

CASE 1984: Application of ~~NEUTRALITY~~ ~~UNIT~~
STANDARD PRINC. for unorthodox gas
well location & for 185-acre non-
standard gas unit.

Case No.

1984

Application, Transcript,
Small Exhibits, Etc.

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE No. 1984
Order No. R-1698

APPLICATION OF MOUNTAIN STATES
PETROLEUM CORPORATION FOR AN
UNORTHODOX GAS WELL LOCATION
AND FOR A 183-ACRE NON-STANDARD
GAS UNIT IN THE PINE LAKES-
PICTURED CLIFFS GAS POOL, RIO
ARRIBA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on June 1, 1960, at Santa Fe, New Mexico, before Elvis A. Utz, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 16th day of June, 1960, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Elvis A. Utz, and being fully advised in the premises,

FINDS:

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, Mountain States Petroleum Corporation, is the owner and operator of all of partial Section 31, Township 26 North, Range 2 West, NMPM, Rio Arriba County, New Mexico which Section consists in its entirety of Lots 1, 2, 3, and 4, comprising respectively 45.59 acres, 45.77 acres, 45.35 acres and 46.13 acres.
- (3) That the applicant proposes to dedicate the above-described 183-acre non-standard gas unit in the Pine Lakes-Pictured Cliffs Gas Pool to its Federal Well No. 31-E to be located on an unorthodox location 825 feet from the North line and 751 feet from the East line of said Section 31.
- (4) That the request for the 183-acre non-standard gas unit is necessitated by a variation in the legal subdivision of the

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CASE No. 1984
Order No. R-1698

United States Public Land Surveys, but inasmuch as two dry holes have been drilled to the Pictured Cliffs formation immediately East of Lot No. 4 of said Section 31, Lot 4 cannot reasonably be presumed to be productive of gas from the Pictured Cliffs formation and should not be included in the unit at the present time.

(5) That in the event Lot 4 is reasonably proven to be productive from the Pictured Cliffs formation as the result of subsequent development in the future it may then be included in the unit dedicated to the said Federal Well No. 31-E.

(6) That since it is not possible to drill an orthodox gas well location in said Section 31, the unorthodox gas well location as requested by the applicant should be approved, and such approval will neither cause waste nor impair correlative rights.

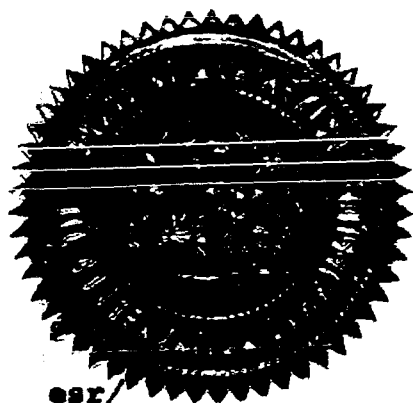
IT IS THEREFORE ORDERED:

(1) That the application of Mountain States Petroleum Corporation for a non-standard gas unit in the Pine Lakes-Pictured Cliffs Gas Pool consisting of all of partial Section 31 be and the same is hereby denied.

(2) That a 137.31-acre non-standard gas unit in the Pine Lakes-Pictured Cliffs Gas Pool, Rio Arriba County, New Mexico, be and the same is hereby established, such unit to consist of Lots 1, 2, and 3 of partial Section 31, Township 26 North, Range 2 West, NMPM, Rio Arriba County, New Mexico. Said unit is to be dedicated to the applicant's Federal Well No. 31-E to be located at an unorthodox location 825 feet from the North line and 751 feet from the East line of said Section 31.

(3) That an administrative procedure be and the same is hereby established whereby upon proof that Lot No. 4 of said Section 31 has been reasonably proven to be productive from the Pictured Cliffs formation as the result of subsequent development, said Lot can be added to the non-standard gas unit herein established.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.



STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

John H. Burroughs
JOHN BURROUGHS, Chairman

Murray E. Morgan
MURRAY E. MORGAN, Member

A. L. Porter, Jr.
A. L. PORTER, Jr., Member & Secretary

OIL CONSERVATION COMMISSION
P. O. BOX 871
SANTA FE, NEW MEXICO

June 16, 1960

Mr. Burns Errebo
P. O. Box 466
Albuquerque, New Mexico

Dear Sir:

On behalf of your client we enclose two copies
of Order R-1698 in Case 1984 issued by the Oil
Conservation Commission this date.

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

is/

Carbon copy of order sent to:

Oil Conservation Commission
Hobbs and Artec, N.M.

C
O
P
Y

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

Date 6-2-60

CASE 1984

Hearing Date 6-1-60

My recommendations for an order in the above numbered cases are as follows:

1. Denie the inclusion of lot 4 in the requested unit. This will give him 137.81 acres instead of 183.44.
2. Unit will include Lots 1, 2, 3,, 31-26-2.
3. Grant northdax location in lot 1, 825' / N, 751' / E line of Partial section 31.
4. In the event lot 4 is offset by a producing well it may be included in the unit.

Wm. H. H.

Staff Member

No. 15-60

DOCKET: EXAMINER HEARING JUNE 1, 1960

Oil Conservation Commission 9 a.m., Mabry Hall, State Capitol, Santa Fe, N.M.
The following cases will be heard before Elvis A. Utz, Examiner, or Oliver E. Payne, Attorney, as alternate Examiner:

- CASE 1970: Application of Gulf Oil Corporation for approval of a gas-oil dual completion. Applicant, in the above-styled cause, seeks permission to dually complete its Lea-State "AQ" Well No. 8, located in Unit E of Section 32, Township 19 South, Range 35 East, Lea County, New Mexico, in such a manner as to permit the production of gas from the East Pearl-Seven Rivers Gas Pool and the production of oil from the Pearl Queen Pool through the casing-tubing annulus and 2-3/8 inch tubing respectively, utilizing a retrievable type packer to separate the two producing horizons.
- CASE 1971: Application of Gulf Oil Corporation for permission to commingle the production from two separate pools. Applicant, in the above-styled cause, seeks permission to commingle the Blinebry oil production with the Tubb gas condensate from all wells presently completed or hereafter drilled on its Evelyn Lineberry lease, consisting of the N/2 SW/4 of Section 29, Township 22 South, Range 38 East, Lea County, New Mexico, after separately metering the Blinebry oil production.
- CASE 1972: Application of Gulf Oil Corporation for permission to commingle the production from several separate pools. Applicant, in the above-styled cause, seeks permission to commingle the Blinebry oil production with the Blinebry gas condensate and Tubb gas condensate from all wells on its T. R. Andrews lease comprising the E/2 of Section 32, Township 22 South, Range 38 East, Lea County, New Mexico, after separately metering the Blinebry oil production.
- ASE 1973: Application of Graridge Corporation for approval of the unorthodox locations of three water injection wells. Applicant, in the above-styled cause, seeks approval of an unorthodox location for three water injection wells to be located in the SE/4 NE/4 of Section 28, Township 18 South, Range 28 East, Artesia Pool, Eddy County, New Mexico.

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Docket No. 15-60

- CASE 1974: Application of C. T. Robertson for an order authorizing a water flood project. Applicant, in the above-styled cause, seeks an order authorizing him to institute a water flood project in the Coyote-Queen Pool, Chaves County, New Mexico, by the injection of water into the Queen formation through six wells located in Sections 11 and 14, Township 11 South, Range 27 East.
- CASE 1975: Application of Amerada Petroleum Corporation for approval of, an oil-oil dual completion. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its State LM "T" Well No. 5, located in Unit A, Section 36, Township 28 South, Range 36 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Jalmat Gas Pool and the production of oil from the Langlie-Mattix Pool through parallel strings of 1-inch tubing and 2-3/8 inch tubing respectively, utilizing a retrievable type packer to separate the two producing horizons.
- CASE 1976: Application of Caulkins Oil Company for approval of a gas-gas dual completion and for the establishment of a non-standard gas unit. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its Reuter PC-297 well in such a manner as to permit the production of gas from the South Blanco-Pictured Cliffs Gas Pool and the production of gas from the Dakota Producing Interval through parallel of 1 1/4-inch and 2 3/8 inch tubing respectively. Applicant further seeks an order establishing a non-standard gas unit to be dedicated to the subject well in the Dakota Producing Interval consisting of the SW/4 of Section 15 and the NW/4 of Section 22, Township 26 North, Range 6 West, Rio Arriba County, New Mexico.
- CASE 1977: Application of Hondo Oil & Gas Company for approval of an automatic custody transfer system. Applicant, in the above-styled cause, seeks an order authorizing the installation of an automatic custody transfer system to handle the production from the Empire-Abo Pool from all wells presently completed or hereafter drilled on the Hondo-Western-Yates State 647 lease, which lease consists of acreage in Sections 25, 26, 34, 35, and 36, all in Township 17 South, Range 28 East, Eddy County, New Mexico.

CASE 1978: Application of Shell Oil Company for an order authorizing two salt water disposal wells. Applicant, in the above-styled cause, seeks an order authorizing the disposal of produced salt water through its State ETA Well No. 1, located in the NE/4 NE/4 of Section 8, Township 16 South, Range 35 East, Lea County, New Mexico, with the injection to be in the Wolfcamp formation in the interval from 10,365 feet to 10,463 feet. Applicant further seeks an order authorizing the disposal of produced salt water through its State EDA Well No. 2, located in the SW/4 SW/4 of Section 7, Township 16 South, Range 35 East, Lea County, New Mexico, with injection to be in the Wolfcamp formation in the interval from 10,712 feet to 10,734 feet.

CASE 1979: Application of The Atlantic Refining Company for an order authorizing a water injection project in the Horseshoe-Gallup Oil Pool, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order authorizing the injection of water, for purposes of pressure maintenance and/or secondary recovery, into the Horseshoe-Gallup Oil Pool through 15 wells located in Sections 19, 20, 29, 30 and 31, Township 31 North, Range 16 West, San Juan County, New Mexico. Applicant further requests that special rules and regulations be promulgated governing the operation of this water injection project including the assignment of a project allowable.

CASE 1980: Application of Hudson and Hudson for nine unorthodox locations. Applicant, in the above-styled cause, seeks an order authorizing the drilling of wells at nine 5-spot locations on its Puckett "A" Lease, Maijamar Pool, Lea and Eddy Counties, New Mexico, said wells to be located in the 40-acre units hereinafter described, and within 100 feet of the indicated corner thereof.

SW Corner Unit O, Section 13, and the following wells in Section 24:

SE Corner Unit D;	SE Corner Unit F;
NW Corner Unit C;	NE Corner Unit G;
SW Corner Unit B;	NW Corner Unit K;
NW Corner Unit A;	NW Corner Unit I;

all in Township 17 South, Range 31 East, Eddy County.

- CASE 1981: Application of El Paso Natural Gas Company for an order amending the special pool rules for the Blanco-Mesaverde Gas Pool. Applicant, in the above-styled cause, seeks an order amending the special pool rules for the Blanco-Mesaverde Gas Pool, Rio Arriba and San Juan Counties, New Mexico, to authorize district supervisors to approve "slim hole" completions in the Blanco-Mesaverde Gas Pool, regardless of depth.
- CASE 1982: Application of Otto Reynolds for an unorthodox oil well location. Applicant, in the above-styled cause, seeks approval of an unorthodox oil well location for his Wood Well No. 1, located 330 feet from the South line and 1629 feet from the West line of Section 14, Township 29 North, Range 11 West, San Juan County, New Mexico.
- CASE 1983: Application of Ralph Lowe for permission to commingle the production from several separate leases. Applicant, in the above-styled cause, seeks permission to commingle the production from an undesignated Delaware pool from several separate leases comprising the N/2 NW/4 of Section 17 and the E/2 NE/4 and the E/2 NW/4 of Section 18, Township 25 South, Range 30 East, Eddy County, New Mexico.
- CASE 1984: Application of Mountain States Petroleum Corporation for an unorthodox gas well location and for a 183-acre non-standard gas unit. Applicant, in the above-styled cause, seeks approval of an unorthodox gas well location for a well to be drilled 1050 feet from the North line and 750 feet from the West line of partial Section 31, Township 26 North, Range 2 West, Rio Arriba County, New Mexico. Applicant further seeks the establishment of a 183-acre non-standard gas unit in the Pine Lakes-Pictured Cliffs Gas Pool consisting of all of said partial Section 31 to be dedicated to the subject well.
- CASE 1985: Application of Charles Loveless, Jr. for a 280-acre non-standard gas unit. Applicant, in the above-styled cause, seeks the establishment of a 280-acre non-standard gas unit in the Atoka-Pennsylvanian Gas Pool consisting of the NE/4 NE/4, W/2 NE/4, NW/4 of Section 11, Township 18 South, Range 26 East, or in the alternative to force pool all mineral interest owners in the SE/4 NE/4 of said Section 11 in the Atoka-Pennsylvanian Gas Pool with the interests of those in the above-described non-standard unit in said pool. Said unit is to be dedicated to a well to be drilled 1650 feet from the North and West lines of said Section 11, Township 18 South, Range 26 East, Eddy County, New Mexico.

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Docket No. 15-60

CASE 1986:

Application of J. M. Welch for a gas-oil dual completion. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of his Etz Well No. 3, located in the NE/4 SE/4 of Section 13, Township 16 South, Range 30 East, Eddy County, New Mexico, in such a manner as to produce gas from the Fenrose sand of the Queen formation and to produce oil from the Lovington sand of the San Andres formation in the Henshaw (San Andres) Pool, through the casing-tubing annulus and 2-inch tubing respectively, utilizing a retrievable type packer to separate the two producing horizons.

OIL CONSERVATION COMMISSION

P. O. BOX 871

SANTA FE, NEW MEXICO

7752-212

March 24, 1960

April 11, 1960
Hackett
7752-212
5-7-60

Mountain States Petroleum Corporation
P. O. Box 1362
Tulsa, Oklahoma

Attention: Mr. F. J. Ray

Re: Unorthodox location in N/2
of Section 31, Township 26
North, Range 2 West, Rio
Arriba County, New Mexico

Gentlemen:

Your request for the subject unorthodox location does not state whether or not you notified offset operators of your application. If you did, please advise us accordingly. If you did not, please do so and advise us to this effect.

We also need a footage description of the proposed location of the subject well.

Very truly yours,

OLIVER E. PAYNE
General Counsel

OEP/og

C
O
P
Y

Mountain States Petroleum Corp.

P. O. Box 1362

TULSA, OKLAHOMA

Telephone: Diamond 3-9574

ALBERT J. BLAIR, JR.
President

FLOYD J. RAY
Vice-President

March 15, 1960

Recd April 14
Albuquerque, New Mexico Office

Telephone: Alpine 5-8038

Secretary-Director
Oil Conservation Commission
Santa Fe, New Mexico

Dear Mr. Porter:

Due to circumstances beyond our control, we request permission to drill at an unorthodox location in the N/2 of Section 31-26N-2W, Rio Arriba County, New Mexico. This well is to be completed in the Pictured Cliffs formation at an estimated total depth of 4000 feet. We also request that the 183 acres in Section 31 be dedicated to the well.

Section 31 is a very narrow section, due to irregularity in the Public Land Survey, being only 1501.5 feet wide at the North end and 1525.26 feet wide at the South end. The terrain is very rough in the area; however, we will locate the well as near the center between East and West section lines as possible.

Plats of the area are attached.

Very truly yours,

FJ Ray
F. J. Ray

*NSL-212
(waiting period)*

*Coa
1954*

HONOLULU OIL CORPORATION

P. O. DRAWER 1291
MIDLAND, TEXAS

May 9, 1960

New Mexico Oil Conservation Commission
107 Mabry Hall
Capitol Building
Santa Fe, New Mexico

Gentlemen:

We have been asked by the Mountain States Petroleum Corporation to forego any objections pertaining to the location of a test they propose to drill in Lot 1 of Section 31 (fractional), T-26-N, R-2-W, NMPM. Such location has been indicated to be, according to a plat which they have provided us, 750 feet from the west line and 1,050 feet from the north line of the section. This company has no objection to the proposed location.

Yours very truly,

HONOLULU OIL CORPORATION



W. T. Schneider
Resident Manager and
Manager of Exploration
Mid-Continent Division

Handwritten:
Hatched
Mailed
5-14-60

WTS:dm

cc: G. B. Evans
Neal Harr
George Hoy
Mountain States Petroleum Corp., Tulsa, Oklahoma
Mr. F. J. Ray, Farmington, New Mexico

HUMBLE OIL & REFINING COMPANY

POST OFFICE BOX 2180
HOUSTON 1, TEXAS

April 25, 1960

Case 1984
Waiver

New Mexico Oil Conservation Commission
State Capitol Building
Santa Fe, New Mexico

Gentlemen:

Humble Oil & Refining Company has been informed by the Mountain States Petroleum Corporation that it proposes to drill a well to a depth sufficient to test the Pictured Cliffs Formation on Lot 1 in Section 31, T. 26N, R. 2W, N.M.P.M. Survey, Rio Arriba County, New Mexico.

In compliance with a request for waiver, Humble Oil & Refining Company waives notice of hearing and protest of this application.

Yours very truly,

S. F. Holmesly
S. F. Holmesly

(AS)

cc - Mountain States Petroleum Corp.
P. O. Box 1362
Tulsa, Oklahoma
Attention Mr. Albert J. Blair, Jr.

Wocher
Mailed
5-19-60

GILCREASE OIL COMPANY

POST OFFICE BOX 2708
SAN ANTONIO 6, TEXAS
CABLE ADDRESS G. O. C.

April 29, 1960

Wanted

New Mexico Oil Conservation Commission
Santa Fe, New Mexico

In re: Mountain States Petroleum
Corporation's Proposed Pictured
Cliffs Location in Lot 1, Section
31, T26N, R2W, NMPM, Rio
Arriba County, New Mexico.

Gentlemen:

Reference is made to proposed location of Mountain States
Petroleum Corporation as described in the caption hereof.

We understand that this location is an irregular location
under the rules of the New Mexico Oil Conservation Commission.
As an offset operator to said proposed location, this letter will evi-
dence our assent to the drilling by Mountain States Petroleum Corp-
oration of said test well at said irregular location.

Very truly yours,

GILCREASE OIL COMPANY

Robert Hausser
Robert Hausser
Manager, Land Department

RH:bcm

GOC

AIRMAIL

cc: Mountain States Petroleum Corporation

Cons 1981

OSCAR ABRAHAM

MSL 212
June 1984

OIL AND GAS PRODUCER
224-1ST NATIONAL BANK BLDG.
ALBUQUERQUE, NEW MEXICO
CHAPEL 23834

April 13, 1960

Winters

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

Re: Mountain States Petroleum Corp.
Proposed Pictured Cliff Location
Lot 1, Section 31, T 26 N, R 2 W,
NMPM, Rio Arriba County, New
Mexico.

Gentlemen:

Please be advised that the undersigned has no objections to the above captioned matter.

Respectfully yours,

Mike Abraham

Oscar Abraham
Oscar Abraham

OA/egc

Revised
5-19-60

CABOT CARBON COMPANY

P.O. BOX 1101 PAMPA, TEXAS



Carbon Black • Oil and Gas • Oil Field Pumping Equipment

TELEPHONE MO-4-2561

Cost 1984

PLEASE ADDRESS REPLY TO:

THE PETROLEUM CLUB BUILDING
DENVER, COLORADO
TELEPHONE: ACOMA 2-3583
ACOMA 2-3664

M. W. RAFFERTY
District Landman

April 28, 1960

Mountain States Petroleum Corp.
P. O. Box 1362
Tulsa, Oklahoma

Re: Mountain States Petroleum Corp. Proposed
Picture Cliff Location
Lot 1, Section 31, 26N-2W
Rio Arriba County, New Mexico

Gentlemen:

This is to advise that Cabot Carbon Company has no objections to the above irregular location. I am enclosing three copies of this letter in order that you might forward one to the New Mexico Oil Conservation Commission as notice of our consent.

Yours very truly,

CABOT CARBON COMPANY

M. W. Rafferty
M. W. Rafferty

MWR:gl

Letter dated 5-19-60

Mountain States Petroleum Corp.

P. O. Box 1362
TULSA, OKLAHOMA

ALBERT J. BLAIR, JR.
President

May 2, 1960

Case 1984
Telephone: Diamond 3-9574

New Mexico Oil Conservation Commission
State Capitol Building
Santa Fe, New Mexico

Gentlemen:

Enclosed is the original and one copy of
a letter to us from Cabot Carbon Company of Pampa, Texas,
regarding our proposed Pictured Cliffs Location in Lot 1,
Section 31, T26N, R2W, Rio Arriba County, New Mexico.

This letter is their notice to us of their
consent to the above irregular location.

Respectfully yours,

MOUNTAIN STATES PETROLEUM CORP.

By

Albert J. Blair, Jr.
Albert J. Blair, Jr.

AJBJr/ah

Enclosures: (2)

*Revised
5-19-60*

Mountain States Petroleum Corp.

MAIN OFFICE 000
P. O. Box 1362

TULSA, OKLAHOMA

JUN 15 1960 9:27

Telephone: Diamond 3-9574

ALBERT J. BLAIR, JR.
President

FLOYD J. RAY
Vice-President

Albuquerque, New Mexico Office

Telephone: Alpine 5-8038

June 9, 1960

Re: Sec. 31, T. 26 N, R. 2 W.
Rio Arriba County, N. M.

Oil Conservation Commission
Mabry Hall, State Capitol
Santa Fe, New Mexico
Attn. Mr. Elvis A. Utz

Dear Sir:

Reference is made to our hearing of last week concerning the above captioned acreage. At that time you requested we send a structure contour map and an initial potential map of the Pictured Cliffs formation in this area in order to facilitate your decision on acreage dedication. The above described maps are enclosed with this letter of explanation.

Commercial Pictured Cliffs production in this area is apparently concentrated within a narrow belt trending north-northwest across the acreage in question. Production within this belt is from an average depth of approximately 4000 feet.

The majority of the drilling activity in this area has been since 1956. All commercial gas wells in this area have been stimulated by sand fracture treatment, without which little if any of this area would today be commercially productive.

In the preparation of the accompanying Initial Potential Map (Fig. I), only those wells which received fracture treatment were used since it is felt that some of these wells should have been commercially productive had this treatment been used. Two wells in particular which fall in this category are located in the SW $\frac{1}{4}$ Sec. 32, T. 26 N., R. 2 W. These are the Gardner, Federal No. 1, and the Denman, Kates Federal No. 2. It is felt these wells are not indicative of the Pictured Cliffs production potential in this area for the following reasons.

The Gardner well was completed on December 12, 1948. This well barely penetrated the top of the Pictured Cliffs sand and no completion methods were attempted.

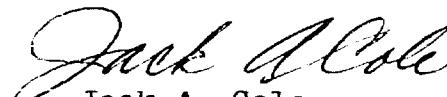
Sec. 31, T. 26 N., R. 2 W.

The Denman well was completed on August 25, 1949. In this well the Pictured Cliffs sand was stimulated in the open hole with 144 quarts of Nitroglycerin resulting in strong shows of gas and oil.

Sand fracture treatment operations were begun in the San Juan Basin in 1955. It is felt that had the operators of these two wells been able to utilize these present day completion methods, both would be commercially productive from the Pictured Cliffs formation.

The data herein is respectfully submitted.

Very truly yours,
MOUNTAIN STATES PETROLEUM CORP.


Jack A. Cole
Geologist

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
June 1, 1960

EXAMINER HEARING

IN THE MATTER OF:

Application of Mountain States Petroleum Corporation for an unorthodox gas well location and for a 183-acre non-standard gas unit. Applicant, in the above-styled cause, seeks approval of an unorthodox gas well location for a well to be drilled 1050 feet from the North line and 750 feet from the West line of partial Section 31, Township 26 North, Range 2 West, Rio Arriba County, New Mexico. Applicant further seeks the establishment of a 183-acre non-standard gas unit in the Pine Lakes-Pictured Cliffs Gas Pool consisting of all of said partial Section 31 to be dedicated to the subject well.

Case
1984

BEFORE:

Elvis A. Utz, Examiner

TRANSCRIPT OF HEARING

MR. UTZ: Case No. 1984.

MR. PAYNE: Application of Mountain States Corporation for an unorthodox gas well location and for a 183-acre non-standard gas unit.

MR. ERREBO: May it please the Examiner, Burns Errebo, Modrall, Seymour, Sperling, Roehl and Harris, on behalf of the applicant, Mountain States Petroleum Corporation. We will have one witness to testify in behalf of the applicant.



(Witness sworn.)

JACK COLE

called as a witness, having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. ERREBO:

Q Will you state your name, please?

A Jack Cole.

Q And by whom are you employed, and in what capacity?

A I am employed by Mountain States Petroleum Corporation as petroleum geologist.

Q Where are you located, Mr. Cole?

A Farmington.

Q Have you ever testified before this Commission before as a geologist?

A No, sir.

Q Will you briefly give the Commission a resume of your background of education and experience as a geologist?

A I hold a bachelor of science from the University of New Mexico as a geologist, and I was employed by El Paso Natural Gas Company as both an exploration geologist and development geologist. I have been a consultant for approximately one year, and am presently employed by Mountain States Petroleum.

Q And your work as a geologist after leaving school did



(Witness sworn.)

JACK COLE

called as a witness, having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. ERREBO:

Q Will you state your name, please?

A Jack Cole.

Q And by whom are you employed, and in what capacity?

A I am employed by Mountain States Petroleum Corporation as petroleum geologist.

Q Where are you located, Mr. Cole?

A Farmington.

Q Have you ever testified before this Commission before as a geologist?

A No, sir.

Q Will you briefly give the Commission a resume of your background of education and experience as a geologist?

A I hold a bachelor of science from the University of New Mexico as a geologist, and I was employed by El Paso Natural Gas Company as both an exploration geologist and development geologist. I have been a consultant for approximately one year, and am presently employed by Mountain States Petroleum.

Q And your work as a geologist after leaving school did



include not only exploration geology but development geology; is that correct?

A That's correct.

Q Are you familiar with the application of Mountain States in this matter?

A Yes, sir.

Q And are you familiar with the well which they propose to drill?

A Yes, sir.

Q I will now refer you to the exhibit which has been marked Exhibit No. 1 and ask you to identify it.

A Well, this is New Mexico Oil Conservation Commission Form 0128.

Q That is a well acreage dedication, is it not?

A Yes, sir.

Q That applies to the well and unit which is the subject of this hearing?

A Yes.

Q Has this plat been filed with the Commission, do you know?

A I don't know if it has been filed in this office.

Q As a matter of fact, you have just gone with Mountain States recently, have you not?

A That is true.

Q In any event, if it has not been filed you do have a copy



here and you will file it?

A That's correct.

Q What is the acreage included within the non-standard unit which you propose? By that I mean the amount.

A 183 acres, more or less.

Q And it is contained within what governmental division or subdivision?

A It is all of Section 31, Township 26 North, Range 2 West.

Q Is that an irregular division?

A Yes, sir; that section is a fractional section. It is approximately one quarter of the size of a normal section.

MR. ERREBO: May it please the Commission, in February there was a hearing held on another unit immediately north of this unit proposed, along this township line, and I have here Exhibit No. 1 of that hearing, which was a General Land Office plat which I would like to incorporate by reference. That is in Case 1886 and that plat shows the acreage and amount of acreage which is involved here today.

MR. UTZ: It may be incorporated.

Q (By Mr. Errebo) Now, what, to your knowledge, Mr. Cole, is the necessity for the hearing insofar as the well location is concerned?

A Well, this section is only 1501 feet wide, and the normal location, Pictured Cliffs location, is 990 from the boundary line



with 200 foot margin in which we could normally go down to 790 feet. However, to locate in the middle of this section, as close to the middle as possible, we get 751 feet from the east and west boundaries.

Q So, therefore, it is physically impossible to locate a well on this section and still be in compliance with applicable well location rules?

A That is correct.

Q Now, I notice that your application shows the well to be located 1050 feet from the north line of the section whereas your Exhibit No. 1 shows the well located 825 feet from the north line. Do you have any explanation for that?

A There is a rather high, sharp mesa, at which we are located at the foot of. By getting 825 feet from the north line, it is just about a topographic impossibility to locate 1050 from the north.

Q And 825 feet is the closest you could get?

A Yes, sir.

Q Actually the 825 feet falls within the location of requirements which are applicable, does it not?

A To my knowledge it does.

Q Do you have any knowledge as to whether any efforts have been made by Mountain States to communitize the acreage within this section?

A I believe it has been communitized.



Q This section consists of four lots, does it not, each approximately 45 acres apiece?

A Yes, sir.

Q Do you have any knowledge of the ownership of those lots?

A I believe that Lots 1, 2 and 3 belong to Mountain States Corporation, and Lot 4 is on farm-out from Humble or belongs to Humble and has been communitized.

Q Do you know whether these leases are fee, Federal or State lands?

A Federal.

Q They are Federal.

Mr. ERREBO: If the Commission please, for the record I prepared the communitization on this several months ago, and the last I heard the Mountain States had obtained the signature of all parties, including the U.S.C.S. and Department of Interior in Washington, to the communitization agreement. I am not certain that is the case; that is my information.

Q Now, what is the proposed spacing for the depth to which you propose to drill this well?

A Normally there is 160 acres dedicated to a Pictured Cliffs

Q And this is not Pine Lake-Pictured Cliffs pool?

A I believe the north boundary of the pool is the north boundary of Section 31.

Q You were so informed by the Aztec Office of the Commission;



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is that correct?

A Yes, sir.

Q Do you know of any respect in which correlative rights of any party would be damaged or violated by the granting of this application?

A No, sir.

MR. ERREBO: May it please the Commission, I would like to offer in evidence Exhibits No. 1 and 2.

MR. UTZ: Without objection the Exhibits No. 1 and 2 will be entered in the record.

MR. ERREBO: That is all we have.

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Cole, do you know of any dry holes being drilled in or around the south end of this unit?

A I believe there -- by this unit, you mean Section 31?

Q Yes, sir.

A I believe there are some dry holes south and east of Section 31, but I do not know to what depth they have been drilled, nor do I know how recently those wells were drilled, which certainly would have some bearing with reference to the completion methods now being employed in this area.

Q Do you know whether or not these wells were drilled through the Pictured Cliffs?



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A No, sir; I do not. I would assume so.

Q There wouldn't be much else to look for except Pictured Cliffs at the shallowest depths?

A That would be the shallowest.

Q I believe you stated this unit was outside the boundaries of the Pine Lake Pool?

A Yes. The Aztec office informed me this would be an extension to the Pine Lake Pool, and that it would be taken into the pool within 60 days after completion.

Q Why did you locate your well in Lot 1 rather than 2 or 3?

A Because there is that mesa which is located predominantly in Lots 2 and 3 and extends into the extreme southern part of Lot 1, and we felt that the shallower drilling depth as well as the accessibility -- actually, the accessibility is the main problem; it would be almost impossible to scale that mesa with any heavy equipment which would be involved in the drilling of this well.

Q How far south does the mesa go?

A I believe it goes pretty well into Lot 4, but I am not certain.

Q If you could conveniently get on Lot 4, would you recommend it to your company to drill a well on that lot?

A No, sir.

Q Why not?

A We are offsetting with this well the one which was com-



pleted, which is shown on the plat which has been offered in evidence. I believe the location, 790 from the south line of Section 30; that well is presently on test, but it had a potential for approximately 11.5 million, and on tests, producing average per day for the past couple of weeks over five million, and also in Section 29, in the southwest quarter, Cabot Carbon recently completed a 10-1/2 million well in there, and we would naturally like to get as close to those two wells as possible.

Q You don't think you will get a very good well in Lot 4?

A I don't know the date when those wells were drilled southeast of this area. I don't know whether they were fraced or not, and, as the Commission I am sure is aware, there is an appreciable difference between the tracing methods and methods previously employed in the old days, and I don't -- I believe for all practical purposes the north part of the unit is the most practical location.

Q Even in the older days, if they were prolific they would have got some kind of a well?

A Some kind.

Q Do you have any contours that would show the producing contours of Pine Lake Pool?

A Do you mean initial potential contours or --

Q Contours on top of Pictured Cliffs.

A No, I don't have any with me.

Q Do you have those available?



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A Which would show the string on top of Pictured Cliffs in this area? I don't have any prepared. I don't have them in the preliminary work as far as figuring approximate depth on this well. I do it in association with other members of the company, and the string of the Pictured Cliffs in this area is approximately in a northwest-southeast manner.

Q What do you expect to top the Pictured Cliffs at in this location?

A I don't have those figures. As I recall it would be around 3800 feet, but that is an approximation.

Q Do you know of any producing wells as low as that in this particular trend, or, more correctly, as high as that?

A As I say, I don't have those figures readily available.

Q Could you supply us with some Pictured Cliff contours across this local area here to show where the producing contours might play out?

A I believe so.

Q Would you supply the Commission with that? How long would it take you?

A Oh, I am going back to Farmington in the morning. I can have them to you within a week.

Q All right, sir.

A Would you prefer them here or the Aztec office?

Q Here.



MR. UTZ: Any other questions of the witness?

MR. ERREBO: I have another question or so.

REDIRECT EXAMINATION

BY MR. ERREBO:

Q Mr. Cole, if you were recommending the drilling of an offset well on this fractional section, would you be more anxious to drill that well in the north half of the section or the south half?

A You mean Section 31?

Q Yes.

A North half.

Q And that is why, because you have a producing well already immediately offsetting it to the north?

A That is correct.

Q It would be rather poor judgment would it not to drill in the south half of that section?

A I am firmly convinced it would be; yes, sir.

Q That would be actually true even if these other wells down to the southeast had never been drilled; isn't that correct?

A That's correct. Even if those wells had made as much as five or six million I would still prefer to get near these bigger wells.

Q As you stem out in the development of a pool it is desirable not to step out any farther than you have to?

A That's correct.



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Q Have you been out on the location and seen the area of this Section 31; have you actually seen it?

A Yes, sir, briefly.

Q This is a mesa, and you say it exists primarily covering Lots 2 and 3?

A Yes.

Q Now, that is a mesa which has sides, I assume, which are rocky and which slope down; is that correct?

A That is correct.

Q If you locate a well on Sections 2 or 3, then you are going to have to get on top of that mesa; is that right?

A Yes, sir.

Q Is there any way to get up on it that you know of that is feasible?

A No feasible way we have seen.

Q Therefore, if you get down into the north half, Lot 4, are you still in the immediate vicinity of the mesa as far as the broken rock and other debris is concerned?

A I don't know what the exact limit of the top of that mesa is as far as how far it extends into Section 4.

Q Actually, then, that would leave you with a choice between locating your well in Sections 1 or Section 4?

A That is true, but the main road down there, we have a well, of course, in Section 30, and it is just a simple matter, would just



mean one mile of road.

Q If you locate your well where?

A Where we expect to locate it.

Q Because you already have a road in there?

A We have a road almost to the location; yes, sir.

Q Are you familiar with this general area of the San Juan Basin?

A Yes, sir.

Q How does this area compare with other areas that you have seen in the nature of the terrain?

A It is very rough country, and very rough to drill in. It is seasonal drilling.

Q Have you seen any terrain rougher than that country? -- Well, I am not trying to get you to compare degrees of roughness. All I want you to do is state whether or not this is very rough country compared to that in other places?

A Yes, it is. There have been times when rigs have been forced to shutdown there as long as a month.

MR. ERREBO: That is all.

RECROSS EXAMINATION

BY MR. PAYNE:

Q How did you get up on this mesa, sir, on your location?

A We drove down to the southwest, as I recall, but I am not quite sure, and the mesa is easily visible.



Q Mr. Cole, even if this tract was as flat as a table, where would you drill your well, saying nothing about topography?

A I would drill the well as close to the center of Lot 1 as I could get it.

Q That would be because you feel that you get a better well by drilling to the north?

A Yes, sir.

Q You feel you might possibly get a dry hole in Lot 4?

A I don't know whether we would get a dry hole. It is a matter of being able to offset the good production that we have. That is abnormal Pictured Cliffs production, and it appears as though -- I am not certain of this -- but all indications lead to a fracture pattern in there within the Pictured Cliffs, and we would like to stay as close to that as possible.

Q Would you recommend dedicating dry acreage to any gas-oil in this pool?

A I am not quite clear as to what you mean there. Do you mean, if I thought we would get a dry hole in Lot 4 we should dedicate it to the well, also? Of course, we can't be certain of a dry hole in 4. We are dedicating 183 acres to this well, we propose to, rather than the normal 160, so --

Q At the present time the Pine Lake-Pictured Cliffs pool is not prorated, is it?

A I don't know.



MR. UTZ: Other questions?

MR. ERREBO: That is all we have.

MR. UTZ: Statements in this case?

Case will be taken under advisement. You may be excused.

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STATE OF NEW MEXICO)
COUNTY OF BERNALILLO) ss

I, JUNE PAIGE, Court Reporter, do hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, is a true and correct record to the best of my knowledge, skill and ability.

IN WITNESS WHEREOF I have affixed my hand and notarial seal this 10th day of June, 1960.

June Paige
Notary Public-Court Reporter

My commission expires:

May 13, 1964

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 1884, heard by me on *June 1*, 1960.
Thomas A. [Signature] Examiner
New Mexico Oil Conservation Commission

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