

SAN JUAN GAS CORPORATION

EXHIBIT NO. 7

CASE NO. 1066

MAY 16, 1956

FOSTER MORRELL
PETROLEUM CONSULTANT
NICKSON HOTEL BUILDING
ROSWELL, NEW MEXICO

May 9, 1956

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The Director
U. S. Geological Survey
Department of the Interior
Washington, D. C.

Re: Area, Drilling Program, and
Form of Unit Agreement
Gavilan Unit, Rio Arriba County
New Mexico.

Dear Sir:

Pursuant to the regulations of December 22, 1950, 30 C.F.R. 226.3 and 226.4, San Juan Gas Corporation, 1716 First National Building, Tulsa, Oklahoma, hereby applies for designation of the following-described lands as an area logically subject to development under a unit agreement, to be known as the Gavilan Unit:

New Mexico Principal Meridian

Township 24 North, Range 2 West

Sections 1 and 2:	All
Section 3:	E/2, E/2 W/2
Section 10:	E/2
Sections 11 through 14, incl.:	All
Section 15:	E/2
Section 22:	E/2
Sections 23 through 27, incl.:	All
Section 33:	S/2
Sections 34 through 36, incl.:	All

Township 25 North, Range 2 West

Sections 1 through 30, incl.:	All
Sections 33 through 36, incl.:	All

containing 30,244.18 acres, more or less.

The described area adjoins to the north and east the approved Lindrith Unit Area in which discoveries of gas in paying quantities have been made in the Pictured Cliffs formation and oil in quantities not sufficient to justify the establishment of a participating area was found in the Dakota formation.

The subject lands are located on and are a part of a monoclinial dip slope to the west and northwest in the extreme southeastern portion of the geologic structural feature comprising the San Juan Basin. There are no local geologic or

geophysical anomalies apparent on which to delineate an area for unitization. The unit area has been selected on a township basis similar to other units in Rio Arriba County.

The Gavilan Unit Area embraces a total of 30,244.18 acres, of which 20,023.94 acres or 66.21% are Federal lands, 320.00 acres or 1.6% are State of New Mexico lands and 9,900.24 acres or 32.73% are patented lands.

During the period from 1948 through 1952, a total of eleven wells were drilled within the unit area. Six wells, presently shut-in, were completed for gas production from the Pictured Cliffs formation in reported volumes ranging from 277,000 to 1,050,000 cubic feet of gas per day, generally after shooting. Two wells tested the Mesaverde formation and one well, the Dakota, and are temporarily abandoned. There is no market outlet for the gas and no further drilling was conducted in the area until March 1956 after concerted effort by San Juan Gas Corporation to obtain operating rights to warrant sufficient drilling to assure pipeline connections and to justify operations under a unit agreement. It is the opinion of your applicant that with present day knowledge of completion practices, including sand-oil and sand-water fracing, production in paying quantities can be developed from the Pictured Cliff formation, and if successful as anticipated, the Mesaverde will also be tested and developed.

Preliminary discussions as to the form of unit agreement were had with the Regional Oil and Gas Supervisor and representatives of the Washington office. The Supervisor expressed himself in favor of the standard form of agreement primarily on the basis of the question as to whether one well would establish sufficient drainage from 320-acre tract from the Pictured Cliffs formation, but your applicant feels that the establishment thereunder of scattered participating areas would be difficult to administer without prior agreement by the parties involved and that one Pictured Cliffs well will adequately drain 320 acres in most, if not all, cases. Your applicant and the representatives of the Washington office at a meeting on March 8, 1956, expressed themselves as preferring the township or so-called drilling block type of unit agreement such as approved by your office for development of the San Juan Basin in Rio Arriba County since November 1952.

Of the total of seventeen drilling-block units in Rio Arriba County, the Pictured Cliffs formation is now being developed on such basis in the San Juan 28-7, 29-4 and 30-4 Units and the Canyon Largo Unit and should shortly be developed within the San Juan 27-4 and 27-5 Units. Your applicant is requesting only that it be afforded the opportunity to develop the Gavilan Unit on an equal basis. Furthermore, the Oil Conservation Commission of New Mexico by Order No. R-794 in Case No. 977, under date of April 19, 1956, approved the creation of the Tapacito-Pictured Cliffs gas pool in T. 25 N., R. 3 W., and T. 26 N., Rs. 3 and 4 W., and established for a temporary period of one year 320-acre drilling units within said pool. The area affected by said order extends to within one mile of the western boundary of the Gavilan unit area.

In consideration of all the factors involved including those mentioned above, your applicant has prepared and is submitting herewith for your consideration and approval as to form three (3) copies of a unit agreement providing for 320-acre drilling blocks to the base of the Mesaverde formation, such drilling blocks to

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consist of the E/2 and W/2 of each section, the exceptions thereto being noted in the unit agreement, and standard form of unit agreement provisions to apply to all formations below the Mesaverde. Wells to the Pictured Cliffs or Mesaverde would be located in the NW/4 and SE/4 of each section except for variations necessitated by topographic conditions for irregular drilling blocks, such exceptions being cited in Section 11 of the unit agreement.

As wells capable of producing unitized substances in paying quantities from the Pictured Cliffs formation have already been drilled, tested and completed within the unit area, no initial test well for discovery is provided for in the unit agreement, but in Section 10 thereof it is provided that the initial plan of development and operation shall include provisions requiring that ten (10) wells commenced after March 1, 1956, (whether commenced before or after the effective date of the agreement), shall be drilled to the Pictured Cliffs formation, not less than three (3) of which to be located within T. 24 N., R. 2 W., and not less than five (5) within T. 25 N., R. 2 W., and further that such wells shall be so spaced over the unit area to be not less than one mile from each other. The Unit Operator shall not be required to drill in excess of 4,000 feet in testing the Pictured Cliffs formation. It is anticipated that production from that formation will be found at depths ranging from 3,400 to 3,800 feet. Tests of existing wells show a stabilized shut-in pressure averaging 961 pounds per square inch at the surface. It is the opinion of your applicant based on such well pressures and the study of electric logs and other well data now available to it that one well will drain 320 acres. However, it is recognized that a final decision as to effective well spacing can be made only after sufficient information is available from further drilling, testing and production. Accordingly, it is further provided in Section 11 that a second well shall be drilled on a 320-acre drilling block if and when economic and reservoir conditions warrant. A second well shall also be drilled where necessary to protect unitized land from drainage by wells on land not committed to the agreement.

San Juan Gas Corporation is named as Unit Operator under the form of unit agreement forwarded herewith for your consideration and approval. The form of the Gavilan Unit Agreement follows the form of the San Juan 27-5 Unit Agreement and is underscored in red pencil where it deviates therefrom, and includes the items discussed at the conference in Washington. Also attached are three (3) copies of preliminary Exhibits "A" and "B" to the Gavilan Unit Agreement. The tract numbers are not shown on Exhibit "A" as they cannot be determined finally until Exhibit "B" is completed.

Your applicant has proceeded with the initial testing of the unit area subsequent to the conference in Washington, and in accordance with the suggestions made at such conference, and has completed to date four (4) wells none of which have been tested and is about to commence the drilling of two (2) additional wells. Your early consideration of this application, the designation of the unit area and name, and the approval of the proposed drilling program and form of unit agreement are respectfully requested.

Very truly yours,

SAN JUAN GAS CORPORATION

cc: Mr. John A. Anderson
Regional Oil and Gas Supervisor
U. S. Geological Survey
Roswell, New Mexico

Copy (Original Signed) Foster Morrell

By _____
Its Agent

San Juan Gas Corporation
1716 First National Building
Tulsa, Oklahoma