

CASE 4726: Appli. of SHENANDOAH  
FOR A WATERFLOOD PROJECT, EDDY  
COUNTY, NEW MEXICO.

Case Number

4726

Application

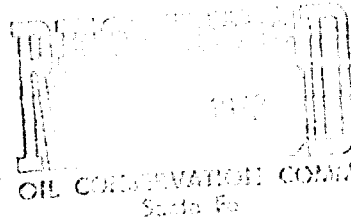
Transcripts

Small Exhibits

ETC.



SHENANDOAH OIL CORPORATION



B. J. KELLENBERGER  
PRESIDENT

1500 COMMERCE BUILDING  
FORT WORTH, TEXAS 76102  
817/332-7381  
TWX 910 890 5023

September 5, 1972

Re: Commission Order No. R-4325  
Shenandoah Hinkle "F"  
Shugart Waterflood Project  
Eddy County, New Mexico

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

Attention: A. L. Porter

Dear Mr. Porter:

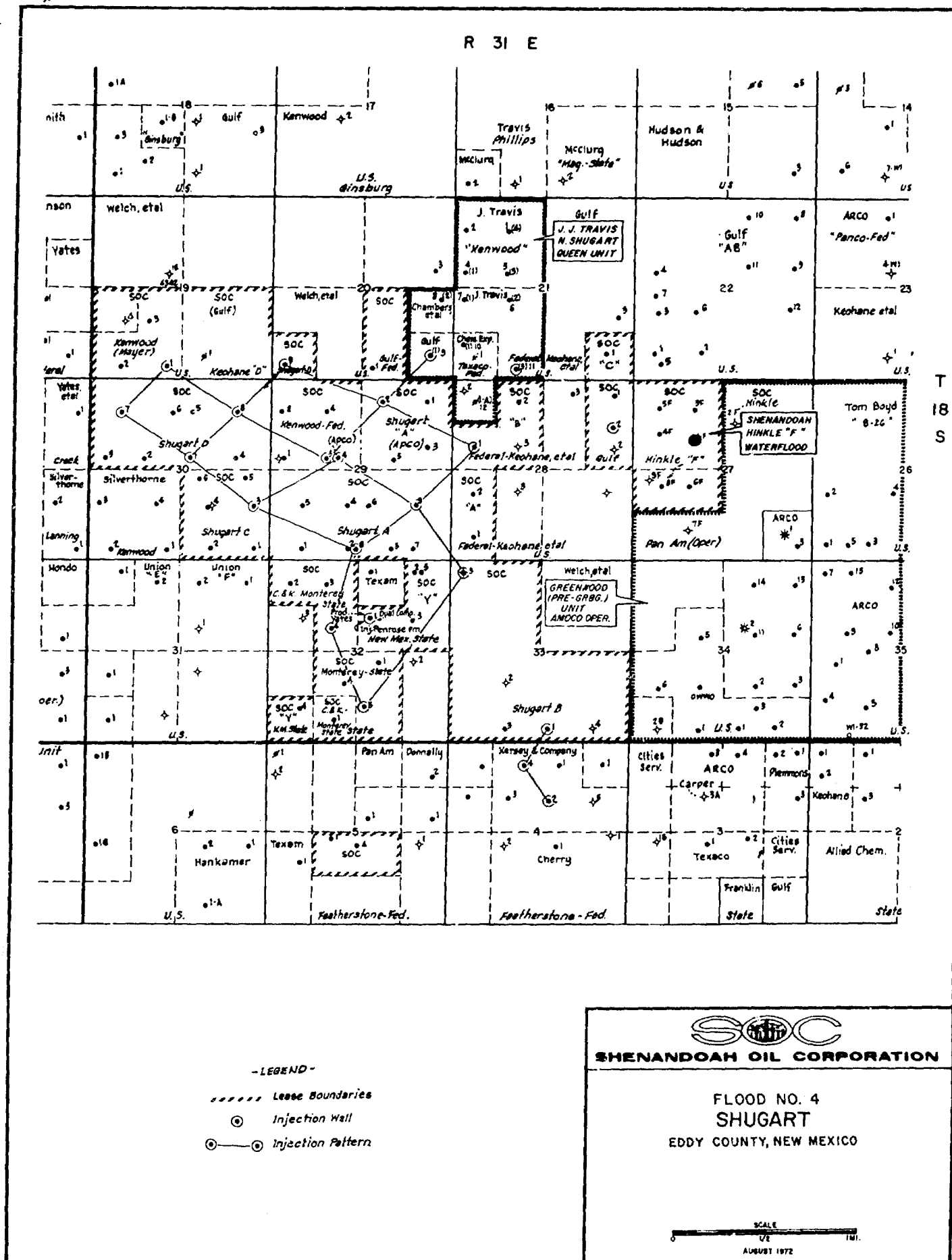
In accordance with Rule 703(a) of the New Mexico Rules and Regulations Book, this is to advise you that water injection was commenced August 28, 1972 into the Shenandoah Oil Corporation Hinkle "F" No. 1 well as set forth in Case No. 4726 (see attached plat).

Very truly yours,

SHENANDOAH OIL CORPORATION

T. P. Bates  
Vice President

TPB:jn  
Attachment  
CC: OCC-Artesia  
USGS-Artesia  
Jennings, Christy & Copple  
C. W. Downey, Jr.



dearnley, meier & mc cormick

209 SIMMS BLDG. • P.O. BOX 1092 • PHONE 243-6091 • ALBUQUERQUE, NEW MEXICO 87103  
1216 FIRST NATIONAL BANK BLDG. EAST • ALBUQUERQUE, NEW MEXICO 87108

BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
CONFERENCE HALL, STATE LAND OFFICE BUILDING  
SANTA FE, NEW MEXICO  
June 7, 1972

EXAMINER HEARING

IN THE MATTER OF:

Application of Shenandoah Oil  
Corporation for a waterflood  
project, Eddy County, New Mexico.

CASE NO. 4726

BEFORE: Daniel Nutter  
Examiner

TRANSCRIPT OF HEARING

1 MR. NUTTER: Call Case Number 4726.

2 MR. HATCH: Application of Shenandoah Oil Corporation  
3 for a waterflood project, Eddy County, New Mexico.

4 MR. CHRISTY: S. B. Christy, Jennings, Christy and  
5 Copple, Roswell, New Mexico, appearing on behalf of the  
6 Applicant, Shendoah Oil Corporation. We have one witness we  
7 would like to have sworn in this case.

8 (Whereupon, the witness was sworn by Mr. Hatch.)

9 \* \* \* \* \*

10 T. P. BATES,  
11 called as a witness, after having been first duly sworn,  
12 testified as follows:

13 MR. NUTTER: You may proceed, Mr. Christy.

14 DIRECT EXAMINATION

15 BY MR. CHRISTY:

16 Q Would you please state your name and address and by  
17 whom you are employed and in what capacity?

18 A I am T. P. Bates, Shenandoah Oil Corporation, Vice-  
19 President at Fort Worth, Texas.

20 Q Have you previously testified before the Regulatory  
21 Board and had your qualifications accepted?

22 A Yes, I have.

23 Q And you are familiar with Case Number 4726?

24 A Yes, sir, I am.

25 Q And are you familiar with the general area in which

1 this Application is involved?

2 A Yes, I am.

3 MR. CHRISTY: Are the witness' qualifications  
4 satisfactory, Mr. Nutter?

5 MR. NUTTER: Yes, sir, they are.

6 Q (By Mr. Christy, continuing) I'd like to refer you to  
7 Case Number 3666. I believe you testified in that case,  
8 did you not?

9 A I testified in that.

10 Q Is this case similar to that?

11 A Right.

12 Q Do you have any changes in your testimony from that  
13 previous case?

14 A No, I don't.

15 Q Are you also familiar with Case Number 4380? You  
16 testified in that case?

17 A Right.

18 Q That is similar to this case?

19 A Yes, sir.

20 Q Now, what general project area is involved in this  
21 Application, by legal description?

22 A This is the SE/4 and NW/4, Section 27, Township 18 South,  
23 Range 31 East, in the Shugart-Yates Seven Rivers Queen  
24 Grayburg Field, Eddy County, New Mexico.

25 Q These are Shenandoah wells?

1 A Yes, they were.

2 Q Were these classified as stripper wells in advance stage  
3 of completion?

4 A Yes.

5 Q And what is the Applicant seeks in Case Number 4726?

6 A Applicant desires to initiate a waterflood project to  
7 inject fresh and formation water into the Grayburg and  
8 San Andres formations.

9 Q In the initial project area?

10 A Right.

11 Q Now, referring you to Exhibit Number 1, I'll ask you  
12 if you'll please identify that for us.

13 A Well, Exhibit 1 is an aerial plat showing all wells,  
14 the project area proposed injection well and all other  
15 wells located in a radius of two miles of the project  
16 area.

17 Q Referring you now to Exhibit 2, I'll ask if you'll  
18 identify that, please?

19 A Exhibit Number 2 is a diagram showing cement tops,  
20 perforations and depths. This well was originally  
21 drilled at 5,188 feet by Pan American in 1959. And  
22 after they folded, the Delaware project was the company  
23 who purchased the pipe and ran it down to 4500 feet at  
24 which time they set a plug at 3960. The diagram also  
25 shows our plans for completion with 2 inch tubing, internal



1 plastic set above 3700 feet for injection purposes.

2 Q Do you have a log on the well?

3 A I do not have.

4 Q Let me refer you to Applicant's Exhibit Number 3.

5 MR. CHRISTIE: Mr. Examiner, I only have one of  
6 the logs, but there are some more in connection with this.

7 MR. NUTTER: Go ahead with Exhibit Number 3.

8 A Exhibit Number 3 is a log of the Hinkle F-3 well which  
9 is an offset to the proposed injection well showing  
10 the same particular intervals as F-1 well.

11 Q Now, say you propose to inject water. Could you tell us  
12 approximately what amount of water you are going to  
13 get?

14 A We're going to obtain fresh water from a commercial  
15 installation and, at the same time, to produce brakish  
16 water and recycle this water, and we plan to inject  
17 300 barrels a day and at approximately 300 pounds of  
18 pressure.

19 Q Referring you now to Exhibit Number 4 -- that's  
20 principally for identification purposes to case number  
21 3779 -- can you identify that and explain it for us,  
22 please?

23 A This is correct. This Exhibit 4 shows the proposed  
24 injection well, and, again, the area over to the west  
25 of it shows our Shugart plug in the area.

- 1 Q This is case 3779?
- 2 A Right.
- 3 Q All right, sir.
- 4 A Also, to the south, Section 33 shows a plug, three well  
5 injection program.
- 6 Q Anything else?
- 7 A It does identify a unit water project within the same  
8 area.
- 9 Q And shows the proposed injection well in this present  
10 case?
- 11 A Yes.
- 12 Q Now, I believe your Application mentioned there should  
13 be some special rules adopted in connection with the  
14 Application. Do I understand you correctly, this is  
15 known as the Hinkle F Grayburg Flood and has been  
16 governed by 701, 702 and 703?
- 17 A Yes, sir, that's right.
- 18 Q And that rule is R-343 in Case 3779?
- 19 A Right.
- 20 Q And you, I assume, request that the rules provided for  
21 administrative approval to the extension of the plug?
- 22 A Yes.
- 23 Q And response under rule 701 is not necessary prior to  
24 expansion?
- 25 A Right.

1 Q And you would propose a monthly report to the Commission  
2 and that the Commission retain jurisdiction?

3 A Yes.

4 Q All right. Now, in your opinion, Mr. Bates, would it  
5 be otherwise unrecoverable oil and thereby prevent  
6 correlative rights of any interested person be the outcome  
7 of the granting of this Application?

8 A Yes.

9 Q Is there anything else that I neglected to ask you that  
10 you think would be of interest to the Commission in their  
11 consideration of this Application?

12 A The only thing is the cumulative production from these  
13 six wells, was 458,000 barrels. With injection into  
14 this reservoir, we believe that an additional 300,000  
15 barrels of oil would be recoverable.

16 Q Which would otherwise be unrecovered?

17 A Right.

18 MR. CHRISTY: I believe that's all, Mr. Examiner.

19 MR. NUTTER: The ownership of the entire NW/4 and  
20 the N/2 of the SW/4 is identical throughout?

21 MR. BATES: Yes, sir.

22 MR. NUTTER: There are six wells altogether?

23 MR. BATES: Yes.

24 MR. NUTTER: Now, with respect to Exhibit Number 2,  
25 I note 1980 and 2660; these were former perforations?

1 MR. BATES: That could be when Koehane went in  
2 and sealed it up.

3 MR. NUTTER: Now, you'll be injecting down-tubing  
4 and underpacking?

5 MR. BATES: That's correct. The location of that  
6 pack will be 3700 feet.

7 MR. NUTTER: And how do you propose to treat the  
8 annulus, here?

9 MR. BATES: Well, fill the annulus with a flood  
10 and treat it with water and install pressure gauges at the  
11 surface to detect any leaks that occur.

12 MR. NUTTER: It will be plastic coated?

13 MR. BATES: Internally, yes.

14 MR. NUTTER: Are there any other questions of the  
15 witness?

16 MR. CHRISTY: We would like to offer into evidence,  
17 Applicants Exhibits 1 through 4.

18 MR. NUTTER: They are admitted into evidence.

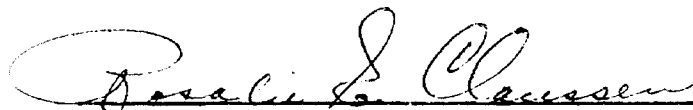
19 We'll take the case under advisement and call the  
20 next case.  
21  
22  
23  
24  
25

1 STATE OF NEW MEXICO )  
2 ) ss  
3 COUNTY OF BERNALILLO )

4 I, ROSALIE E. CLAUSSEN, a Shorthand Reporter, in and for  
5 the County of Bernalillo, State of New Mexico, do hereby  
6 certify:

7 That the foregoing and attached Transcript of Hearing  
8 before the New Mexico Oil Conservation Commission was reported  
9 by me;

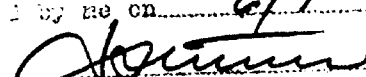
10 That the same is a true and correct record of the said  
11 proceedings to the best of my knowledge, skill and ability.

12 

13 ROSALIE E. CLAUSSEN

14  
15  
16 Dated at Albuquerque, New Mexico,  
17 this 31st day of July, 1972.

18  
19  
20  
21  
22 I do hereby certify that the foregoing is  
23 a correct record of the proceedings of  
24 the hearing of Case No. 4726  
25 held by me on 6/7 1972.

 Secretary  
New Mexico Oil Conservation Commission

I N D E XWITNESS:PAGET. P. BATES

Direct Examination by Mr. Christy

3

E X H I B I T SAPPLICANT'SOFFEREDADMITTED

Exhibit Number 1

5

9

Exhibit Number 2

5

9

Exhibit Number 3

6

9

Exhibit Number 4

6

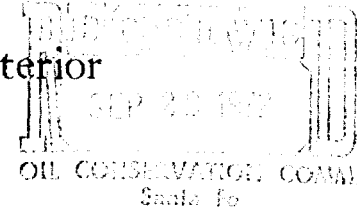
9



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

Gentlemen:

Your letter of August 30, 1972 requests approval for Shenandoah Oil Corporation to expand the Hinkle "F" Shugart Waterflood Project to include that portion of oil and gas lease NM-12212 described as the SE 1/4 sec. 28, T. 18 S., R. 31 E., N.M.P.M., Eddy County, New Mexico. It is proposed to convert to water injection the No. 2-Gulf well located 1650/N 330/E 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. BECKMAN

Robert L. Beckman  
Assistant District Engineer

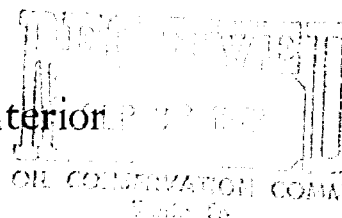
cc:  
N.M.O.C.C., Santa Fe ✓  
Roswell



United States Department of the Interior

GEOLOGICAL SURVEY

P. O. Drawer U  
Artesia, New Mexico 88210



September 21, 1972

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

Gentlemen:

Your letter of August 30, 1972 requests approval for Shenandoah Oil Corporation to operate a waterflood of the Grayburg and San Andres formations on that portion of oil and gas lease Las Cruces 029392(b) described as NW $\frac{1}{4}$ , N $\frac{1}{2}$ SW $\frac{1}{4}$ , sec. 27, T. 18 S., R. 31 E., N.M.P.M., Eddy County, New Mexico.

The plan is to convert to water injection the well No. 1 Hinkle "F" located in SE $\frac{1}{4}$ NW $\frac{1}{4}$  of said section 27 above. The operator proposes to convert to water injection additional wells when needed to conform to an acceptable flood pattern and program.

The plan for operating the above described waterflood project as proposed in the application is satisfactory to this office and hereby approved subject to 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 pressure for the injection wells and production for the producing wells in the project area.
3. The approval does not preclude the necessity for further approval when the project is expanded to include other wells and/or leases or the necessity to submit the usual notices and reports on wells involved.

Sincerely yours,

(Orig. Sgd.) ROBERT L. BECKMAN

Robert L. Beckman  
Assistant District Engineer

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



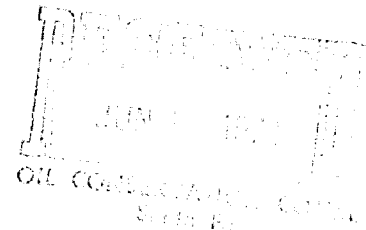
JAMES T. JENNINGS  
SIM B. CHRISTY IV  
ROGER L. COPPLE  
BRIAN W. COPPLE

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

TELEPHONE 622-8432  
AREA CODE 505

June 15, 1972

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



Attention: A. L. Porter, Jr., Secretary-Director

Re: Case 4726  
R-4325

Gentlemen:

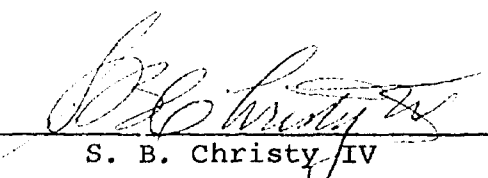
Thank you for your letter of June 14, enclosing the Commission's Order in connection with the captioned.

We have forwarded to Shenandoah Oil Corporation a xerox of your letter of June 14, in order that they may check your calculated allowable and further in order that their records may be set up so as to comply with the requested notifications in the event of change of well status.

Respectfully,

JENNINGS, CHRISTY & COPPLE

By

  
S. B. Christy IV

SBC:jy

cc: Shenandoah Oil Corporation



## OIL CONSERVATION COMMISSION

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

GOVERNOR  
BRUCE KING  
CHAIRMAN  
LAND COMMISSIONER  
ALEX J. ARMijo  
MEMBER  
STATE GEOLOGIST  
A. L. PORTER, JR.  
SECRETARY - DIRECTOR

June 14, 1972

Mr. Sim B. Christy  
Jennings, Christy & Copple  
Attorneys at Law  
Post Office Box 1180  
Roswell, New Mexico 88201

Dear Mr. Christy:

Enclosed herewith is Commission Order No. R-4325, entered in Case No. 4726, approving the Shenandoah Hinkle "F" Shugart Waterflood Project.

Initial injection shall be through the one authorized water injection well which shall be equipped with plastic-lined tubing set in a packer located at approximately 3700 feet. The casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge at the surface.

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 252 barrels per day when the Southeast New Mexico normal unit allowable is 42 barrels per day or less.

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.


-2-

Mr. Sim B. Christy  
Jennings, Christy & Copple  
Attorneys at Law  
Post Office Box 1180  
Roswell, New Mexico, 88201

June 14, 1972

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

Enclosure  
ALP/DSN/ir

cc: OCC-Hobbs and Artesia, New Mexico  
Mr. D. E. Gray, State Engineer Office, Santa Fe, New Mexico

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. 4726  
Order No. R-4325

APPLICATION OF SHENANDOAH OIL  
CORPORATION FOR A WATERFLOOD  
PROJECT, EDDY COUNTY, NEW  
MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on June 7, 1972, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 14th day of June, 1972, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, 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, Shenandoah Oil Corporation, seeks authority to institute a waterflood project in the Shugart Pool by the injection of water into the Grayburg-San Andres formations through one injection well in Section 27, Township 18 South, Range 31 East, NMPM, Eddy County, New Mexico.

(3) That the applicant further seeks a procedure whereby additional injection and production wells in the area of the said project as may be necessary in order to complete an efficient injection pattern may be approved administratively; that said administrative procedure should provide for administrative approval for conversion to water injection in exception to the well response requirements of Rule 701 E-5 of the Commission Rules and Regulations.

(4) That the wells in the project area are in an advanced state of depletion and should properly be classified as "stripper" wells.

(5) That the proposed waterflood project should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

-2-

CASE NO. 4726

Order No. R-4325

(6) That the subject application should be approved and the project should be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations; provided however, that the showing of well response as required by Rule 701 E-5 should not be necessary before obtaining the above-described administrative approval.

IT IS THEREFORE ORDERED:

(1) That the applicant, Shenandoah Oil Corporation, is hereby authorized to institute a waterflood project in the Shugart Pool by the injection of water into the Grayburg-San Andres formations through its Hinkle "F" Well No. 1, located 1880 feet from the North line and 1980 feet from the West line of Section 27, Township 18 South, Range 31 East, NMPM, Eddy County, New Mexico.

(2) That the subject waterflood project is hereby designated the Shenandoah Hinkle "F" Shugart Waterflood Project and shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

PROVIDED HOWEVER, that the Secretary-Director of the Commission may approve such additional injection and production wells in the area of said project as may be necessary to complete an efficient water injection pattern; that the showing of well response as required by Rule 701 E-5 shall not be necessary before obtaining administrative approval for the conversion of additional wells to water injection.

(3) That monthly progress reports of the waterflood project herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

(4) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

  
BRUCE KING, Chairman

  
ALEX J. ARMILLO, Member

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

  
S E A L

dr/

(Case 4729 continued)

of Federal, State and Fee lands in Sections 19, 20, 21, 28, 29, 30, 31, 32, and 33, Township 21 South, Range 25 East, Eddy County, New Mexico.

CASE 4730: Application of Stoltz, Wagner & Brown for salt water disposal, Lea County, New Mexico. Applicants, in the above-styled cause, seek authority to dispose of produced salt water into the Devonian formation in the interval from 11224 to 11234 feet in their Soldier Hill State AE Well No. 1 located 800 feet from the North line and 1800 feet from the West line of Section 23, Township 12 South, Range 32 East, East Caprock Devonian Pool, Lea County, New Mexico.

CASE 4731: Application of Continental Oil Company for rededication of acreage and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dedicate a standard 640-acre gas proration unit comprising all of Section 14, Township 20 South, Range 36 East, Eumont Gas Pool, Lea County, New Mexico, to its Sanderson "A" Wells Nos. 12 and 13 located, respectively, in Units P and G of said Section 14. Applicant further seeks authority to produce the allowable for the unit from either well in any proportion. Applicant further seeks the establishment of a procedure whereby the allowable for the above-described proration unit may be produced by any or all Eumont gas wells located within said unit without the necessity of notice and hearing.

CASE 4732: Application of Continental Oil Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle production from the Skaggs-Glorieta, East Weir-Blinbry, and Skaggs-Drinkard Pools in the wellbore of its Skaggs "B" Well No. 5 located 990 feet from the North line and 1700 feet from the West line of Section 12, Township 20 South, Range 37 East, Lea County, New Mexico.

CASE 4709: (Continued from the May 5, 1972, Examiner Hearing)

Application of Continental Oil Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle production from the Eumont Gas Pool and the Penrose Skelly Oil Pool in the wellbore of its Lockhart A-17 Well No. 1 located in Unit L of Section 17, Township 21 South, Range 37 East, Lea County, New Mexico.

DOCKET: EXAMINER HEARING - WEDNESDAY - JUNE 7, 1972

9 A.M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM,  
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

The following cases will be heard before DANIEL S. NUTTER, Examiner,  
or ELVIS A. UTZ, Alternate Examiner:

CASE 4716 (Readvertised):

Application of Union Oil Company of California for directional drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to directionally drill its Owens Well No. 2, having a surface location in Unit I of Section 34, Township 14 South, Range 35 East, East Morton-Wolfcamp Pool, Lea County, New Mexico. Applicant proposes to set a whipstock at approximately 7200 feet and to directionally drill to bottom the well in the Wolfcamp formation within 100 feet of a point in Unit H 1730 feet from the North line and 560 feet from the East line of said Section 34. Applicant proposes to dedicate the E/2 NE/4 of Section 34 to the well. In the absence of objection an order will issue based upon testimony received in this case on May 17, 1972.

CASE 4726: Application of Shenandoah Oil Corporation for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Grayburg-San Andres formations through one well located in the SE/4 NW/4 of Section 27, Township 18 South, Range 31 East, Shugart Pool, Eddy County, New Mexico.

CASE 4727: Application of Harper Oil Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle oil production from the Blinebry, Drinkard, and Wantz-Abo Pools in the wellbore of its S. J. Sarkey Well No. 2 located in Unit H of Section 26, Township 21 South, Range 37 East, Lea County, New Mexico.

CASE 4728: Application of Texaco Inc. for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the East Weir-Tubb Pool, Lea County, New Mexico, including provisions for 80-acre proration units and a limiting gas-oil ratio limitation of 4000 cubic feet of gas per barrel of oil.

CASE 4729: Application of American Trading and Production Corporation for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Round Mountain Unit Agreement comprising 5,757 acres, more or less,

CASE 4733: Application of David Fasken for pool contraction and creation of a new gas pool, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the contraction of the horizontal limits of the Indian Basin-Morrow Gas Pool, Eddy County, New Mexico, by the deletion therefrom of all of Sections 4 and 5, Township 21 South, Range 24 East. Applicant further seeks the creation of a new gas pool with horizontal limits comprising all of said Section 4 and 5 for the production of gas from the Morrow formation.

CASE 4734: Application of Hanagan Petroleum Corporation for pool extension, non-standard spacing unit, and unorthodox location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order extending the horizontal limits of the Catclaw Draw-Morrow Gas Pool, Eddy County, New Mexico, to include all of Section 24, Township 21 South, Range 25 East and all of Section 19, Township 21 South, Range 26 East. Applicant further seeks approval of a 636.38-acre non-standard gas spacing unit comprising all of said Section 19 to be dedicated to its Nan-Bet Well No. 1 located at an unorthodox location for said pool 1980 feet from the North line and 660 feet from the West line of said Section 19.

CASE 4735: Application of El Paso Natural Gas Company for capacity production, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Rules 14 (A) 15 (A), and 15 (B) of the General Rules and Regulations for the prorated gas pools of Northwest New Mexico, to produce six wells located in Sections 29, 30, 31, and 32 of Township 32 North, Range 8 West and Section 36, Township 32 North, Range 9 West, Blanco-Mesaverde Pool, San Juan County, New Mexico, at full capacity for approximately one year from February 1, 1972.

Applicant further seeks authority to offset any overproduction accrued to the above-described six wells during the one-year period by underproduction attributable to any underproduced wells or marginal wells located within the participating area of the San Juan 32-9 Unit.

CASE 4736: Application of Dalport Oil Corporation for an exception to Order No. R-3221, as amended, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Order No. R-3221, as amended, to dispose into an unlined surface pit water produced from its Todhunter-Federal Well No. 1 located in the SE/4 NW/4 of Section 22, Township 15 South, Range 29 East, Double L Field, Chaves County, New Mexico.



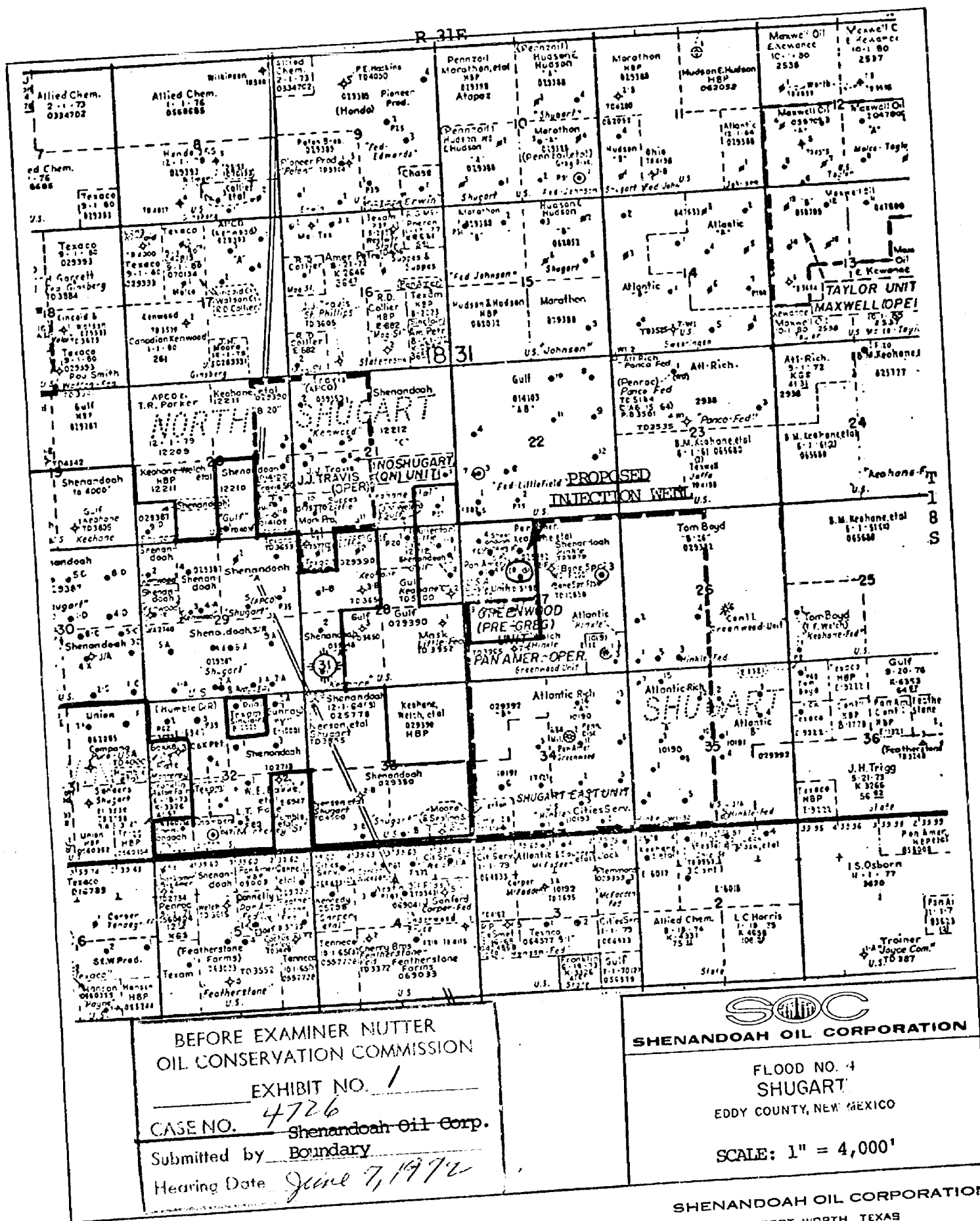


Exhibit "1"

HINKLE "F" NO. 1  
UNIT F 1,880' FNL & 1,980' FWL  
SECTION 27, T-18S, R-31E  
EDDY COUNTY, NEW MEXICO

LC 029342(b)

BEFORE EXAMINER NUTTER  
OIL CONSERVATION COMMISSION

EXHIBIT NO. 2

CASE NO. 4726

Submitted by Stenandorah

Hearing Date June 7, 1972

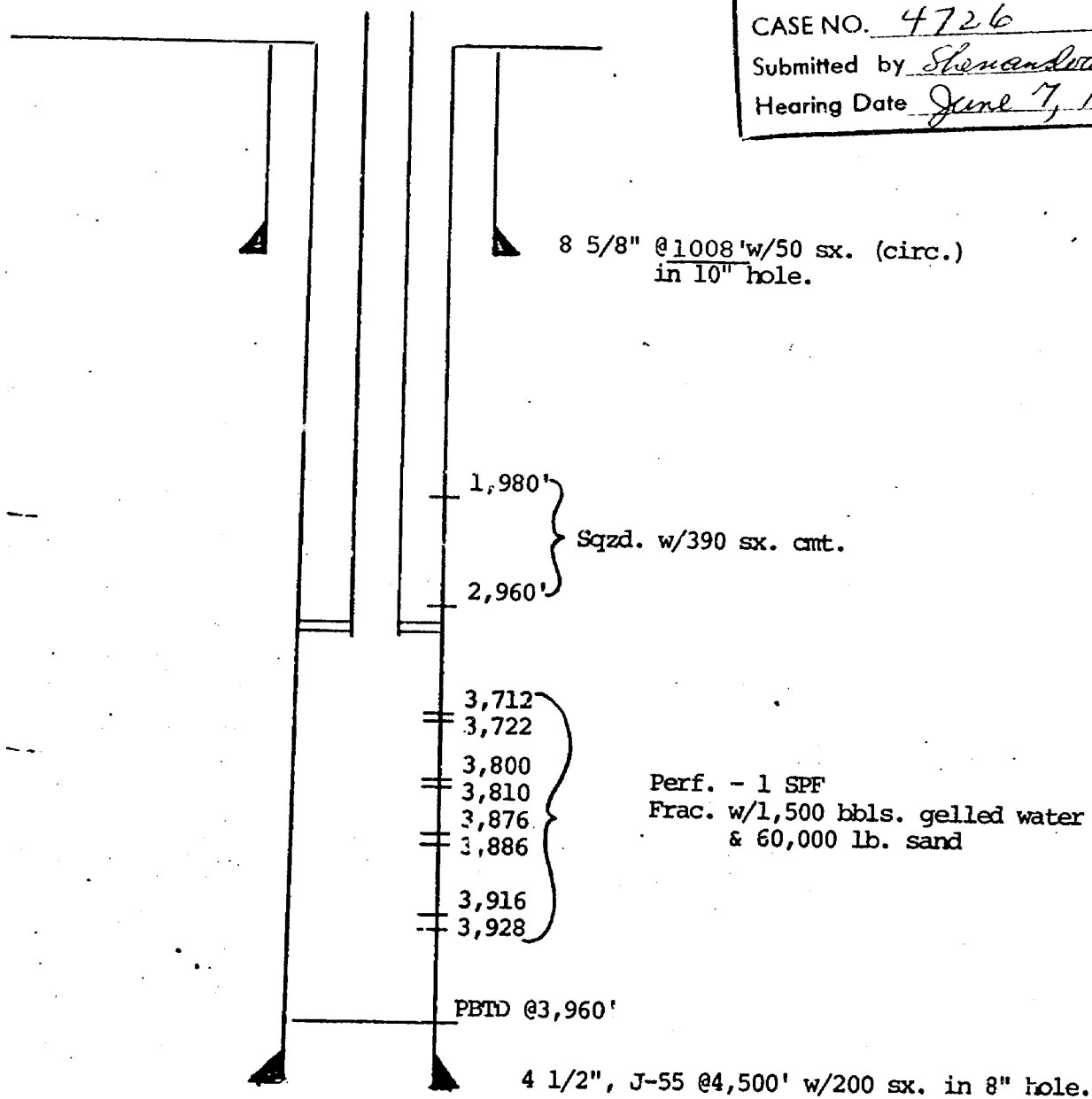


Exhibit "2"



ROUGH DRAFT FOR WATERFLOOD LETTERS

Mr. Sim B. Christy  
Jennings, Christy & Copple  
Attorneys at Law  
Post Office Box 1180  
Roswell, New Mexico 88201

Dear Sir:

*Enclaved herewith* Commission Order No. R-4325, entered in Case No. 4726, approving the Shenandoah Hinkle "F" Shugart Waterflood Project.  
~~Waterflood Project~~

*Initial injection shall be through the one authorized water injection well which shall be equipped with plastic-lined tubing set in a gravel pack at approximately 3700 feet. The tubing should be loaded with an inner blind and equipped with a pressure gauge at the surface.*  
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 252 barrels per day when the Southeast New Mexico normal unit allowable is 42 barrels per day or less.

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

cc: OCC: Hobbs X  
Artesia X  
Aztec       

USGS       

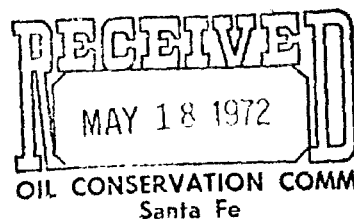
~~Mr. Frank Joby~~ State Engineer Office, Santa Fe, New Mexico  
Mr. D. E. Gray,

JAMES T. JENNINGS  
SIM B. CHRISTY JR  
ROGER L. COPPLE  
BRIAN W. COPPLE

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

TELEPHONE 622-8432  
AREA CODE 505

May 17, 1972



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

*Case 4726*

RE: APPLICATION OF SHENANDOAH OIL CORPORATION  
FOR WATERFLOOD PROJECT

Enclosed herewith you will find an Application in duplicate  
filed on behalf of Shenandoah Oil Corporation for a waterflood  
project in the Shugart Pool. Please set this matter down for  
hearing before an examiner on June 7.

  
JAMES T. JENNINGS

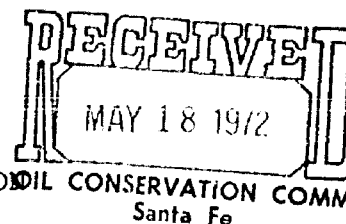
JTU/mb

Encl.

cc: Shenandoah Oil Corporation

DOCKNEY MARKED

Date 5-24-78



BEFORE THE OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF  
SHENANDOAH OIL CORPORATION TO  
INSTITUTE A WATERFLOOD PROJECT BY  
THE INJECTION OF WATER INTO THE  
GRAYBURG AND SAN ANDRES FORMATIONS  
THROUGH AN INJECTION WELL TO BE  
LOCATED IN THE SE $\frac{1}{4}$ NW $\frac{1}{4}$  SECTION 27,  
TOWNSHIP 18 SOUTH, RANGE 31 EAST,  
IN THE SHUGART YATES 7 RIVERS, QUEEN  
GRAYBURG FIELD, EDDY COUNTY, NEW MEXICO.

NO. 4726

APPLICATION OF SHENANDOAH OIL CORPORATION  
FOR WATERFLOOD PROJECT

Comes now the Applicant, Shenandoah Oil Corporation, and hereby makes application for approval of a Waterflood Project pursuant to Rule 701 of the Rules and Regulations of the Commission and in support thereof states:

1. Applicant desires to initiate a Waterflood Project to inject fresh and formation water into the Grayburg and San Andres formations in its Hinkle "F" No. 1 Well located in Unit F (SE $\frac{1}{4}$ NW $\frac{1}{4}$ ), being 1880 feet FNL and 1980 feet FWL of Section 27, Township 18 South, Range 31 East.
2. That the six wells located on its Hinkle "F" Lease and all other wells in the area have reached an advanced state of depletion and are stripper wells, and that Applicant is only producing 106 barrels of oil per day from the six wells located on its Hinkle Lease.
3. That Applicant feels that waterflooding the Grayburg and San Andres formations is feasible and that flooding will result in the increased ultimate recovery of oil and prevent waste.

4. That Applicant is currently successfully operating the Shenandoah Shugart Waterflood Project located in Sections 29 and 30, Township 18 South, Range 31 East, which is West of the proposed project.

5. That when the need arises, upon administrative approval Applicant should be permitted to convert to water injection additional wells within its lease boundaries as shown on Exhibit "1" attached hereto.

6. Applicant proposes to inject fresh to brackish water in the Grayburg and San Andres formations from the depth of 3712 feet to the depth of 3928 feet and to inject approximately 300 barrels of water per well per day, which water is to be acquired from a commercial water company operating in the area and which will be commingled with produced water.

7. That in support of this application and in accordance with the provisions of Rule 701, Applicant submits herewith the following exhibits:

Exhibit "1" - A plat showing the location of the proposed injection well, the location of all other wells within a radius of two miles from the proposed injection well, all of which wells are producing from the same formation and also showing the Applicant's acreage in the area.

Exhibit "2" - A diagramatic sketch of the proposed injection well showing tops of cement, perforations and depths.

Exhibit "3" - A log of the Hinkle "F" No. 3 Well which is an offset to the proposed injection well and which is submitted as the Applicant has not been able to locate a log of the proposed injection well.

WHEREFORE, Applicant requests the Commission set this matter down for hearing before an examiner at an early date, publish the notice as required by law and, after hearing, issue its Order:

1. Authorizing the Waterflood Project and the injection of water into the Grayburg and San Andres formations in the injection well to be located in Section 27, Township 18 South, Range 31 East.

2. Establishing rules for the operation of the flood within the area and for administrative expansion and conversion of additional wells to water injection wells.

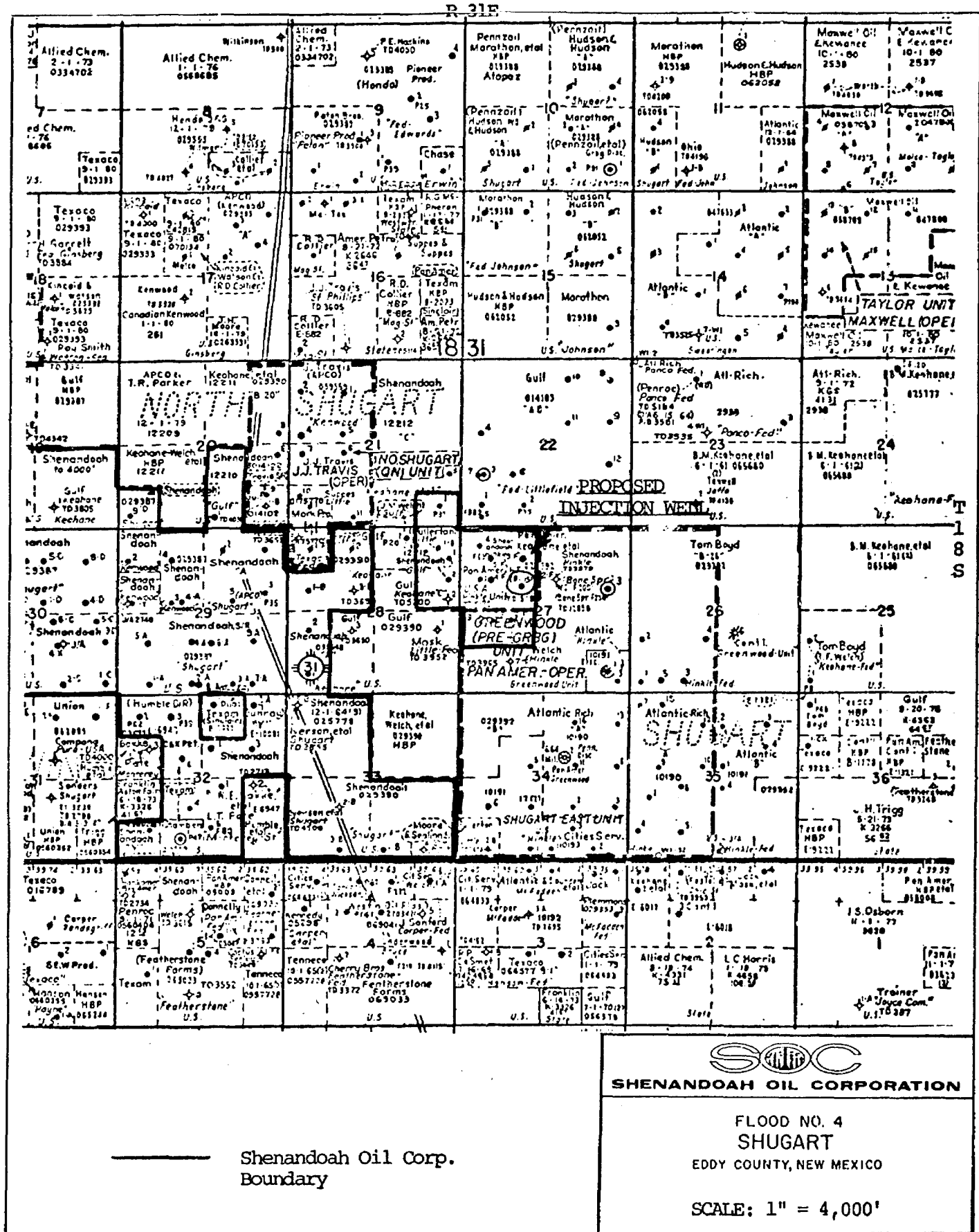
Respectfully submitted,

SHENANDOAH OIL CORPORATION

By 

for JENNINGS, CHRISTY & COPPLE  
Attorneys for Applicant  
P. O. Box 1180  
Roswell, New Mexico 88201





SHENANDOAH OIL CORPORATION  
FORT WORTH, TEXAS

HINKLE "F" NO. 1  
UNIT F 1,880' FNL & 1,980' FWL  
SECTION 27, T-18S, R-31E  
EDDY COUNTY, NEW MEXICO

LC 029342(b)

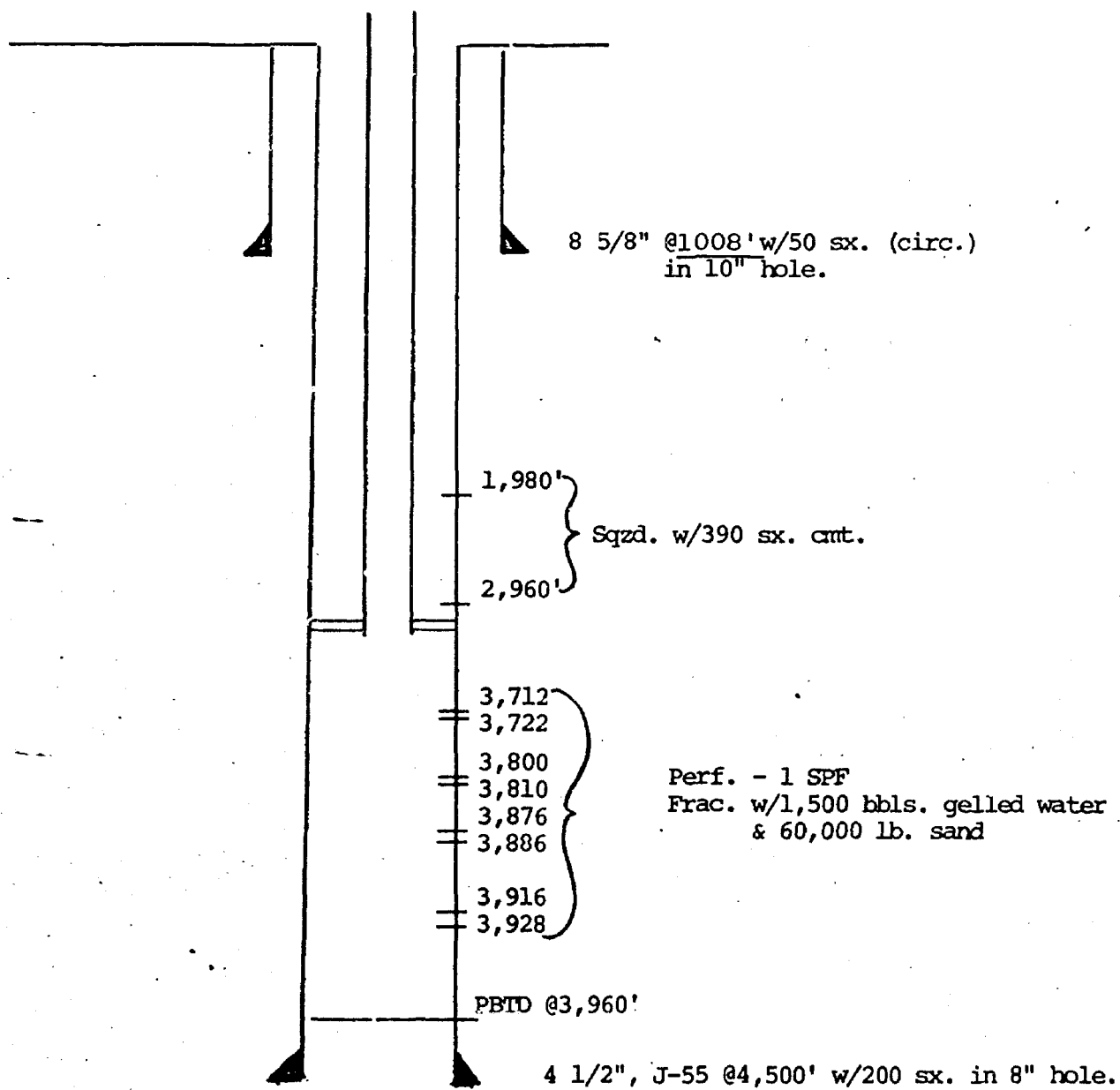


Exhibit "2"

4726

(6) ~~That~~ That the subject application should be approved and the project should be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations; *provided however that the showing of well response as required by Rule 701 E-5 should not be necessary before obtaining the above-described action*  
IT IS THEREFORE ORDERED: *administrative approval.*

(1) That the applicant, Shenandoah Oil Corporation,  
is hereby authorized to institute a waterflood project in the  
Unit Area Shugart Pool  
by the injection of water into the Grayburg-San Andres formations  
*its Hinkle "F" well No. 1 located 1880 feet from the north end 1980*  
through ~~the following described well~~ in Township 18  
~~North~~, South, Range 31 ~~West~~, East, NMPM, Eddy  
County, New Mexico.

(2) That the subject waterflood project is hereby designated  
the Shenandoah Hinkle "F" Shugart Waterflood Project and shall  
be governed by the provisions of Rules 701, 702, and 703 of the  
Commission Rules and Regulations.

PROVIDED HOWEVER, that the Secretary-Director of the Com-  
mission may approve expansion of the Waterflood Project to include such additional lands and injection wells in the area of said project as may be necessary to complete an efficient water injection pattern; that the showing of well response as required by Rule 701 E-5 shall not be necessary before obtaining administrative approval for the conversion of additional wells to water injection.

(under)

1980 feet from the west line of Section 27,

DRAFT

GMH/dr

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. 4726

Order No. R-4325

APPLICATION OF SHENANDOAH OIL CORPORATION  
FOR A WATERFLOOD PROJECT, EDDY COUNTY,  
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on June 7, 1972,  
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this        day of June, 1972, the Commission, a  
quorum being present, having considered the testimony, the record,  
and the recommendations of the Examiner, 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, Shenandoah Oil Corporation,  
seeks authority to institute a waterflood project in the         
       Unit Area, Shugart Pool,  
by the injection of water into the Grayburg-San Andres formations  
through one injection wells in Section 27,  
Township 18 ~~NORTH~~, South, Range 31 ~~West~~, East,  
NMPM, Eddy County, New Mexico.

(3) That the applicant further seeks ~~an administrative~~  
procedure whereby ~~said project could be expanded to include~~  
and production  
additional ~~lands and~~ injection wells in the area of the said  
project as may be necessary in order to complete an efficient  
may be approved administratively;  
injection pattern ~~A~~ that said administrative procedure should  
provide for administrative approval for conversion to water  
injection in exception to the well response requirements of  
Rule 701 E-5 of the Commission Rules and Regulations.

Shenandoah Oil Corp.

institute WF prog

Reynolds - SA

1 well

SE NW 27-18-31

Shugart Pool Eddy Co.

June 7, 1972.

Jim Jennings  
5/17/72

CASE 4727: Application of HARPER &  
OIL CO. FOR DOWNHOLE COMMINGLING,  
LEA COUNTY, NEW MEXICO.