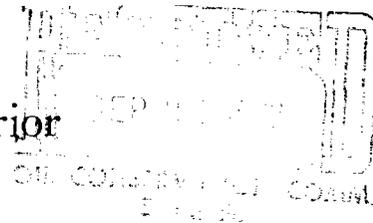




# United States Department of the Interior

GEOLOGICAL SURVEY

P. O. Drawer U  
Artesia, New Mexico 88210



September 21, 1972

Jennings, Christy, and Copple  
Post Office Box 1180  
Roswell, New Mexico 88201

2779

Gentlemen:

Your letter of September 19, 1972 requests approval for Shenandoah Oil Corporation to expand the Shugart Waterflood Project to include that portion of oil and gas lease NM-12211 described as the NW $\frac{1}{4}$  sec. 33, T. 18 S., R. 31 E., N.M.P.M., Eddy County, New Mexico. It is proposed to re-enter and convert to water injection the No. 5-Shugart "B" well located 330/N&W of said section above.

The expansion of this project as proposed in the application is satisfactory to this office and hereby approved subject to the following:

1. This expansion will be operated in compliance with the New Mexico Oil Conservation Commission regulations governing waterflood operations and be included on the project monthly progress report, duplicate copies of which will be submitted to this office.
2. This approval does not preclude the necessity to file the usual notice and reports on all wells involved.

Sincerely yours,

(Orig. Sgd.) ROBERT L. BEEKMAN

Robert L. Beekman  
Assistant District Engineer

cc:  
N.M.O.C.C., Santa Fe ✓  
Roswell



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

P. O. Drawer U  
Artesia, New Mexico 88210

IN REPLY REFER TO:

APR 7 11 18 69

April 6, 1971

3719

Jennings, Christy & Cople  
Post Office Box 1180  
Roswell, New Mexico 88201

Gentlemen:

Your letter of March 18, 1971 requests approval for Shenandoah Oil Corporation to operate a water project of the Premier Zone of the Grayburg formation in T. 17 S., R. 28 and 29 E., N.M.P.M., Eddy County, New Mexico, involving that portion of Federal oil and gas leases described as follows:

Las Cruces 062407

T. 17 S., R. 29 E.  
Sec. 30: N $\frac{1}{2}$ SE $\frac{1}{4}$ , SW $\frac{1}{2}$ SE $\frac{1}{4}$

New Mexico 0555569

T. 17 S., R. 29 E.  
Sec. 31: NW $\frac{1}{4}$ , NW $\frac{1}{2}$ NE $\frac{1}{4}$ , S $\frac{1}{2}$ NE $\frac{1}{4}$

This project includes State lands in sections 25 and 36, T. 17 S., R. 28 E., and sec. 30, T. 17 S., R. 29 E. The flood pattern would be nonsymmetrical and the project operator proposes to convert to water injection the following wells on Federal leases, and to drill as an injection a well in the SW $\frac{1}{2}$ NE $\frac{1}{4}$  sec. 31, also on Federal land:

<u>Well Number and Lease</u>	<u>Location</u>
3-Atsel Federal	NE $\frac{1}{2}$ SE $\frac{1}{4}$ sec. 30
1-Green Federal	NW $\frac{1}{2}$ NW $\frac{1}{4}$ sec. 31
5-Green Federal	SW $\frac{1}{2}$ NW $\frac{1}{4}$ sec. 31
7-Green Federal	NW $\frac{1}{2}$ NE $\frac{1}{4}$ sec. 31

The plan for operating the Federal leases in the waterflood project as proposed in the application is satisfactory to this office and hereby approved subject to approval by the New Mexico Oil Conservation Commission and the following:

1. This project will be operated in compliance with the New Mexico Oil Conservation Commission regulations governing waterflood operations.

2. Duplicate copies of a monthly progress report (N.M.O.C.C. form C-120 acceptable) are to be submitted to this office showing the volume of water injected and average pressures for the injection wells and production for the producing wells in the project area.
3. This approval does not preclude the necessity for further approval when the project is expanded to include other wells and leases or the necessity to submit the usual notices and reports on wells involved on Federal leases. When this project is expanded to involve other operators and interests, the correlative rights of all concerned should be considered.

Sincerely yours,

(Signature)

James A. Knauf  
District Engineer

cc:  
N.M.O.C.C., Santa Fe ✓  
Roswell  
Accounts

RLBeekman:ih 4/6/71

# SHENANDOAH OIL CORPORATION

1018 COMMERCE BUILDING  
FORT WORTH, TEXAS 76102

B. J. KELLENBERGER  
PRESIDENT

TELEPHONE  
ED 2-7381

October 23, 1968

Mr. A. L. Porter, Jr.  
Oil Conservation Commission  
P. O. Box 2088  
Santa Fe, New Mexico 87501

*file*

Re: Shenandoah Oil Corporation  
Shugart Waterflood Project,  
Eddy County, New Mexico

Dear Mr. Porter:

In accordance with Rule 703(a) of the New Mexico Rules and Regulation Book, this is to advise you that water injection into the five wells as set forth in Case No. 3779, was commenced October 17, 1968. These wells are all located in Sections 29 and 30, Township 18 South, Range 31 East, Eddy County, New Mexico as follows:

<u>Lease</u>	<u>Well No.</u>	<u>Location</u>
Kenwood-Federal	3	Unit F - Section 29
Shugart "A"	8	Unit N - Section 29
Shugart "D"	1	Unit G - Section 30
Shugart "D"	8	Unit A - Section 30
Shugart "C"	3	Unit I - Section 30

Attached is a plat showing the location of the above wells within the Project Area.

Very truly yours,



T. P. Bates  
Supervisor, Secondary Recovery

TPB:anc

Attachment

cc: Oil Conservation Commission  
Drawer DD  
Artesia, New Mexico

U.S. Geological Survey  
Drawer 1857  
Roswell, New Mexico  
Attention: Mr. Gressett

U. S. Geological Survey  
Drawer U  
Artesia, New Mexico 88210  
Attention: Mr. James A. Knauf

**OIL CONSERVATION COMMISSION**

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

July 16, 1968

**Mr. James T. Jennings**  
**Attorney at Law**  
**Post Office Box 1180**  
**Roswell, New Mexico 88201**

**Re: Case No. 3779**  
**Order No. R-3431**  
**Applicant:**  
**Shenandoah Oil Corporation**

**Dear Mr. Jennings:**

Attached are two copies of page 1 of the subject order. This page has been corrected to complete Finding (3). Please acknowledge receipt of this letter and substitute these corrected pages for the ones on the copies of the subject order mailed to you on June 18, 1968.

Thank you, and we are sorry of the inconvenience we have caused.

Very truly yours,

**DANIEL S. NUTTER**  
**Chief Engineer**

**DSN/esr**  
**Enclosures**

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OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

July 16, 1968

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Mr. Joe D. Ramey  
Supervisor, District 1  
Oil Conservation Commission  
P. O. Box 1980  
Hobbs, New Mexico

Re: Case No. 3779  
Order No. R-3431  
Applicant:  
Shenandoah Oil Corporation

Dear Joe:

Attached is a copy of page 1 of the subject order. This page has been corrected to complete Finding (3). Please acknowledge receipt of this letter and substitute this corrected page for the one on the copy of the subject order mailed to you on June 18, 1968.

Thank you, and we are sorry of the inconvenience we have caused.

Very truly yours,

DANIEL S. NUTTER  
Chief Engineer

DSN/esr  
Enclosure

**OIL CONSERVATION COMMISSION**

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

July 16, 1968

**Mr. Bill Gressett  
Supervisor, District 2  
Oil Conservation Commission  
Drawer DD  
Artesia, New Mexico**

**Re: Case No. 3779  
Order No. R-3431  
Applicant:  
Shenandoah Oil Corporation**

**Dear Bill:**

Attached is a copy of page 1 of the subject order. This page has been corrected to complete Finding (3). Please acknowledge receipt of this letter and substitute this corrected page for the one on the copy of the subject order mailed to you on June 18, 1968.

Thank you, and we are sorry of the inconvenience we have caused.

Very truly yours,

**DANIEL S. NUTTER  
Chief Engineer**

**DSN/esr  
Enclosure**

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**OIL CONSERVATION COMMISSION**

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

July 16, 1968

**Mr. D. E. Gray  
State Engineer Office  
Capitol Building  
Santa Fe, New Mexico**

**Re: Case No. 3779  
Order No. R-3431  
Applicant:  
Shenandoah Oil Corporation**

**Dear Mr. Gray:**

**Attached is a copy of page 1 of the subject order. This page has been corrected to complete Finding (3). Please acknowledge receipt of this letter and substitute this corrected page for the one on the copy of the subject order sent to you June 18, 1968.**

**Thank you, and we are sorry of the inconvenience we have caused.**

**Very truly yours,**

**DANIEL S. NUTTER  
Chief Engineer**

**DSN/esr  
Enclosure**

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OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

July 16, 1968

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Mr. R. W. Byram  
R. W. Byram & Company  
Drawer M - Capitol Station  
Austin, Texas

Re: Case No. 3779  
Order No. R-3431  
Applicant:  
Shenandoah Oil Corporation

Dear Mr. Byram:

Attached is a copy of page 1 of the subject order. This page has been corrected to complete Finding (3). Please acknowledge receipt of this letter and substitute this corrected page for the one on the copy of the subject order dated June 18, 1968.

Thank you, and we are sorry of the inconvenience we have caused.

Very truly yours,

DANIEL S. NUTTER  
Chief Engineer

DSN/esr  
Enclosure



SHENANDOAH OIL CORPORATION

1500 COMMERCE BUILDING  
FORT WORTH, TEXAS 76102

B. J. KELLENBERGER  
PRESIDENT

March 27, 1970

TELEPHONE  
ED 2-7381

70 MAR 30 AM 8 18

Oil Conservation Commission  
Box 2088  
Santa Fe, New Mexico 87501

Attn: Mr. A. L. Porter

*Not a card*

Re: Administrative Order  
WFX No. 332

Dear Mr. Porter:

In accordance with rule 703(a) of the New Mexico Rules and Regulations Book, this is to advise you that water injection was commenced March 23, 1970, into the six wells as set forth in Case No. 3779. (See attached plat.)

Very truly yours,

SHENANDOAH OIL CORPORATION

*T. P. Bates*  
T. P. Bates  
Vice President - Secondary  
Operations

TPB/lh

Attachment

cc: New Mexico Oil Conservation Commission  
P. O. Drawer DD  
Artesia, New Mexico 88210  
U. S. Department of Interior  
Geological Survey  
P. O. Drawer U  
Artesia, New Mexico 88210  
Jennings & Copple  
P. O. Box 1180  
Roswell, New Mexico  
Mr. C. W. Downey  
P. O. Box 2189  
Hobbs, New Mexico 88240

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

July 16, 1968

C  
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Mr. R. W. Byram  
R. W. Byram & Company  
Drawer M - Capitol Station  
Austin, Texas

Re: Case No. 3779  
Order No. R-3431  
Applicant:  
Shenandoah Oil Corporation

Dear Mr. Byram:

Attached is a copy of page 1 of the subject order. This page has been corrected to complete Finding (3). Please acknowledge receipt of this letter and substitute this corrected page for the one on the copy of the subject order dated June 18, 1968.

Thank you, and we are sorry of the inconvenience we have caused.

Very truly yours,

DANIEL S. NUTTER  
Chief Engineer

DSN/esr  
Enclosure

JAMES T. JENNINGS  
ROGER L. COPPLE  
BRIAN W. COPPLE

LAW OFFICES OF  
**JENNINGS & COPPLE**  
1012 SECURITY NATIONAL BANK BUILDING  
P. O. BOX 1180  
ROSWELL, NEW MEXICO 88201

TELEPHONE 622-8432  
AREA CODE 505

July 19, 1968

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

Attention: Daniel S. Nutter, Chief Engineer

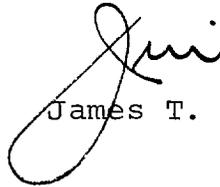
RE: CASE NO. 3779, ORDER R-3431  
APPLICANT: SHENANDOAH OIL  
CORPORATION

Dear Dan:

Thank you for your letter of July 16 enclosing the corrected copies of page 1 of the corrected Order. A copy of your letter and the Order as corrected is being transmitted to Shenandoah.

Yours very truly,

JENNINGS & COPPLE



James T. Jennings

JTJ/mb

cc: Shenandoah Oil Corporation

**OIL CONSERVATION COMMISSION**

**P. O. BOX 2088**

**SANTA FE, NEW MEXICO 87501**

**July 16, 1968**

**Mr. James T. Jennings  
Attorney at Law  
Post Office Box 1180  
Roswell, New Mexico 88201**

**Re: Case No. 3779  
Order No. R-3431  
Applicant:  
Shenandoah Oil Corporation**

**Dear Mr. Jennings:**

**Attached are two copies of page 1 of the subject order. This page has been corrected to complete Finding (3). Please acknowledge receipt of this letter and substitute these corrected pages for the ones on the copies of the subject order mailed to you on June 18, 1968.**

**Thank you, and we are sorry of the inconvenience we have caused.**

**Very truly yours,**

**DANIEL S. NUTTER  
Chief Engineer**

**DSN/esr  
Enclosures**

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GOVERNOR  
DAVID F. CARGO  
CHAIRMAN

State of New Mexico  
Oil Conservation Commission

LAND COMMISSIONER  
GUYTON B. HAYS  
MEMBER

STATE GEOLOGIST  
A. L. PORTER, JR.  
SECRETARY - DIRECTOR

P. O. BOX 2088  
SANTA FE

July 16, 1968

*Att: Dan*

Mr. Joe D. Ramey  
Supervisor, District 1  
Oil Conservation Commission  
P. O. Box 1980  
Hobbs, New Mexico

Re: Case No. 3779  
Order No. R-3431  
Applicant:  
Shenandoah Oil Corporation

Dear Joe:

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Thank you, and we are sorry of the inconvenience we have caused.

Very truly yours,

*Daniel S. Nutter*

DANIEL S. NUTTER  
Chief Engineer

60 JUL 23 1968

DSN/esr  
Enclosure

*Received and substituted  
order  
G.M.L.*

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

July 16, 1968

C  
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Mr. Joe D. Ramey  
Supervisor, District 1  
Oil Conservation Commission  
P. O. Box 1980  
Hobbs, New Mexico

Re: Case No. 3779  
Order No. R-3431  
Applicant:  
Shenandoah Oil Corporation

Dear Joe:

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Very truly yours,

DANIEL S. NUTTER  
Chief Engineer

DSN/esr  
Enclosure

GOVERNOR  
DAVID F. CARGO  
CHAIRMAN

State of New Mexico  
Oil Conservation Commission

LAND COMMISSIONER  
GUYTON B. HAYS  
MEMBER

STATE GEOLOGIST  
A. L. PORTER, JR.  
SECRETARY - DIRECTOR

P. O. BOX 2088  
SANTA FE

July 16, 1968

RECEIVED

JUL 19 1968

O. O. O.  
ARTESIA OFFICE

*Bill Gressett*

*Return to Pam*

Mr. Bill Gressett  
Supervisor, District 2  
Oil Conservation Commission  
Drawer DD  
Artesia, New Mexico

Re: Case No. 3779  
Order No. R-3431  
Applicant:  
Shenandoah Oil Corporation

Dear Bill:

Attached is a copy of page 1 of the subject order. This page has been corrected to complete Finding (3). Please acknowledge receipt of this letter and substitute this corrected page for the one on the copy of the subject order mailed to you on June 18, 1968.

Thank you, and we are sorry of the inconvenience we have caused.

Very truly yours,

*Daniel S. Nutter*

DANIEL S. NUTTER  
Chief Engineer

DSN/esr  
Enclosure

**OIL CONSERVATION COMMISSION**

**P. O. BOX 2088**

**SANTA FE, NEW MEXICO 87501**

July 16, 1968

**Mr. Bill Gressett  
Supervisor, District 2  
Oil Conservation Commission  
Drawer DD  
Artesia, New Mexico**

**Re: Case No. 3779  
Order No. R-3431  
Applicant:  
Shenandoah Oil Corporation**

**Dear Bill:**

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Thank you, and we are sorry of the inconvenience we have caused.

Very truly yours,

**DANIEL S. NUTTER  
Chief Engineer**

**DSN/esr  
Enclosure**

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**STATE OF NEW MEXICO**

**STATE ENGINEER OFFICE**

**SANTA FE**

S. E. REYNOLDS  
STATE ENGINEER

ADDRESS CORRESPONDENCE TO:  
STATE CAPITOL  
SANTA FE, NEW MEXICO 87501

July 19, 1968

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

Attn. Mr. Daniel S. Nutter  
Chief Engineer

Re: Case No. 3779  
Order No. R-3431  
Applicant:  
Shenandoah Oil Corp.

Dear Mr. Nutter:

This is to acknowledge receipt of the corrected copy of  
Page 1 of the above numbered Order.

DEG/ma

Very truly yours,

S. E. Reynolds  
State Engineer

By: *D. E. Gray*  
D. E. Gray  
Chief  
Water Rights Div.

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

July 16, 1968

C  
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Mr. D. E. Gray  
State Engineer Office  
Capitol Building  
Santa Fe, New Mexico

Re: Case No. 3779  
Order No. R-3431  
Applicant:  
Shenandoah Oil Corporation

Dear Mr. Gray:

Attached is a copy of page 1 of the subject order. This page has been corrected to complete Finding (3). Please acknowledge receipt of this letter and substitute this corrected page for the one on the copy of the subject order sent to you June 18, 1968.

Thank you, and we are sorry of the inconvenience we have caused.

Very truly yours,

DANIEL S. NUTTER  
Chief Engineer

DSN/esr  
Enclosure

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

June 21, 1968

Mr. James T. Jennings  
Attorney at Law  
Post Office Box 1180  
Roswell, New Mexico 88201

Dear Sir:

Reference is made to Commission Order No. R-3431, recently entered in Case No. 3779, approving the Shenandoah Shugart Waterflood Project.

Injection is to be through the five authorized water injection wells, all of which will be multiple completions except the Shugart A Well No. 8. This well will be a single completion, and injection shall be down plastic-coated tubing set in a packer near the shoe. Injection into the multiply-completed wells shall be down tubing through Baker flow valves into each of the zones being flooded. Packers shall be used to separate the zones and a packer shall be installed above the uppermost injection zone in each well. The casing-tubing annulus in all of the wells shall be filled with an inert fluid and left open or equipped with a pressure gauge to facilitate detection of tubing or packer leaks.

As to allowable, our calculations indicate that when all of the authorized injection wells have been placed on active injection, the maximum allowable which this project will be eligible to receive under the provisions of Rule 701-E-3 is 910 barrels per day when the Southeast New Mexico normal unit allowable is 42 barrels per day or less, provided all leases where there is any diversity of ownership (in working interest, overriding royalty, or royalty) have been unitized or otherwise consolidated and all owners therein have agreed to such consolidation and allocation of allowable and production.

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

-2-

Mr. James T. Jennings  
Attorney at Law  
Post Office Box 1180  
Roswell, New Mexico

June 21, 1968

In the absence of such agreements, each lease will stand on its own as an individual project area without benefit of transfer of allowable across lease lines.

Please report any error in this calculated maximum allowable immediately, both to the Santa Fe office of the Commission and the appropriate district proration office.

In order that the allowable assigned to the project may be kept current, and in order that the operator may fully benefit from the allowable provisions of Rule 701, it behooves him to promptly notify both of the aforementioned Commission offices by letter of any change in the status of wells in the project area, i.e., when active injection commences, when additional injection or producing wells are drilled, when additional wells are acquired through purchase or unitization, when wells have received a response to water injection, etc.

Your cooperation in keeping the Commission so informed as to the status of the project and the wells therein will be appreciated.

Very truly yours,

A. L. PORTER, Jr.  
Secretary-Director

ALP/DSN/ir

cc: Oil Conservation Commission:  
Hobbs and Artesia, New Mexico

Mr. D. E. Gray, State Engineer Office, Santa Fe, New Mexico

U. S. G. S. - Artesia, New Mexico

SHENANDOAH OIL CORPORATION

1018 COMMERCE BUILDING  
FORT WORTH, TEXAS 76102

E. J. KELLENBERGER  
PRESIDENT

June 6, 1968

TELEPHONE  
ED 2-7381

Re: Docket No. 17-68: Case No. 3779  
Application of Shenandoah Oil Corporation  
for a Waterflood Project, Shugart Field,  
Eddy County, New Mexico

Mr. D. S. Nutter  
Oil Conservation Commission  
State Land Office Building  
Santa Fe, New Mexico

10 JUN 10 1968

Dear Mr. Nutter:

Reference is made to Exhibit "C" of Shenandoah's application presented at the State Hearing on June 5, whereby the Xerox machine failed to show clearly the perforated intervals in the Kenwood-Federal No. 3 well. The following are the perforated intervals as reflected from the well record.

Interval 3774-3792' (Upper of Lower Grayburg)  
3799-3823' (Lower Grayburg)

Mr. Nutter, Shenandoah's interpretation of the pay section in this well is that the well is completed in the Lower Grayburg and that the lower Grayburg formation consists of two zones of porosity of which the interval 3774-3792' is referred to as the Upper of Lower Grayburg.

Very truly yours,

SHENANDOAH OIL CORPORATION



T. P. Bates, Supervisor  
Secondary Recovery

cc: Mr. Jim Jennings  
Box 1180  
Roswell, New Mexico 88201

JAMES T. JENNINGS  
ROGER L. COPPLE  
BRIAN W. COPPLE

LAW OFFICES OF  
**JENNINGS & COPPLE**  
1012 SECURITY NATIONAL BANK BUILDING  
P. O. BOX 1180  
ROSWELL, NEW MEXICO 88201

TELEPHONE 622-8432  
AREA CODE 505

May 14, 1968

*case 2179*

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

Attention: Ida Rodriguez

RE: SHENANDOAH OIL CORPORATION  
APPLICATION FOR WATERFLOOD

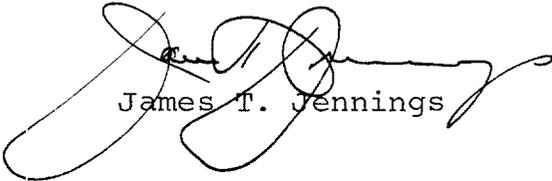
Dear Ida:

Enclosed herewith you will find Shenandoah's Application for Waterflood Project in the Shugart Pool in Eddy County, New Mexico. We discussed this sometime ago and you said that you thought you could get it on the June 5 docket. I would like to have a hearing on that date.

I am enclosing an additional copy of the Application and while I know the rule has been changed, I thought you might need this for the State Engineer's Office. If there is any question or if you need any further information, please call me.

Yours very truly,

JENNINGS & COPPLE

  
James T. Jennings

JTJ/mb

Encl.

cc: Shenandoah Oil Corporation

DOCKET FILED

Date 5/23/68