in paying quantities, will not warrant the land on which the well is drilled to be included in a participating area unless that land is already within a participating area.

In view of the above provisions and since the acreage between the existing Dakota Participating Area and Well # 106 is not reasonably proved to be productive in paying quantities why can't you establish Participating Area "A" around Well No. 106 which is reasonably proved productive?

If the acreage (in excess of 2 miles) between the Existing Dakota Participating Area and Well # 106 is not reasonably proved productive in paying quantities how can you expand the existing Dakota Participating Area to include acreage not reasonably proved to be productive in paying quantities?

Very truly yours,

R. H. Massey
R. H. Massey
District Land Manager

RHM:jw

cc: Northwest Pipeline Corporation
cc: Mr. Harold Simpson
cc: Mr. Dave George

3/18/76

cc: Carey Lachey
Phillips Petroleum Co.
c/o Joe Henderson

March 5, 1976

Northwest Pipeline Corporation
One Park Central, Suite 1487
Denver, Colorado 80202

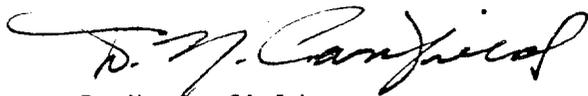
Re: San Juan 29-6 Unit
Proposed Initial Dakota "A"
Participating Area, Effective
December 31, 1974

Gentlemen:

Please refer to your letter of February 6, 1976 regarding the referenced proposed expansion.

El Paso Natural Gas Company does not approve of the establishment of the "A" Participating Area for the Dakota Formation, as the Unit Agreement does not provide for this. Section 11 b of the Unit Agreement provides that a separate participating area be established for each separate pool or deposit of unitized substances or for any group thereof produced as a single pool or zone. Since the Dakota pool in the San Juan 29-6 Unit has an existing participating area, from which production is obtained, the completion of the #106 well should cause the Eleventh Dakota Expansion, effective December 1, 1974.

Yours very truly,



D. N. Canfield
Director of Land
Energy Resource Development

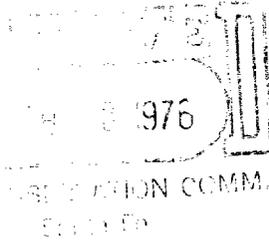
DNC:nm
SJ 29-6, 4.3, 5.0

cc: San Juan 29-6 Unit Working Interest Owners
United States Geological Survey - Roswell
Mr. John Ahlm

Northwest Pipeline Corporation



ONE PARK CENTRAL
SUITE 1487
DENVER, COLORADO 80202
303-623-9303



February 11, 1976

Mr. Carl C. Traywick
Acting Area Oil and Gas Supervisor
United States Geological Survey
Post Office Drawer 1857
Roswell, New Mexico 88201

Commissioner of Public Lands
State of New Mexico
Attention: Mr. Ray D. Graham
Post Office Box 1148
Santa Fe, New Mexico 87501

Oil Conservation Commission
State of New Mexico
Attention: Mr. Joe Ramey
Post Office Box 2088
Santa Fe, New Mexico 87501

Gentlemen:

Re: San Juan 29-6 Unit #14-08-001-439
NOTICE OF COMPLETION OF
ADDITIONAL MESAVERDE WELL

Pursuant to Section 11 (a) of the San Juan 29-6 Unit Agreement, approved December 5, 1952, Northwest Pipeline Corporation, as Unit Operator, has determined that the following well capable of producing unitized substances in paying quantities has been completed upon acreage committed to the Unit:

The San Juan 29-6 Unit No. 29A well is located 1490' from the West Line and 1820' from the North Line, Section 3, Township 29 North, Range 6 West, N.M.P.M. Rio Arriba County, New Mexico. This well was spudded on November 16, 1975 and completed on December 1, 1975 in the Mesaverde Formation at a plug back total depth of 5741'. The Mesaverde Formation was perforated with

Acting Area Oil and Gas Supervisor
Commissioner of Public Lands
Oil Conservation Commission
February 11, 1976
Page 2

one hole at each of the following intervals:
5140', 5146', 5152', 5158', 5164', 5180', 5184',
5236', 5242', 5268', 5274', 5284', 5470', 5476',
5480', 5498', 5504', 5510', 5516', 5522', 5528',
5544', 5550', 5556', 5562', 5568', 5574', 5580',
and 5588'. These perforations were treated with
7-1/2% hydrochloric acid, followed by a sand-
water fracturing. The well was shut-in December 10,
1975 for seven (7) days with a SIPT of 525 psig
and a SIPC of 523 psig. On December 17, 1975 the
well was tested and after flowing for 3 hours
through a 3/4 inch variable choke on the 2-3/8
inch tubing, the well gauged 1993 MCF/d with a
calculated A.O.F. of 4299 MCF/d.

Since the entire San Juan 29-6 Unit Area participates in the Mesaverde Participating Area, the Participating Area is not enlarged by virtue of this infill well, and the percentage of participation remains the same.

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

Very truly yours,

NORTHWEST PIPELINE CORPORATION



Betty R. Burnett
Supervisor of Contracts and Units

BRB:sjm
enclosures

SAN JUAN 29-6 UNIT

Working Interest Owners

Amoco Production Company
Attention: Mr. T. M. Curtis
Security Life Building
Denver, CO 80202

American Petrofina Company
of Texas
P. O. Box 2159
Dallas, TX 75221

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

General American Oil Company
of Texas
Attention: Mr. L. E. Dooley
Meadows Building
Dallas, TX 75206

Mr. Tom Bolack
1010 North Dustin Drive
Farmington, NM 87401

Mr. James E. McElvain, Executor
for the Estate of Carl R.
McElvain, Deceased
309 West Jefferson Street
Morris, IL 60450

Koch Industries, Inc.
P. O. Box 2256
Wichita, KS 67201

James J. Johnston
2635 Exxon Building
Houston, TX 77002

Phillips Petroleum Company
Attention: Mr. N. N. Beckner
1000 Security Life Building
Denver, CO 80202

Mr. J. William McElvain
310 East Jefferson Street
Morris, IL 60450

Atlantic Richfield Company
Mr. W. A. Walther, Jr.
1860 Lincoln Street
501 Lincoln Tower Building
Denver, CO 80203

Aztec Oil & Gas Company
Attention: Mr. H. L. Snider, Jr.
2000 First National Bank Building
Dallas, TX 75202

Mrs. Veva Jean Gibbard
P. O. Box 436
Sulphur, OK 73086

First National Bank of Ft. Worth
Trustee U/A/W/ Eula May Johnston
P. O. Box 2546
Fort Worth, TX 76101

Beta Development Company
Attention: Mr. John Hampton
P. O. Box 1659
Midland, TX 79701

Mrs. Catherine B. McElvain
Individually and as Executrix of the
Estate of T. H. McElvain, Deceased
Box 2148
Santa Fe, NM 87501

V. A. Johnston Family Trust
P. O. Box 925
Ralls, TX 79357

Southern Union Production Company
Suite 1700 Campbell Centre
8350 North Central Expressway
Dallas, TX 75206

National Cooperative Refinery Assoc.
404 Lincoln Tower Building
Denver, CO 80202

J. Glenn Turner, Jr., Independent Co-
Executor of Estate of J. Glenn Turner,
Deceased
1700 Mercantile Bank Building
Dallas, TX 75201

SAN JUAN 29-6 UNIT

Working Interest Owners, continued

Mabelle M. Miller,
Individually & as Independent
Executrix of the Estate of
Forrest B. Miller
1224 Lois Street
P. O. Box 1445
Kerrville, TX 78028

Union Texas Petroleum
A Division of Allied Chemical
Corporation
Attention: Donald B. Wells
Suite 1122 Lincoln Tower
1860 Lincoln Street
Denver, CO 80203

Mrs. Ruth M. Vaughn
300 Caversham Road
Bryn Mawr, PA 19010

Union Texas Petroleum
A Division of Allied Chemical Corp.
Attention: Mr. W. L. Hixon
P. O. Box 2120
Houston, TX 77001

Texas Pacific Oil Company, Inc.
Attention: Mr. L. B. Jeffers
1700 One Main Place
Dallas, TX 75250

Union Oil Company of California
Attention: Mr. Harold Simpson
District Operations Manager
P. O. Box 2620
Casper, WY 82601

The Wiser Oil Company
P. O. Box 192
Sistersville, WV 26175

Northwest Pipeline Corporation



ONE PARK CENTRAL
SUITE 1487
DENVER, COLORADO 80202
303-623-9303

February 6, 1976

To All Working Interest Owners:

Re: San Juan 29-6 Unit
Rio Arriba County, New Mexico
PROPOSED APPLICATION FOR
THE INITIAL DAKOTA PARTICIPATING
AREA "A" Effective December 31, 1974

Northwest Pipeline Corporation, as Unit Operator of the San Juan 29-6 Unit, has determined that the following Dakota well drilled and completed outside the limits of the existing Dakota Participating Area is capable of producing unitized substances in paying quantities from the Dakota Formation:

<u>Well Name</u>	<u>Location</u>	<u>Test Date</u>	<u>Potential</u>
San Juan 29-6 Unit #106	S/2 Sec. 31-29N-6W	12-31-74	3,817 MCF/D AOF

This well is located 2-1/4 miles West of the boundary of the present Dakota Participating Area and 3-3/4 miles West of the nearest commercial Dakota completion, Well No. 87 in the NE/4 Section 33. Based on the results of the above test and related geological data it appears the San Juan 29-6 Unit Well No. 106 should have producing characteristics similar to the West and South offset wells in the San Juan 29-7 Unit and San Juan 29-8 Unit.

Northwest Pipeline Corporation, as Unit Operator, therefore recommends that application be made to the proper regulatory agencies for approval of the Initial Dakota Participating Area "A" as follows:

Initial Dakota Participating Area "A" -- Effective
December 31, 1974

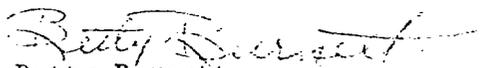
Township 29 North, Range 6 West, N. M. P. M.
Section 31: S/2, NW/4

Containing 480 acres, more or less.

To All Working Interest Owners
February 6, 1976
Page 2

If this proposed Initial Dakota Participating Area "A" of the San Juan 29-6 Unit meets with your approval, please so indicate by executing and returning one (1) copy to this office.

Very truly yours,



Betty Burnett
Supervisor of Contracts and Units

BRB:sjm
enclosure

INITIAL DAKOTA PARTICIPATING
AREA "A" FOR THE SAN JUAN
29-6 UNIT APPROVED THIS _____
DAY OF _____, 1976

BY: _____