

OIL CONSERVATION DIVISION  
DISTRICT II  
ARTESIA ,NM. 83210

*M.S.*  
*Case No. 8705*

OIL CONSERVATION DIVISION  
P.O.BOX 2088  
SANTA FE, NEW MEXICO

DATE 9/18/85

RE: Proposed NSL, NSP \_\_\_\_\_  
Proposed DD \_\_\_\_\_  
Proposed MC \_\_\_\_\_  
Proposed BGW, HGW \_\_\_\_\_  
Proposed SC, DHC \_\_\_\_\_  
Proposed CTB, LC, OLS \_\_\_\_\_  
Proposed ODA \_\_\_\_\_  
Proposed SWD, PMX, WTX C-8705

Gentlemen:

I have examined the application dated CASE 8705  
for the Exxon YATES C FED # 22 E-4-21-27  
Operator Lease and Well No. Unit, S-T-R

and my recommendations are as follows:

APPROVE

Sincerely yours

*Harry Brooks.*

50 YEARS



TONEY ANAYA  
GOVERNOR

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION



1935 - 1985

POST OFFICE BOX 2088  
STATE LAND OFFICE BUILDING  
SANTA FE, NEW MEXICO 87501  
(505) 827-5800

February 13, 1986

Exxon Company, U.S.A.  
1700 West Broadway  
Andrews, Texas 79714

Attention: B. J. Ingram

RE: Amendment of Division  
Order No. R-8050

Dear Sirs:

Reference is made to your request of December 10, 1985 to amend the provision contained in Division Order R-8050, which directed the use of 2 7/8 inch cement lined tubing in the injection well. It is our understanding that you wish to use instead 2 3/8 inch plastic lined tubing in the well because of your present inventory, and that this change will in no way affect the performance of the well.

You are hereby authorized to use 2 3/8 inch plastic lined tubing for injection into your Yates Federal "C" Well No. 22, located in Unit E of Section 4, Township 21 South, Range 27 East, NMPM, Eddy County, New Mexico.

Sincerely,

R. L. Stamets  
Division Director

cc: QCD - Artesia  
Case File 8705  
David Catanach

**EXXON** COMPANY, U.S.A.  
1700 WEST BROADWAY • ANDREWS, TEXAS 79714

PRODUCTION DEPARTMENT  
ANDREWS DISTRICT

EXXON  
[illegible]

December 10, 1985

Mr. Richard L. Staments, Director  
New Mexico Oil & Gas Division  
P. O. Box 2088  
Santa Fe, New Mexico 87501

Re: NMOCD Order (#R 8050)  
Yates Federal "C" #22, SWD  
Avalon Delaware Pool  
Eddy County, New Mexico

Dear Sir:

Per your conversation with Carter Copeland, Exxon is requesting that the Division Order (#R 8050) allowing for salt water disposal in the Yates Federal "C", Well #22 be amended to allow for the use of 2-3/8" internally plastic coated tubing in lieu of 2-7/8" cement lined tubing. This change is being made because of our current inventory, and should in no way alter the performance of the well.

If you have any questions, please contact Carter Copeland, telephone 915/523-3650, ext. 229.

Yours very truly,

*For*   
B. J. Ingram  
District Manager

BJI/jm



STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION

**TONEY ANAYA**  
GOVERNOR

October 4, 1985

POST OFFICE BOX 2088  
STATE LAND OFFICE BUILDING  
SANTA FE, NEW MEXICO 87501  
(505) 827-5800

Mr. James Bruce  
Hinkle, Cox, Eaton,  
Coffield & Hensley  
Attorneys at Law  
Post Office Box 2068  
Santa Fe, New Mexico

Re: CASE NO. 8705  
ORDER NO. R-8050

Applicant:

Exxon Corporation

Dear Sir:

Enclosed herewith are two copies of the above-referenced Division order recently entered in the subject case.

Sincerely,

*B. L. Stewart*

R. L. STAMETS  
Director

RLS / fd

Copy of order also sent to:

Hobbs OCD	<u>x</u>
Artesia OCD	<u>x</u>
Aztec OCD	

Other \_\_\_\_\_



STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION

OIL CONSERVATION

19 02

BRUCE KING  
GOVERNOR

POST OFFICE BOX 2088  
STATE LAND OFFICE BUILDING  
SANTA FE, NEW MEXICO 87504  
(505) 827-5800

January 15, 1991

Exxon Company USA  
P.O. Box 1600  
Midland, Texas 79702-1600

Attention: Marsha Wilson

Re: Yates Federal "C" No. 22

Dear Marsha:

Reference is made to your request dated November 28, 1990, to increase the injection interval within the Yates Federal "C" Well No. 22 located in Section 4, Township 21 South, Range 27 East, NMPM, Eddy County, New Mexico, to include the interval from approximately 3250 feet to 3790 feet. It is our understanding that the subject well, approved for disposal by Division Order No. R-8050 is currently injecting into Delaware perforations from approximately 3976 feet to 4306 feet. I have reviewed your application and have found that there is a well located within one-half mile of the subject well which may not be cemented adequately to confine the injected fluid to the injection zone. Your data indicates that the top of cement in the Yates Federal "C" Well No. 19, also located in Section 4, is approximately 3185 feet determined by temperature survey. I don't question the top of cement in this well but I have concerns about the quality of the cement in this interval.

In order to approve the expansion of the injection interval as proposed it will be necessary to run a cement bond log on the Yates Federal "C" Well No. 19. After review of the cement bond log the Division will determine whether or not the cement in this well is adequate to confine the injected fluid to the injection zone. If you have any questions, please contact me at (505) 827-5800.

Sincerely,

A handwritten signature in cursive script that reads "David Catanach".

David Catanach  
Engineer

xc:O.C.D-Artesia

**EXXON** COMPANY, U.S.A.

POST OFFICE BOX 1600 • MIDLAND, TEXAS 79702-1600

PRODUCTION DEPARTMENT  
SOUTHWESTERN DIVISION

November 28, 1990

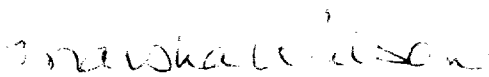
Amendment to SWD permit  
Yated Federal "C" #22  
Eddy County, New Mexico

State of New Mexico  
Energy and Minerals Department  
P.O. Box 2088  
Santa Fe, NM 87501

Exxon Corporation respectfully requests administrative approval of the enclosed application to amend the injection interval and pressure of the Yates Federal "C" #22. In support of this request, Form C-108 and its attachments are enclosed. Copies of this application are being sent by certified mail to leasehold operators within one-half mile, and the Bureau of Land Management in Roswell is being notified as surface owner. A proof of publication of a legal notice will be forwarded to you as soon as received. This publication is sent to the Carlsbad Current-Argus newspaper by certified mail.

If you have any questions or require further information regarding this submittal, please call (915) 688-7552.

Sincerely,



Marsha Wilson  
Regulatory Affairs

\mw

Attachments

c: New Mexico Oil Conservation Division  
District 2 Office  
Drawer DD  
Artesia, New Mexico

Offset Operators  
BLM-Roswell, NM

APPLICATION FOR AUTHORIZATION TO INJECT

- I. Purpose: ☐ Secondary Recovery ☐ Pressure Maintenance ☒ Disposal ☐ Storage  
Application qualifies for administrative approval? ☒ yes ☐ no
- II. Operator: Exxon Corporation  
Address: P. O. Box 1600, Midland, Texas 79702  
Contact party: Kevin P. Jensen Phone: (915) 688-6220
- III. Well data: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project? ☒ yes ☐ no  
If yes, give the Division order number authorizing the project R-8050.
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- \* VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
  2. Whether the system is open or closed;
  3. Proposed average and maximum injection pressure;
  4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
  5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- \* VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- \* X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)
- \* XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification
- I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
- Name: Kevin P. Jensen Title: Senior Engineer  
Signature: Kevin P. Jensen Date: 10/30/90
- \* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance of the earlier submittal. Information submitted with initial application for conversion of well to saltwater disposal dated August 15, 1985.
- DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate Division district office.

## II. WELL DATA

The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; location by Section, Township, and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

## IV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;
- (3) the formation name and depth with expected maximum injection rates and pressures; and
- (4) a notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

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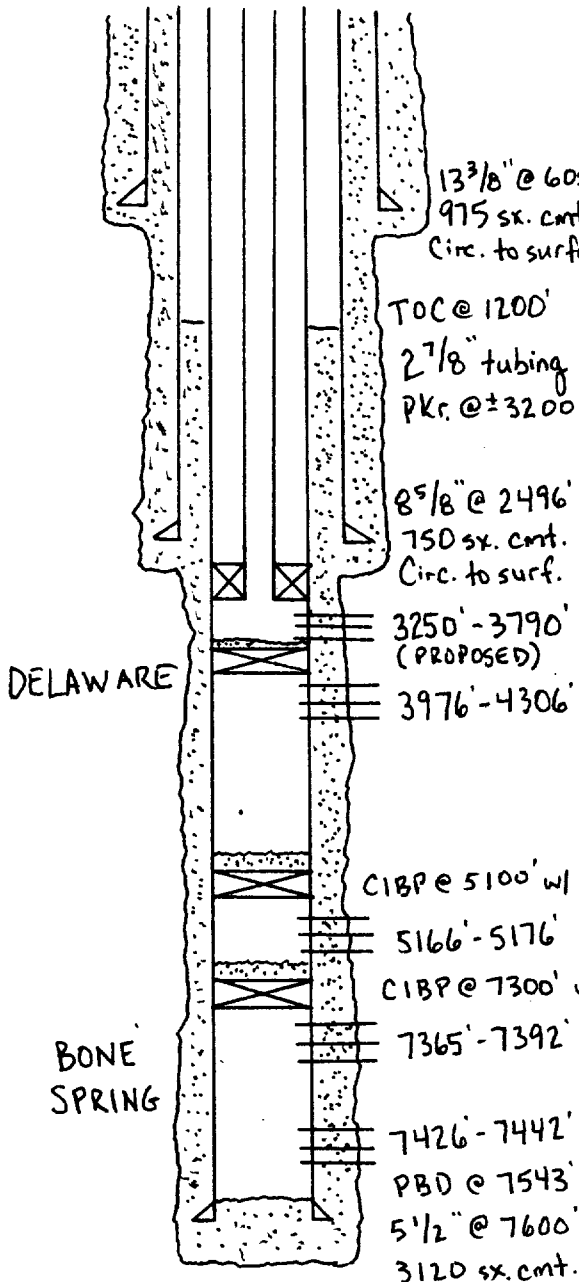
NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.



# INJECTION WELL DATA SHEET

Exxon Corporation		Yates "C" Federal		
OPERATOR		LEASE		
22	5940' FSL & 660' FWL	4	21S	27E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

## Schematic



## Tubular Data

### Surface Casing

Size 13 3/8 " Cemented with 975 sx.  
 TOC Surface feet determined by Circ.  
 Hole size 17 1/2"

### Intermediate Casing

Size 8 5/8 " Cemented with 750 sx.  
 TOC Surface feet determined by Circ.  
 Hole size 11"

### Long string

Size 5 1/2 " Cemented with 3120 sx.  
 TOC 1200 feet determined by Temp. Survey  
 Hole size 7 7/8"

Total depth 7600'

### Injection interval

3250 feet to 3790' feet  
 (perforated or open-hole, indicate which)

Tubing size 2 7/8 lined with cement set in a  
 (material)  
Baker lokset packer at + 3200 feet.  
 (brand and model)

(or describe any other casing-tubing seal).

## Other Data

- Name of the injection formation Delaware
- Name of Field or Pool (if applicable) Avalon Delaware
- Is this a new well drilled for injection? ☐ Yes ☒ No  
 If no, for what purpose was the well originally drilled? To produce oil from the Bone Spring formation.
- Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) 5166-5176', 7365-7392', 7426-7442'. Set CIBP at 7300' and spotted 50 sx cement on top. Set second CIBP at 5100' and spotted 25 sx cement on top. Sundry Notice date 9-2-87.
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. Overlying - Ceder Hills Yates (+525').  
Underlying - Avalon Bone Springs.

SUPPLEMENT TO APPLICATION FOR AUTHORIZATION TO INJECT

- V. Map is attached.
- VI. Information submitted with initial application for conversion of well to saltwater disposal dated August 15, 1985.
- VII. Proposed Operations
1. Average daily rate - 630 BPD  
Maximum daily rate - 1600 BPD  
Volume of fluids to be injected - 3,000,000 Bbls
  2. System is closed.
  3. Average injection pressure - 650 psig  
Maximum injection pressure - 650 psig
  4. The source of water that will be disposed of is from the Delaware Mountain Group. The water is being produced from the following wells: Exxon Yates Federal "C" numbers 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, 15, 17, and 18 in Section 31, T-20-S, R-28-E, Eddy County, New Mexico; Exxon Hondo "A" State numbers 1, 2, 3, and 4 in Section 32, T-20-S, R-28-E, Eddy County, New Mexico; and Hondo Fee #2 in Section 32, T-20-S, R-28-E, Eddy County, New Mexico. Attached are chemical analyses of the produced water from the Yates Federal "C" #6 (3550' - 3624') and Yates Federal "C" #8 (2570' - 2694').
  5. A chemical analysis of the disposal zone formation water is not available. However, we do not anticipate that it is significantly different from that of the Yates Federal "C" #6 or #8.
- VIII. Information submitted with initial application for conversion of well to saltwater disposal dated August 15, 1985.
- IX. Proposed stimulation program on Exxon Yates "C" Federal #22 SWD; new perforations 3250' - 3790'.
1. Set CIBP at  $\pm$  3900' and spot 25 sx. cement on top of CIBP.
  2. Perf from 3250' - 3350', 3410' - 3520', and 3610' - 3790' at 1 SP4F.
  3. Frac 3610' - 3790' with approximately 30,000 gals. gelled water and 65,000# 20-40 sand.
  4. Frac 3410' - 3520' with approximately 30,000 gals. gelled water and 65,000# 20- 40 sand.
  5. Frac 3250' - 3350' with approximately 30,000 gals. gelled water and 65,000# 20- 40 sand.
  6. Run temperature survey.
  7. Swab/flow back load.
  8. Clean wellbore and prepare to inject.
- X. Information submitted with initial application for conversion of well to saltwater disposal dated August 15, 1985.
- XI. Information submitted with initial application for conversion of well to saltwater disposal dated August 15, 1985.
- XII. There are no indications of open faults or other hydrological connections between the proposed disposal interval and fresh water zones.
- XIII. A signed statement of mailing of notice is attached, along with proof of publication.

Copies of NMOC Form C-108 were sent to the following by certified mail on November 28, 1990:

Offset Operators

Petrus Oil Co., L.P.  
12377 Merit Dr., Ste. 1600  
Dallas, TX 75251

Kerr-McGee Corp.  
3 Northpoint Dr., Ste. 100  
Houston, TX 77060

J. M. Welch  
P.O. Box 4596  
Artesia, NM 88210

G. D. Riggs  
P.O. Box 116  
Carlsbad, NM 88220

Exxon Corporation  
Houston, TX

Surface Owner

Bureau of Land Management  
Roswell Area Resource Office  
P.O. Box 1397  
Roswell, NM 88201

*Marsha M. Wilson*  
Marsha M. Wilson  
Regulatory Affairs