

CASE 3580: Application of SUNRAY  
DX OIL COMPANY FOR A WATERFLOOD  
PROJECT, EDDY COUNTY, N. MEX.

CASE NO.  
3580

Application,  
TRANSCRIPTS,  
SMALL Exhibits  
ETC.

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

Case 3580

September 24, 1968

C

Sunray DX Oil Company  
P. O. Box 1416  
Roswell, New Mexico 88201

O

Attention: Mr. F. D. Lebo

P

Gentlemen:

Reference is made to your application dated August 13, 1968, to permit the production of your Foster Eddy Well No. 2, located in Unit J of Section 17, Township 17 South, Range 31 East, Eddy County, New Mexico, into the same tank battery as other wells on the same lease authorized for waterflooding by Commission Order No. R-3241, without the necessity for monthly testing as required by Rule 701 E-3.

Y

Sunray DX Oil Company is hereby authorized to produce the subject well into the same tank battery as other wells on the lease without monthly testing for a period of six months from this date.

Very truly yours,

A. L. PORTER, Jr.  
Secretary-Director

ALP/DSN/esr

cc: Oil Conservation Commission - Artesia

⑦

**Sunray DX Oil Company**

P. O. Box 1416  
Roswell, New Mexico 88201



District Office

August 13, 1968

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

Attention: Mr. A. L. Porter, Jr.

RE: SDX Foster Eddy Waterflood  
Project R-3241  
Grayburg Jackson Pool  
Eddy County, New Mexico

*File of 1968  
Case No. 3580*

Gentlemen:

Sunray DX Oil Company requests an exception to test requirement E-3 of Statewide Rule 701 for Sunray's Foster Eddy No. 2 located in Unit J of Section 17, Township 17 South, Range 31 East, Eddy County, New Mexico. This well produces into the same tank battery as other wells on the same lease which are in the waterflood authorized by Order No. R-3241.

The Foster Eddy No. 2 produces 2 BOPD. It is requested that monthly testing and reporting of this well will be deferred until secondary response is evident in the waterflood area.

Yours truly,

SUNRAY DX OIL COMPANY

*F. D. Lebo*

F. D. LEBO  
District Engineer

FDL:prm

cc: New Mexico Oil Conservation Commission  
207 Carper Building  
Artesia, New Mexico

68 AUG 14 AM 10 09

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO

June 6, 1967

C  
O  
Mr. Booker Kelly  
White, Gilbert, Koch & Kelly  
Attorneys at Law  
Post Office Box 787  
Santa Fe, New Mexico

Dear Sir:

P  
Reference is made to Commission Order No. R-3241, recently entered in Case No. 3580, approving the SDX Foster Eddy Waterflood Project.

Y  
Injection is to be through the one authorized water injection well which shall be equipped with tubing and a packer, said packer being set at 2850 feet or approximately 58 feet above the casing shoe.

As to allowable, our calculations indicate that when the authorized injection well has 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 126 barrels per day when the Southeast normal unit allowable is 42 barrels 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

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO

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Mr. Booker Kelly  
Santa Fe, New Mexico  
June 6, 1967

C drilled, when additional wells are acquired through purchase or  
unitization, when wells have received a response to water injection, etc.

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

P Very truly yours,

A. L. PORTER, Jr.  
Secretary-Director

Y ALP/DSN/ir

cc: Mr. Frank Irby  
State Engineer Office  
Santa Fe, New Mexico

Oil Conservation Commission  
Drawer DD  
Artesia, New Mexico

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

June 1, 1967

Mr. Booker Kelly  
White, Gilbert, Koch & Kelly  
Attorneys at Law  
Post Office Box 787  
Santa Fe, New Mexico

Re: Case No. 3580  
Order No. R-3241  
Applicant:  
Sunray DX Oil Company

Dear Sir:

Enclosed herewith is a copy of the above-referenced Commission order recently entered in the subject case. Letter pertaining to conditions of approval and maximum allowable to follow.

Very truly yours,

*A. L. Porter, Jr.*  
A. L. PORTER, Jr.  
Secretary-Director

ALP/ir

Carbon copy of order also sent to:

Hobbs OCC   x    
Artesia OCC   x    
Aztec OCC         
State Engineer   x  

Other

Case 3880

Heard 5-24-67

Rev. 5-25-67

1. Grant Demray's request for a waterflood project by converting their Foster Eddy. # 4, 660/U, 1284/W line Sec. 17-175-31E to an injection well.
  2. This flood is south offset to the Sandair Keel West waterflood.
- Thur. D. J.



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. 3580  
Order No. R-3241

APPLICATION OF SUNRAY DX OIL COMPANY  
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 May 24, 1967,  
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 1st day of June, 1967, 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, Sunray DX Oil Company, seeks permis-  
sion to institute a waterflood project in the Grayburg-Jackson  
Pool by the injection of water into the Grayburg formation through  
its Foster Eddy Well No. 4, located in Unit C of Section 17, Town-  
ship 17 South, Range 31 East, NMPM, Eddy County, New Mexico.

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

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

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CASE No. 3580  
Order No. R-3241

(5) 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.

IT IS THEREFORE ORDERED:

(1) That the applicant, Sunray DX Oil Company, is hereby authorized to institute a waterflood project in the Grayburg-Jackson Pool by the injection of water into the Grayburg formation through its Foster Eddy Well No. 4, located in Unit C of Section 17, Township 17 South, Range 31 East, NMPM, Eddy County, New Mexico.

(2) That the subject waterflood project is hereby designated the SDX Foster Eddy Waterflood Project and shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

(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

  
DAVID F. CARGO, Chairman

  
GUYTON B. HAYS, Member

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



esr/

Sunray DX Oil Company

District Office



P. O. Box 1416  
Roswell, New Mexico  
May 1, 1967

*Ord 3580*

OFFICE 00  
MAY 3 AM 8  
1967

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

Gentlemen:

Sunray DX Oil Company hereby requests approval to convert Foster Eddy No. 4 to water injection service. The conversion of this well will represent an expansion to the Sinclair Keel West Waterflood project approved by the Commission in Case No. 2576, Order No. R-2268.

The subject well is presently temporarily abandoned. It is located in the NW 1/4, Section 17, T-17-S, R-31-E, Eddy County, New Mexico.

We are submitting in triplicate the following:

- (A) Plat of the area, showing proposed injection well and location of other properties within the required radius of this project.
- (B) Diagrammatic sketch of proposed injection well completion.
- (C) Waterflood data containing pertinent data.
- (D) Addressee list of operators in the area.
- (E) U.S.G.S. Form No. 9-331, indicating well history of Foster Eddy No. 4.
- (F) Letter from State Engineer granting approval.
- (G) Letter from U.S.G.S. granting approval.

DOCKET MAILED

Date 5-12-67

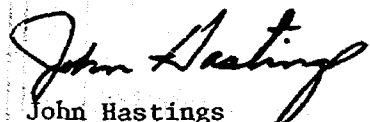
New Mexico Oil Conservation Commission  
May 1, 1967  
Page 2

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We feel that it is necessary to convert the Foster Eddy No. 4 to injection service in order to maximize oil recovery from our property as well as compliment the orderly development of the Sinclair project.

Yours truly,

SUNRAY DX OIL COMPANY

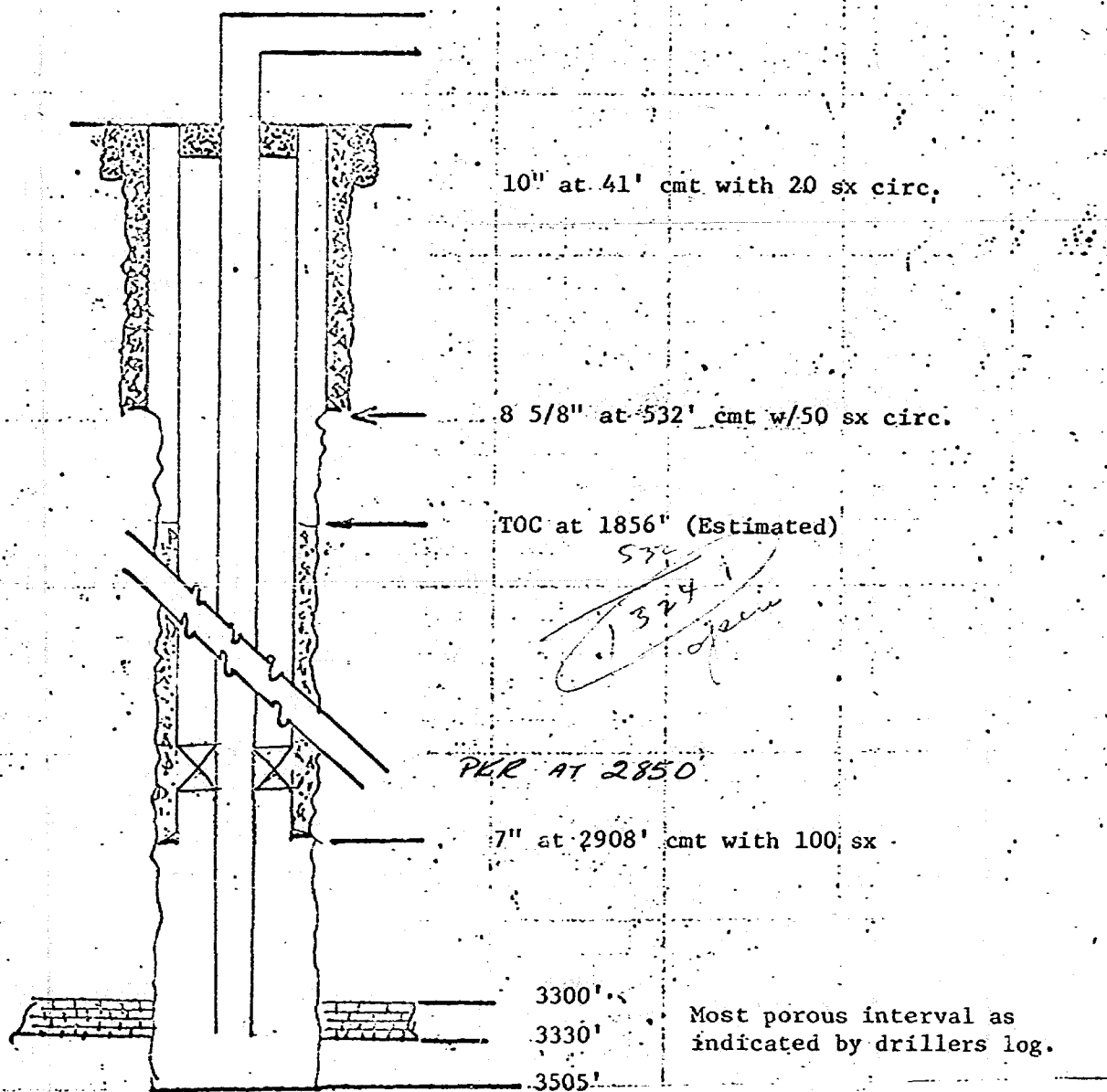


John Hastings  
Roswell District Engineer

JBH:sk

cc: N.M.O.C.C., Artesia, w/attachments  
Offset Operators as per addressee  
List - Less attachments

Diagrammatic Sketch of Injection Well  
Sunray DX Oil Company  
Lease: Foster Eddy  
Well No: 4  
Location: Unit C, Section 17,  
T-17-S, R-31-E, Eddy County,  
New Mexico.



SUNRAY OIL COMPANY

WATERFLOOD DATA

Lease: Foster Eddy

Field: Grayburg Jackson

Project: Sinclair Keel West. Commission Order No. R-2268

Well No: 4

Location of well: 660' FWL & 1980' FWL, Sec. 17-17S-31E, Eddy County, N.M.

Date well completed: 1-11-44

Present status of well: TA

Present producing formation: Grayburg-Jackson

Present producing interval: Open hole 2960'-3505'

Proposed status of well: Convert to water injection

Type of injection fluid: Fresh water

Formation in which water is to be injected ~~into~~: Grayburg formation

Top of formation: 2960

Bottom of formation: 3505

Proposed injection interval: 2960-3505

Source of injection water: Pressured water purchased from Sinclair Oil Co.

Anticipated volumes to be injected: 300 BPD

Anticipated injection pressure: 2000 psig

Maximum injection pressure: 2400 psig

Mailing address of Sunray District office which is responsible for this project: Sunray Oil Company, P. O. Box 1416, Roswell, New Mexico.

SUNRAY DX OIL COMPANY  
FOSTER EDDY LEASE  
LIST OF OFFSET OPERATORS  
GRAYBURG-JACKSON POOL  
EDDY COUNTY, NEW MEXICO

Weier Drilling Company  
P. O. Box 1266  
Monahans, Texas  
Attn: Mr. W. P. Hammond

Franklin, Aston & Fair  
P. O. Box 1090  
Roswell, New Mexico 88201  
Attn: Mr. Rogers Aston

Sinclair Oil & Gas Company  
P. O. Box 1920  
Hobbs, New Mexico 88240

Tidewater Oil Company  
P. O. Box 1231  
Midland, Texas  
Attn: Mr. R. H. Coe

Murchison & Closuit  
D-105  
Petroleum Center  
San Antonio, Texas

Kersey & Company  
P. O. Box 305  
Artesia, New Mexico  
Attn: Mr. Harold Kersey

Form 9-331  
(May 1963)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN TRIP DATE  
(Other instructions on re-  
verse side)

Form Approved.  
Budget Bureau No. 42-R1424.

6. LEASE DESIGNATION AND SERIAL NO.

0-49998A

9. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Foster Eddy

9. WELL NO.

4

10. FIELD AND POOL, OR WILDCAT

Grayburg, Jackson

11. BLM, U.S. DEPT. OF THE INTERIOR, BUREAU OF LAND MANAGEMENT, SURVEY OR AREA

Sec. 17, T-17-S, R-29-E

12. COUNTY OR PARISH 13. STATE

Eddy

New Mexico

1. OIL WELL ☒ GAS WELL ☐ OTHER ☐

2. NAME OF OPERATOR

Sunray DX Oil Company

3. ADDRESS OF OPERATOR

P. O. Box 1416, Roswell, New Mexico

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\*  
See also space 17 below.)

At surface

660' FNL & 1980' FWL of Section 17, T-17-S, R-29-E

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, CR, etc.)

3710 DF

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF ☐

FRACTURE TREAT ☐

SHOOT OR ACIDIZE ☐

REPAIR WELL ☐

(Other)

PULL OR ALTER CASING ☐

MULTIPLE COMPLETE ☐

ABANDON\* ☐

CHANGE PLANS ☐

Convert to Injection

☒

SUBSEQUENT REPORT OF:

WATER SHUT-OFF ☐

FRACTURE TREATMENT ☐

SHOOTING OR ACIDIZING ☐

(Other)

REPAIRING WELL ☐

ALTERING CASING ☐

ABANDONMENT\* ☐

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

1. Move in and rig up workover rig.
2. Pull tubing.
3. Rerun tubing with Baker Model "AD" Packer. Hydrotest tubing into hole.
4. Set packer at approximately 2850'.
5. Install injection head.
6. Start water into well.

18. I hereby certify that the foregoing is true and correct

SIGNED J.B.Hastings TITLE District Engineer

DATE March 31, 1967

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

TITLE \_\_\_\_\_

DATE \_\_\_\_\_

\*See Instructions on Reverse Side



April 10, 1967

Mr. A. L. Porter, Jr.  
Secretary-Director  
Oil Conservation Commission  
Santa Fe, New Mexico

Dear Mr. Porter:

Reference is made to Sunray DX Oil Company's application to convert their Foster Eddy No. 4 well in Unit C of Sec. 17, T. 17 S., R. 31 E., to water injection service.

Since injection is to be through tubing below a packer set well below the top of the cement surrounding the 7" casing and the fluid injected is to be fresh water, it does not appear that contamination of the fresh waters in the area is likely to occur.

FBI/ma  
cc-Sunray DX Oil Co.  
F. H. Hennighausen

Yours truly,

S. E. Reynolds  
State Engineer

By:

Frank E. Irby  
Chief  
Water Rights Div.



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY  
P. O. Drawer U  
Artesia, New Mexico 88210

IN REPLY REFER TO:

April 13, 1967

Sunray DX Oil Company  
Post Office Box 1416  
Roswell, New Mexico 88201

Gentlemen:

Your letter of April 6, 1967, requests approval to operate a waterflood of the Grayburg-San Andres formation on that portion of Oil and Gas Lease Las Cruces 049998(a) described as follows:

T. 17 S., R. 31 E., N.M.P.M., Eddy County, New Mexico

sec. 17: NE<sup>1</sup>/<sub>4</sub> NW<sup>1</sup>/<sub>4</sub>

You propose to convert to water injection well No. 4 which is on pattern with the Sinclair Keel-West Waterflood project to the north and thus an expansion of said project.

The proposed plan for operating the above described waterflood project is satisfactory to this office and hereby approved subject to like 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. When this project is expanded to involve other operators and interests, the correlative rights of all concerned should be protected.

Sincerely yours,



Robert L. Beekman  
Acting District Engineer

cc: Roswell  
Accounts

RLB:mh

No. 862819

## RECEIPT FOR CERTIFIED MAIL—20¢

SENT TO Murchison & Closuit		POSTMARK OR DATE MAY 1 1967
STREET AND NO. D-105 Petroleum Center		
CITY, STATE, AND ZIP CODE San Antonio, Texas		
EXTRA SERVICES FOR ADDITIONAL FEES		
Shows to whom and when delivered <input type="checkbox"/> 10¢ fee	Return Receipt Shows to whom, when, and where delivered <input type="checkbox"/> 35¢ fee	Deliver to Addressee Only <input type="checkbox"/> 50¢ fee
POD Form 3800 Nov. 1964 NO INSURANCE COVERAGE PROVIDED— NOT FOR INTERNATIONAL MAIL (See other side)		

No. 862818

## RECEIPT FOR CERTIFIED MAIL—20¢

SENT TO Tidewater Oil Company		POSTMARK OR DATE MAY 1 1967
STREET AND NO. P. O. Box 1231		
CITY, STATE, AND ZIP CODE Midland, Texas		
EXTRA SERVICES FOR ADDITIONAL FEES		
Shows to whom and when delivered <input type="checkbox"/> 10¢ fee	Return Receipt Shows to whom, when, and where delivered <input type="checkbox"/> 35¢ fee	Deliver to Addressee Only <input type="checkbox"/> 50¢ fee
POD Form 3800 Nov. 1964 NO INSURANCE COVERAGE PROVIDED— NOT FOR INTERNATIONAL MAIL (See other side)		

No. 862820

## RECEIPT FOR CERTIFIED MAIL—20¢

SENT TO Kersey & Company		POSTMARK OR DATE MAY 1 1967
STREET AND NO. P. O. Box 305		
CITY, STATE, AND ZIP CODE Artesia, New Mexico		
EXTRA SERVICES FOR ADDITIONAL FEES		
Shows to whom and when delivered <input type="checkbox"/> 10¢ fee	Return Receipt Shows to whom, when, and where delivered <input type="checkbox"/> 35¢ fee	Deliver to Addressee Only <input type="checkbox"/> 50¢ fee
POD Form 3800 Nov. 1964 NO INSURANCE COVERAGE PROVIDED— NOT FOR INTERNATIONAL MAIL (See other side)		

No. 862815

## RECEIPT FOR CERTIFIED MAIL—20¢

SENT TO Weier Drilling Company		POSTMARK OR DATE MAY 1 1967
STREET AND NO. P. O. Box 1266		
CITY, STATE, AND ZIP CODE Monahans, Texas		
EXTRA SERVICES FOR ADDITIONAL FEES		
Shows to whom and when delivered <input type="checkbox"/> 10¢ fee	Return Receipt Shows to whom, when, and where delivered <input type="checkbox"/> 35¢ fee	Deliver to Addressee Only <input type="checkbox"/> 50¢ fee
POD Form 3800 Nov. 1964 NO INSURANCE COVERAGE PROVIDED— NOT FOR INTERNATIONAL MAIL (See other side)		

## RECEIPT FOR CERTIFIED MAIL—20¢

SENT TO Franklin Aston & Fair		POSTMARK OR DATE MAY 1 1967
STREET AND NO. P. O. Box 1090		
CITY, STATE, AND ZIP CODE Roswell, New Mexico		
EXTRA SERVICES FOR ADDITIONAL FEES		
Shows to whom and when delivered <input type="checkbox"/> 10¢ fee	Return Receipt Shows to whom, when, and where delivered <input type="checkbox"/> 35¢ fee	Deliver to Addressee Only <input type="checkbox"/> 50¢ fee
POD Form 3800 Nov. 1964 NO INSURANCE COVERAGE PROVIDED— NOT FOR INTERNATIONAL MAIL (See other side)		

No. 862816

## RECEIPT FOR CERTIFIED MAIL—20¢

SENT TO Sinclair Oil & Gas Company		POSTMARK OR DATE MAY 1 1967
STREET AND NO. P. O. Box 1920		
CITY, STATE, AND ZIP CODE Hobbs, New Mexico 88240		
EXTRA SERVICES FOR ADDITIONAL FEES		
Shows to whom and when delivered <input type="checkbox"/> 10¢ fee	Return Receipt Shows to whom, when, and where delivered <input type="checkbox"/> 35¢ fee	Deliver to Addressee Only <input type="checkbox"/> 50¢ fee
POD Form 3800 Nov. 1964 NO INSURANCE COVERAGE PROVIDED— NOT FOR INTERNATIONAL MAIL (See other side)		

No. 862817



**SINCLAIR OIL & GAS COMPANY**

P. O. Box 1470  
MIDLAND, TEXAS 79701  
May 19, 1967

WEST TEXAS REGION

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

Attention: Mr. E. A. Utz, Examiner

Gentlemen:

Sinclair Oil & Gas Company respectfully requests that the Oil Conservation Commission give favorable consideration to the application of Sunray DX Oil Company to institute a waterflood project in the Grayburg-Jackson Pool, Eddy County, New Mexico. This matter is scheduled for hearing on May 24, 1967, Docket No. 16-67, Case #3580

Yours very truly,

R. M. Anderson  
Region Regulatory Engineer

RMA/ar

cc: Sunray DX Oil Co.  
P. O. Box 2039  
Tulsa, Oklahoma

Docket No. 16-67

DOCKET: EXAMINER HEARING - WEDNESDAY - MAY 24, 1967

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

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The following cases will be heard before Elvis A. Utz, Examiner, or Daniel S. Nutter, Alternate Examiner:

- CASE 3572: Application of Jones Exploration Company for a dual completion and for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete its State Well No. 1 located in Unit H of Section 35, Township 17 South, Range 35 East, Vacuum Field, Lea County, New Mexico, in such a manner as to permit the production of Abo Reef oil through the tubing and the disposal of produced salt water down the casing-tubing annulus into the Paddock formation in the perforated interval from 6955 to 6995 feet.
- CASE 3573: Application of Aztec Oil & Gas Company for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the South Corbin Strawn Oil Pool, including a provision for 160-acre proration units and the establishment of a 4000 to one gas-oil ratio limitation.
- CASE 3574: Application of Cima Capitan, Inc. for a waterflood project, Lea 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 Unit C of Section 3, Township 17 South, Range 32 East, Maljamar Pool, Lea County, New Mexico.
- CASE 3575: Application of Harvey E. Yates for a triple completion, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the triple completion of his Stebbins Deep Federal Well No. 1 located in Unit H of Section 30, Township 20 South, Range 29 East, Eddy County, New Mexico, to produce oil from the Scanlon Delaware Oil Pool through one string of tubing and to selectively produce gas from an undesignated Strawn gas pool and from an undesignated Morrow gas pool through another string of tubing. Selective production of one of the two gas zones at a time would be accomplished by means of a sliding side door and tubing plug.
- CASE 3576: Application of Jomar Industries, Inc. for water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, has proposed to drill certain wells in the S/2 NW/4 SE/4 and the N/2 SW/4 SE/4 of Section 30, Township 18 South, Range 38 East, Lea County, New Mexico, for production of oil from the Ogallala formation. Applicant anticipates that fresh water will be produced from the Ogallala formation incidental to the production of said oil and now seeks authority to dispose of said water back into the Ogallala formation through an injection well or wells to be located no nearer than 330 feet to the outer boundaries of the above-described acreage.

CASE 3577: Application of El Paso Natural Gas Company for four non-standard units, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval of the following non-standard gas proration units in Township 29 North, Range 7 West, Basin-Dakota Gas Pool, Rio Arriba County, New Mexico:

A 327.78-acre non-standard unit comprising the W/2 of Section 6 and the NW/4 of Section 7, to be dedicated to the San Juan 29-7 Unit Well No. 100 located 790 feet from the South line and 950 feet from the West line of said Section 6;

A 345.19-acre non-standard unit comprising the SW/4 of Section 7 and the W/2 of Section 18;

A 361.64-acre non-standard unit comprising the W/2 of Section 19 and the NW/4 of Section 30;

A 375.28-acre non-standard unit comprising the SW/4 of Section 30 and the W/2 of Section 31.

Each of the latter three non-standard units will be dedicated to a well to be drilled at an as yet undetermined standard location on the respective unit.

CASE 3578: Application of Texas Pacific Oil Company for several non-standard gas proration units, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the dedication and rededication of certain acreage and the establishment of the following non-standard gas proration units in Township 22 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico.

A 120-acre non-standard gas proration unit comprising the N/2 NE/4 and the SE/4 NE/4 of Section 7, to be dedicated to the State "A" A/c-2 Well No. 5, located in Unit A of said Section 7, and also to the State "A" A/c-2 Well No. 6 located in Unit B of said Section 7;

A 160-acre non-standard gas proration unit comprising the W/2 W/2 of Section 5, to be dedicated to the State "A" A/c-2 Well No. 41, located in Unit M of said Section 5;

An 80-acre non-standard gas proration unit comprising the E/2 NW/4 Section 5, to be dedicated to the State "A" A/c-2 Well No. 44, located in Unit F of said Section 5;

A 160-acre non-standard gas proration unit comprising the N/2 SE/4 and the E/2 SW/4 Section 5, to be dedicated to the State "A" A/c-2 Well No. 28, located in Unit I of said Section 5;

(Case 3578 continued)

An 80-acre non-standard gas proration unit comprising the S/2 SE/4 of Section 5, to be dedicated to the State "A" A/c-2 Well No. 27, located in Unit P of said Section 5;

A 160-acre non-standard gas proration unit comprising the W/2 SW/4, SE/4 SW/4, and SW/4 SE/4 Section 8, to be dedicated to the State "A" A/c-2 Well No. 54, located in Unit O of said Section 8;

A 160-acre non-standard gas proration unit comprising the S/2 NW/4, NE/4 SW/4, and NW/4 SE/4 of Section 8, to be dedicated to the State "A" A/c-2 Well No. 56, located in Unit J of said Section 8;

An 80-acre non-standard gas proration unit comprising the S/2 NE/4 of Section 8, to be dedicated to the State "A" A/c-2 Well No. 43, located in Unit H of said Section 8;

An 80-acre non-standard gas proration unit comprising the N/2 NW/4 Section 8, to be dedicated to the State "A" A/c-2 Well No. 49, located in Unit C of said Section 8;

A 240-acre non-standard gas proration unit comprising the NE/4 and E/2 NW/4 of Section 9, to be dedicated to the State "A" A/c-2 Well No. 40, located in Unit A of said Section 9;

A 240-acre non-standard gas proration unit comprising the E/2 SE/4 Section 8, and the SW/4 Section 9, to be dedicated to the State "A" A/c-2 Well No. 38, located in Unit K of said Section 9;

A 160-acre non-standard gas proration unit comprising the N/2 NE/4 Section 8, and the W/2 NW/4 of Section 9, to be dedicated to the State "A" A/c-2 Well No. 29, located in Unit D of said Section 9.

CASE 3579: Application of Texas Pacific Oil Company for three dual completions, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete its State "A" A/c-2 Wells Nos. 28, 54, and 29, located in Unit I of Section 5, Unit O of Section 8, and Unit D of Section 9, respectively, Township 22 South, Range 36 East, Lea County, New Mexico, in such a manner as to produce gas from the Jalmat Gas Pool and oil from the South Eunice Oil Pool.

CASE 3580: Application of Sunray DX Oil Company 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 formation through one well located in Unit C of Section 17, Township 17 South, Range 31 East, Grayburg-Jackson Pool, Eddy County, New Mexico.



- CASE 3581: Application of Sunray DX Oil Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres formation from 4248 feet to 4286 feet in its Harris State Well No. 5 located in Unit I of Section 23, Township 10 South, Range 32 East, Mescalero-San Andres Pool, Lea County, New Mexico.
- CASE 3582: Application of Tenneco Oil Company for two unorthodox gas well locations, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox Blanco-Mesaverde Gas Pool location of its Jicarilla C Well No. 6, located 1780 feet from the North line and 1455 feet from the West line of Section 14, and its Jicarilla C Well No. 4 located 1650 feet from the North and West lines of Section 24, all in Township 26 North, Range 5 West, Rio Arriba County, New Mexico.
- CASE 3583: Application of Stoltz & Company for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the North Bagley-Lower Pennsylvanian Pool, Lea County, New Mexico, including a provision for 80-acre spacing and proration units.
- CASE 3584: Application of Gulf Oil Corporation for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill its Eddy "BD" State Well No. 1 at an unorthodox location 660 feet from the South line and 990 feet from the East line of Section 32, Township 20 South, Range 30 East, in an undesignated Strawn gas pool, Eddy County, New Mexico.
- CASE 3585: Application of Gulf Oil Corporation for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the force-pooling of all mineral interests in the North Bagley-Pennsylvanian Oil Field, SW/4 SE/4 and SE/4 SE/4 of Section 9, Township 11 South, Range 33 East, Lea County, New Mexico, to be dedicated to the Lea State "OE" Well No. 1 to be drilled 660 feet from the South line and 1980 feet from the East line of said Section 9.
- CASE 3586: Application of Morris R. Antweil for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of its Malaga Unit Area comprising 839 acres, more or less, of Federal and Fee lands in Sections 12 and 13, Township 24 South, Range 28 East, and Sections 7 and 18, Township 24 South, Range 29 East, Eddy County, New Mexico.
- CASE 3587: Application of Morris R. Antweil 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 Delaware Sand through seven injection wells located in Sections 12 and 13, Township 24 South, Range 28 East, and Section 18, Township 24 South, Range 29 East, Malaga Pool, Eddy County, New Mexico.

- CASE 3588: Application of Pan American Petroleum Corporation for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the unorthodox location in an undesignated Morrow and/or Devonian gas pool for its Poker Lake Unit Federal Well No. 26 at a location 660 feet from the South and East lines of Section 28, Township 24 South, Range 31 East, Eddy County, New Mexico, to be dedicated to a standard unit comprising the S/2 of said Section 28.
- CASE 3589: Application of Claude C. Kennedy for special pool rules, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of special pool rules for the Slick Rock-Dakota Oil Pool comprising the S/2 SE/4 of Section 36, Township 30 North, Range 17 West, including a provision for development on 2 1/2 acre spacing with the provision that each 40-acre tract be subject to the Northwest New Mexico normal unit allowable.
- CASE 3590: Application of Texaco Inc. for a pilot waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a pilot waterflood project by the injection of water into the Pennsylvanian formation in the interval from 9650 feet to 9800 feet in its State BV Well No. 1 located in Unit E of Section 26, Township 13 South, Range 33 East, Lazy-J Pennsylvanian Pool, Lea County, New Mexico.
- CASE 3591: Application of Anadarko Production Company for a waterflood expansion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to expand its Langlie-Mattix Penrose Sand Unit Waterflood Project by the injection of water into the Penrose Sand through eight additional injection wells located in Sections 20, 28, 29, 32, and 33, all in Township 22 South, Range 37 East, Langlie-Mattix Pool, Lea County, 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. 2576  
Order No. R-2268

APPLICATION OF SINCLAIR OIL & GAS  
COMPANY FOR APPROVAL OF A WATER-  
FLOOD PROJECT, EDDY COUNTY, NEW  
MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on June 7, 1962, at Santa Fe, New Mexico, before Daniel S. Nutter, 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 21st day of June, 1962, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Daniel S. Nutter, 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, Sinclair Oil & Gas Company, seeks approval of a waterflood project in the Grayburg-Jackson Pool with the injection of water to be through seven wells located in Sections 3 and 4, Township 17 South, Range 31 East, NMPM, Eddy County, New Mexico.

(3) That the wells in the proposed project area are in an advanced stage of depletion and should be classified as "stripper" wells.

(4) That approval of the subject application will neither cause waste nor impair correlative rights; provided, however, that unless agreed to by all parties, the transfer of allowables across lease lines where royalty ownership is diverse should not be authorized.

-2-

CASE No. 2576  
Order No. R-2268

IT IS THEREFORE ORDERED:

(1) That the applicant, Sinclair Oil & Gas Company, is hereby authorized to institute a waterflood project in the Grayburg-Jackson Pool with the injection of water through the following-described wells in Township 17 South, Range 31 East, NMPM, Eddy County, New Mexico:

West "A" Well No. 8, Unit E, Section 3;  
West "A" Well No. 4, Unit G, Section 4;  
West "A" Well No. 7, Unit A, Section 4;  
West "A" Well No. 9, Unit I, Section 4;  
West "B" Well No. 3, Unit C, Section 4;  
West "B" Well No. 6, Unit E, Section 4; and  
West "B" Well No. 11, Unit K, Section 4.

(2) That the waterflood project shall be governed by Rule 701, including the allowable provisions thereof.

PROVIDED HOWEVER, That unless otherwise agreed to by all parties and evidence thereof furnished the Commission, the transfer of allowables within the project area of this waterflood shall be authorized only insofar as the transfer is made between wells having common royalty ownership.

(3) 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

EDWIN L. MECHEM, Chairman

E. S. WALKER, Member

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

S E A L

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BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
EXAMINER HEARING

May 24, 1967

-----  
IN THE MATTER OF: )

Application of Sunray DX Oil )  
Company for a waterflood project, )  
Eddy County, New Mexico. )  
-----

Case No. 3580

BEFORE: Elvis A. Utz, Examiner.

TRANSCRIPT OF HEARING

MR. UTZ: Case 3580.

MR. HATCH: Application of Sunray DX Oil Company for a waterflood project, Eddy County, New Mexico.

(Whereupon, Applicant's Exhibits 1 through 3 were marked for identification.)

MR. KELLY: Booker Kelly of White, Gilbert, Koch and Kelly on behalf of the Applicant. I have one witness and ask that he be sworn.

(Witness sworn.)

JOHN HASTINGS

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

DIRECT EXAMINATION

BY MR. KELLY:

Q Would you state your name, position and employ, please?

A John Hastings, District Engineer with Sunray DX in Roswell, New Mexico.

Q Have your qualifications as an expert engineer been made a matter of record before this Commission?

A Yes, they have.

Q Would you state briefly what Sunray seeks by this application?

A Sunray DX Oil Company is asking authority to

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initiate a waterflood project on our Foster Eddy lease. This will be done by the conversion of one well, our No. 4 well to water injection service.

Q Now, referring to what has been marked Exhibit No. 1, would you locate the well and show the project area?

A Yes. Exhibit 1 is a plat of the area. The well in question is our Foster Eddy No. 4 which is located 660 from the North and 1980 from the West of Section 17, Township 17 South, Range 31 East.

Q And what wells will be, other wells will be in this project area?

A Only the No. 4 well will be converted to injection. We would expect to have some benefit in our No. 3 and our No. 5 wells.

Q Is this project in conjunction with an existing waterflood project?

A Yes, it is. We have executed a line well agreement with Sinclair whereby they will furnish us pressured water for our injection well.

Q And what is the name of the project immediately north of this one?

A This is the Sinclair Keil West waterflood project.

Q Are the pressures and procedure of operation the same as the Sinclair Keil West project?

A That is correct, and as will be noted from the plat, this will correspond to an existing five-spot pattern on the Keil West project.

MR. KELLY: I ask that the Examiner take administrative notice of Order R-2268, which is the initial order that created the Sinclair Keil West project.

Q (By Mr. Kelly) Referring to what has been marked Exhibit No. 2, would you just briefly run through that and give the Examiner the waterflood data?

A Yes, Exhibit 2 is a tabulation of waterflood data for the proposed project. Our Foster Eddy No. 4 well was completed in 1944, present status of the well is temporarily abandoned. This well developed a tubing leak some months ago and due to the low producing nature of the well it was felt at that time that it could not be economically repaired. The well is producing in the Grayburg Jackson field. This particular well is opened in the Grayburg San Andres interval. It is producing from the open hole section of 2960 to 3505.

We would propose to convert the well to injection and inject water into this same interval. We would anticipate a volume of approximately 300 barrels per day at an injection pressure of 2,000 pounds, with possibility of possibly 2400 pounds at some later date.

The wells on this lease are presently producing



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an average of four barrels of oil per day per well and one barrel of water per day per well. Cumulative production from the lease has been 234,000 barrels. We would expect approximately 90,000 barrels benefit secondary oil as a result of this conversion.

Q Do you feel that the producing wells are now in the advanced stage of completion?

A Yes, sir, this is correct.

Q The primary source is just about exhausted?

A That is correct.

Q What is the source of your water for your injection well?

A This is fresh water which we are purchasing from Sinclair.

Q And how much water will you need?

A We are estimating 300 barrels per day.

Q Will that be a pretty constant rate?

A Yes, we expect it to be.

Q You don't anticipate that you will have any problems supplying that water?

A No, we do not.

Q Now, referring to Exhibit No. 3, which is your diagrammatic sketch of your injection well, would you briefly go through that?

A Yes. Exhibit 3 is a diagrammatic sketch of the proposed injection installation. It will be noted from the sketch 10-inch casing was set at 41 feet, cement circulated to the surface. Surface casing, 8-5/8ths surface casing was set at 532 feet and here again, cement was circulated to the surface. 7-inch casing was set at 2908 and cemented with 100 sacks of cement. We have a calculated cement top of 1856 feet. The well was then drilled in with cable tools and the open hold section 2908 to 3505 is now open for production.

We propose to install 2-3/8ths-inch injection tubing and install a packer at approximately 2850 feet. We will also load the tubing casing annulus with an inhibited fluid and install the pressure gauge on this annulus, and in this manner, if a leak in the tubing were to occur, it could be quickly found and repaired.

Q Do you feel that this installation you have shown on Exhibit 3 will insure that that water will not leak out in any other zone?

A That is correct.

Q Now, have you received approval from the State Engineer's office and the United States Geological Survey on this application?

A Yes, we have received approval from both.

Q This is federal land?

A That is correct.

Q As far as the correlative rights in this situation, referring back to Exhibit No. 1, what do you think your flow pattern will be?

A Well, we feel that correlative rights will be protected in so, so much that Sinclair, by putting water in their No. 4 well directly to the north of our property will push some oil toward our No. 5 well. We, by putting water in our No. 4, will push some oil north to the Sinclair property.

Q So this will balance your correlative rights?

A That's right.

Q In your opinion, would the granting of this application prevent waste by promoting production of oil that otherwise would be left in place and protect correlative rights?

A Yes, we do.

Q Were Exhibits 1 through 3 prepared by you or under your supervision?

A Yes, they were.

MR. KELLY: That's all we have on direct.

MR. UTZ: Do you want to introduce these at this time?

MR. KELLY: Yes.

MR. UTZ: Exhibits 1 through 3 will be entered into the record in this case.

(Whereupon, Applicant's Exhibits 1 through 3 were offered and admitted in evidence.)

MR. UTZ: Any questions of the witness?

CROSS EXAMINATION

BY MR. UTZ:

Q What type of water do you intend to inject, fresh water?

A Yes.

Q So you don't have any corrosion problem?

A There should be a minimum of corrosion.

Q You don't propose to plastic-coat the tubing?

A No, only place this inhibited fluid in the annulus.

MR. UTZ: Any questions? The witness may be excused.

(Witness excused.)

MR. UTZ: Any statements? The case will be taken under advisement.

MR. HATCH: Excuse me. I have a letter from Sinclair Oil and Gas dated May 19, 1967 supporting the application.

I N D E X

<u>WITNESS</u>	<u>PAGE</u>
JOHN HASTINGS	
Direct Examination by Mr. Kelly	2
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 <u>EXHIBITS</u>	 <u>MARKED</u>
Applicant's 1 through 3	2
	 <u>OFFERED AND ADMITTED</u>
	8

STATE OF NEW MEXICO )  
 ) ss  
COUNTY OF BERNALILLO )

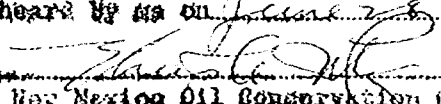
I, ADA DEARNLEY, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me; and that the same is a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.

Witness my Hand and Seal this 28th day of June, 1967.

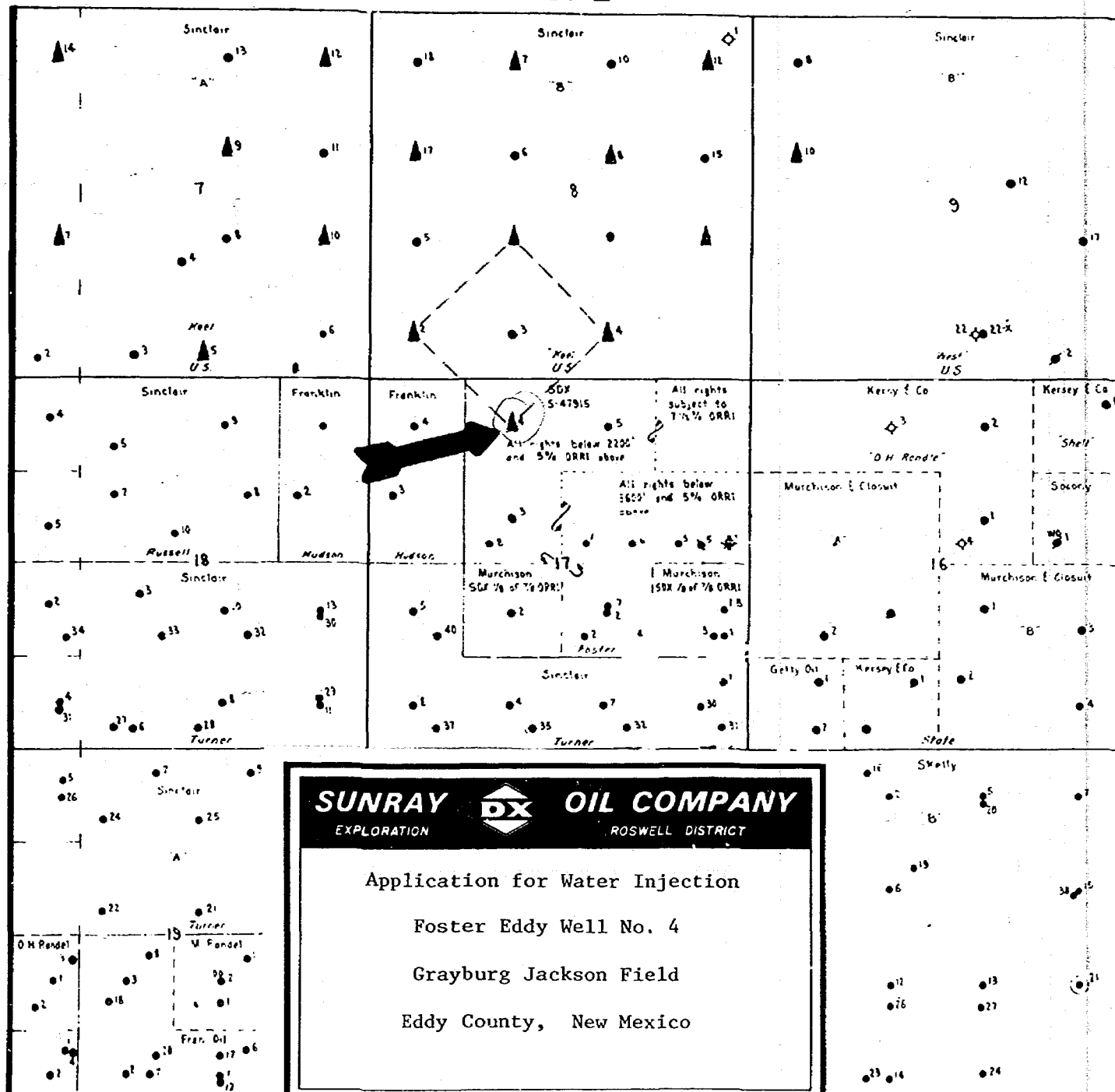
  
NOTARY PUBLIC

My Commission Expires:

June 19, 1971.

I hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 3-5-80 heard by me on June 28, 1967.  
  
Examiner  
New Mexico Oil Conservation Commission

R 31 E



**SUNRAY OIL COMPANY**  
EXPLORATION ROSWELL DISTRICT

Application for Water Injection

Foster Eddy Well No. 4

Grayburg Jackson Field

Eddy County, New Mexico

BEFORE EXAMINER UTZ  
OIL CONSERVATION COMMISSION

EXHIBIT NO.

CASE NO. 2580

T 17 S

SUNRAY OIL COMPANY

WATERFLOOD DATA

Lease: Foster Eddy

Field: Grayburg Jackson

Project: Sinclair Keel West. Commission Order No. R-2268

Well No: 4

Location of well: 660' FNL & 1980' FWL, Sec. 17-17S-31E, Eddy County, N.M.

Date well completed: 1-11-44

Present status of well: TA

Present producing formation: Grayburg-Jackson

Present producing interval: Open hole 2960'-3505'

Proposed status of well: Convert to water injection

Type of injection fluid: Fresh water

Formation in which water is to be injected into: Grayburg formation

Top of formation: 2960

Bottom of formation: 3505

Proposed injection interval: 2960-3505

Source of injection water: Pressured water purchased from Sinclair Oil Co.

Anticipated volumes to be injected: 300 EPD

Anticipated injection pressure: 2000 psig

Maximum injection pressure: 2400 psig

Mailing address of Sunray District office which is responsible for this project: Sunray Oil Company, P. O. Box 1410, Roswell, New Mexico.

BEFORE EXAMINER UTZ

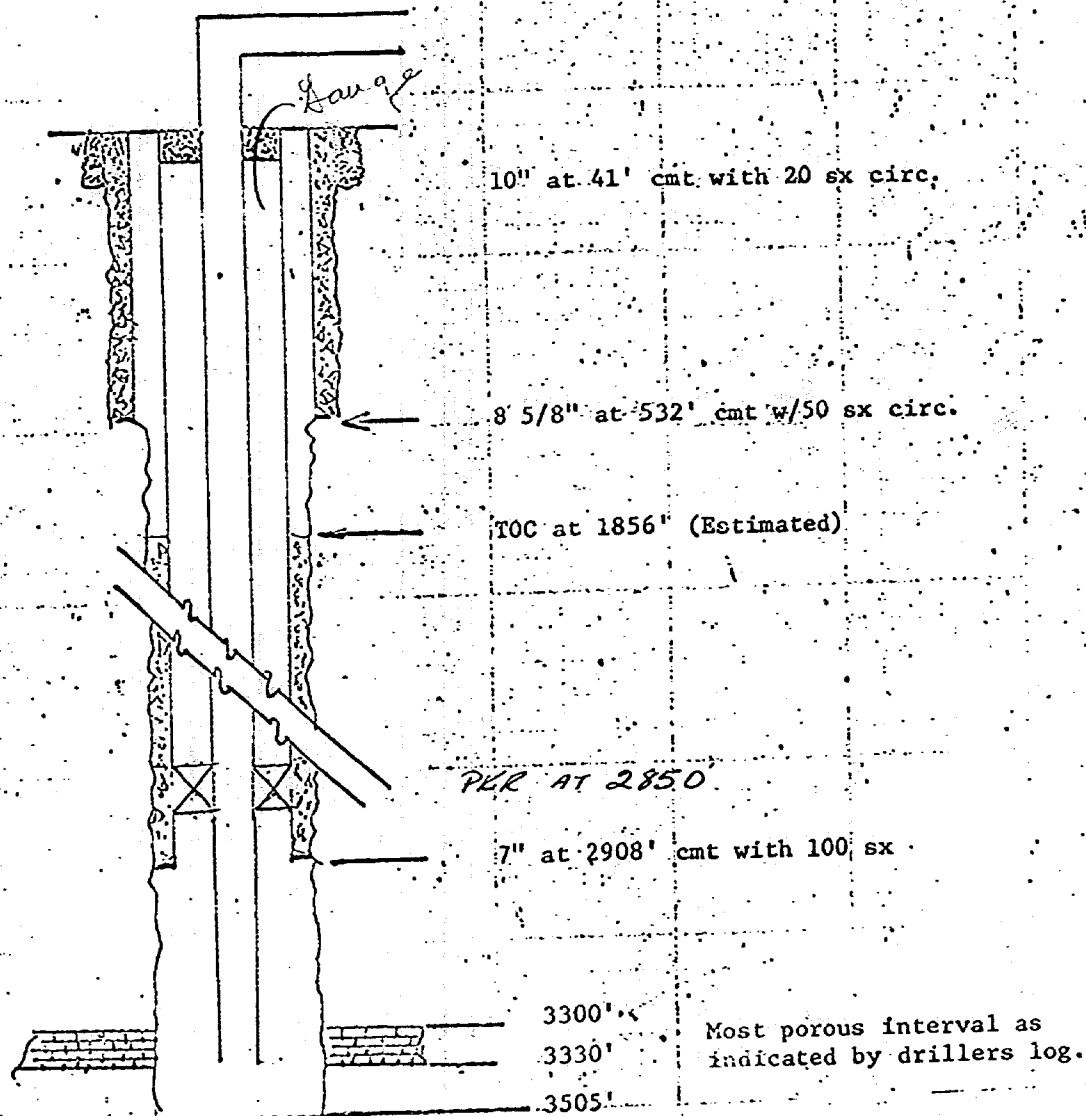
OIL CONSERVATION COMMISSION

*Appl* EXHIBIT NO. 2

CASE NO. 3580



Diagrammatic Sketch of Injection Well  
 Sunray DX Oil Company  
 Lease: Foster Eddy  
 Well No: 4  
 Location: Unit C, Section 17,  
 T-17-S, R-31-E, Eddy County,  
 New Mexico.



BEFORE EXAMINER UTZ  
 OIL CONSERVATION COMMISSION  
 EXHIBIT NO. 3  
 CASE NO. 3580