

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

June 12, 1989

GARREY CARRUTHERS  
GOVERNOR

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

Mobil Producing Texas & New Mexico  
P.O. Box 633  
Midland, Texas 79702

Attention: M. E. Sweeney

Re: North Vacuum Abo Unit Well No. 95

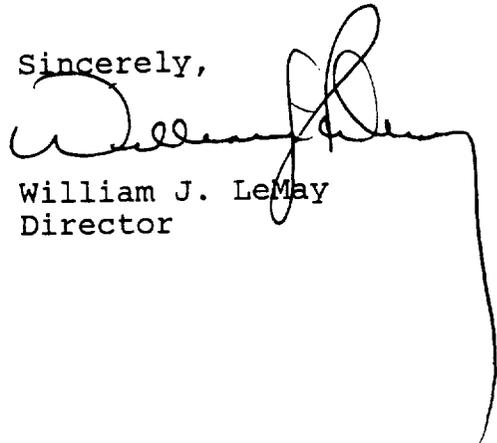
Dear Mr. Sweeney:

Reference is made to your request dated April 20, 1989, for authorization to re-utilize the North Vacuum Abo Unit Well No. 95 located 860 feet from the South line and 660 feet from the East line (Unit P) of Section 26, Township 17 South, Range 34 East, NMPM, Lea County, New Mexico, as an Abo injection well in the North Vacuum Abo Unit Pressure Maintenance Project. It is our understanding that the subject well was initially permitted as an Abo injection well by Division Order No. R-4430, dated October 27, 1972, and was subsequently converted to a Devonian salt water disposal well by Order No. SWD-282, dated March 6, 1985.

Inasmuch as the subject well meets all the qualifications for such reclassification, you are hereby authorized to utilize the North Vacuum Abo Unit Well No. 95 for injection into the Abo formation through perforations from approximately 8300 feet to 8650 feet. The packer shall be set approximately 100 feet above the uppermost perforations, and injection shall occur through 2 3/8 inch tubing. Prior to commencing injection operations, the subject well shall be pressure tested from the surface to the proposed packer setting depth to assure the integrity of said casing. The well shall be equipped with a pressure limiting device which will limit the injection pressure to no more than 1660 psi. Operation of the subject well shall be in compliance with the provisions of Division Order No. R-4430 and Rules 702-706 of the Division Rules and Regulations.

Division Order No. SWD-282 is hereby cancelled.

Sincerely,

A handwritten signature in black ink, appearing to read 'William J. Lemay'. The signature is written in a cursive style with a large, looping initial 'W'. A long, thin vertical line extends downwards from the end of the signature.

William J. Lemay  
Director

xc: OCD-Hobbs  
Case File-4831  
File-SWD-282



# Mobil Exploration & Producing U.S. Inc.

P.O. BOX 633  
MIDLAND, TEXAS 79702

April 20, 1989

MIDLAND DIVISION

New Mexico State Land Office(2)  
P.O. Box 2088  
Santa Fe, New Mexico 88240

**NOTICE OF APPLICATION FOR  
WATER INJECTION WELL  
NORTH VACUUM ABO UNIT  
WELL NO. 95  
LEA COUNTY, NEW MEXICO**

Gentlemen:

Mobil Exploration & Producing U.S. Inc. (MEPUS), respectfully requests authority to inject fresh water into the Abo formation in this wellbore.

NVAU #95 is presently an inactive produced water disposal well in the Devonian formation. MEPUS plans to abandon the Devonian perforations with a bridge plug and perforate the Abo formation. The Devonian formation proved too tight to dispose of appreciable amounts of produced water. The conversion of #95 is needed to enhance oil and gas production in two offset producers, NVAU #286 and #240.

Information supporting the application is presented on Forms C-101, C-102 and C-108.

NVAU #95 was originally permitted for Abo water injection in 1972. Based upon that initial application and injection tracer surveys run in the wellbore since, MEPUS finds no evidence of any hydrological connection between the Abo injection zone and any underground source of drinking water.

**RECEIVED**

APR 25 1989

OIL CONSERVATION DIV.  
SANTA FE

Judy Dixon is republishing  
newspaper notice + sending some  
well info on Ad web

5/15/89

Contacted Charlone 5-19-89

Will run new add for third time.

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Application  
goes in  
Case File (83)

Also copy of  
order to  
Tim Gallegos

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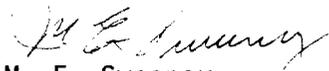
NMOCD  
North Vacuum Abo Unit  
Well No. 95  
Lea County, New Mexico

-2-

April 20, 1989

If any further information is needed, please call, J. W. Dixon at (915) 688-2452.

Yours very truly,



M. E. Sweeney  
Environmental & Regulatory Manager

Mobil Exploration & Producing U.S. Inc.  
as Agent for  
Mobil Producing Texas & New Mexico Inc.

JWD/arr

attachments

cc: NMOCD - Hobbs (w/attach)  
Offset Operators(w/attach)  
County Clerk (w/attach)

Submit to Appropriate District Office  
 State Lease -- 6 copies  
 Fee Lease -- 5 copies

State of New Mexico  
 Energy, Minerals and Natural Resources Department

Form C-101  
 Revised 1-1-89

**OIL CONSERVATION DIVISION**  
 P.O. Box 2088  
 Santa Fe, New Mexico 87504-2088

**DISTRICT I**  
 P.O. Box 1980, Hobbs, NM 88240

**DISTRICT II**  
 P.O. Drawer DD, Artesia, NM 88210

**DISTRICT III**  
 1000 Rio Brazos Rd., Aztec, NM 87410

API NO. ( assigned by OCD on New Wells)

5. Indicate Type of Lease  
 STATE  FEE

6. State Oil & Gas Lease No.

**APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK**

1a. Type of Work:  
 DRILL  RE-ENTER  DEEPEN  PLUG BACK

b. Type of Well:  
 OIL WELL  GAS WELL  OTHER Water Injection  SINGLE ZONE  MULTIPLE ZONE

2. Name of Operator  
 Mobil Producing Tx. & N.M. Inc.

3. Address of Operator  
 c/o Mobil Exploration & Producing U.S. Inc.  
 P. O. Box 633, Midland, Texas 79702

7. Lease Name or Unit Agreement Name  
 North Vacuum Abo Unit

8. Well No.  
 95

9. Pool name or Wildcat  
 Vacuum Devonian

4. Well Location  
 Unit Letter P : 860' Feet From The South Line and 660' Feet From The East Line

Section 26 Township 17S Range 34E NMPM Lea County

10. Proposed Depth  
 13,816'

11. Formation  
 Abo

12. Rotary or C.T.  
 NA

13. Elevations (Show whether DF, RT, GR, etc.)  
 KB: 4016' GL: 4003'

14. Kind & Status Plug. Bond  
 Active Blanket

15. Drilling Contractor  
 Unknown

16. Approx. Date Work will start  
 April, 1989

17. **PROPOSED CASING AND CEMENT PROGRAM**

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
17-1/2	13-3/8	48#	358'	350 sx	Surface
12-1/4	9-5/8	40#	4400'	358 sx.	Surface
8-3/4	7	23,26,29,32	13,816'	2750 sx	Surface
8-3/4	5-1/2	17#	12,500	250 sx	8149'

**PURPOSE TO CONVERT FROM DEVONIAN DISPOSAL TO ABO INJECTION**

- MIRU Workover Unit. NU BOP, test. String out of perm pkr, P00H w/2-7/8" Duolined tubing.
- MIRU Wireline Company, RIH w/5-1/2" CIBP, Set @ ± 11,990' + 35' cmt. Perforate Abo: 8360-70, 78-94; 8404-08, 19-35, 66-74, 80-82, 8488-8520' 2 SPF
- Swab test perfs 8480-8520' for production test in Lower Abo.
- RD wireline company. RIH with new 2-3/8" base injection tubing + 5-1/2" Retrievable pkr. Set pkr @ ± 8310'.
- MIRU Service Company. Treat Abo perfs with 7,000 gal 15% HCL.
- Install injection wellhead, put well on fresh water injection into Abo.

Average daily injection rate - (initial) 160 BWPD  
 Maximum daily injection rate - (initial) 160 BWPD  
 System is closed.  
 Proposed average daily injection pressure - (initial) 4140 psi  
 Proposed maximum daily injection pressure (initial) 4140 psi  
 Will inject fresh water from Ogalalla zone. Already use this water for remaining injectors in flood.  
 Well is for Abo pressure support only and not for disposal.

**IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.**

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE M. E. Sweeney M. E. Sweeney TITLE Manager Environmental & Regulatory DATE 4/21/89  
Mobil Producing Texas & New Mexico Inc.  
 acting by and through its agent  
Mobil Exploration & Producing U.S. Inc. TELEPHONE NO. (915) 688-2452

(This space for State Use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

Submit to Appropriate District Office  
 State Lease - 4 copies  
 Fee Lease - 3 copies

State of New Mexico  
 Energy, Minerals and Natural Resources Department

Form C-102  
 Revised 1-1-89

**OIL CONSERVATION DIVISION**

P.O. Box 2088  
 Santa Fe, New Mexico 87504-2088

**DISTRICT I**  
 P.O. Box 1980, Hobbs, NM 88240

**DISTRICT II**  
 P.O. Drawer DD, Artesia, NM 88210

**DISTRICT III**  
 1000 Rio Brazos Rd., Aztec, NM 87410

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

All Distances must be from the outer boundaries of the section

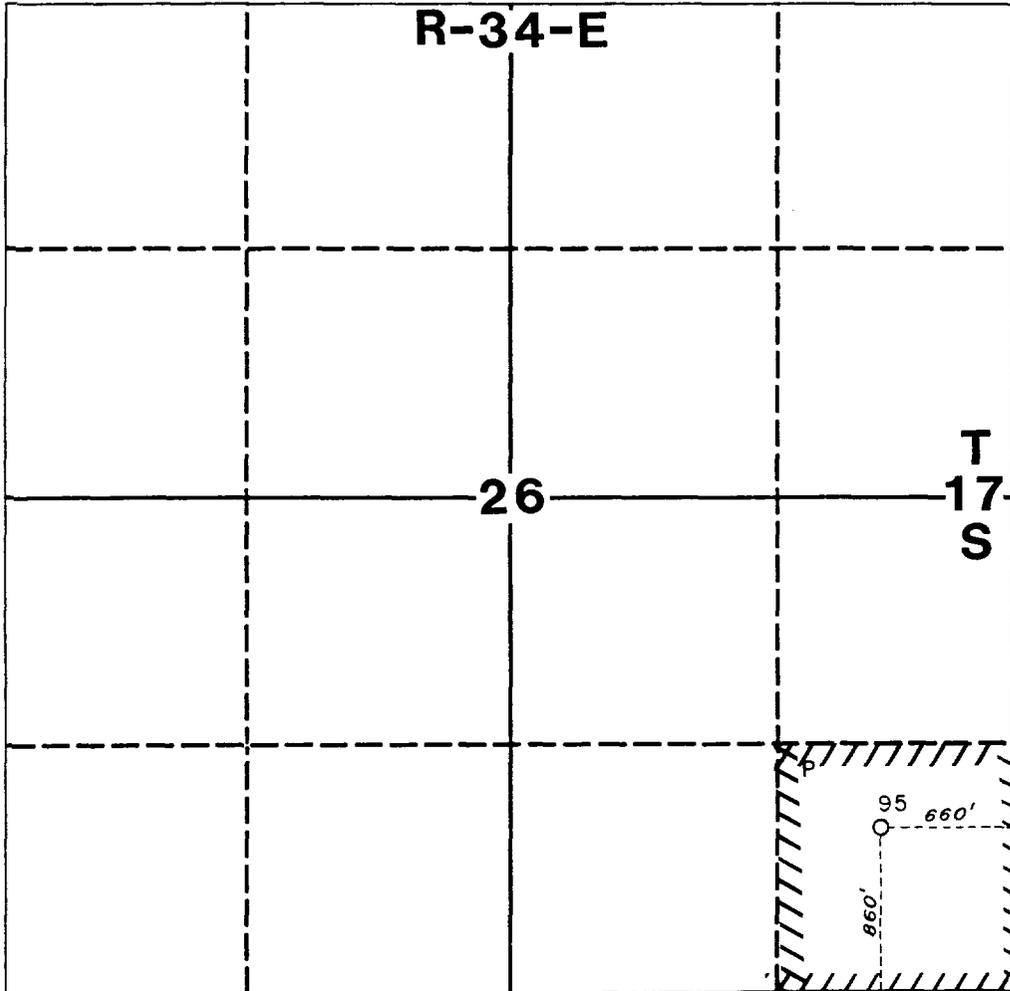
Operator Mobil Producing Tx. & N. M. Inc.		Lease North Vacuum Abo Unit		Well No. 95
Unit Letter P	Section 26	Township 17S	Range 34E	County Lea
NMPM				
Actual Footage Location of Well: 860' feet from the FSL line and 660' feet from the FEL line				
Ground level Elev. 4003'	Producing Formation Abo	Pool Vacuum Abo North	Dedicated Acreage: of well 40 Acres	

- Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization, unitization, force-pooling, etc.?
 

Yes     No    If answer is "yes" type of consolidation Unitization

If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.)

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.



**OPERATOR CERTIFICATION**

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

*M. E. Sweeney*  
 Signature

M. E. Sweeney  
 Printed Name

Manager Environmental & Regulatory  
 Position

Mobil Producing Texas & New Mexico Inc  
 Company

acting by and through its agent  
 Mobil Exploration & Producing U.S. Inc.

Date  
 4/21/89

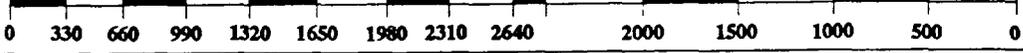
**SURVEYOR CERTIFICATION**

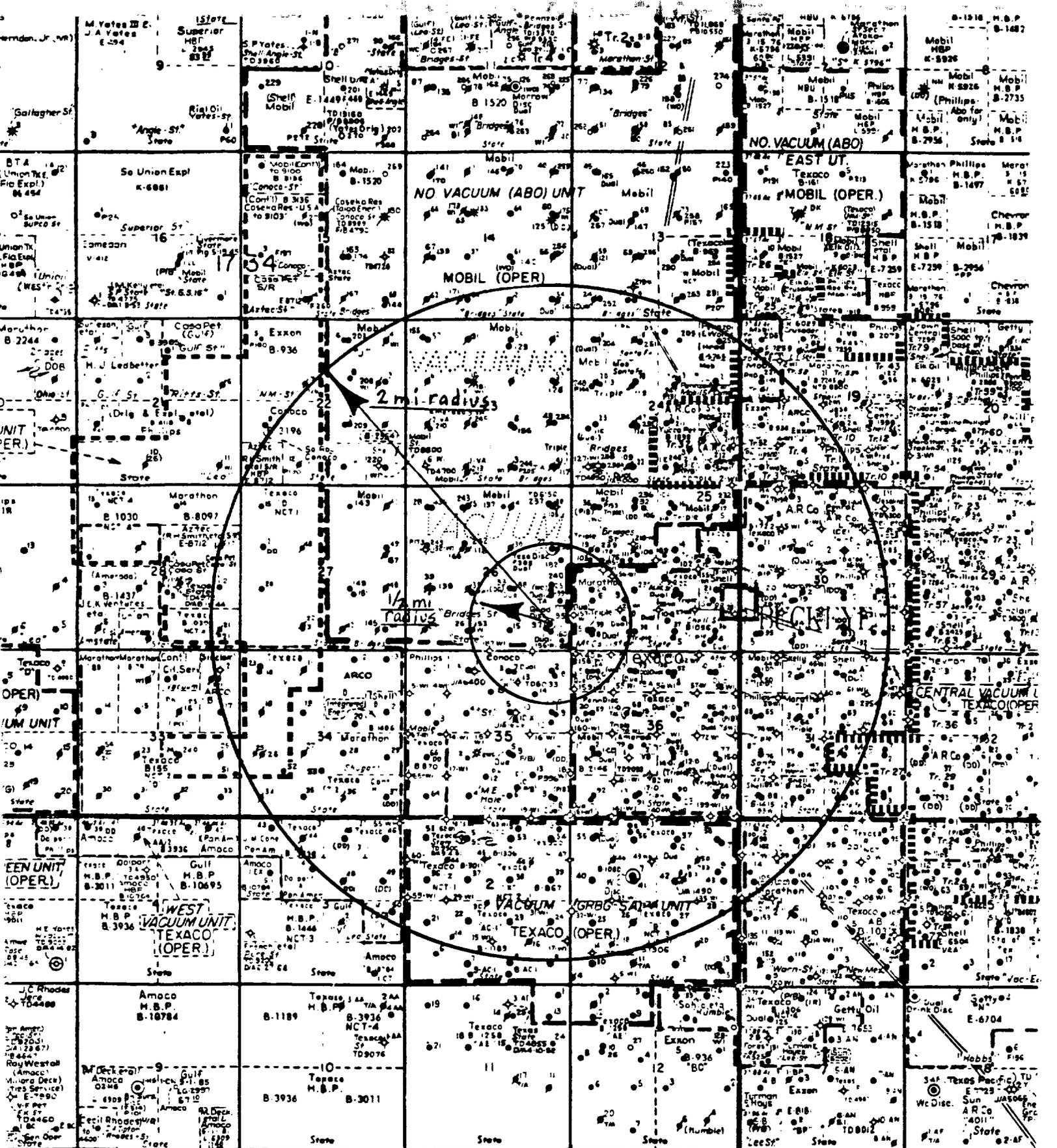
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

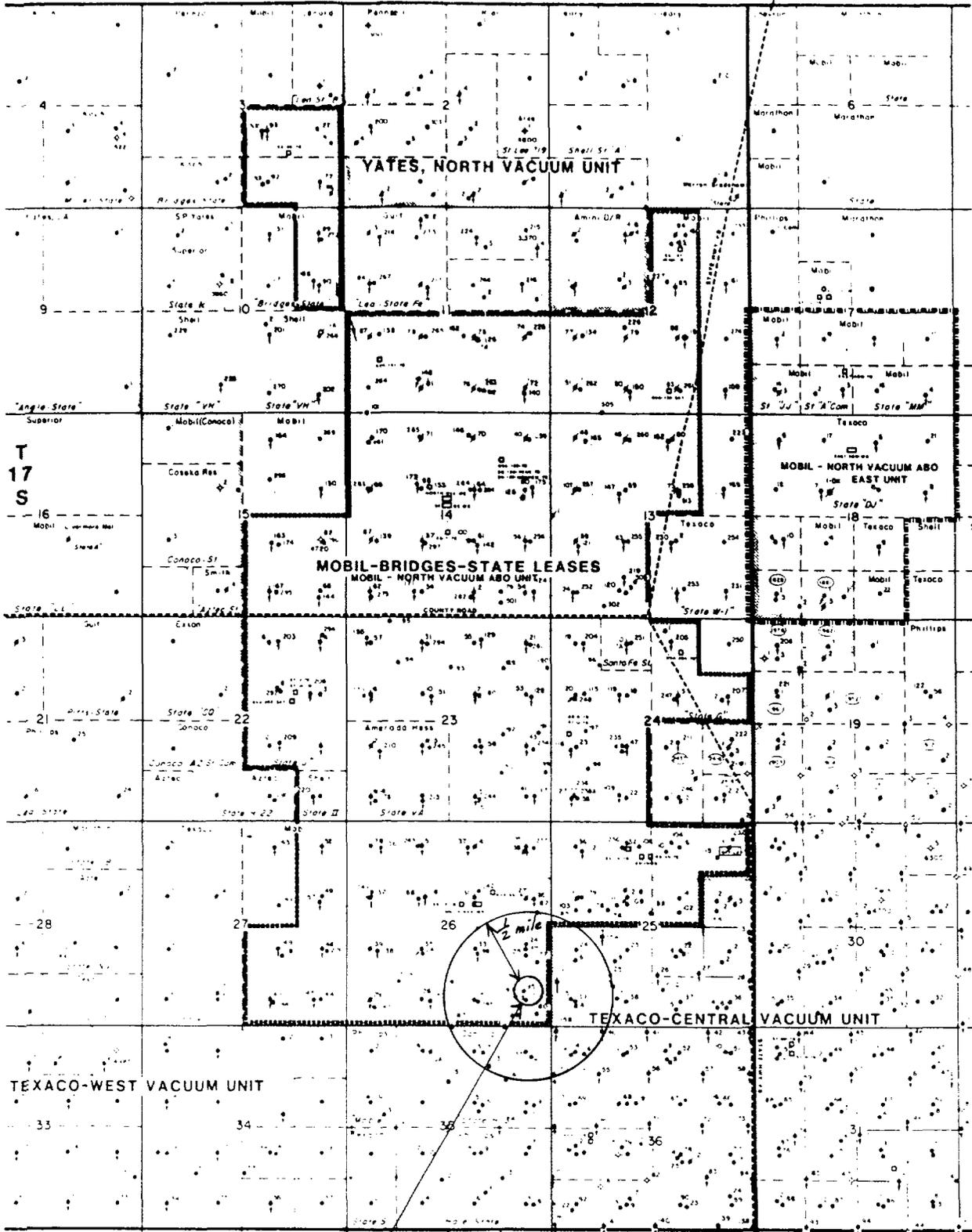
Signature & Seal of Professional Surveyor

Certificate No.





<b>Mobil Producing Texas &amp; New Mexico Inc.</b> Houston, Texas		Scale 1" = 4000'  Date _____ Drawn _____ Checked _____ Approved _____ Revised _____
NORTH VACUUM ABO UNIT WELL #95, SEC. 26, T17S, R34E LEA COUNTY, NM -AREA OF REVIEW-		
(Empty space for notes or signatures)		
(Empty space for notes or signatures)		



TO INTERSECTION WITH STATE HWY 1520

*North Vacuum Abo Unit #95 SWD  
To Be Converted To NVAU #95 W/W*

LEGEND

- PROPOSED PRODUCING WELL
- PRODUCING WELL
- ⊙ INJECTION WELL
- ⊘ PLUGGED AND ABANDONED WELL
- DRY HOLE
- PRODUCTION BATTERY OR SATELLITE
- WATER INJECTION STATION
- MOBIL - NORTH VACUUM ABO UNIT BOUNDARY
- MOBIL - BRIDGES STATE LEASES
- MOBIL - NORTH VACUUM ABO EAST UNIT BOUNDARY
- OTHER UNIT BOUNDARIES
- LEASE ROAD
- PAVED ROAD



Mobil Producing  
Texas & New Mexico Inc.  
Midland Division  
**VACUUM POOL  
BRIDGES-STATE LEASES**  
Lea County, New Mexico  
**NORTH VACUUM ABO UNIT  
ROAD MAP**

Mobil Producing Texas & New Mexico Inc.  
 North Vacuum Abo Unit  
 Well No. 95  
 Sec. 26 T17S R34E  
 860 ft. FSL & 660 ft. FEL

Tabulated data of all producing wells on public record within area of review.

Lease	Well No.	Location	Well Type	Date Drilled	Depth	Completion Interval
Mobil Producing Texas & New Mexico Inc.						
Bridges State	12	26-17S-34E	Oil	07/30/48	4,725'	San Andres 4125-4725'
"	15	26-17S-34E	Oil	11/30/48	4,780'	San Andres
"	25	26-17S-34E	Oil	02/22/39	4,750'	San Andres 4442-4726'
"	26	26-17S-34E	Oil	02/28/49	4,800'	San Andres 4629-4633'
"	33	26-17-34E	Oil		4,782'	San Andres 4471-4762'
"	97	26-17S-34E	Oil	01/21/63	6,750'	Glorietta 5974-5988'
"	99	26-17S-34E	Oil	07/18/63	6,750'	Glorietta
"	103	25-17S-34E	Oil			Glorietta 5982-6053'
"	177	25-17S-34E	Oil	01/24/74	4,850'	San Andres 4438-4733'
"	180	26-17S-34E	Oil	02/14/74	4,850'	San Andres 4228-4736'
"	182	26-17S-34E	Oil			San Andres
"	185	25-17S-34E	Inj.	12/04/84	4,900'	San Andres 4476-4621'
"	186	35-17S-34E	Inj.	12/17/83	4,900'	San Andres 4485-4713'
"	187	26-17S-34E	Inj.	01/04/84	4,800'	San Andres 4453-4748'
North Vacuum Abo Unit	96	26-17S-34E	WIW/Oil	03/03/84	12,390'	Abo 8397-8462'
"	98	26-17S-34E	Oil		11,660'	Abo 8566-8814'
"	153	26-17S-34E	Inj.	03/29/71	8,700'	Abo 8456-8614'
"	240	26-17S-34E	Oil			Abo

*Do not  
 remove to  
 Abo  
 (Green)*

Lease	Well No.	Location	Well Type	Date Drilled	Depth	Completion Interval
<b>Conoco, Inc.</b>						
	2	35-17S-34E	O11	09/20/38	4,744'	4130-4696'
	3	35-17S-34E	O11	11/05/38	4,700'	Open hole
	7	35-17S-34E	O11	02/06/63	12,413'	Abo 8312-8452' Wolfcamp 9253-10060'
	8	35-17S-34E	O11	03/30/63	6,750'	Glorietta 5964-6143' Blineberry 6391-6704'
	14	35-17S-34E	WIW	02/21/83	4,763'	Grayberg 4426-4498' & 4636-4726'
<b>Getty Oil Company or Texaco</b>						
	4					
	5	36-17S-34E	O11	04/29/63	6,710'	Glorietta 5842-6118' Blineberry 6367-6644'
	6	36-17S-34E	O11	05/25/63	12,110'	Upperpen 10121-10134' Wolfcamp 9902-10016' Abo 9070-9231'
	40	36-17S-34E	WIW	11/11/77	4,800'	San Andres 4400-4713'
	158	36-17S-34E	WIW	10/18/82	4,800'	4405-4726'
<b>Marathon or Texaco</b>						
	1					
	5	25-17S-34E	O11	12/20/62	12,195'	Wolfcamp 9948-9951' Vacuum Abo 9072-9177'
	6	25-17S-34E	O11	04/09/63	6,800'	Glorietta 5968-6017' Blineberry 6587-6719'

Lease	Well No.	Location	Well Type	Date Drilled	Depth	Completion Interval
Marathon or Texaco (cont'd)						
	7	25-17S-34E	Oil	04/08/63	12,125'	Abo 8879-9252' Wolfcamp 9902-9455' Yoper Pen 9873-10122'
	8	25-17S-34E	Oil	05/11/63	6,800'	5963-5991'
	9	25-17S-34E	Oil	06/06/63	6,800'	Glorietta 6003-6014'
	10	25-17S-34E	Oil	09/28/63	6,800'	Glorietta 6016-6018' 6022-6023' 6032-6033'
	24	25-17S-34E	Oil	12/26/38	4,780'	San Andres 4401-4747'
	25	25-17S-34E	WIW	03/24/78	4,800'	Grayberg San Andres 4379-4709'
	39	25-17S-34E	Oil	11/17/38	4,784'	San Andres 4376-4763'
	156	25-17S-34E	Inj.			
	157	25-17S-34E	Inj.			

WELLS/LEASES WITHIN TWO MILES  
OF  
NORTH VACUUM ABO UNIT #95  
THAT PENETRATE ABO ZONE OR DEEPER

Section 26

Mobil NVAU #286 Abo  
Mobil NVAU #240 Abo  
Mobil NVAU #98 WIW Abo

Section 25

Marathon McCallister State #5 Wolfcamp

Section 36

Texaco State BA #6 Upper Penn + Wolfcamp + Abo

Section 35

None

Mobil Exploration & Producing U. S.  
North Vacuum Abo Unit #95  
Sec 26 T17S R34E

I. Abo geological data was provided upon the application for water injection into the Abo.  
The permit is dated 10-27-72 and is case # 4831

II. Data on proposed operation

Average daily injection rate - 160 BWPD  
Maximum daily injection rate - 400 BWPD

\*Average injection pressure - 4140 psi  
Maximum injection pressure - 4300 psi

Fresh water from the Ogalalla formation will be used for injection into the Abo formation.

\* This was the last surface pressure at which fresh water was injected into the Abo, taken in March 1985.



ABANDONMENT PROCEDURE OF OTHER ZONES  
NVAU #95

1. McKee Sand: Dumped 50 sks cement in 7" casing. Set cast iron bridge plug at 12,500' + 50' cement on top.
2. Devonian: Set cast iron bridge plug at 11,900' + 35' cement on top.
3. Penn: Squeezed with 70 sks cement.
4. Wolfcamp: Squeezed with 250 sks cement.
5. Abo: Squeezed with 575 sks cement.
6. Ran liner over Abo, Wolfcamp, and Penn perms to complete abandonment of these zones.

Notice of Application for Fluid Injection Well Report:

APPLICANT: Mobil Exploration & Producing U.S. Inc.  
P.O. Box 633  
Midland, Texas 79702  
Telephone: 915-688-2452  
Contact: J. W. Dixon

PURPOSE: Convert to Water Injection Well, North Vacuum Abo Unit Well #95;  
Location - Section 26, Township 17S, Range 34E

OPERATIONAL CHARACTERISTICS: Formation - Abo  
Vacuum Abo North Field  
Proposed Injection Interval: 8300-8650'

Interested parties may file objections or request a hearing with the Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico 87503, within 15 days of this notice.

## APPLICATION FOR AUTHORIZATION TO INJECT

I. Purpose:  Secondary Recovery  Pressure Maintenance  Disposal  Storage  
Application qualifies for administrative approval?  yes  no

II. Operator: Mobil Producing Texas & New Mexico, Inc., acting by and through its agent  
Address: P. O. Box 633 Mobil Exploration & Producing U.S. Inc.

Contact party: J. W. Dixon Phone: (915) 688-2452

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-4430 10/27/72.

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: M. E. Sweeney Title Manager Environmental & Regulatory

Signature: *M. E. Sweeney* Date: 4-21-87

\* 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. Geological information submitted upon original permitting of

NVAU waterflood in 1972, PMX-51 - 9/20/73, PMX-138 - 11/16/85

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate Division 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 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, 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.

**North Vacuum Abo Unit #95**  
**Wellbore Information**

**Well Name, Location**

North Vacuum Abo Unit #95 (Drilled as Bridges State #95)  
P-Sec 26-T17S-R34E      860' FSL & 660' FEL

**Casing Strings, Cementing**

- 13 3/8" 48 lb/ft H-40 casing set to 358' with 350 sks cement. 17 1/2" hole. Cement was circulated to surface.
- 9 5/8" 40 lb/ft J-55 casing set to 4400' with 3600 sks cement. 12 1/4" hole. Cement was circulated to surface.
- 7" 23,26,29,32 lb/ft N-80 casing set to 13,816' with 2750 sks cement. 8 3/4" hole. Cement was circulated to surface.
- 5 1/2" 17 lb/ft N-80 casing set from 8149 - 12,500' with 250 sks cement. Cement was circulated to top of casing at 8149'.

**Injection Tubing, Packer**

8310' 2 3/8" J-55 bare injection tubing set to 8310' with Baker Lok-Set retrievable injection packer, plastic coated internally. Packer to be set at ± 8310'.

**Injection Formation**

Abo formation      Vacuum Abo North Field  
Proposed Injection Interval: 8300 - 8650'

Cased hole injection

**Miscellaneous Well Information**

Original well completion depth: Devonian  
Tested McKee 13,698-13,750'. Dumped 50 sks inside 7" casing 13488-13816'. CIBP set @ 12,500'.  
Produced Devonian 12,024-12199'. Presently open for disposal.  
Tested Penn 11,112-122'. Squeezed with 70 sks cement.  
Produced Wolfcamp 9518-9743'. Squeezed with 250 sks cement.  
Injected into Abo 8362-8451, 9070-9199'. Squeezed with 425 sks cement.  
Next higher productive zone: Blinbry 6500'  
Next lower productive zone: Wolfcamp 9500'

OPERATOR	LEASE			
95	660' FEL & 860' FSL	26	T17S	R34E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Schematic

See Attached Sheet

Tabular DataSurface CasingSize 13-3/8 " Cemented with 350 sk.TOC Surface feet determined by CirculationHole size 17-1/2"Intermediate CasingSize 9-5/8" " Cemented with 3600 sk.TOC Surface feet determined by CirculationHole size 12-1/4"Long stringSize 7" " Cemented with 2750 sk.TOC Surface feet determined by CirculationHole size 8-3/4"Total depth 13,816'Injection interval8360' feet to 8520' feet  
(perforated or open-hole, indicate which)LinerSize 5-1/2" Cemented with: 250 sksTOC: Linertop @ 8149' Determined by: CirculationHole size: 6.336"Depth of Liner: 8149-12,500'

Tubing size 2-3/8" J-55 lined with (bare, no lining) set in a  
(material)  
7" Baker Lok-Set packer at ±8310' feet  
(brand and model)

(or describe any other casing-tubing seal).

Other Data

- Name of the injection formation Abo
- Name of Field or Pool (if applicable) Vacuum Abo North
- Is this a new well drilled for injection?  Yes  No  
If no, for what purpose was the well originally drilled? Production from McKee, Devonian, Wolfcamp, Penn, Abo
- 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) Yes, see attached well sketch and list of cement plugs
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. Submitted with original field injection request in 1972. Geologic report lists Vacuum Yates, Queen, San Andres, Glorieta, Blinbry, Abo, Wolfcamp, Penn, Devonian and McKee Fields.

DATE 2-23-89

WELL NO. 95 SWD

LEASE North Vacuum Abo Unit

FIELD Vacuum

LOCATION P 26-175-34E

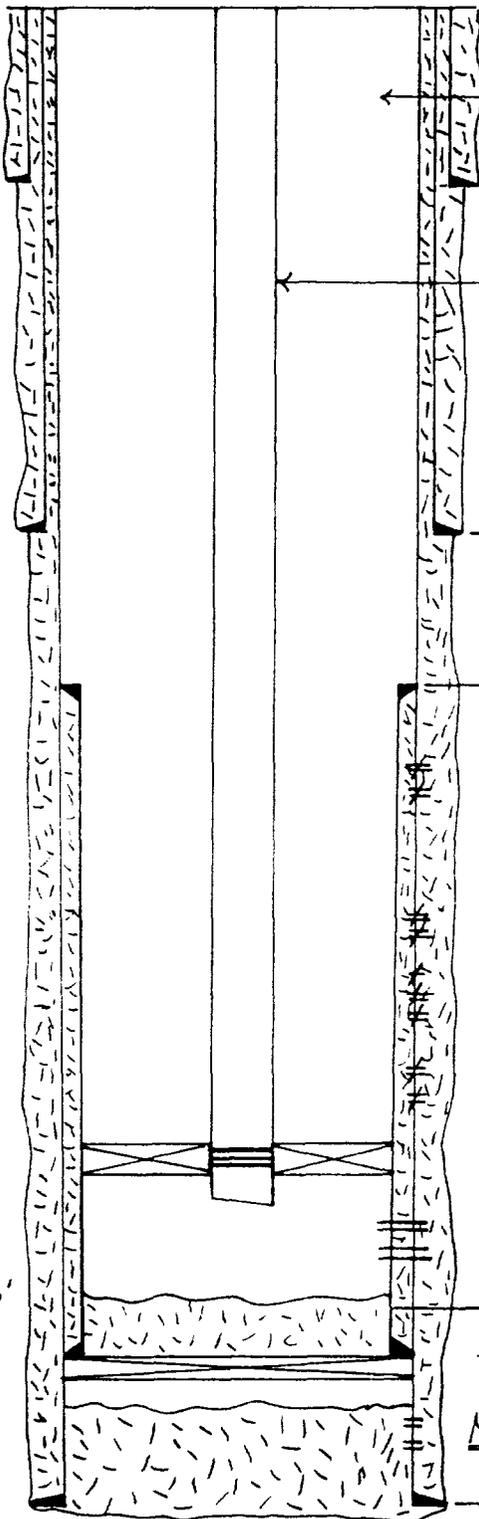
860' FSL & 660' FEL

Lea County, New Mexico

SIGNED D. G. Elwood

GL	4003'
DF	4013'
KB	4016'
ZERO	KB (13' AGL)

PRESENT WELLBORE DIAGRAM



← Annulus circ w/1% by volume NL Coat 1270 pkr fluid

— 13<sup>3</sup>/<sub>8</sub>" , 48<sup>1</sup>/<sub>2</sub> ft H-40 csg set to 358' w/350 sks, cmt circ

← 390 jts 2<sup>7</sup>/<sub>8</sub>" EUE 8<sup>rd</sup> Duolined hbq + seals

— 9<sup>5</sup>/<sub>8</sub>" , 40<sup>1</sup>/<sub>2</sub> ft J-55 csg set to 4400' w/3600 sks, cmt circ

Tight spot @ 6987'

— BOT Type C Mod Liner Hanger @ 8149'

Abo Perfs: 8362-8451' 2 JSPF 74 holes Squeezed w/250 sks, did not hold

Tight spot @ 9036-45, 53-59'

Abo Perfs: 9070-9199' 2 JSPF 88 holes Squeezed w/175 sks, did not hold

4 squeeze holes @ 9294', squeezed w/150 sks - tight spot @ 9240'

Wolfcamp Perfs: 9518-9743', 9814-9986' 103 holes Squeezed w/250 sks

Penn Perfs: 11,112-122' 11 holes Squeezed w/70 sks

5<sup>1</sup>/<sub>2</sub>" Baker Model N Perm pkr @ 11,905'

Devonian Perfs: 12,024-50, 65-90; 12,100-04, 08-12, 20-30, 62-75',  
84-99' 4 JSPF 411 holes

— 5<sup>1</sup>/<sub>2</sub>" , 17<sup>1</sup>/<sub>2</sub> ft N-80 FL-45 FJ csg set to 12,500' w/250 sks, cmt circ

7" CIBP @ 12,500'

M<sup>ee</sup> Kee Sand Perfs: 13,698-13,750', dumped 50 sks cmt

— 7" , 23, 26, 29, 32<sup>1</sup>/<sub>4</sub> N-80 csg set to 13,816' w/2750 sks, cmt circ

TD: 13,816'

PBTD:  
12,450'

FIELD vacuum

LOCATION P 26-175-34E

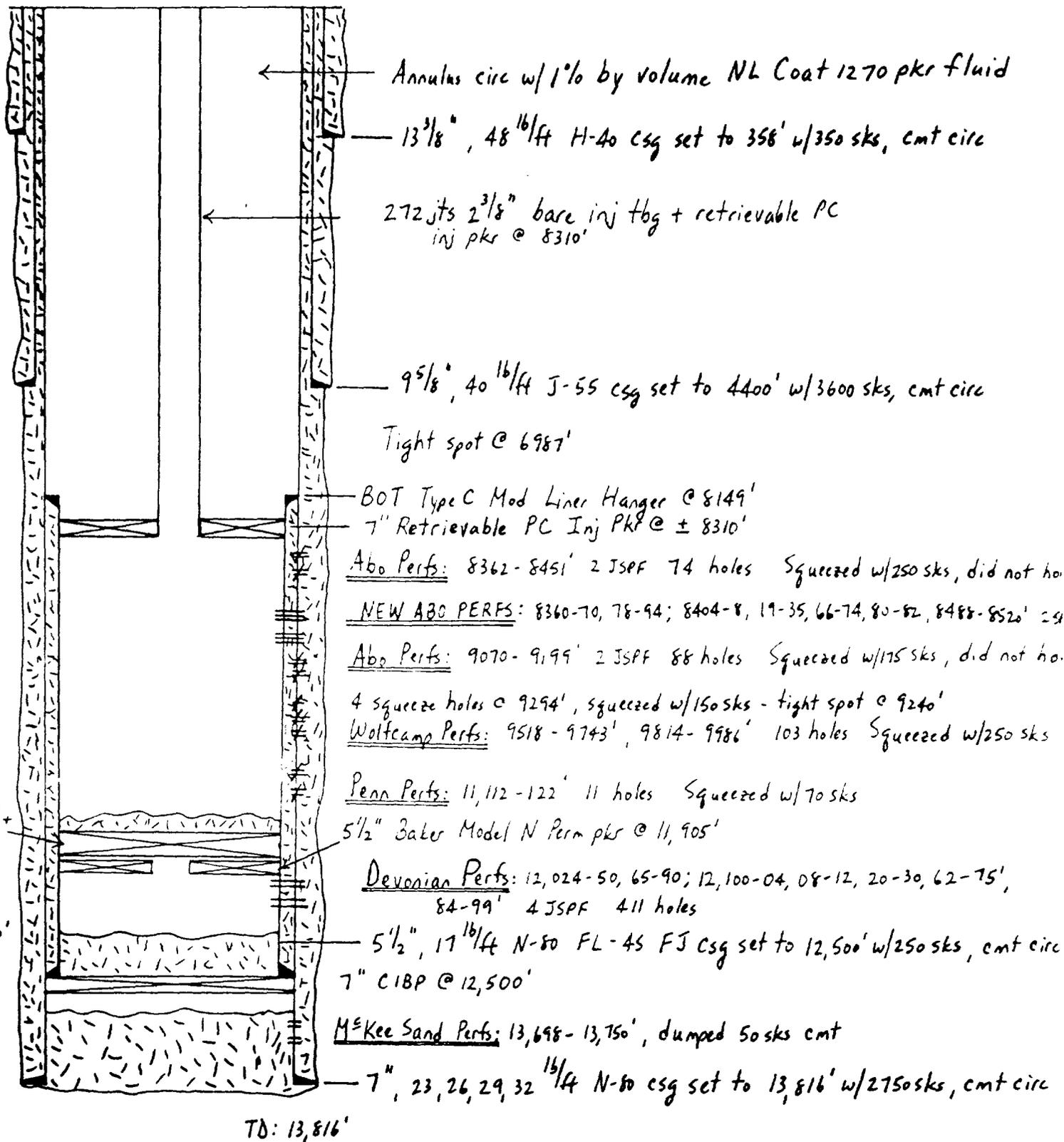
860' FSL & 660' FEL

Lea County, New Mexico

SIGNED D. G. Elwood

GL	<u>4003'</u>
DF	<u>4013'</u>
KB	<u>4016'</u>
ZERO	<u>KB (13' AGL)</u>

PROPOSED WELLBORE DIAGRAM



Mobil Producing Texas & New Mexico Inc.  
North Vacuum Abo Unit  
Well No. 95  
Sec. 26 T-17-S, R-34-E  
860 ft. FSL & 660 ft. FEL

This application was sent by certified mail to the surface owner of the land on which the well is located and to each lease operator within one-half mile radius of the well location.

Surface Owner:

New Mexico State Land Office  
P.O. Box 2088  
Santa Fe, NM 87503

Offset Operators:

Conoco, Inc.  
Attn: Dave Wacker  
P.O. Box 460  
Hobbs, New Mexico 88240

Marathon Oil Company  
Attn: Bill Holmes  
P.O. Box 552  
Midland, Texas 79702

Texaco, Inc.  
Attn: J. E. King  
P.O. Box 728  
Hobbs, New Mexico 88240

# Mobil Exploration & Producing U.S. Inc.

Certified - Mail  
Return Receipt Requested

P.O. BOX 633  
MIDLAND, TEXAS 79702

MIDLAND DIVISION

April 20, 1989

Conoco, Inc.  
P.O. Box 460  
Hobbs, New Mexico 88240

Attn: Dave Wacker

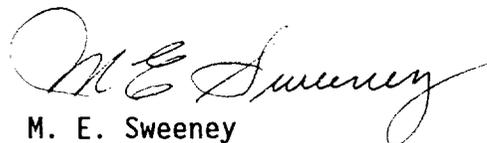
NOTICE OF APPLICATION FOR  
WATER INJECTION WELL  
NORTH VACUUM ABO UNIT  
WELL NO. 95  
LEA COUNTY, NEW MEXICO

Gentlemen:

Mobil Exploration & Producing U.S. Inc., as Agent for Mobil Producing Texas & New Mexico Inc., has made application to the Oil Conservation Commission of New Mexico for authority to inject fresh water into a reservoir productive of oil or gas in the above captioned well.

A copy of this application is furnished to you for your information.

Yours very truly,



M. E. Sweeney  
Environmental & Regulatory Manager

Mobil Exploration & Producing U.S. Inc.  
as Agent for  
Mobil Producing Texas & New Mexico Inc.

JWD/arr

attachments

cc: Oil Conservation Commission (w/attach)

A:M907987A.JWD(1)

# Mobil Exploration & Producing U.S. Inc.

Certified - Mail  
Return Receipt Requested

P.O. BOX 633  
MIDLAND, TEXAS 79702

MIDLAND DIVISION

April 20, 1989

Marathon Oil Company  
P.O. Box 552  
Midland, Texas 79702

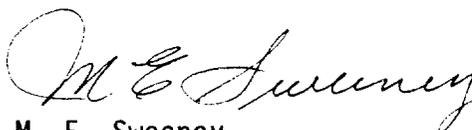
**NOTICE OF APPLICATION FOR  
WATER INJECTION WELL  
NORTH VACUUM ABO UNIT  
WELL NO. 95  
LEA COUNTY, NEW MEXICO**

Gentlemen:

Mobil Exploration & Producing U.S. Inc., as Agent for Mobil Producing Texas & New Mexico Inc., has made application to the Oil Conservation Commission of New Mexico for authority to inject fresh water into a reservoir productive of oil or gas in the above captioned well.

A copy of this application is furnished to you for your information.

Yours very truly,



M. E. Sweeney  
Environmental & Regulatory Manager

Mobil Exploration & Producing U.S. Inc.  
as Agent for  
Mobil Producing Texas & New Mexico Inc.

JWD/arr

attachments

cc: Oil Conservation Commission (w/attach)

A:M907987A.JWD(1)

# Mobil Exploration & Producing U.S. Inc.

Certified - Mail  
Return Receipt Requested

P.O. BOX 633  
MIDLAND, TEXAS 79702

MIDLAND DIVISION

April 20, 1989

Texaco, Inc.  
P.O. Box 728  
Hobbs, New Mexico 88240

Attn: J. E. King

**NOTICE OF APPLICATION FOR  
WATER INJECTION WELL  
NORTH VACUUM ABO UNIT  
WELL NO. 95  
LEA COUNTY, NEW MEXICO**

Gentlemen:

Mobil Exploration & Producing U.S. Inc., as Agent for Mobil Producing Texas & New Mexico Inc., has made application to the Oil Conservation Commission of New Mexico for authority to inject fresh water into a reservoir productive of oil or gas in the above captioned well.

A copy of this application is furnished to you for your information.

Yours very truly,



M. E. Sweeney  
Environmental & Regulatory Manager

Mobil Exploration & Producing U.S. Inc.  
as Agent for  
Mobil Producing Texas & New Mexico Inc.

JWD/arr

attachments

cc: Oil Conservation Commission (w/attach)

A:M907987A.JWD(1)

# Mobil Exploration & Producing U.S. Inc.

P.O. BOX 633  
MIDLAND, TEXAS 79702

April 20, 1989

MIDLAND DIVISION

County Clerk  
Ms. Pat Snipes  
P.O. Box 1507  
Lovington, New Mexico 88260

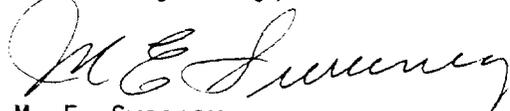
**NOTICE OF APPLICATION FOR  
WATER INJECTION WELL  
NORTH VACUUM ABO UNIT  
WELL NO. 95  
LEA COUNTY, NEW MEXICO**

Dear Ms. Snipes:

Mobil Exploration & Producing U.S. Inc., as Agent for Mobil Producing Texas & New Mexico Inc., has made application to the Oil Conservation Commission of New Mexico, to inject fresh water into a reservoir productive of oil or gas in the above captioned well.

The Oil Conservation Division requires that the enclosed application be sent to you for public information notice in the county in which the well is located. Please post the attached application as you desire.

Yours very truly,



M. E. Sweeney  
Environmental & Regulatory Manager

Mobil Exploration & Producing U.S. Inc.  
as Agent for  
Mobil Producing Texas & New Mexico Inc.

JWD/arr

attachments

cc: Oil Conservation Commission (w/attach)

A:M907987A.JWD(1)

# Affidavit of Publication

STATE OF NEW MEXICO )  
 ) ss.  
COUNTY OF LEA )

Joyce Clements being first duly sworn on oath deposes and says that he is Adv. Director of THE LOVINGTON DAILY LEADER, a daily newspaper of general paid circulation published in the English language at Lovington, Lea County, New Mexico; that said newspaper has been so published in such county continuously and uninterruptedly for a period in excess of Twenty-six (26) consecutive weeks next prior to the first publication of the notice hereto attached as hereinafter shown; and that said newspaper is in all things duly qualified to publish legal notices within the meaning of Chapter 167 of the 1937 Session Laws of the State of New Mexico.

That the notice which is hereto attached, entitled Notice Of Application For Fluid Injection Well Permit

and numbered ..... in the ..... Court of Lea County, New Mexico, was published in a regular and entire issue of THE LOVINGTON DAILY LEADER and not in any supplement thereof, once each week on the same day of the week, for one (1)

consecutive weeks, beginning with the issue of April 7, 1989

and ending with the issue of April 7, 1989

And that the cost of publishing said notice is the sum of \$ 11.67

which sum has been (Paid) (~~Advanced~~) as Court Costs

Joyce Clements

Subscribed and sworn to before me this 13th day of April, 1989

Notary Public, Lea County, New Mexico

My Commission Expires Sept. 28, 1990

## LEGAL NOTICE NOTICE OF APPLICATION FOR FLUID INJECTION WELL PERMIT

Mobil Producing Texas & New Mexico Inc., acting by and through its agent Mobil Exploration & Producing U.S. Inc., P.O. Box 633, Midland, Tx 79702

has applied to the Railroad Commission of Texas for permit to inject fluid into a formation which is productive of oil or gas.

The applicant proposes to inject fluid into the Abo, North Vacuum Abo Unit, Well Number 95. The proposed injection well is located 13 miles Southwest of Lovington, N.M. in the Vacuum North Field, in Lea County. Fluid will be injected into strata in the subsurface depth interval from 8300 to 8650 feet.

LEGAL AUTHORITY: Chapter 27 of the Texas Water Code, as amended, Title 3 of the Natural Resources Code, as amended, and the Statewide Rules of the Oil and Gas Division of the Railroad Commission of Texas.

Requests for a public hearing from persons who can show they are adversely affected, or requests for further information concerning any aspect of the application should be submitted in writing, within fifteen days of publication, to the Underground Injection Control Station, Austin, Texas 78711 (Telephone 512/463-6790).

Published in the Lovington Daily Leader April 7, 1989.

NEW MEXICO OIL CONSERVATION COMMISSION  
WELL COMPLETION OR RECOMPLETION REPORT AND LOG

No. of Spills received  
 DISTRIBUTION  
 SANTA FE  
 FILE  
 U.S.G.S.  
 LAND OFFICE  
 OPERATOR

B-1520-1  
 X  
 North Vacuum Abo Unit

19. TYPE OF WELL  
 20. TYPE OF COMPLETION  
 NEW  WELL  MORA  OTHER   
 21. Name of Operator  
**Mobil Producing TX. & N.M. Inc.**  
 22. Address of Operator  
**Nine Greenway Plaza, Suite 2700, Houston, Texas 77046**  
 23. Location of Well  
 UNIT LETTER **I** LOCATED **665** FEET FROM THE **East** SIDE OF SECTION **2131**  
 THE **South** LINE OF SEC. **26** TWP. **17S** R. **34E** S. **2131**  
 15. Date Spudded **4/07/84** Date Cemented **4/30/84** Date Production Began **5/22/84**  
 20. Total Depth **8700**

DEPTH (FEET)	LOGGING	REMARKS	AMOUNT PULLED
0-8700		Lea	4015 GR
8700			4015 GR

24. Production Intervenor(s) of this well: **8387-8564 Abo**  
 25. Type Electric and Other Logs Run: **Dual Spaced Neutron, Compensated Acoustic Velocity, Dual Guard-Fornox**  
 26. CASING RECORD (Report all strings set in well)  
 CASING SIZE: **13-3/8** WEIGHT L.B. FT.: **48#** DEPTH SET: **427** HOLE SIZE: **17-1/2** CEMENTING RECORD: **400X C (circulated)** AMOUNT PULLED:  
**8-5/8** **32#** **5000** **12-1/4** **3100X C (circulated)**  
**7-7/8**

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET
<b>5-1/2</b>	<b>4190</b>	<b>8699</b>	<b>1050</b>		<b>2-7/8</b>	<b>8575</b>	<b>SN @ 8575</b>

31. Perforation, Special Interval, size and number:  
**Perf w/1JSPF @ 8509-11, 8526-31, 8534-37, 8562-64 (16 holes)**  
**Perf w/1JSPF @ 8387-90, 8404-09, 8414-18,**  
 32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.  
 DEPTH INTERVAL: **8509-8564** AMOUNT AND KIND MATERIAL USED: **Acidized w/3500 gals. 15 DINE Fe HCl**

ILLEGIBLE

FIELD VACUUM (Dual)*	OPERATOR MARATHON OIL COMPANY	DATE 6/30/76
LEASE McCALLISTER STATE	WELL NO 5	LOCATION Sec. 25-T17S-R34E

2-7/8" Tbg. Set @ 2143'  
2-3/8" Tbg. Set From 2143-10,071'

\* Abo and Wolfcamp

16 " casing set at 380 ' with 675 sx of Trinity Reg. cement  
Hole size 24 " Cement Top Circ'd (Observed)

10-3/4" casing set at 5000 ' with 3758 sx of Lite Wate cement  
Hole size 13-3/4 " Followed w/330 sx Regular cement.  
Cement Top Circ'd (Observed)

→ Baker "J" Cement Stage Tool Set @ 7490' 3<sup>rd</sup> Stage Cemented w/465 sx Inferno  
Cement Top 3470' (T. Survey)

→ Abo, Perfs. @ 9848-9951'

→ Wolfcamp Perfs. 9848-9951'

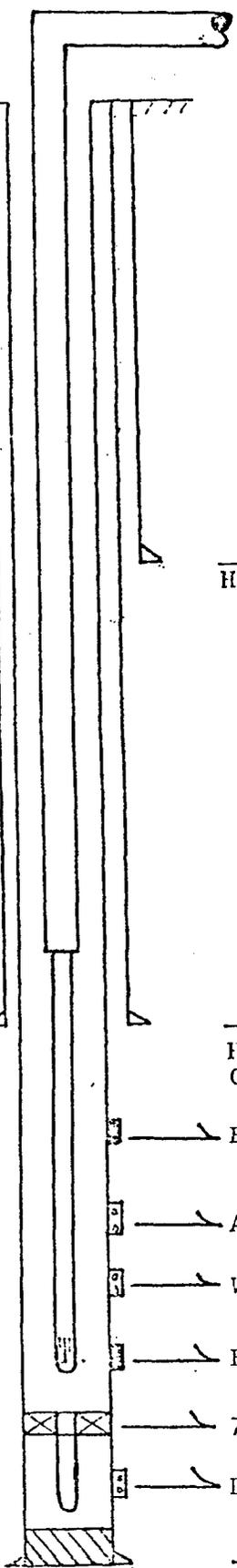
→ Baker "JB" Cement Stage Tool Set @ 10,189' 2<sup>nd</sup> Stage Cmt'd w/540 sx Inferno  
Cement Top Circ'd (Observed)

→ 7" Baker C.I. Bridge Plug Set @ 10,503'

→ Devonian Perfs. @ 12,004-12,034'

7 " casing set at 12,193 ' with \* sx of \* cement  
Total Depth 12,195' Hole size 8-3/4 "

\* 1<sup>st</sup> Stage cmt'd w/330 sx Inferno  
Cement Top Circ'd (Calc)



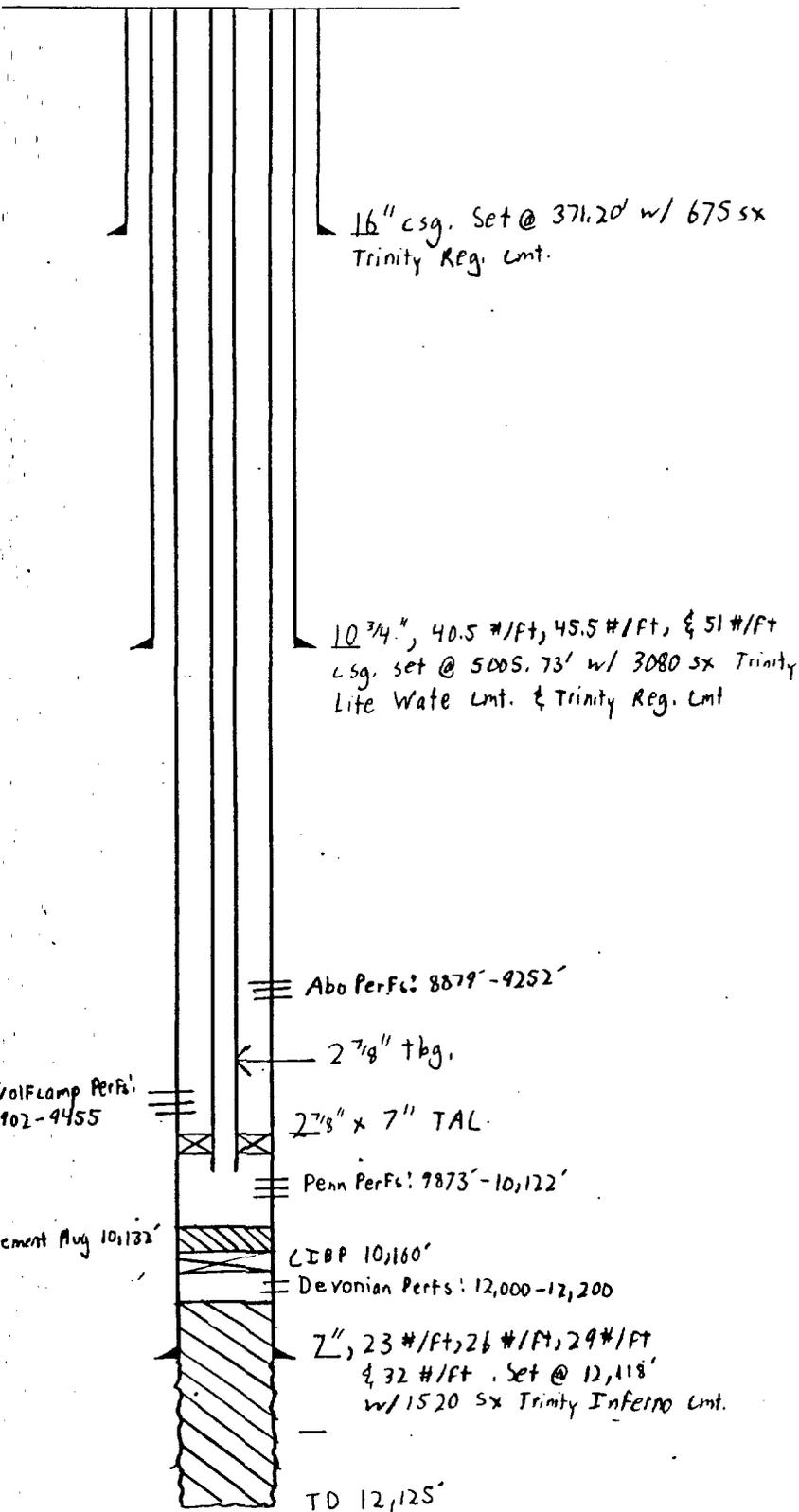
DATE 11-28-84 WELL NO. 7 LEASE Marathon's McCallister State FIELD

VALUUM Wolfcamp  
VALUUM Upper Penn  
Abo N.

LOCATION N-25-17S-34E

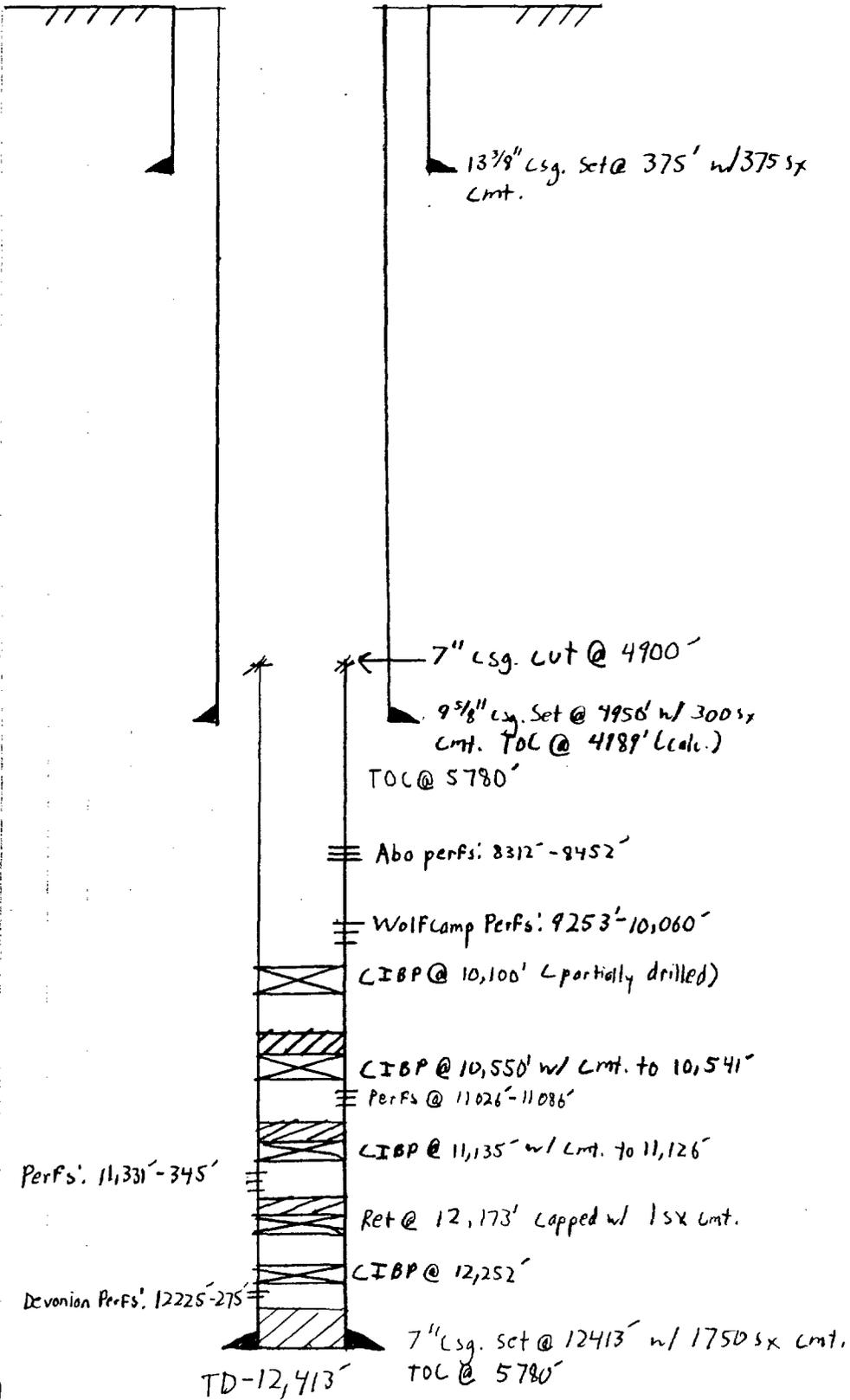
SIGNED \_\_\_\_\_

G.L. 4005'  
D.F. \_\_\_\_\_  
K.B. 4017'  
ZERO 12' AGL



FOR \_\_\_\_\_  
 LOCATION B-35-175-34E  
 SUBJECT Conoco State H-35  
Well # 7

JOB OR AUTH. NO. \_\_\_\_\_  
 PAGE \_\_\_\_\_  
 DATE 11-28-84  
 BY Valuum Abo-Wolfcamp



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DATE 11/27/84 WELL NO. 6 LEASE State BA FIELD Wolfcamp, Abo, Upper Penn

LOCATION D-36-17S-34E

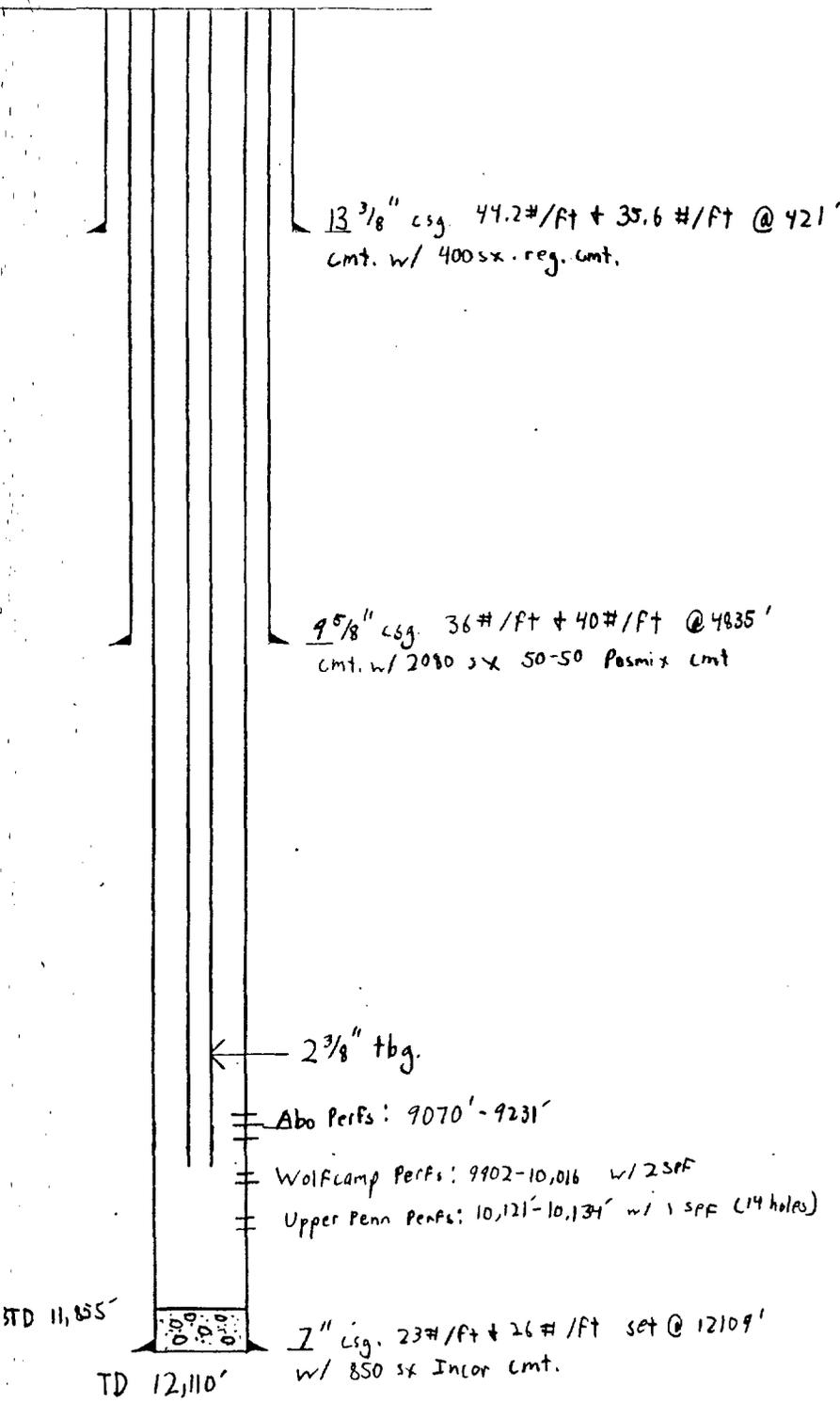
SIGNED \_\_\_\_\_

G.L. 4002'

D.F. \_\_\_\_\_

K.B. \_\_\_\_\_

ZERO \_\_\_\_\_



**RECEIVED**

**Mobil Exploration & Producing U.S., Inc.**

May 26, 1989

JUN - 1 1989

New Mexico State Land Office  
P. O. Box 2088  
Santa Fe, New Mexico 88240

OIL CONSERVATION DIV.  
P.O. BOX 2088  
SANTA FE  
MIDLAND, TEXAS 79702

MIDLAND DIVISION

Attention: David Catanach

**NOTICE OF APPLICATION FOR  
WATER INJECTION WELL  
NORTH VACUUM ABO UNIT  
WELL NO. 95  
LEA COUNTY, NEW MEXICO**

Gentlemen:

Per your request for casing and cementing on North Vacuum Abo Unit Nos. 96, 98, and 153, please find the following information:

Well 96 - 13-3/8" set to 365' w/350 sks cmt,  
cmt circulated to surface.  
9-5/8" set to 4400' w/2400 sks cmt,  
cmt circulated to surface.  
7-5/8" set to 11,515' w/1150 sks,  
cmt top at 6630 (temp survey).  
Perf at 6620', circulated 860 sks cmt to surface.

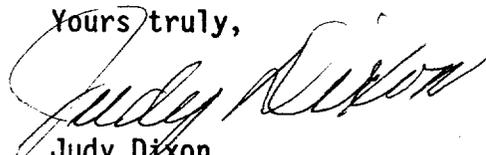
Well 98 - 13-3/8" set to 362' w/350 sks cmt,  
cmt circulated to surface.  
10-3/4" set to 4400' w/1732 sks,  
cmt circulated to surface.  
4-1/2" (string 3) set to 10,217' w/3450 sks,  
cmt circulated to surface.  
2-7/8" (string 2) set to 11,657' P&A'd  
2-7/8" (string 1) set to 11,657' P&A'd

Well 153: 8-5/8" set to 1600' w/1000 sks,  
cmt circulated to surface.  
5-1/2" set to 8700' w/4100 sks cement,  
Top of cement at 2600' (temp survey),  
Perf at 1706', circulated 400 sks to surface.

Also, please be advised Newspaper publication will be forthcoming.

If you need any additional information, please advise.

Yours truly,



Judy Dixon  
Env. & Reg. Technician

JWDixon

A:M907987A.JWD(1)

# Mobil Exploration & Producing U.S. Inc.

P.O. BOX 633  
MIDLAND, TEXAS 79702

April 20, 1989

MIDLAND DIVISION

New Mexico State Land Office(2)  
P.O. Box 2088  
Santa Fe, New Mexico 88240

**RECEIVED**

APR 25 1989

OIL CONSERVATION DIV.  
SANTA FE

**NOTICE OF APPLICATION FOR  
WATER INJECTION WELL  
NORTH VACUUM ABO UNIT  
WELL NO. 95  
LEA COUNTY, NEW MEXICO**

Gentlemen:

Mobil Exploration & Producing U.S. Inc. (MEPUS), respectfully requests authority to inject fresh water into the Abo formation in this wellbore.

NVAU #95 is presently an inactive produced water disposal well in the Devonian formation. MEPUS plans to abandon the Devonian perforations with a bridge plug and perforate the Abo formation. The Devonian formation proved too tight to dispose of appreciable amounts of produced water. The conversion of #95 is needed to enhance oil and gas production in two offset producers, NVAU #286 and #240.

Information supporting the application is presented on Forms C-101, C-102 and C-108.

NVAU #95 was originally permitted for Abo water injection in 1972. Based upon that initial application and injection tracer surveys run in the wellbore since, MEPUS finds no evidence of any hydrological connection between the Abo injection zone and any underground source of drinking water.

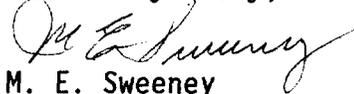
NMOCD  
North Vacuum Abo Unit  
Well No. 95  
Lea County, New Mexico

-2-

April 20, 1989

If any further information is needed, please call, J. W. Dixon at (915) 688-2452.

Yours very truly,



M. E. Sweeney  
Environmental & Regulatory Manager

Mobil Exploration & Producing U.S. Inc.  
as Agent for  
Mobil Producing Texas & New Mexico Inc.

JWD/arr

attachments

cc: NMOCD - Hobbs (w/attach)  
Offset Operators(w/attach)  
County Clerk (w/attach)

Submit to Appropriate District Office  
 State Lease - 6 copies  
 Fee Lease - 5 copies

State of New Mexico  
 Energy, Minerals and Natural Resources Department

Form C-101  
 Revised 1-1-89

**OIL CONSERVATION DIVISION**  
 P.O. Box 2088  
 Santa Fe, New Mexico 87504-2088

DISTRICT I  
 P.O. Box 1980, Hobbs, NM 88240

DISTRICT II  
 P.O. Drawer DD, Artesia, NM 88210

DISTRICT III  
 1000 Rio Brazos Rd., Aztec, NM 87410

API NO. ( assigned by OCD on New Wells)

5. Indicate Type of Lease  
 STATE  FEE

6. State Oil & Gas Lease No.

**APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK**

1a. Type of Work: DRILL <input type="checkbox"/> RE-ENTER <input type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input checked="" type="checkbox"/>		7. Lease Name or Unit Agreement Name North Vacuum Abo Unit
b. Type of Well: OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER Water Injection <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		
2. Name of Operator Mobil Producing Tx. & N.M. Inc.		8. Well No. 95
3. Address of Operator c/o Mobil Exploration & Producing U.S. Inc. P.O. Box 633, Midland, Texas 79702		9. Pool name or Wildcat Vacuum Devonian
4. Well Location Unit Letter <u>P</u> : <u>860'</u> Feet From The <u>South</u> Line and <u>660'</u> Feet From The <u>East</u> Line Section <u>26</u> Township <u>17S</u> Range <u>34E</u> NMPM Lea County		

10. Proposed Depth 13,816'		11. Formation Abo	12. Rotary or C.T. NA
13. Elevations (Show whether DF, RT, GR, etc.) KB: 4016' GL: 4003'	14. Kind & Status Plug. Bond Active Blanket	15. Drilling Contractor Unknown	16. Approx. Date Work will start April, 1989

17. **PROPOSED CASING AND CEMENT PROGRAM**

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
17-1/2	13-3/8	48#	358'	350 sx	Surface
12-1/4	9-5/8	40#	4400'	358 sx.	Surface
8-3/4	7	23,26,29,32	13,816'	2750 sx	Surface
8-3/4	5-1/2	17#	12,500	250 sx	8149'

PURPOSE TO CONVERT FROM DEVONIAN DISPOSAL TO ABO INJECTION

- MIRU Workover Unit. NU BOP, test. String out of perm pkr, POOH w/2-7/8" Duolined tubing.
- MIRU Wireline Company, RIH w/5-1/2" CIBP, Set @ ± 11,990' + 35' cmt. Perforate Abo: 8360-70, 78-94; 8404-08, 19-35, 66-74, 80-82, 8488-8520' 2 SPF
- Swab test perfs 8480-8520' for production test in Lower Abo.
- RD wireline company. RIH with new 2-3/8" base injection tubing + 5-1/2" Retrievable pkr. Set pkr @ ± 8310'.
- MIRU Service Company. Treat Abo perfs with 7,000 gal 15% HCL.
- Install injection wellhead, put well on fresh water injection into Abo.

Average daily injection rate - (initial) 160 BWPD  
 Maximum daily injection rate - (initial) 160 BWPD  
 System is closed.  
 Proposed average daily injection pressure - (initial) 4140 psi  
 Proposed maximum daily injection pressure (initial) 4140 psi  
 Will inject fresh water from Ogalalla zone. Already use this water for remaining injectors in flood.  
 Well is for Abo pressure support only and not for disposal.

**IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.**

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE M. E. Sweeney M. E. Sweeney TITLE Manager Environmental & Regulatory DATE 4/21/89  
Mobil Producing Texas & New Mexico Inc.  
 acting by and through its agent  
 TYPE OR PRINT NAME M. E. Sweeney Mobil Exploration & Producing U.S. Inc. TELEPHONE NO. (915) 688-2452

(This space for State Use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

Submit to Appropriate District Office  
 State Lease - 4 copies  
 Fee Lease - 3 copies

State of New Mexico  
 Energy, Minerals and Natural Resources Department

Form C-102  
 Revised 1-1-89

**OIL CONSERVATION DIVISION**  
 P.O. Box 2088  
 Santa Fe, New Mexico 87504-2088

**DISTRICT I**  
 P.O. Box 1980, Hobbs, NM 88240

**DISTRICT II**  
 P.O. Drawer DD, Artesia, NM 88210

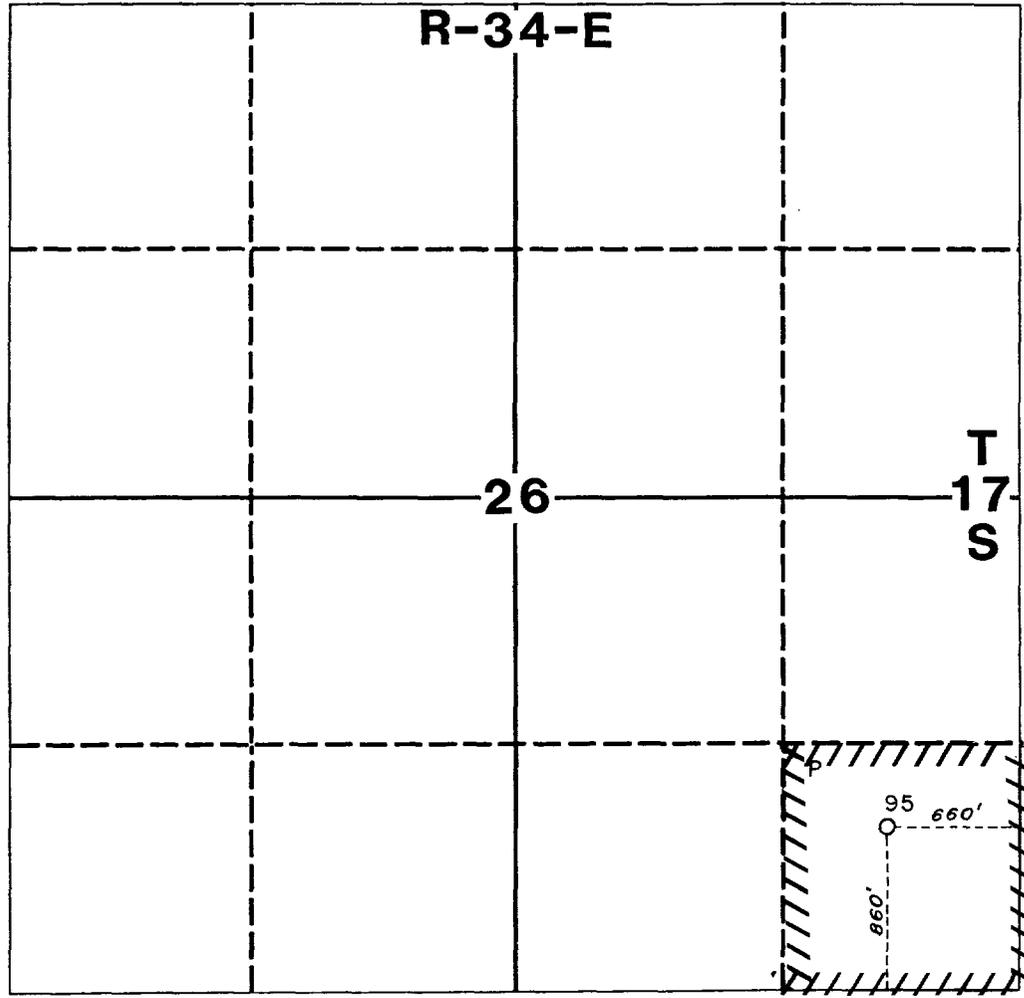
**DISTRICT III**  
 1000 Rio Brazos Rd., Aztec, NM 87410

**WELL LOCATION AND ACREAGE DEDICATION PLAT**  
 All Distances must be from the outer boundaries of the section

Operator Mobil Producing Tx. & N. M. Inc.			Lease North Vacuum Abo Unit		Well No. 95
Unit Letter P	Section 26	Township 17S	Range 34E	County Lea	
Actual Footage Location of Well: 860' feet from the FSL line and 660' feet from the FEL line					
Ground level Elev. 4003'	Producing Formation Abo	Pool Vacuum Abo North			Dedicated Acreage: of well 40 Acres

- Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization, unitization, force-pooling, etc.?  
 Yes     No    If answer is "yes" type of consolidation Unitization

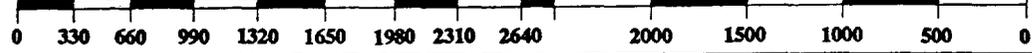
If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.)  
 No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.

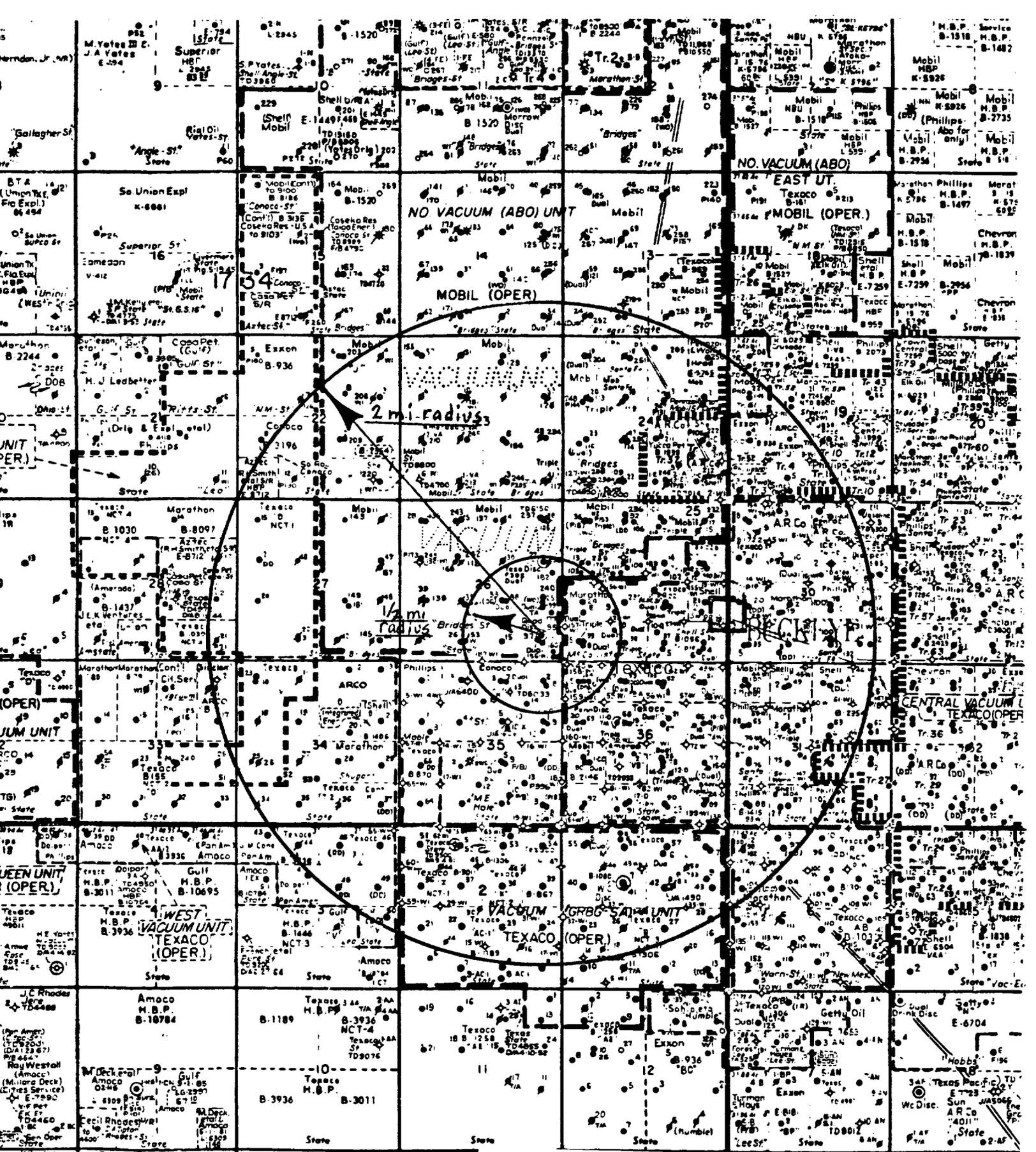


**OPERATOR CERTIFICATION**  
 I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.  
*M. E. Sweeney*  
 Signature  
 M. E. Sweeney  
 Printed Name  
 Manager Environmental & Regulatory  
 Position  
 Mobil Producing Texas & New Mexico Inc.  
 Company  
 acting by and through its agent  
 Mobil Exploration & Producing U.S. Inc.  
 Date  
 4/21/89

**SURVEYOR CERTIFICATION**  
 I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed  
 Signature & Seal of Professional Surveyor  
 Certificate No.

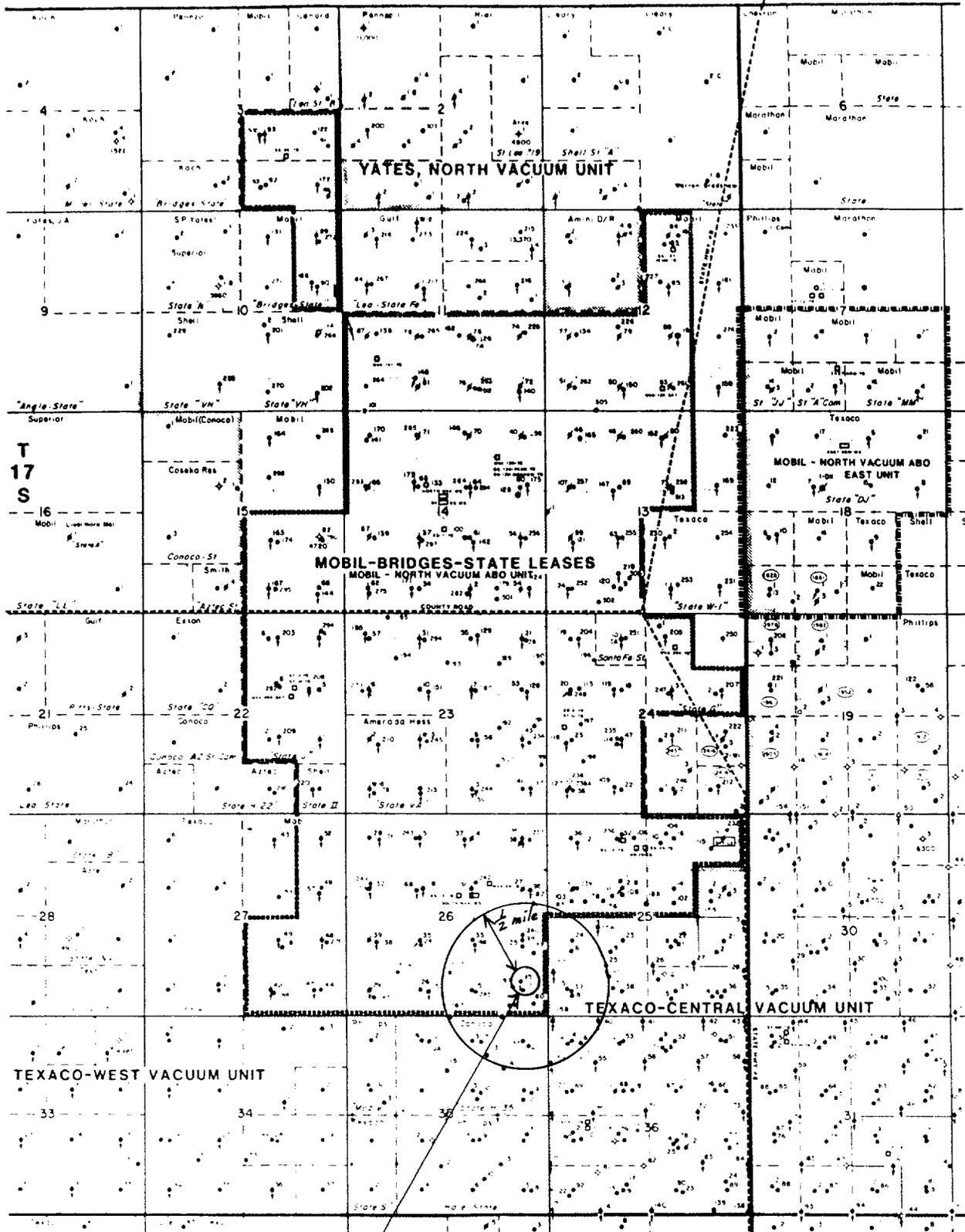




**Mobil Producing  
Texas & New Mexico Inc.  
Houston, Texas**

NORTH VACUUM ABO UNIT  
WELL #95, SEC.26, T17S, R34E  
LEA COUNTY, NM  
-AREA OF REVIEW-

Scale 1"=400'	Date
Drawn	Checked
Approved	Revised



North Vacuum Abo Unit #95 SWDW  
 To Be Converted To NVAU # 95 W/W

LEGEND

- PROPOSED PRODUCING WELL
- PRODUCING WELL
- ⊕ INJECTION WELL
- ⊖ PLUGGED AND ABANDONED WELL
- DRY HOLE
- PRODUCTION BATTERY OR SATELLITE
- WATER INJECTION STATION
- MOBIL - NORTH VACUUM ABO UNIT BOUNDARY
- MOBIL - BRIDGES STATE LEASES
- MOBIL - NORTH VACUUM ABO EAST UNIT BOUNDARY
- OTHER UNIT BOUNDARIES
- LEASE ROAD
- PAVED ROAD



Mobil Producing  
 Texas & New Mexico Inc.  
 Midland Division  
**VACUUM POOL**  
**BRIDGES-STATE LEASES**  
 Lea County, New Mexico  
**NORTH VACUUM ABO UNIT**  
 ROAD MAP

Mobil Producing Texas & New Mexico Inc.  
 North Vacuum Abo Unit  
 Well No. 95  
 Sec. 26 T17S R34E  
 860 ft. FSL & 660 ft. FEL

Tabulated data of all producing wells on public record within area of review.

Lease	Well No.	Location	Well Type	Date Drilled	Depth	Completion Interval
Mobil Producing Texas & New Mexico Inc.						
Bridges State	12	26-17S-34E	O11	07/30/48	4,725'	San Andres 4125-4725'
"	15	26-17S-34E	O11	11/30/48	4,780'	San Andres
"	25	26-17S-34E	O11	02/22/39	4,750'	San Andres 4442-4726'
"	26	26-17S-34E	O11	02/28/49	4,800'	San Andres 4629-4633'
"	33	26-17-34E	O11		4,782'	San Andres 4471-4762'
"	97	26-17S-34E	O11	01/21/63	6,750'	Glorietta 5974-5988'
"	99	26-17S-34E	O11	07/18/63	6,750'	Glorietta
"	103	25-17S-34E	O11			Glorietta 5982-6053'
"	177	25-17S-34E	O11	01/24/74	4,850'	San Andres 4438-4733'
"	180	26-17S-34E	O11	02/14/74	4,850'	San Andres 4228-4736'
"	182	26-17S-34E	O11			San Andres
"	185	25-17S-34E	Inj.	12/04/84	4,900'	San Andres 4476-4621'
"	186	35-17S-34E	Inj.	12/17/83	4,900'	San Andres 4485-4713'
"	187	26-17S-34E	Inj.	01/04/84	4,800'	San Andres 4453-4748'
North Vacuum Abo Unit	96	26-17S-34E	WIW/O11	03/03/84	12,390'	Abo 8397-8462'
"	98	26-17S-34E	O11		11,660'	Abo 8566-8814'
"	153	26-17S-34E	Inj.	03/29/71	8,700'	Abo 8456-8614'
"	240	26-17S-34E	O11			Abo

Lease	Well No.	Location	Well Type	Date Drilled	Depth	Completion Interval
<b>Conoco, Inc.</b>						
	2	35-17S-34E	O11	09/20/38	4,744'	4130-4696'
	3	35-17S-34E	O11	11/05/38	4,700'	Open hole
	7	35-17S-34E	O11	02/06/63	12,413'	Abo 8312-8452' Wolfcamp 9253-10060'
	8	35-17S-34E	O11	03/30/63	6,750'	Glorietta 5964-6143' Blineberry 6391-6704'
	14	35-17S-34E	WIW	02/21/83	4,763'	Grayberg 4426-4498' & 4636-4726'
<b>Getty Oil Company or Texaco</b>						
	4					
	5	36-17S-34E	O11	04/29/63	6,710'	Glorietta 5842-6118' Blineberry 6367-6644'
	6	36-17S-34E	O11	05/25/63	12,110'	Upperpen 10121-10134' Wolfcamp 9902-10016' Abo 9070-9231'
	40	36-17S-34E	WIW	11/11/77	4,800'	San Andres 4400-4713'
	158	36-17S-34E	WIW	10/18/82	4,800'	4405-4726'
<b>Marathon or Texaco</b>						
	1					
	5	25-17S-34E	O11	12/20/62	12,195'	Wolfcamp 9948-9951' Vacuum Abo 9072-9177'
	6	25-17S-34E	O11	04/09/63	6,800'	Glorietta 5968-6017' Blineberry 6587-6719'

Lease	Well No.	Location	Well Type	Date Drilled	Depth	Completion Interval
Marathon or Texaco (cont'd)						
	7	25-17S-34E	Oil	04/08/63	12,125'	Abo 8879-9252' Wolfcamp 9902-9455' Yoper Pen 9873-10122'
	8	25-17S-34E	Oil	05/11/63	6,800'	5963-5991'
	9	25-17S-34E	Oil	06/06/63	6,800'	Glorietta 6003-6014'
	10	25-17S-34E	Oil	09/28/63	6,800'	Glorietta 6016-6018' 6022-6023' 6032-6033'
	24	25-17S-34E	Oil	12/26/38	4,780'	San Andres 4401-4747'
	25	25-17S-34E	WIW	03/24/78	4,800'	Grayberg San Andres 4379-4709'
	39	25-17S-34E	Oil	11/17/38	4,784'	San Andres 4376-4763'
	156	25-17S-34E	Inj.			
	157	25-17S-34E	Inj.			

WELLS/LEASES WITHIN TWO MILES  
OF  
NORTH VACUUM ABO UNIT #95  
THAT PENETRATE ABO ZONE OR DEEPER

Section 26

Mobil NVAU #286 Abo  
Mobil NVAU #240 Abo  
Mobil NVAU #98 WIW Abo

Section 25

Marathon McCallister State #5 Wolfcamp

Section 36

Texaco State BA #6 Upper Penn + Wolfcamp + Abo

Section 35

None

Mobil Exploration & Producing U. S.  
North Vacuum Abo Unit #95  
Sec 26 T17S R34E

I. Abo geological data was provided upon the application  
for water injection into the Abo.  
The permit is dated 10-27-72 and is case # 4831

II. Data on proposed operation

Average daily injection rate - 160 BWP  
Maximum daily injection rate - 400 BWP

\*Average injection pressure - 4140 psi  
Maximum injection pressure - 4300 psi

Fresh water from the Ogalalla formation will be used  
for injection into the Abo formation.

\* This was the last surface pressure at which fresh water  
was injected into the Abo, taken in March 1985.

PROPOSED CONVERSION OF NVAU #95

(See attached C-108 for questions)

- VII. 1. Average daily injection rate - (initial) 160 BWPD  
Maximum daily injection rate - (initial) 160 BWPD
2. System is closed.
3. Proposed average daily injection pressure -  
(initial) 4140 psi
- Proposed maximum daily injection pressure -  
(initial) 4140 psi
4. Will inject fresh water from Ogalalla zone.  
Already use this water for remaining injectors  
in flood.
5. Well is for Abo pressure support only and not for  
disposal.
- VIII. Geological information submitted upon original  
permitting of NVAU waterflood in 1972.
- IX. Well will be perforated and then acidized with  
7000 gal 15% DI NEFE HCL + graded rock salt for  
diversion.
- X. Well logs already on file with NMOCD office in Hobbs.
- XI. Done on previous fresh water injection permits.
- XII. Not disposal well.

ABANDONMENT PROCEDURE OF OTHER ZONES  
NVAU #95

1. McKee Sand: Dumped 50 sks cement in 7" casing. Set cast iron bridge plug at 12,500' + 50' cement on top.
2. Devonian: Set cast iron bridge plug at 11,900' + 35' cement on top.
3. Penn: Squeezed with 70 sks cement.
4. Wolfcamp: Squeezed with 250 sks cement.
5. Abo: Squeezed with 575 sks cement.
6. Ran liner over Abo, Wolfcamp, and Penn perms to complete abandonment of these zones.

Notice of Application for Fluid Injection Well Report:

APPLICANT: Mobil Exploration & Producing U.S. Inc.  
P.O. Box 633  
Midland, Texas 79702  
Telephone: 915-688-2452  
Contact: J. W. Dixon

PURPOSE: Convert to Water Injection Well, North Vacuum Abo Unit Well #95;  
Location - Section 26, Township 17S, Range 34E

OPERATIONAL CHARACTERISTICS: Formation - Abo  
Vacuum Abo North Field  
Proposed Injection Interval: 8300-8650'

Interested parties may file objections or request a hearing with the Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico 87503, within 15 days of this notice.

APPLICATION FOR AUTHORIZATION TO INJECT

I. Purpose:  Secondary Recovery  Pressure Maintenance  Disposal  Storage  
Application qualifies for administrative approval?  yes  no

II. Operator: Mobil Producing Texas & New Mexico, Inc., acting by and through its agent  
Address: P. O. Box 633 Mobil Exploration & Producing U.S. Inc.  
Contact party: J. W. Dixon Phone: (915) 688-2452

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-4430 10/27/72.

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.

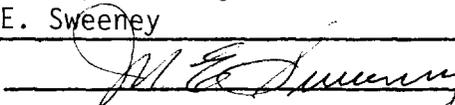
XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

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: M. E. Sweeney Title Manager Environmental & Regulatory

Signature:  Date: 4-21-87

\* 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. Geological information submitted upon original permitting of

NVAU waterflood in 1972, PMX-51 - 9/20/73, PMX-138 - 11/16/85

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate Division 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 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, 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.**

---

**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.

**North Vacuum Abo Unit #95**  
**Wellbore Information**

**Well Name, Location**

North Vacuum Abo Unit #95 (Drilled as Bridges State #95)  
P-Sec 26-T17S-R34E 860' FSL & 660' FEL

**Casing Strings, Cementing**

- 13 3/8" 48 lb/ft H-40 casing set to 358' with 350 sks cement. 17 1/2" hole. Cement was circulated to surface.
- 9 5/8" 40 lb/ft J-55 casing set to 4400' with 3600 sks cement. 12 1/4" hole. Cement was circulated to surface.
- 7" 23,26,29,32 lb/ft N-80 casing set to 13,816' with 2750 sks cement. 8 3/4" hole. Cement was circulated to surface.
- 5 1/2" 17 lb/ft N-80 casing set from 8149 - 12,500' with 250 sks cement. Cement was circulated to top of casing at 8149'.

**Injection Tubing, Packer**

8310' 2 3/8" J-55 bare injection tubing set to 8310' with Baker Lok-Set retrievable injection packer, plastic coated internally. Packer to be set at ± 8310'.

**Injection Formation**

Abo formation Vacuum Abo North Field  
Proposed Injection Interval: 8300 - 8650'

Cased hole injection

**Miscellaneous Well Information**

Original well completion depth: Devonian  
Tested McKee 13,698-13,750'. Dumped 50 sks inside 7" casing 13488-13816'. CIBP set @ 12,500'.  
Produced Devonian 12,024-12199'. Presently open for disposal.

Tested Penn 11,112-122'. Squeezed with 70 sks cement.  
Produced Wolfcamp 9518-9743'. Squeezed with 250 sks cement.

Injected into Abo 8362-8451, 9070-9199'. Squeezed with 425 sks cement.

Next higher productive zone: Blinbry 6500'  
Next lower productive zone: Wolfcamp 9500'

INJECTION WELL DATA SHEET

Mobil Producing Texas & New Mexico Inc.

North Vacuum Abo Unit

OPERATOR	LEASE			
95	660' FEL & 860' FSL	26	T17S	R34E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Schematic

See Attached Sheet

Tabular Data

Surface Casing

Size 13-3/8 " Cemented with 350 sk.  
 TOC Surface feet determined by Circulation  
 Hole size 17-1/2"

Intermediate Casing

Size 9-5/8" Cemented with 3600 sk.  
 TOC Surface feet determined by Circulation  
 Hole size 12-1/4"

Long string

Size 7" Cemented with 2750 sk.  
 TOC Surface feet determined by Circulation  
 Hole size 8-3/4"

Total depth 13,816'

Injection interval

8360' feet to 8520' feet  
 (perforated or open-hole, indicate which)

Liner

Size 5-1/2" Cemented with: 250 sks  
 TOC: Linertop @ 8149' Determined by: Circulation  
 Hole size: 6.336"  
 Depth of Liner: 8149-12,500'

Tubing size 2-3/8" J-55 lined with (bare, no lining) set in a  
 (material)  
7" Baker Lok-Set packer at +8310' feet  
 (brand and model)

(or describe any other casing-tubing seal).

Other Data

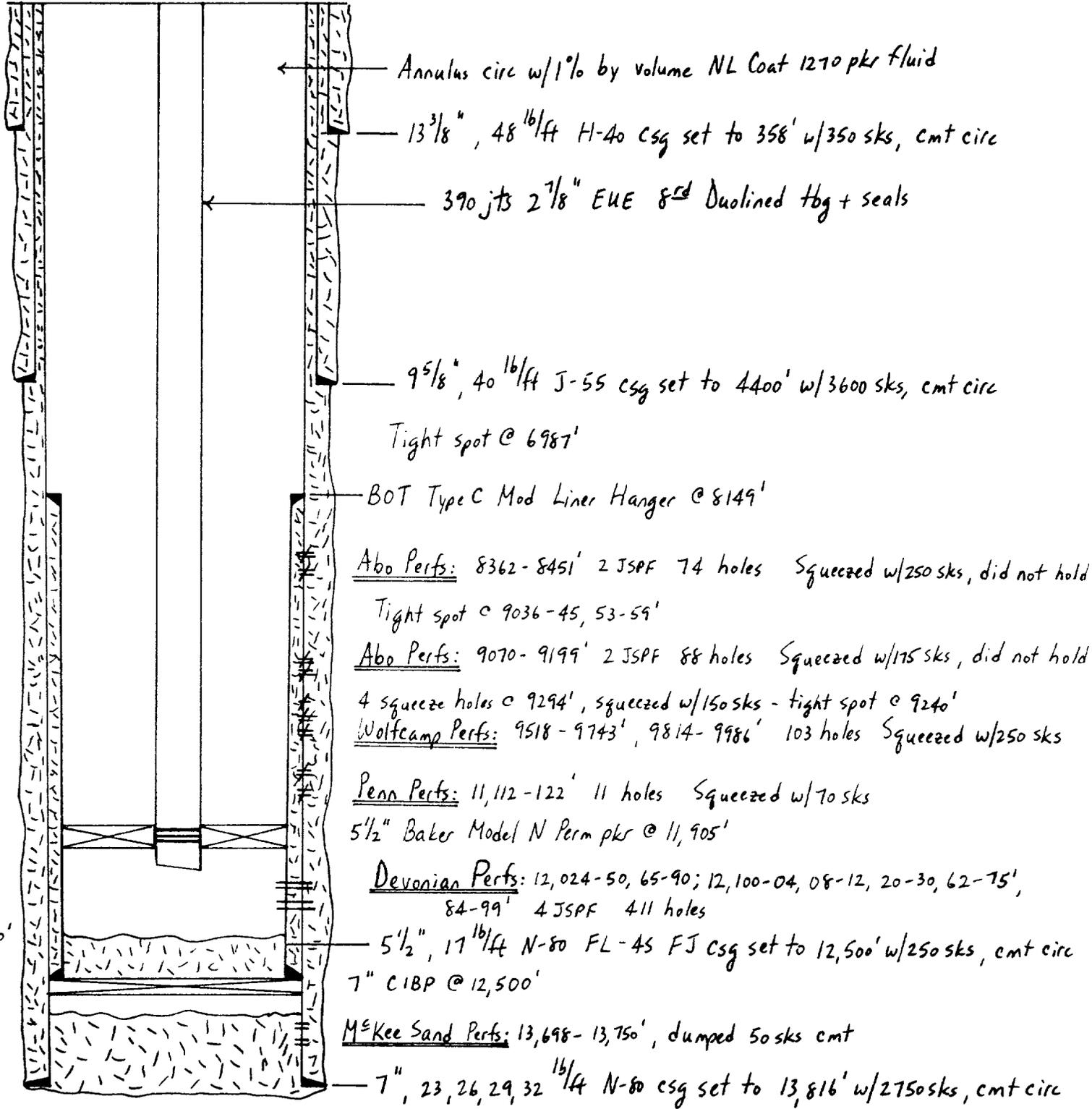
- Name of the injection formation Abo
- Name of Field or Pool (if applicable) Vacuum Abo North
- Is this a new well drilled for injection?  Yes  No  
 If no, for what purpose was the well originally drilled? Production from McKee, Devonian, Wolfcamp, Penn, Abo
- Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) Yes, see attached well sketch and list of cement plugs
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. Submitted with original field injection request in 1972. Geologic report lists Vacuum Yates, Queen, San Andres, Glorieta, Blinebry, Abo, Wolfcamp, Penn, Devonian and McKee Fields.

DATE 2-23-89 WELL NO. 95 SWD LEASE North Vacuum Abo Unit  
 FIELD Vacuum LOCATION P 26-175-34E 860' FSL & 660' FEL  
 Lea County, New Mexico

SIGNED D. G. Elwood

GL 4003'  
 DF 4013'  
 KB 4016'  
 ZERO KB (13' AGL)

PRESENT WELLBORE DIAGRAM



PBTD:  
 12,450'

TD: 13,816'

FIELD Vacuum

LOCATION P 26-175-34E

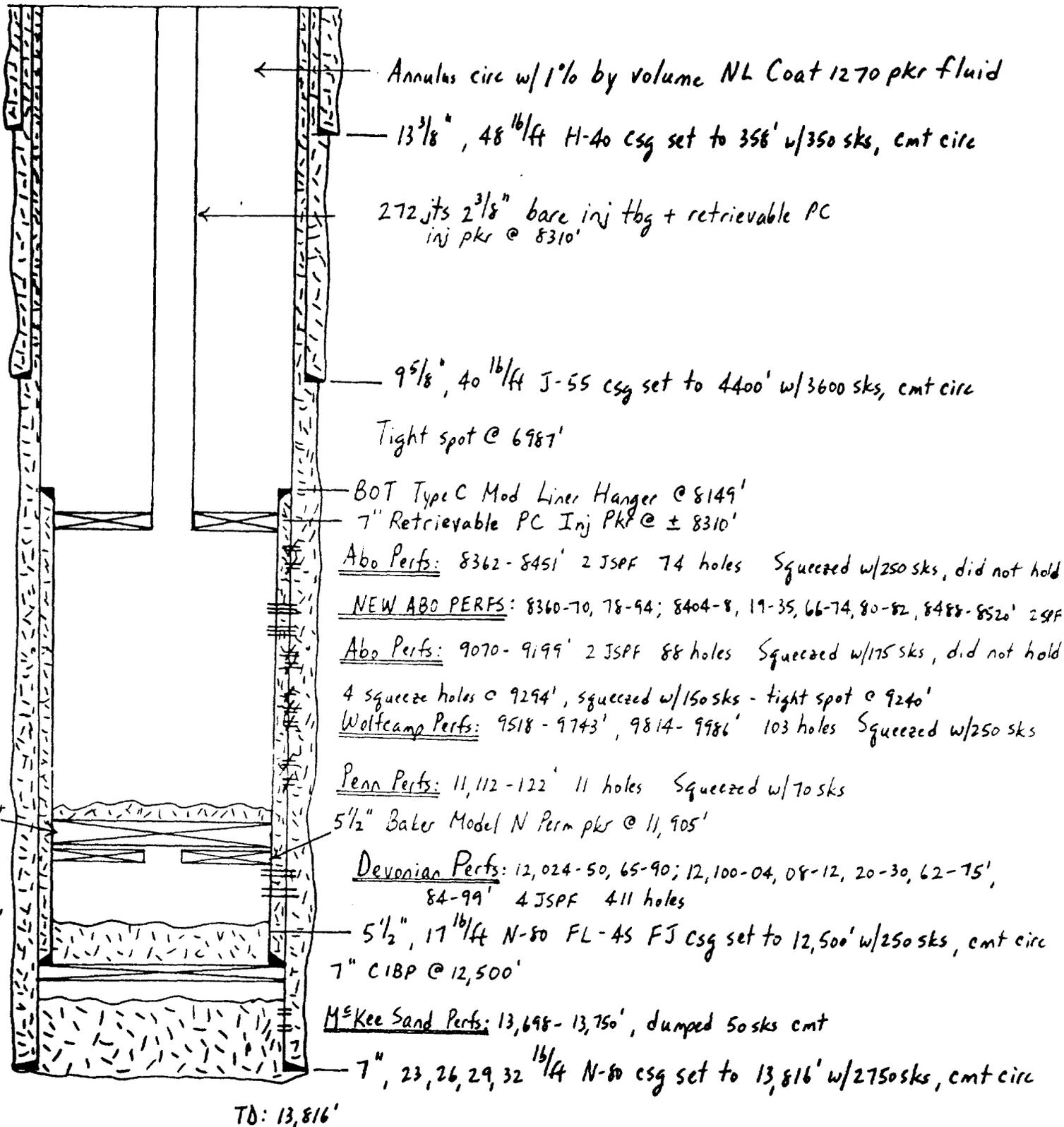
860' FSL & 660' FEL

Lea County, New Mexico

SIGNED D. G. Elwood

GL	4003'
DF	4013'
KB	4016'
ZERO	KB (13' AGL)

PROPOSED WELLBORE DIAGRAM



**Mobil Producing Texas & New Mexico Inc.  
North Vacuum Abo Unit  
Well No. 95  
Sec. 26 T-17-S, R-34-E  
860 ft. FSL & 660 ft. FEL**

This application was sent by certified mail to the surface owner of the land on which the well is located and to each lease operator within one-half mile radius of the well location.

Surface Owner:

New Mexico State Land Office  
P.O. Box 2088  
Santa Fe, NM 87503

Offset Operators:

Conoco, Inc.  
Attn: Dave Wacker  
P.O. Box 460  
Hobbs, New Mexico 88240

Marathon Oil Company  
Attn: Bill Holmes  
P.O. Box 552  
Midland, Texas 79702

Texaco, Inc.  
Attn: J. E. King  
P.O. Box 728  
Hobbs, New Mexico 88240

# Mobil Exploration & Producing U.S. Inc.

**Certified - Mail  
Return Receipt Requested**

P.O. BOX 633  
MIDLAND, TEXAS 79702

MIDLAND DIVISION

April 20, 1989

Conoco, Inc.  
P.O. Box 460  
Hobbs, New Mexico 88240

Attn: Dave Wacker

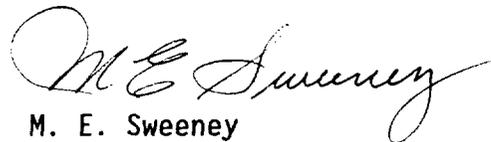
**NOTICE OF APPLICATION FOR  
WATER INJECTION WELL  
NORTH VACUUM ABO UNIT  
WELL NO. 95  
LEA COUNTY, NEW MEXICO**

Gentlemen:

Mobil Exploration & Producing U.S. Inc., as Agent for Mobil Producing Texas & New Mexico Inc., has made application to the Oil Conservation Commission of New Mexico for authority to inject fresh water into a reservoir productive of oil or gas in the above captioned well.

A copy of this application is furnished to you for your information.

Yours very truly,



M. E. Sweeney  
Environmental & Regulatory Manager

Mobil Exploration & Producing U.S. Inc.  
as Agent for  
Mobil Producing Texas & New Mexico Inc.

JWD/arr

attachments

cc: Oil Conservation Commission (w/attach)

A:M907987A.JWD(1)

# Mobil Exploration & Producing U.S. Inc.

Certified - Mail  
Return Receipt Requested

P.O. BOX 633  
MIDLAND, TEXAS 79702

MIDLAND DIVISION

April 20, 1989

Marathon Oil Company  
P.O. Box 552  
Midland, Texas 79702

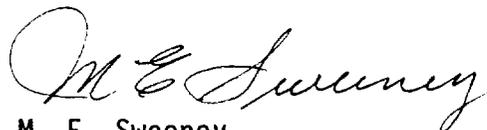
NOTICE OF APPLICATION FOR  
WATER INJECTION WELL  
NORTH VACUUM ABO UNIT  
WELL NO. 95  
LEA COUNTY, NEW MEXICO

Gentlemen:

Mobil Exploration & Producing U.S. Inc., as Agent for Mobil Producing Texas & New Mexico Inc., has made application to the Oil Conservation Commission of New Mexico for authority to inject fresh water into a reservoir productive of oil or gas in the above captioned well.

A copy of this application is furnished to you for your information.

Yours very truly,



M. E. Sweeney  
Environmental & Regulatory Manager

Mobil Exploration & Producing U.S. Inc.  
as Agent for  
Mobil Producing Texas & New Mexico Inc.

JWD/arr

attachments

cc: Oil Conservation Commission (w/attach)

A:M907987A.JWD(1)

# Mobil Exploration & Producing U.S. Inc.

Certified - Mail  
Return Receipt Requested

P.O. BOX 633  
MIDLAND, TEXAS 79702

MIDLAND DIVISION

April 20, 1989

Texaco, Inc.  
P.O. Box 728  
Hobbs, New Mexico 88240

Attn: J. E. King

NOTICE OF APPLICATION FOR  
WATER INJECTION WELL  
NORTH VACUUM ABO UNIT  
WELL NO. 95  
LEA COUNTY, NEW MEXICO

Gentlemen:

Mobil Exploration & Producing U.S. Inc., as Agent for Mobil Producing Texas & New Mexico Inc., has made application to the Oil Conservation Commission of New Mexico for authority to inject fresh water into a reservoir productive of oil or gas in the above captioned well.

A copy of this application is furnished to you for your information.

Yours very truly,



M. E. Sweeney  
Environmental & Regulatory Manager

Mobil Exploration & Producing U.S. Inc.  
as Agent for  
Mobil Producing Texas & New Mexico Inc.

JWD/arr

attachments

cc: Oil Conservation Commission (w/attach)

A:M907987A.JWD(1)

# Mobil Exploration & Producing U.S. Inc.

P.O. BOX 633  
MIDLAND, TEXAS 79702

April 20, 1989

MIDLAND DIVISION

County Clerk  
Ms. Pat Snipes  
P.O. Box 1507  
Lovington, New Mexico 88260

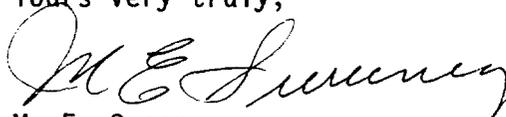
**NOTICE OF APPLICATION FOR  
WATER INJECTION WELL  
NORTH VACUUM ABO UNIT  
WELL NO. 95  
LEA COUNTY, NEW MEXICO**

Dear Ms. Snipes:

Mobil Exploration & Producing U.S. Inc., as Agent for Mobil Producing Texas & New Mexico Inc., has made application to the Oil Conservation Commission of New Mexico, to inject fresh water into a reservoir productive of oil or gas in the above captioned well.

The Oil Conservation Division requires that the enclosed application be sent to you for public information notice in the county in which the well is located. Please post the attached application as you desire.

Yours very truly,



M. E. Sweeney  
Environmental & Regulatory Manager

Mobil Exploration & Producing U.S. Inc.  
as Agent for  
Mobil Producing Texas & New Mexico Inc.

JWD/arr

attachments

cc: Oil Conservation Commission (w/attach)

A:M907987A.JWD(1)

# Affidavit of Publication

STATE OF NEW MEXICO )  
 ) ss.  
COUNTY OF LEA )

Joyce Clements being first duly sworn on oath deposes and says that he is Adv. Director of THE LOVINGTON DAILY LEADER, a daily newspaper of general paid circulation published in the English language at Lovington, Lea County, New Mexico; that said newspaper has been so published in such county continuously and uninterruptedly for a period in excess of Twenty-six (26) consecutive weeks next prior to the first publication of the notice hereto attached as hereinafter shown; and that said newspaper is in all things duly qualified to publish legal notices within the meaning of Chapter 167 of the 1937 Session Laws of the State of New Mexico.

That the notice which is hereto attached, entitled  
Notice Of Application For Fluid  
Injection Well Permit

and numbered ..... in the  
..... Court of Lea  
County, New Mexico, was published in a regular and  
entire issue of THE LOVINGTON DAILY LEADER and  
not in any supplement thereof, once each week on the  
same day of the week, for one (1)  
consecutive weeks, beginning with the issue of .....  
April 7, 1989  
and ending with the issue of .....  
April 7, 1989

And that the cost of publishing said notice is the  
sum of \$ 11.67  
which sum has been (Paid) (~~Not Paid~~) as Court Costs

*Joyce Clements*  
Subscribed and sworn to before me this 13th  
day of April, 1989  
*Thomas Dean Schuer*  
Notary Public, Lea County, New Mexico  
My Commission Expires Sept. 28, 1990

## LEGAL NOTICE NOTICE OF APPLICATION FOR FLUID INJECTION WELL PERMIT

Mobil Producing Texas & New Mexico Inc., acting by and through its agent Mobil Exploration & Producing U.S. Inc., P.O. Box 633, Midland, Tx 79702

has applied to the Railroad Commission of Texas for permit to inject fluid into a formation which is productive of oil or gas.

The applicant proposes to inject fluid into the Abo, North Vacuum Abo Unit, Well Number 95. The proposed injection well is located 13 miles Southwest of Lovington, N.M. in the Vacuum North Field, in Lea County. Fluid will be injected into strata in the subsurface depth interval from 8300 to 8650 feet.

LEGAL AUTHORITY: Chapter 27 of the Texas Water Code, as amended, Title 3 of the Natural Resources Code, as amended, and the Statewide Rules of the Oil and Gas Division of the Railroad Commission of Texas.

Requests for a public hearing from persons who can show they are adversely affected, or requests for further information concerning any aspect of the application should be submitted in writing, within fifteen days of publication, to the Underground Injection Control Station, Austin, Texas 78711 (Telephone 512/463-6790).

Published in the Lovington Daily Leader April 7, 1989.

# Mobil Exploration & Producing U.S. Inc.

P.O. BOX 633  
MIDLAND, TEXAS 79702

April 7, 1989

MIDLAND DIVISION

Lovington Daily Leader  
14 West Avenue B  
Lovington, NM 88260

NOTICE OF APPLICATION FOR  
WATER INJECTION WELL  
NORTH VACUUM ABO UNIT  
WELL NO. 95  
NORTH VACUUM ABO UNIT FIELD  
LEA COUNTY, NEW MEXICO

APR - 7 1989

Gentlemen:

Mobil Exploration & Producing U.S. Inc., as Agent for Mobil Producing Texas & New Mexico Inc., has made application to the Oil Conservation Commission of New Mexico for authority to dispose of production water into a reservoir productive of oil or gas through the subject well.

The Oil Conservation Commission requires that a public notice of the attached information be published in the county in which the well is located. Please publish the attached notice as soon as possible and return the completed affidavit and a copy of the printed notice in the enclosed, stamped envelope. Send the invoice to the attention of M.E. Sweeney.

Yours very truly,



M. E. Sweeney  
Environmental & Regulatory Manager

Mobil Exploration & Producing U.S. Inc.  
as Agent for  
Mobil Producing Texas & New Mexico Inc.

JWD/arr

attachments

cc: Oil Conservation Commission (w/attach)

A:M907987A.JWD(1)

RAILROAD COMMISSION OF TEXAS  
OIL AND GAS DIVISION

JAMES E. (JIM) NUGENT, Chairman  
MACK WALLACE, Commissioner  
BUDDY TEMPLE, Commissioner



BOB R. HARRIS, P.E.  
Director  
JERRY W. MULLICAN  
Director of Underground  
Injection Control

1124 S. IH 35

CAPITOL STATION — P. O. DRAWER 12967

AUSTIN, TEXAS 78711

NOTICE OF APPLICATION FOR FLUID INJECTION WELL PERMIT

Mobil Producing Texas & New Mexico Inc., acting by and through its agent  
Mobil Exploration & Producing U.S. Inc., P.O. Box 633, Midland, TX 79702

(Company Name And Address)

has applied to the Railroad Commission of Texas for a permit to inject fluid into a formation which is productive of oil or gas.

The applicant proposes to inject fluid into the Abo (Formation)

North Vacuum Abo Unit (Lease), Well Number 95. The proposed injection

well is located 13 miles southwest of Lovington, N.M. in the Vacuum North (Direction / Miles To Nearest Town)

Field, in Lea County. Fluid will be injected into strata

in the subsurface depth interval from 8300 to 8650 feet.

LEGAL AUTHORITY: Chapter 27 of the Texas Water Code, as amended, Title 3 of the Natural Resources Code, as amended, and the Statewide Rules of the Oil and Gas Division of the Railroad Commission of Texas.

Requests for a public hearing from persons who can show they are adversely affected, or requests for further information concerning any aspect of the application should be submitted in writing, within fifteen days of publication, to the Underground Injection Control Section, Oil and Gas Division, Railroad Commission of Texas, Drawer 12967, Capitol Station, Austin, Texas 78711 (Telephone 512/463-6790).

DATE \_\_\_\_\_

Before me, the undersigned authority, on this day personally appeared

\_\_\_\_\_, the \_\_\_\_\_ of  
(NAME) (TITLE)

the \_\_\_\_\_, a newspaper having general  
(NAME OF NEWSPAPER)

circulation in \_\_\_\_\_ County, ~~Texas~~ New Mexico, who being by me duly

sworn says that the foregoing attached notice was published in this

newspaper on the following date(s), to wit: \_\_\_\_\_.

\_\_\_\_\_  
(SIGNATURE)

Subscribed and sworn to before me this the \_\_\_\_\_ day of \_\_\_\_\_,  
19\_\_\_\_, to certify which witness my hand and seal of office.

\_\_\_\_\_  
NOTARY PUBLIC IN AND FOR  
\_\_\_\_\_ County, ~~Texas~~ New Mexico

# Mobil Exploration & Producing U.S. Inc.

P.O. BOX 633  
MIDLAND, TEXAS 79702

May 15, 1989

MIDLAND DIVISION

Lovington Daily Leader  
14 West Avenue B  
Lovington, NM 88260

**RECEIVED**

MAY 18 1989

OIL CONSERVATION DIV.  
SANTA FE

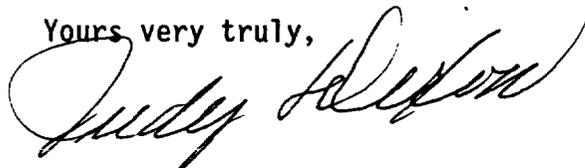
NOTICE OF APPLICATION FOR  
WATER INJECTION WELL  
NORTH VACUUM ABO UNIT  
WELL NO. 95  
NORTH VACUUM ABO UNIT FIELD  
LEA COUNTY, NEW MEXICO

Gentlemen:

Mobil Exploration & Producing U.S. Inc., as Agent for Mobil Producing Texas & New Mexico Inc., has made application to the Oil Conservation Commission of New Mexico for authority to ~~dispose of production water~~ *inject fresh* into a reservoir productive of oil or gas through the subject well.

The Oil Conservation Commission requires that a public notice of the attached information be published in the county in which the well is located. Please publish the attached notice as soon as possible and return the completed affidavit and a copy of the printed notice in the enclosed, stamped envelope. Send the invoice to the attention of M.E. Sweeney.

Yours very truly,

*for* 

M. E. Sweeney  
Environmental & Regulatory Manager

Mobil Exploration & Producing U.S. Inc.  
as Agent for  
Mobil Producing Texas & New Mexico Inc.

JWD/arr

attachments

cc: Oil Conservation Commission (w/attach)

A:M907987A.JWD(1)

# Affidavit of Publication

STATE OF NEW MEXICO )  
 ) ss.  
COUNTY OF LEA )

Joyce Clemens being first duly sworn on oath deposes and says that he is Adv. Director of THE LOVINGTON DAILY LEADER, a daily newspaper of general paid circulation published in the English language at Lovington, Lea County, New Mexico; that said newspaper has been so published in such county continuously and uninterruptedly for a period in excess of Twenty-six (26) consecutive weeks next prior to the first publication of the notice hereto attached as hereinafter shown; and that said newspaper is in all things duly qualified to publish legal notices within the meaning of Chapter 167 of the 1937 Session Laws of the State of New Mexico.

That the notice which is hereto attached, entitled Notice Of Application For Fluid Injection Well Permit

and numbered \_\_\_\_\_ in the \_\_\_\_\_ Court of Lea County, New Mexico, was published in a regular and entire issue of THE LOVINGTON DAILY LEADER and not in any supplement thereof, once each week on the same day of the week, for one (1)

consecutive weeks, beginning with the issue of April 7, 1989

and ending with the issue of April 7, 1989

And that the cost of publishing said notice is the sum of \$ 11.67

which sum has been (Paid) ~~(Assest)~~ as Court Costs

Joyce Clemens

Subscribed and sworn to before me this 13th day of April, 1989

Notary Public, Lea County, New Mexico

My Commission Expires Sept. 28, 1990

Joyce: The NMOCD asks that we republish same to reflect NMOCD rather than State of Texas.

## LEGAL NOTICE NOTICE OF APPLICATION FOR FLUID INJECTION WELL PERMIT

Mobil Producing Texas & New Mexico Inc., acting by and through its agent Mobil Exploration & Producing U.S. Inc., P.O. Box 633, Midland, Tx 79702

has applied to the Railroad Commission of Texas for permit to inject fluid into a formation which is productive of oil or gas.

The applicant proposes to inject fluid into the Abo, North Vacuum Abo Unit, Well Number 95. The proposed injection well is located 13 miles Southwest of Lovington, N.M. in the Vacuum North Field, in Lea County. Fluid will be injected into strata in the subsurface depth interval from 8300 to 8650 feet.

LEGAL AUTHORITY: Chapter 27 of the Texas Water Code, as amended, Title 3 of the Natural Resources Code, as amended, and the Statewide Rules of the Oil and Gas Division of the Railroad Commission of Texas, New Mexico

Requests for a public hearing from persons who can show they are adversely affected, or requests for further information concerning any aspect of the application should be submitted in writing, within fifteen days of publication, to the Underground Injection Control Station, Austin, Texas 78711 (Telephone 512/463-6790).

Published in the Lovington Daily Leader April 7, 1989.

Energy & Minerals Department  
Oil Conservation Division  
P.O. Box 2088  
Santa Fe, New Mexico 87501

# Mobil Exploration & Producing U.S. Inc.

P.O. BOX 633  
MIDLAND, TEXAS 79702

May 25, 1989

MIDLAND DIVISION

Lovington Daily Leader  
14 West Avenue B  
Lovington, NM 88260

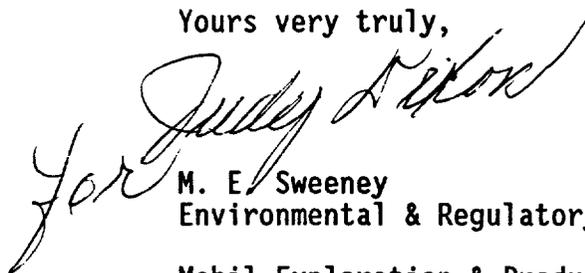
NOTICE OF APPLICATION FOR  
WATER INJECTION WELL  
NORTH VACUUM ABO UNIT  
WELL NO. 95  
NORTH VACUUM ABO UNIT FIELD  
LEA COUNTY, NEW MEXICO

Gentlemen:

Mobil Exploration & Producing U.S. Inc., as Agent for Mobil Producing Texas & New Mexico Inc., has made application to the Oil Conservation Commission of New Mexico for authority to inject fresh water into a reservoir productive of oil or gas through the subject well.

The Oil Conservation Commission requires that a public notice of the attached information be published in the county in which the well is located. Please publish the attached notice as soon as possible and return the completed affidavit and a copy of the printed notice in the enclosed, stamped envelope. Send the invoice to the attention of M.E. Sweeney.

Yours very truly,



M. E. Sweeney  
Environmental & Regulatory Manager

Mobil Exploration & Producing U.S. Inc.  
as Agent for  
Mobil Producing Texas & New Mexico Inc.

JWD/arr

attachments

cc: Oil Conservation Commission (w/attach)

RECEIVED

MAY 30 1989

OIL CONSERVATION DIV.  
SANTA FE

A:M907987A.JWD(1)

APPLICATION FOR AUTHORIZATION TO INJECT

1. Mobil Producing Tx. & N. M. Inc, P.O. Box 633, Midland, Texas  
79702

Attention: Judy Dixon, 915/688#2452

will apply for permission to inject Fresh Water

into the following well/wells for the purpose of: Secondary  
Recovery

2. Well Name and Number: North Vacuum Abo Unit Well No. 95

\* Location: 860' FSL; 660' FEL

\* Section: 26, T 17S, R 34E

\* County: Lea

3. Formation Name: North Vacuum Abo

Injection Interval: 8300 to 8650

Maximum Injection Rate: 600 BBL/day/well

Maximum Pressure: 4140 psi

4. Interested parties, who can show that they are adversely affected by this application, must file objections or requests for hearing with the Energy and Minerals Department, Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico 87501 within 15 days after this publication.

DATE \_\_\_\_\_

Before me, the undersigned authority, on this day personally appeared

\_\_\_\_\_, the \_\_\_\_\_ of  
(NAME) (TITLE)

the \_\_\_\_\_, a newspaper having general  
(NAME OF NEWSPAPER)

circulation in \_\_\_\_\_ County, New Mexico, who being by me duly

sworn says that the foregoing attached notice was published in this

newspaper on the following date(s), to wit: \_\_\_\_\_.

\_\_\_\_\_  
(SIGNATURE)

Subscribed and sworn to before me this the \_\_\_\_ day of \_\_\_\_\_,

19\_\_\_\_, to certify which witness my hand and seal of office.

\_\_\_\_\_  
NOTARY PUBLIC IN AND FOR

\_\_\_\_\_  
County, New Mexico



STATE OF NEW MEXICO  
**ENERGY AND MINERALS DEPARTMENT**  
 OIL CONSERVATION DIVISION  
 HOBBS DISTRICT OFFICE

4-25-89

GARREY CARRUTHERS  
 GOVERNOR

POST OFFICE BOX 1980  
 HOBBS, NEW MEXICO 88241-1980  
 (505) 393-6161

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

RE: Proposed:

MC \_\_\_\_\_  
 DHC \_\_\_\_\_  
 NSL \_\_\_\_\_  
 NSP \_\_\_\_\_  
 SWD \_\_\_\_\_  
 WFX  \_\_\_\_\_  
 PMX \_\_\_\_\_

**RECEIVED**

APR 27 1989

OIL CONSERVATION DIV.  
 SANTA FE

Gentlemen:

I have examined the application for the:

*Mobil Producing TX + NM Inc. No Vacuum Alotit # 95-P 26-17-34*  
 Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

*OK*

---



---



---



---

Yours very truly,

*Jerry Sexton*  
 Jerry Sexton  
 Supervisor, District 1

/ed



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

GARREY CARRUTHERS  
GOVERNOR

November 8, 1989

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

Mobil Exploration & Producing U.S., Inc.  
P.O. Box 633  
Midland, TX 79702

Attention: M.E. Sweeney

RE: Injection Pressure Increase  
N. Vacuum Abo Unit  
Lea County, New Mexico

Dear Mr. Sweeney:

Reference is made to your request dated September 25, 1989, to increase the surface injection pressure on the North Vacuum Abo Unit Well No. 95. This request is based on a step rate test conducted on the well on September 6, 1989. The results of the test have been reviewed by my staff and we feel an increase in injection pressure on the well is justified at this time.

You are therefore authorized to increase the surface injection pressure on the following well.

WELL AND LOCATION

MAXIMUM INJECTION  
SURFACE PRESSURE

NVAU Well No. 95  
Unit P, Section 26, T-17 South,  
R-34 East, NMPM, Lea County, New  
Mexico.

3540 PSIG

The Division Director may rescind this injection pressure increase if it becomes apparent that the injected water is not being confined to the injection zone or is endangering any fresh water aquifers.

Sincerely,

William J. LeMay  
Director

cc: OCD - Hobbs  
T. Gallegos  
D. Catanach  
File: Case 4831

COMPANY: Mobil Exploration & Production U.S. Inc.  
ADDRESS: P.O. Box 633  
CITY, STATE, ZIP: Midland, Texas 79702  
ATTENTION: M. E. Sweeney

Re: Injection Pressure Increase  
N. Vacuum Hbs Unit  
Well No. 95  
Lea County, New Mexico

Dear Sir:

Reference is made to your request dated September 25, 1989, to increase the surface injection pressure on the North Vacuum Hbs Unit Well No. 95. This request is based on a step rate test conducted on the well on September 6, 1989. The results of the test have been reviewed by my staff and we feel an increase in injection pressure on the well is justified at this time.

You are therefore authorized to increase the surface injection pressure on the following well:

<u>Well &amp; Location</u>	<u>Maximum Injection Surface Pressure</u>
<u>NUALL Well No 95</u> <u>Unit (P), Section 2, T-1 Bull, N-34E, R-10W</u> <u>Lea County, New Mexico</u>	<u>3540 PSIG</u>

The Division Director may rescind this injection pressure increase if it becomes apparent that the injected water is not being confined to the injection zone or is endangering any fresh water aquifers.

xc: OCD- Abbas T. Gallegos Sincerely,  
File- Lea 4831 D. Catanach William J. LeMay

# Mobil Exploration & Producing U.S. Inc.

September 25, 1989

P.O. BOX 633  
MIDLAND, TEXAS 79702

MIDLAND DIVISION

State of New Mexico  
Oil Conservation Division  
Post Office Box 2088  
Santa Fe, New Mexico 87501

Attention: Mr. W. J. LeMay

**INJECTION PRESSURE INCREASE REQUEST  
NORTH VACUUM ABO UNIT  
WELL NO. 95  
NORTH VACUUM ABO FIELD  
LEA COUNTY, NEW MEXICO**

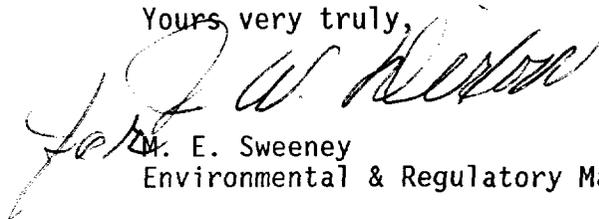
Gentlemen:

Under the provisions of Order No. R-4430 (Case #4831) dated October 27, 1972; permission was granted to inject water into the Abo formation for the subject well. The order limited the pressure on the injection well to no more than 0.2 psi. per foot to the uppermost injection interval. A step-rate test for this well has been completed which shows that higher pressure will not result in migration of the injected fluid from the Abo formation. Permission is requested to increase the injection pressure as follows:

	<u>INJECTION INTERVALS</u>	<u>PRESENT SURFACE INJECTION PRESSURE LIMIT</u>	<u>REQUESTED SURFACE INJECTION PRESSURE LIMIT</u>
WELL NO. 95 UNIT P, SEC. 26 T-17-S, R-34-E Order No. R-4430	8360-8520'	1660 psig	3540 psig

Enclosed are copies of the Step-rate test.

Yours very truly,



M. E. Sweeney  
Environmental & Regulatory Manager

Mobil Exploration & Producing U.S. Inc.  
as Agent for  
Mobil Producing Texas & New Mexico, Inc.

JWDixon  
Attachments  
cc: District Director OCD - Hobbs

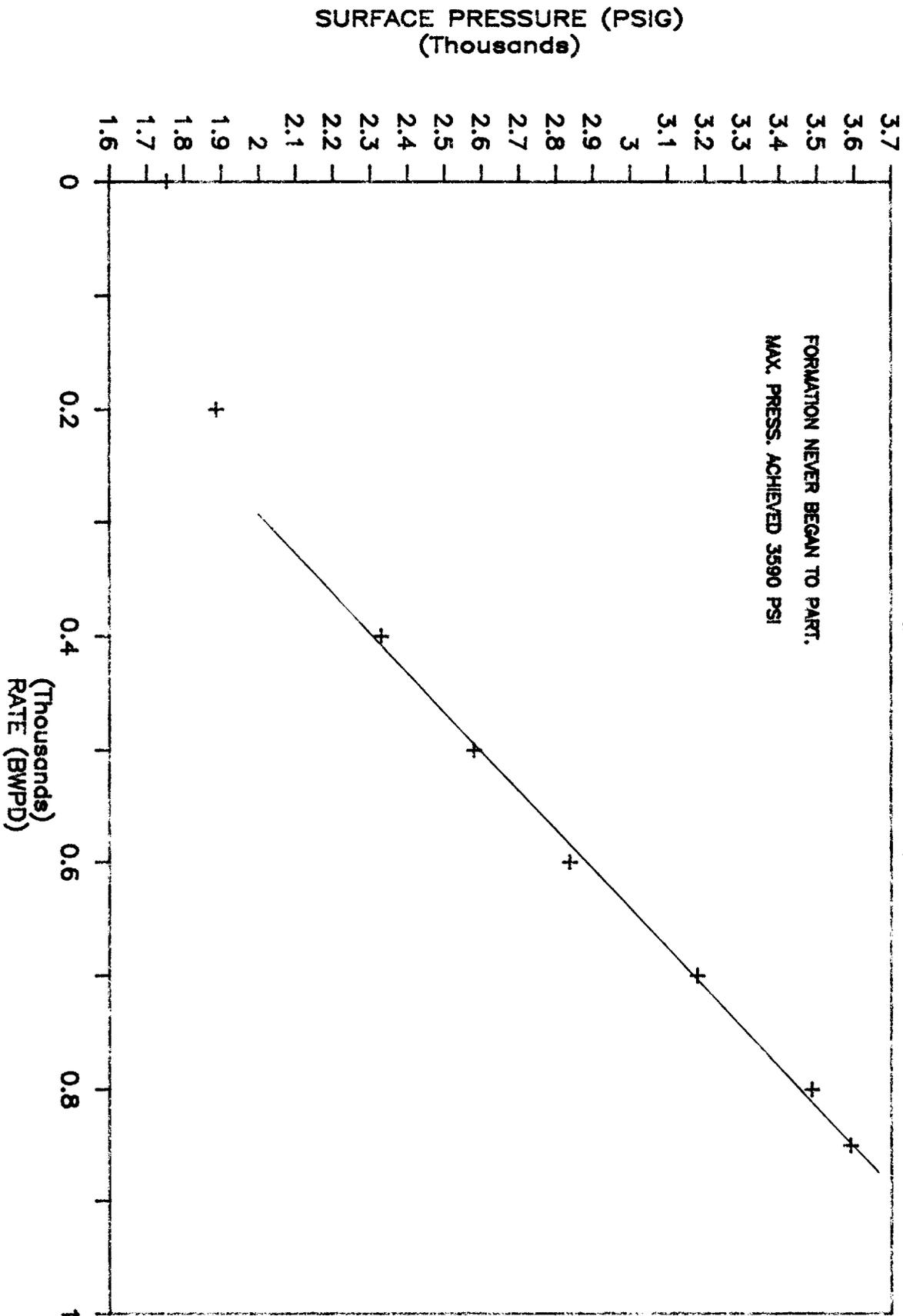
A:M926148C.JWD

1 CENTRAL FILES  
1 REGULATORY FILES  
1 PRORATION ACCT.  
1 RESERVOIR ENGR. MGR.  
1 DIST. OP. MGR. *Hobbs*  
1 ~~AREA PROD. SUPV.~~  
1 REGULATORY ACCT.

# STEP RATE TEST

NVAU #95 (RUN 9-6-89)

FORMATION NEVER BEGAN TO PART.  
MAX. PRESS. ACHIEVED 3590 PSI



STEPRATE TEST  
-----

COMPANY: MOBIL EXPLORATION & PRODUCING U.S. INC.  
 LEASE: NORTH VACUUM ABO UNIT  
 WELL NO. 95  
 LOCATION: P26-T17S-R34E  
 TEST DATE: 09-06-89  
 PERFORATIONS: 8360' - 8520'  
 TOTAL DEPTH: 13816'  
 PLUG BACK TD: 12450' CIBP: 11890'  
 PACKER SET AT: 8330'

TIME	SURFACE PRESSURE	RATE (BWPD)
11:38:19	12	0
11:39:19	12	0
11:40:19	12	0
11:41:19	12	0
11:42:19	12	0
11:43:19	12	0
11:44:19	12	0
11:45:19	12	0
11:46:19	13	0
11:47:19	12	0
11:48:19	12	0
11:49:19	12	0
11:50:19	12	0
11:51:19	12	0
11:52:19	12	0
11:53:19	12	0
11:54:19	12	0
11:55:19	12	0
11:56:19	12	0
11:57:19	1756	0
11:58:19	1755	0
11:59:19	1756	200
12:00:19	1756	200
12:01:19	1774	200
12:02:19	1789	200
12:03:19	1805	200
12:04:19	1819	200
12:05:19	1831	200
12:06:19	1842	200
12:07:19	1853	200
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DOCKET: EXAMINER HEARING - WEDNESDAY - SEPTEMBER 27, 1972

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 4829: Application of Coastal States Gas Producing Company for a special depth bracket allowable, Lea and Roosevelt Counties, New Mexico. Applicant, in the above-styled cause, seeks the establishment of a special depth bracket allowable greater than the present allowable for the Vada-Pennsylvanian Pool, Lea and Roosevelt Counties, New Mexico.

CASE 4830: Application of Mobil Oil Corporation for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the North Vacuum-Abo Unit Area comprising 5,680 acres, more or less, of Federal, State, and Fee lands in Township 17 South, Ranges 34 and 35 East, Lea County, New Mexico.

CASE 4831: Application of Mobil Oil Corporation for a pressure maintenance project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a pressure maintenance project in its North Vacuum-Abo Unit Area by the injection of fluid into the North Vacuum-Abo Pool through 34 wells located in Township 17 South, Ranges 34 and 35 East, Lea County, New Mexico.

Applicant further seeks a procedure whereby additional producing and injection wells may be approved without notice and hearing.

CASE 4832: Application of Pennzoil Company for pool reclassification, special pool rules, and a non-standard proration unit, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks the reclassification of the Northwest Todd-San Andres Gas Pool to an associated pool for the production of gas and oil and the promulgation of special rules therefor including provisions for the classification of oil and gas wells, oil and gas spacing, and a gas-oil ratio limitation of 10,000 cubic feet of gas per barrel of oil.

Applicant further seeks approval of an 80-acre non-standard oil proration unit in the subject pool comprising the NW/4 SW/4 and the SW/4 NW/4 of Section 8, Township 7 South, Range 35 East to be dedicated to its Superior State "Com" Well No. 1 located in Unit 1 of said Section 8.

CASE 4833: Application of Tesoro Petroleum Corporation for compulsory pooling and an unorthodox location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests underlying the E/2 of Section 28, Township 20 South, Range 26 East, Eddy County, New Mexico, to be dedicated to a well to be drilled at an unorthodox location 660 feet from the South line and from 1160

(Case 4833 continued from page 1)

to 1200 feet from the East line of said Section 28, adjacent to the Springs-Upper Pennsylvanian Gas Pool.

Also to be considered will be the costs of drilling said well, a charge for the risk involved, a provision for the allocation of actual operating costs, and the establishment of charges for supervision of said well.

CASE 4834: Application of Read & Stevens, Inc. for an unorthodox location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill a Devonian test well at an unorthodox location 1200 feet from the South line and 660 feet from the East line of Section 2, Township 14 South, Range 37 East, Lea County, New Mexico, adjacent to the King-Devonian Pool.

CASE 4835: Application of Texas Oil & Gas Corporation for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests from the surface of the ground down to and including the Pennsylvanian formation underlying the S/2 of Section 13, Township 22 South, Range 26 East, South Carlsbad Field area, Eddy County, New Mexico, to be dedicated to a well to be drilled 1980 feet from the South and East lines of said Section 13. Also to be considered will be the costs of drilling said well, a charge for the risk involved, a provision for the allocation of actual operating costs, and the establishment of charges for supervision of said well.

CASE 4836: Application of Michael P. Grace II and Corinne Grace for compulsory pooling, Eddy County, New Mexico. Applicants, in the above-styled cause, seek an order pooling all mineral interests from the surface of the ground down to and including the Morrow formation underlying the S/2 of Section 24, Township 22 South, Range 26 East, South Carlsbad Field area, Eddy County, New Mexico, to be dedicated to a well to be drilled at an orthodox location for said unit. Also to be considered will be the costs of drilling said well, a charge for the risk involved, a provision for the allocation of actual operating costs, and the establishment of charges for supervision for said well.

CASE 4819: (Continued from the September 13, 1972, Examiner Hearing)  
Application of D. L. Hannifin for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in and under the S/2 of Section 24, Township 22 South, Range 26 East, South Carlsbad Field, Eddy County, New Mexico, to be dedicated to a well to be drilled 1980 feet from the South and East lines of said Section 24. Also to be considered will be the costs of drilling said well, a charge for the risk involved, a provision for the allocation of actual operating costs, and the establishment of charges for supervision of said well.