NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

WFX-776

RE: Proposed:
MC_____
DHC_____
NSL_____
NSP_____
SWD_____
WFX X
PMX_____

Gentlemen:

I have examined the application for the:

Newbourne Oil Co QPBSSU 3 #2-N-23-18S-32E 30-025-29679
Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

Yours very truly,

Chris Williams
Chris Williams
Supervisor, District 1

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL
RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 SOUTH PACHECO
SANTA FE, NEW MEXICO 87505

FORM C-108
Revised 4-1-98

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: ___X___ Secondary Recovery _____ Pressure Maintenance ___X___ Disposal _____ Storage
Application qualifies for administrative approval? ___X___ Yes _____ No

II. OPERATOR: Mewbourne Oil Company

ADDRESS: P. O. Box 7698 - Tyler, Texas 75711

CONTACT PARTY: K. M. Calvert PHONE: (903) 561-2900

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. **Attachment 1**

IV. Is this an expansion of an existing project? _____ Yes ___X___ No
If yes, give the Division order number authorizing the project: R-9737-A

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. **Attachment 2**

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. **Attachment 3**

VII. Attach data on the proposed operation, including: **Attachment 4**

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 geologic data on the injection zone including appropriate lithologic detail, geologic 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 sources known to be immediately underlying the injection interval. **Attachment 5**

IX. Describe the proposed stimulation program, if any. **Attachment 6** NONE

*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted). Previously Submitted. **Attachment 7**

*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. **Attachment 8**

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 sources of drinking water. **Attachment 9**

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: Sue Hearon TITLE: EngineeringTech.

SIGNATURE: Sue Hearon DATE: 7/26/01

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: C-108 5-28-93

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

III. WELL DATA

A. 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.

B. 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 the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. 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, 2040 South Pacheco, Santa Fe, New Mexico 87505, within 15 days.

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

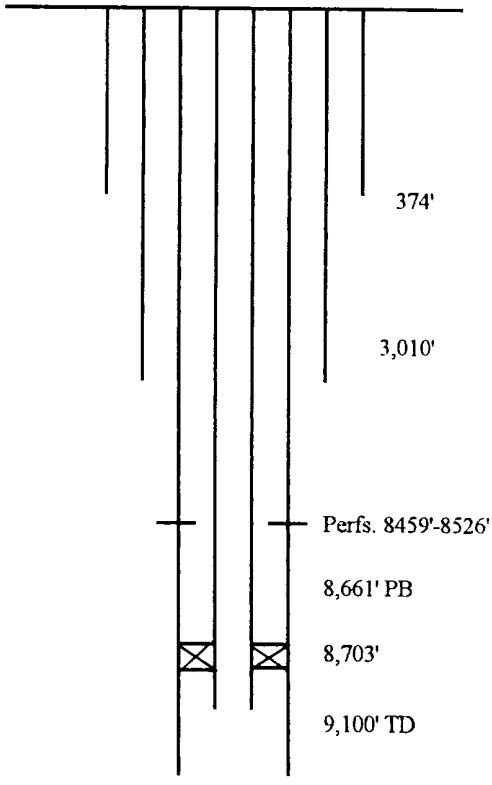
NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

INJECTION WELL DATA SHEET
(ITEM III: Attachment 1 to Form C-108)

Mewbourne Oil Company (Operator) QPBSSU (Lease) 13-2 (Well No.)

760' FSL & 2310' FWL (Location) 23 (Section) 18S (Township) 32E (Range) Lea (County) NM (State)

Schematic



Tubular Data

Surface Casing
Size 13-3/8" Cemented with 374 sx. Class H
TOC Surface Feet determined by Circ.
Hole size 17½"

Intermediate Casing
Size 8-5/8" Cemented with 1300 sx. Lite and 300 sx. Class C
TOC Surface Feet determined by Circ.
Hole size 11"

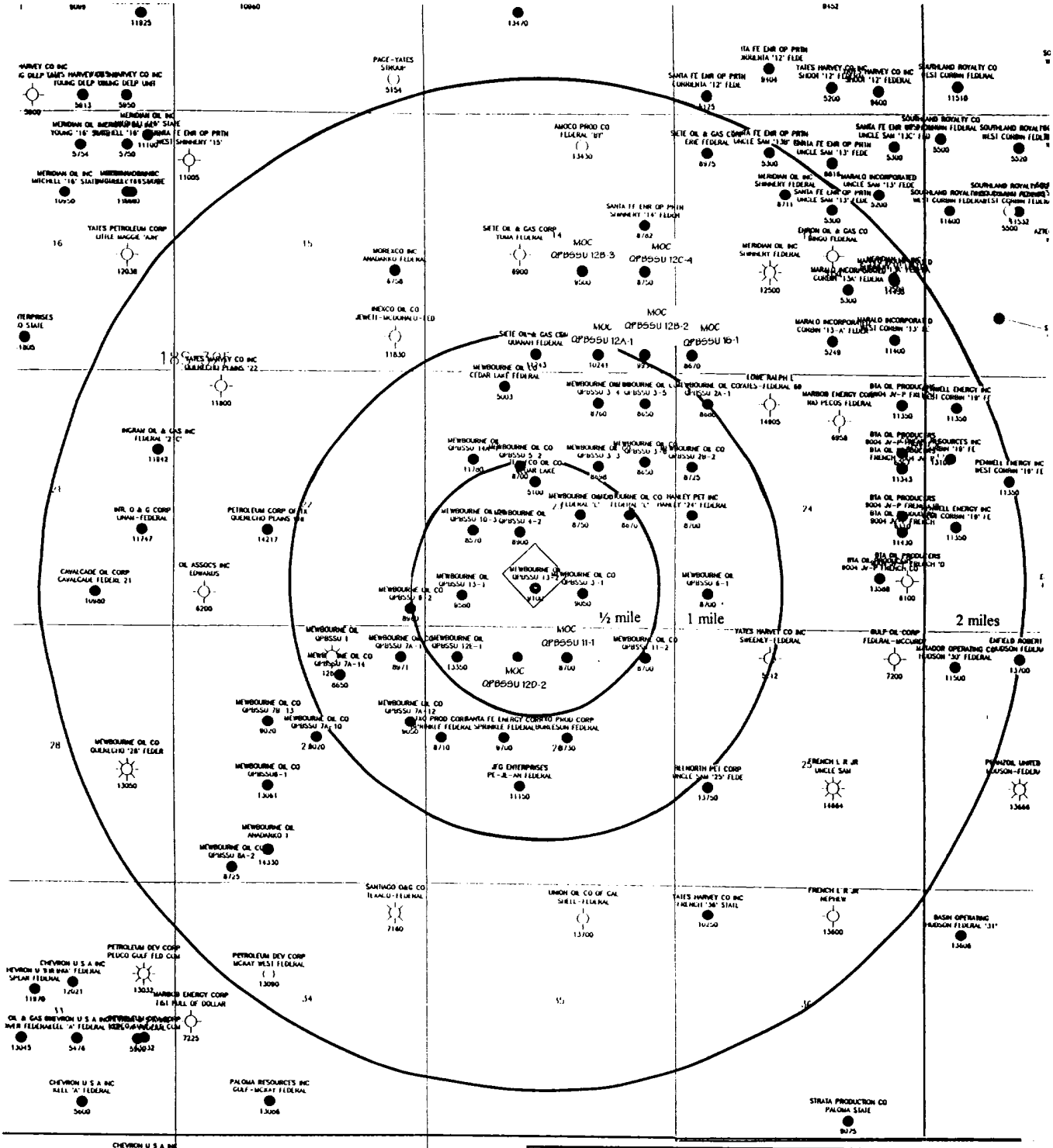
Long String
Size 5½" Cemented with 1100 sx. Class H
TOC 4350' Feet determined by Temp. Survey
Hole size 7-7/8"
Total depth 9,100'

Injection interval
8459 feet to 8526 feet - perforated

Tubing size 2-3/8" lined with Bonded PVC (material) set in a Otis Permalatch (brand and model) packer at 8703 feet

Other Data

1. Name of the injection formation Upper Bone Spring
2. Name of field or pool (if applicable) Querecho Plains - Upper Bone Springs
3. Is this a new well drilled for injection? ☐Yes ☒ No
   If no, for what purpose was the well originally drilled? Producing well
4. 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) No
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. Queen - 3890', Morrow - 12,693'



MEWBOURNE OIL COMPANY

Attachment 2
Application for Authorization to Inject

Querecho Plains Bone Spring Sand Unit 13-2
Sec. 23, T18S, R32E
Lea County, New Mexico

Scale 1" = 3000' **SH 7/20/01**

ATTACHMENT 3 TO FORM C-108
Tabulation of Data on all wells within the Area of Revies

OPERATOR	LEASE/WELL	LOCATION	TYPE	CONSTRUCTION	DATE DRILLED	TD	COMPLETION & COMMENTS
Mewbourne Oil Company	QPBSSU 5-2	Sec. 23, T18S, R32E 1980' FNL & 1980' FWL	Oil	13⅜" @ 478' CMT w/ 500 sx. 8⅝" @ 4,286' CMT w/1400 sx. 5½" @ 8,708' CMT w/1075 sx.	11/10/86	8,700'	Perfs. @ 8,435'-8,501' 8,653' PBTD
Mewbourne Oil Company	QPBSSU 10-3	Sec. 23, T18S, R32E 1980' FSL & 990' FWL	Oil Converted to injection. 12/12/93	13⅜" @ 480' CMT w/ 275 sx. 8⅝" @ 4,285' CMT w/1700 sx. 5½" @ 8,570' CMT w/1375 sx.	12/31/86	8,570'	Perfs. @ 8,362'-8,436' 8,528' PBTD
Mewbourne Oil Company	QPBSSU 4-2	Sec. 23, T18S, R32E 1950' FSL & 1980' FWL	Oil Converted to injection 10/05/92	13⅜" @ 700' CMT w/ 700 sx. 8⅝" @ 3,100' CMT w/4800 sx. 5½" @ 8,900' CMT w/ 900 sx.	9/19/86	8,900'	Perfs. @ 8,343'-8,515' Packer @ 8277'
Mewbourne Oil Company	QPBSSU 3-2	Sec. 23, T18S, R32E 2310' FSL & 2030' FEL	Oil	13⅜" @ 441' CMT w/ 450 sx. 9⅝" @ 4,293' CMT w/1800 sx. 5½" @ 8,750' CMT w/ 925 sx.	10/14/86	8,750'	Perf. @ 8,458'-8,473' 8,494'-8,508' and 8,517'-8,531' 8,660' PBTD
Mewbourne Oil Company	QPBSSU 3-7	Sec. 23, T18S, R32E 2310' FSL & 990' FEL	Oil	8⅝" @ 356' CMT w/ 250 sx. 5½" @ 8,670' CMT w/4630 sx.	5/14/88	8,670'	Perfs. @ 8,485'-8552'
Mewbourne Oil Company	QPBSSU 13-1	Sec. 23, T18S, R32E 610' FSL & 760' FWL	Oil	13⅜" @ 354' CMT w/ 385 sx. 8⅝" @ 3,047' CMT w/1475 sx. 5½" @ 8,565' CMT w/1250 sx.	12/31/85	9,580'	Perfs. @ 8,414'-8,447' 8743' PBTD
Mewbourne Oil Company	QPBSSU 3-1	Sec. 23, T18S, R32E 660' FSL & 1980' FEL	Oil	13⅜" @ 459' CMT w/ 400 sx. 8⅝" @ 4,345' CMT w/1700 sx. 5½" @ 9,050' CMT w/1050 sx.	4/22/86	9,050'	Perfs. @ 8,370'-8,390' RBP @ 8,453'
Mewbourne Oil Company	QPBSSU 12E-1	Sec. 26, T18S, R32E 660' FNL & 660' FWL	Oil converted to injection 12/29/93	13⅜" @ 536' CMT w/ 500 sx. 8⅝" @ 4,814' CMT w/1250 sx. 5½" @ 10,635' CMT w/1735 sx.	5/11/85	13,350'	Perfs. @ 8,507'-8,512' 10,595' PBTD
Mewbourne Oil Company	QPBSSU 12D-2	Sec. 26, T18S, R32E 660' FNL & 1980' FWL	Oil converted to injection 11/26/93	8⅝" @ 537' CMT w/ 400 sx. 5½" @ 8,711' CMT w/1850 sx.	10/03/85	8,711'	Perfs. @ 8,506'-8,574' Packer @ 8420'
Mewbourne Oil Company	QPBSSU 11-1	Sec. 26, T18S, R32E 660' FNL & 2310' FEL	Oil converted to injection 11/26/93	11¾" @ 350' CMT w/ 485 sx. 8⅝" @ 2,800' CMT w/1750 sx. 4½" @ 8,700' CMT w/1205 sx.	11/02/85	8,700'	Perfs. @ 8,512-8,526', @ 8,542'-8,572' 8,613' PBTD Packer @ 8426'

Attachment 4
Application for Authorization to Inject
Querecho Plains Bone Spring Sand Unit 13-2
Lea Co., NM

ITEM VII. (1) Anticipated average injection rate is 400 bwpd for the injector. Proposed maximum injection rate is 2000 bwpd for the unit.

ITEM VII. (2) The injection system will be operated as a closed system.

ITEM VII. (3) Proposed average injection pressure is 1700. Proposed maximum injection pressure is 1700.

ITEM VII. (4) See Case No. 10,761.

ITEM VII. (5) Not applicable.

Attachment 5
Application for Authorization to Inject
Querecho Plains Bone Spring Sand Unit 13-2
Lea Co., NM

The zone being target for water injection at Querecho Plains is the First Bone Spring sand at a depth from 8459'- to 8526' in the Querecho Plains Bone Spring Sand Unit 13-2, Section 23, T18S, R32E. The First Bone Spring sands are a sequence of well consolidated sandstone, silt stone, and shale strata, with localized carbonate deposition, of Permian age cemented with calcareous material. An eight percent porosity cut-off is used to determine net pay as porosity less than eight percent is considered impermeable at the existing and proposed reservoir pressure and reservoir fluid regimes. Net pay isopach maps contained in the engineering report portion of the unit plan show the areal extent of the targeted sands. Impermeable carbonate deposits exist above and below the targeted sands thus defining the permeable limits of the reservoir. All injected fluid should remain in the reservoir with the exception of cycling to the surface through well bores.

Item XI. Form C-108
Attachment 8
Application for Authorization to Inject
Querecho Plains Bone Spring Sand Unit 13-2
Lea Co., NM

There are no known fresh water wells within the area of review.

Item XII. Form C-108
Attachment 9
Application for Authorization to Inject
Querecho Plains Bone Spring Sand Unit 13-2
Lea Co., NM

The Querecho Plains Bone Spring Sand Unit waterflood has been operating approximately eight years. No know communication between the proposed injection zone and any possibly known fresh water zones has been detected.

AFFIDAVIT OF PUBLICATION

State of New Mexico,
County of Lea.

I, KATHI BEARDEN

Publisher

of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, do solemnly swear that the clipping attached hereto was published once a week in the regular and entire issue of said paper, and not a supplement thereof for a period.

of 1

weeks.

Beginning with the issue dated

July 22 2001

and ending with the issue dated

July 22 2001

Kathi Bearden

Publisher

Sworn and subscribed to before me this 23rd day of

July 2001

Jodi Henson

Notary Public.

My Commission expires
October 18, 2004
(Seal)

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937, and payment of fees for said publication has been made.

LEGAL NOTICE
July 22,2001
NOTICE OF APPLICATION FOR FLUID INJECTION WELL PERMIT
Mewbourne Oil Company
P.O. Box 7698
TYLER, TX 75711

has applied to the state of New Mexico. Oil Conservation Division, Santa Fe, New Mexico, to allow injection of produced water into the existing Querecho Plains Bone Springs Sand Unit 13-2 in the Upper Bone Spring formation at a depth of approximately 8459 feet to 8526 feet subsurface. The well is located 2310 feet from the west line and 760 feet from the south line of Section 23, Township 18 South, Range 32 East, Lea County, New Mexico. The maximum injection rate is 400 barrels of water per day at an estimated maximum pressure of 1700 psi.
Interested parties must file objections or requests for hearing within 15 days of the publication of this notice with the Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, New Mexico 87505. The applicant is Mewbourne Oil Company.
#18312

01102551000 02548694

Mewbourne Oil Company
P.O. Box 7698
TYLER, TX 75711

ITEM XIV. (C-108)
MEWBOURNE OIL COMPANY
APPLICATION FOR AUTHORIZATION TO INJECT
QPBSSU 13-2
LEA COUNTY, NEW MEXICO

CERTIFICATE OF SERVICE

I, Sue Hearon, Engineering Technician, Mewbourne Oil Company, Operator of the QPBSSU 13-2 have on this 23rd day of July 2001, mailed or caused to be mailed, postage prepaid a copy of the Application for Authorization to Inject to the Bureau of Land Management - P. O. Box 1397 - Roswell, New Mexico 88220. There are no offset operators to notify.

QPBSSU 13-2
Sec. 23, T18S, R32E
Lea County, New Mexico

Mewbourne Oil Company - P. O. Box 7698 - Tyler, Texas 75711 has applied to the State of New Mexico, Oil Conservation Division, Santa Fe, New Mexico, to allow injection of produced water into the existing Querecho Plains Bone Springs Sand Unit 13-2 in the Upper Bone Spring formation at a depth of approximately 8459 feet to 8526 feet subsurface. The well is located 2310 feet from the west line and 760 feet from the south line of Section 23, Township 18 South, Range 32East, Lea County, New Mexico. The maximum injection rate is 400 barrels of water per day at an estimated maximum pressure of 1700 psi.

Interested parties must file objections or requests for hearing within 15 days of the publication of this notice with the Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, New Mexico 87505. The applicant is Mewbourne Oil Company.

Sue Hearon
Sue Hearon, Engineering Technician

Subscribed in my presence and duly sworn to before me on this 23rdth day of July 2001.

CHERYL LITTLE
Notary Public
STATE OF TEXAS
My Comm. Exp. 5-30-2002

Notary Public, in and for Smith Co., TX