Chevron U.S.A. Inc.
P.O. Box 1150, Midland, TX 79702

Permian Basin Production Business Unit

December 3, 1991

APPLICATION FOR AUTHORIZATION
TO INJECT - OCD FORM C-108
EUNICE MONUMENT SOUTH UNIT
EUNICE MONUMENT OIL POOL
LEA COUNTY, NEW MEXICO

State Of New Mexico
Energy, Minerals & Natural Resources Dept.
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87504

Attention: Mr. William J. LeMay, Director

Gentlemen:

Chevron U.S.A. respectfully requests your approval of the subject application to inject water into Eunice Monument South Unit Well Nos. 228 and 240 located in Units M and S, respectively, of Section 4 and into Well Nos. 226 and 242 located in Units O and Q, respectively, of Section 5, all in Township 21 South, Range 36 East, Lea County, New Mexico.

Chevron is currently initiating a 20-acre Infill Pilot Project in its Eunice Monument South Unit which is designed to improve the efficiency of the waterflood pattern and enhance the production of the EMSU secondary recovery project. As part of this Pilot Project, we plan to convert the above four producers to injection wells which were not included in the original OCD Form C-108 application and approval of 1984 (Order No. R-7766).

Attached is an OCD Form C-108 with information relative to the four proposed water injection conversions which are an expansion to the existing EMSU Waterflood Project.

A copy of this letter and application is being sent to applicable surface land owners by certified mail as their notice. Per your instruction, as Chevron is the Operator of the EMSU and this pilot is interior to the Unit, offset operators notices were not deemed applicable. However, for your information, notice was sent to all Working Interest Owners via an AFE on September 9, 1991. The appropriate AFE approval has been received and its mailing included the affected offset operators within the area of the subject wells.

Your prompt consideration and approval of this application will be greatly appreciated. If further information is required please contact me at (915) 687-7246.

Yours very truly,

Alan W. Bohling

Alan W. Bohling
Proration Engineer

AWB
Attachments

cc: NMOCD - Hobbs, NM

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501

FORM C-108
Revised 7-1-81

APPLICATION FOR AUTHORIZATION TO INJECT

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

II. Operator: CHEVRON U.S.A. INC.

Address: P.O. BOX 1150 MIDLAND, TEXAS 79702

Contact party: ALAN W. BOHLING - PRORATION ENGR. Phone: (915) 687-7246

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 ORDER R-7766.

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: ALAN W. BOHLING Title PRORATION ENGINEER

Signature: Alan W. Bohling Date: November 18, 1991

* 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. EARLIER SUBMITTAL PRESENTED AS EXHIBITS IN CASE NO. 8398 - COMMISSIONERS HEARING HELD ON 11-07-84 (ORDER NO. 7766 - EFFECTIVE 12-27-84)

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.

EMSU 20-ACRE INFILL PILOT PROJECT
EUNICE MONUMENT SOUTH UNIT
LEA COUNTY, NEW MEXICO

INFORMATION FOR NMOCD FORM C-108

ITEM I

(See OCD Form C-108)

ITEM II

(See OCD Form C-108)

ITEM III

See attached wellbore Schematics with Tabular Data for the subject four wells of this C-108 application.

ITEM IV

(See OCD Form C-108)

ITEM V

This was originally submitted as Exhibit No. 28 of Case No. 8398 heard at a Commissioner's hearing on 11-07-84 (Order No. 7766- effective 12-27-84). Smaller area maps relating to this EMSU 20-acre infill pilot project illustrating current and proposed waterflood patterns, operators, and land ownerships are attached (one area map is a copy of a portion of Exhibit No. 28).

ITEM VI

This was originally submitted as Exhibit No. 31 of Case 8398 heard at a Commissioner's hearing on 11-07-84 (Order No. 7766 - effective 12-27-84). Please note attached schematic diagrams of new drilled wells within the area of review since the effective date of the Order. No existing wells at time of original Order are known to have subsequently been plugged and abandoned.

ITEM VII

See the attached table showing items VII (1), (2), and (3) for the subject four wells of this C-108 application. Items VII (4) and (5) are consistent with the original C-108 application and its Exhibit No. 33a (copy of Exhibit 33a enclosed).

ITEM VIII

This was originally submitted as Exhibit No. 34a and 36 of Case No. 8398 heard at a Commissioner's hearing on 11-07-84 (Order No. 7766 - effective 12-27-84). Copies of these Exhibits are enclosed for your reference.

EMSU 20-ACRE INFILL PILOT PROJECT
EUNICE MONUMENT SOUTH UNIT
LEA COUNTY, NEW MEXICO

INFORMATION FOR NMOCD FORM C-108 (CONT.)

ITEM IX

See attached proposed stimulation program for the subject four wells of this C-108 application.

ITEM X

Logging and test data has been filed with the Oil Convservation Division.

ITEM XI

This was originally submitted as Exhibit No. 37 of Case No. 8398 heard at a Commissioner's hearing on 11-07-84 (Order No. 7766 - effective 12-27-84). A copy of this Exhibit is enclosed for your reference. Also, as part of an on-going reservoir management program, periodic tests are being performed on all known fresh water wells in the Unit area.

ITEM XII

This was originally submitted as Exhibit No. 38 of Case No. 8398 heard at a Commissioner's hearing on 11-07-84 (Order No. 7766 - effective 12-27-84). A copy of this Exhibit is enclosed for your reference.

ITEM XIII

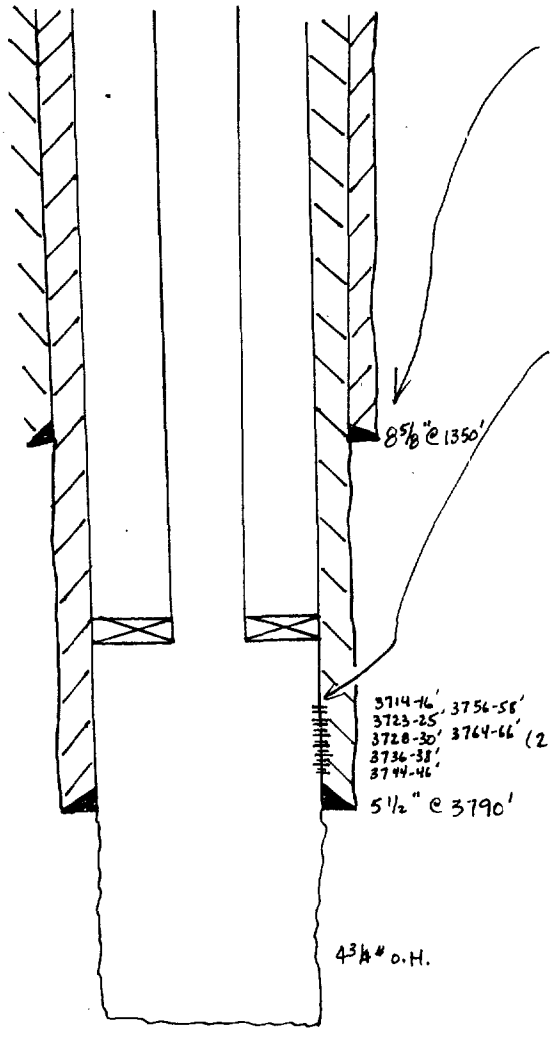
All Surface Land Owners in the review area of the subject four injection wells are being notified by Certified Mail with a copy of this C-108. Also, all Working Interest Owners have been notified by copy of an AFE sent by Certified Mail on 9-25-91. A request for publication in the Hobbs News-Sun was mailed on 11-01-91. The the actual newspaper add and an affidavit of publication will be forwarded to the OCD as soon as it is obtained.

ITEM III OF NMOCD FORM C-108 dated 8-10-71

INJECTION WELL DATA SHEET

OPERATOR	LEASE			
CHEVRON USA, INC.	EUNICE MONUMENT SOUTH UNIT			
226 WIC	3300'FSL & 1980'FEL	5	21S	36E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Schematic - Proposed



Tabular Data

Surface Casing

Size 12 1/2 " Cemented with 200 sx.

TOC surface feet determined by calculation

Hole size 16"

Intermediate Casing

Size 8 5/8" " Cemented with 800 sx.

TOC surface feet determined ~~by~~ calculation

Hole size 11 3/4"

Long string

Size 5 1/2 " Cemented with 750 sx.

TOC surface feet determined by calculation

Hole size 7 7/8"

Total depth 3972

Injection interval

3714 feet to 3972 feet
(perforated or open-hole, indicate which)

(3714'-3766' perf'd)

(3790'-3972' O.H.)

Tubing size 2 3/8" lined with Baker BTS-SOS plastic coating (material) set in a

Baker TSN Retrievable (brand and model) packer at ~3675 feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation Grayburg

2. Name of Field or Pool (if applicable) Eunice Monument

3. Is this a new well drilled for injection? ☐ Yes ☑ No

If no, for what purpose was the well originally drilled? Drilled in 1935 as a Grayburg oil producer.

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used)

11/53 - Perf'd in Eumont 2800-3586'.

8/86 - Eumont perfs squeezed by ARCOM cement. Drilled out & tested to 500# OK.

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. OVERLYING - Eumont Y-SR-Q Gas Pool. T/Yates @ 2771', T/SR @ 2954', T/Qn @ 3390'.

UNDERLYING - No productive pools.

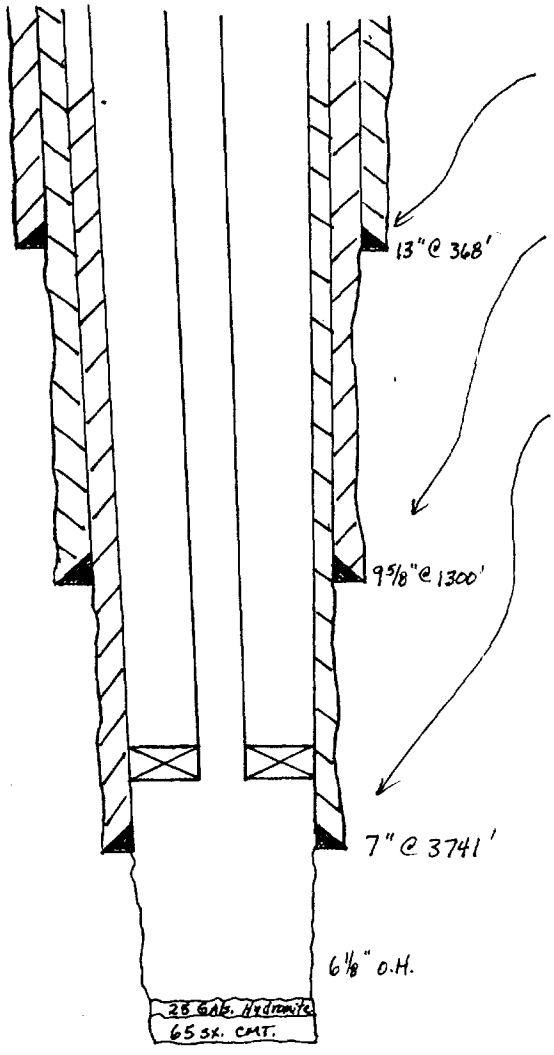
ITEM III OF FORM C-108

INJECTION WELL DATA SHEET

CHEVRON USA, Inc. (OPERATOR) — EUNICE MONUMENT SOUTH UNIT (EMSU) (LEASE)

228 WIC	3300' FSL & 660' FWL	4	21S	37E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Schematic – Proposed



Tabular Data

Surface Casing

Size 13" Cemented with 300 sx.

TOC surface feet determined by calculation

Hole size 16"

Intermediate Casing

Size 9 5/8" Cemented with 450 sx.

TOC surface feet determined by calculation

Hole size 11 3/4"

Long string

Size 7" Cemented with 500 sx.

TOC 80 feet determined by Calculation

Hole size 8 1/2"

Total depth 4271' (PB @ 3870')

Injection interval

3700 feet to 3870 feet
(perforated or open-hole, indicate which)

(3700'-3741' perf'd)

(3741'-3870' O.H.)

Tubing size 2 3/8" lined with Baker BTS-505 plastic coating (material) set in a Baker TSN Retrievable (brand and model) packer at ~3650' feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation Grayburg

2. Name of Field or Pool (if applicable) Eunice Monument

3. Is this a new well drilled for injection? ☐ Yes ☑ No

If no, for what purpose was the well originally drilled? Drilled in 1936 as a Grayburg oil producer.

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) None

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. OVERLYING – Eumont Y-SR-Q Gas Pool Yates T/2674', 7Rivers T/2928', Qu T/3357'.

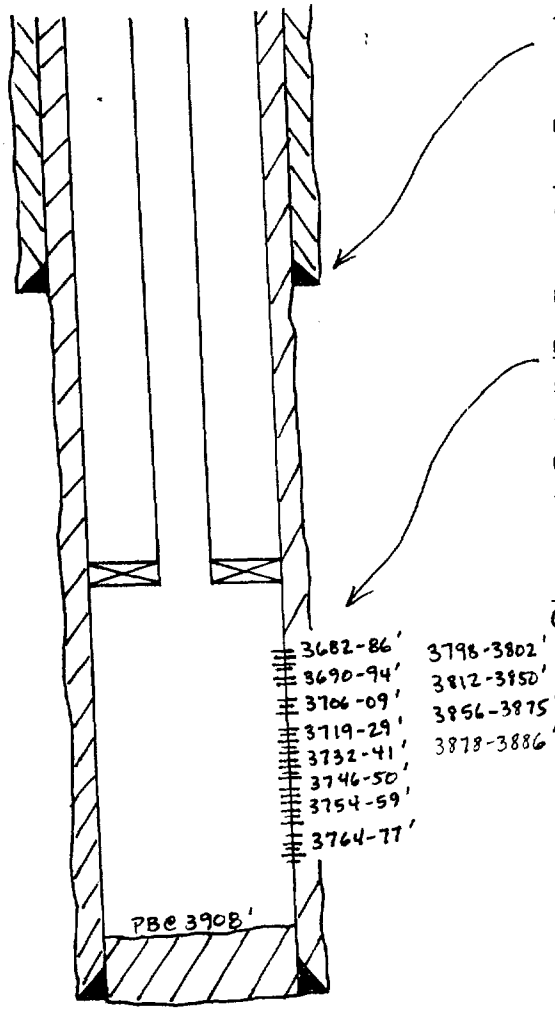
UNDERLYING – Oil Center Blinebry Oil Pool T/Blinebry @ 5870'.

ITEM III OF NMOCD FORM C-108 DATED 11-10-71

INJECTION WELL DATA SHEET

OPERATOR	LEASE			
CHEVRON USA Inc.	EUNICE MONUMENT SOUTH UNIT (EMSU)			
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE
240	1830' FSL & 2080' FWL	4	21S	36E

Schematic - Proposed



Tabular Data

Surface Casing

Size 8 5/8" Cemented with 800 sx.

TOC surface feet determined by circulation

Hole size 12 1/4"

Intermediate Casing

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Long string

Size 5 1/2" Cemented with 650 sx.

TOC surface feet determined by circulation

Hole size 7 7/8"

Total depth 3950'

Injection interval

3682' feet to 3886' feet

(perforated or open-hole, indicate which)

Tubing size 2 3/8" lined with BAKER BTS-SOS plastic coating (material) set in a

Baker TSN Retrievable (brand and model) packer at ~3600 feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation Grayburg
2. Name of Field or Pool (if applicable) EUNICE MONUMENT
3. Is this a new well drilled for injection? ☐ Yes ☑ No

   If no, for what purpose was the well originally drilled? Drilled as a Eunice Monument Grayburg producer for the EMSU WF Project
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) NONE
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. OVERLYING - Eumont Y-SR-Q Gas Pool T/Yates @ 2715', T/SR @ 2917', T/Qn @ 3338'.

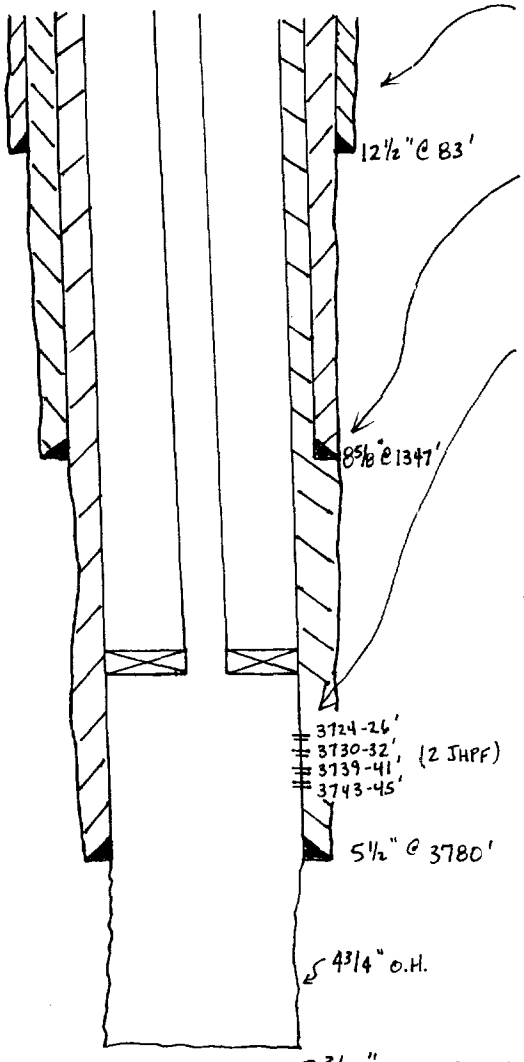
   underlying - Blinebry Oil Pool. T/Blinebry @ 5876'.

INJECTION WELL DATA SHEET

CHEVRON USA INC. (OPERATOR) — EUNICE MONUMENT SOUTH UNIT (EMSU) (LEASE)

242 WIC	1980' FSL & 660' FEL	5	21S	36E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Schematic – Proposed



Tabular Data

Surface Casing
Size 12½" Cemented with 100 sx.
TOC surface feet determined by calculation
Hole size 16"

Intermediate Casing
Size 8⅝" Cemented with 600 sx.
TOC surface feet determined by calculation
Hole size 11¾"

Long string
Size 5½" Cemented with 600 sx.
TOC surface feet determined by calculation
Hole size 7⅞"
Total depth 3950'

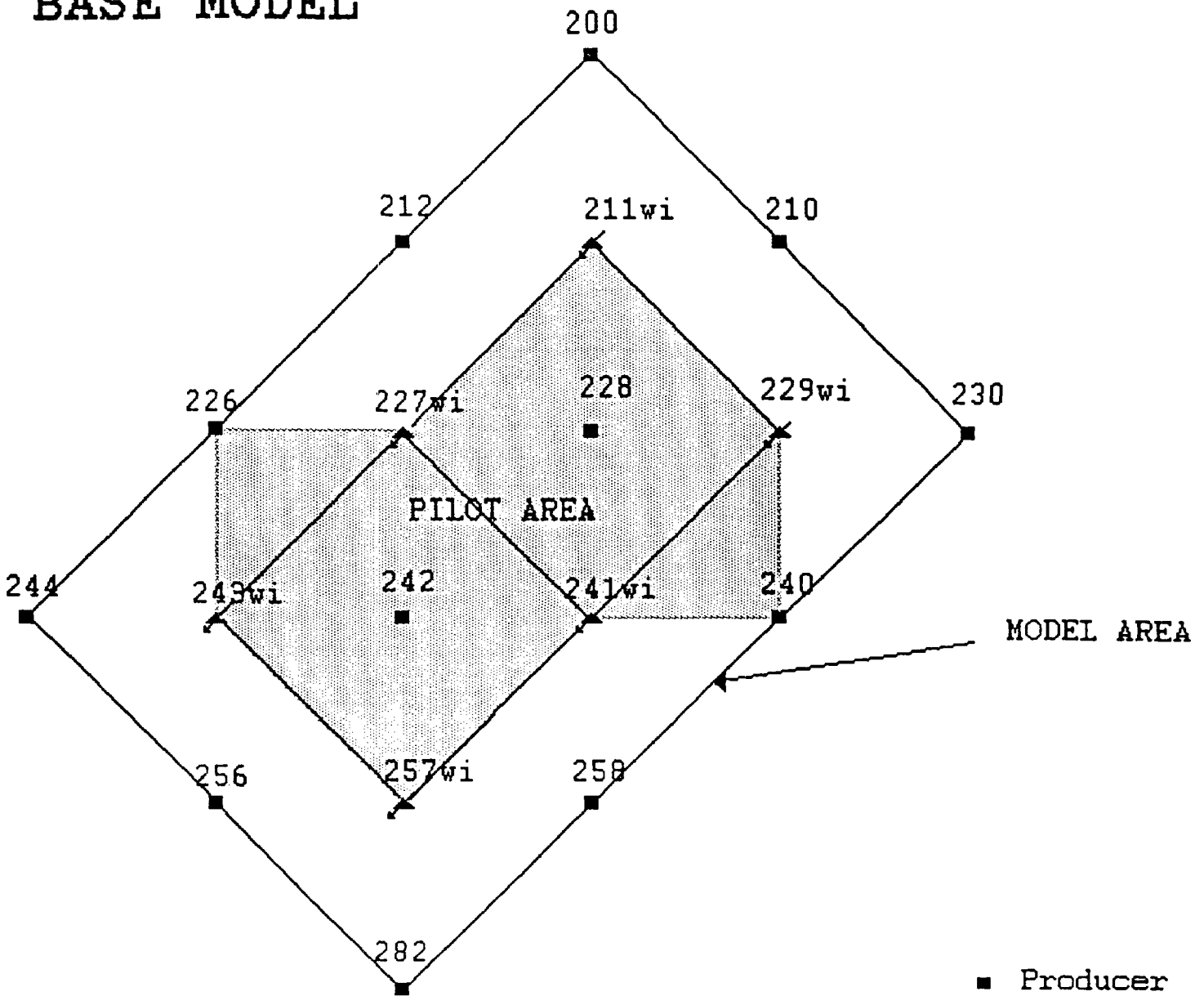
Injection interval
3724 feet to 3950 feet
(perforated or open-hole, indicate which)
(3724'-3745' perf'd)
(3780'-3950' O.H.)

Tubing size 2⅜" lined with Baker BTS-505 plastic-coating (material) set in a Baker TSN Retrievable (brand and model) packer at ~3675 feet
(or describe any other casing-tubing seal).

Other Data

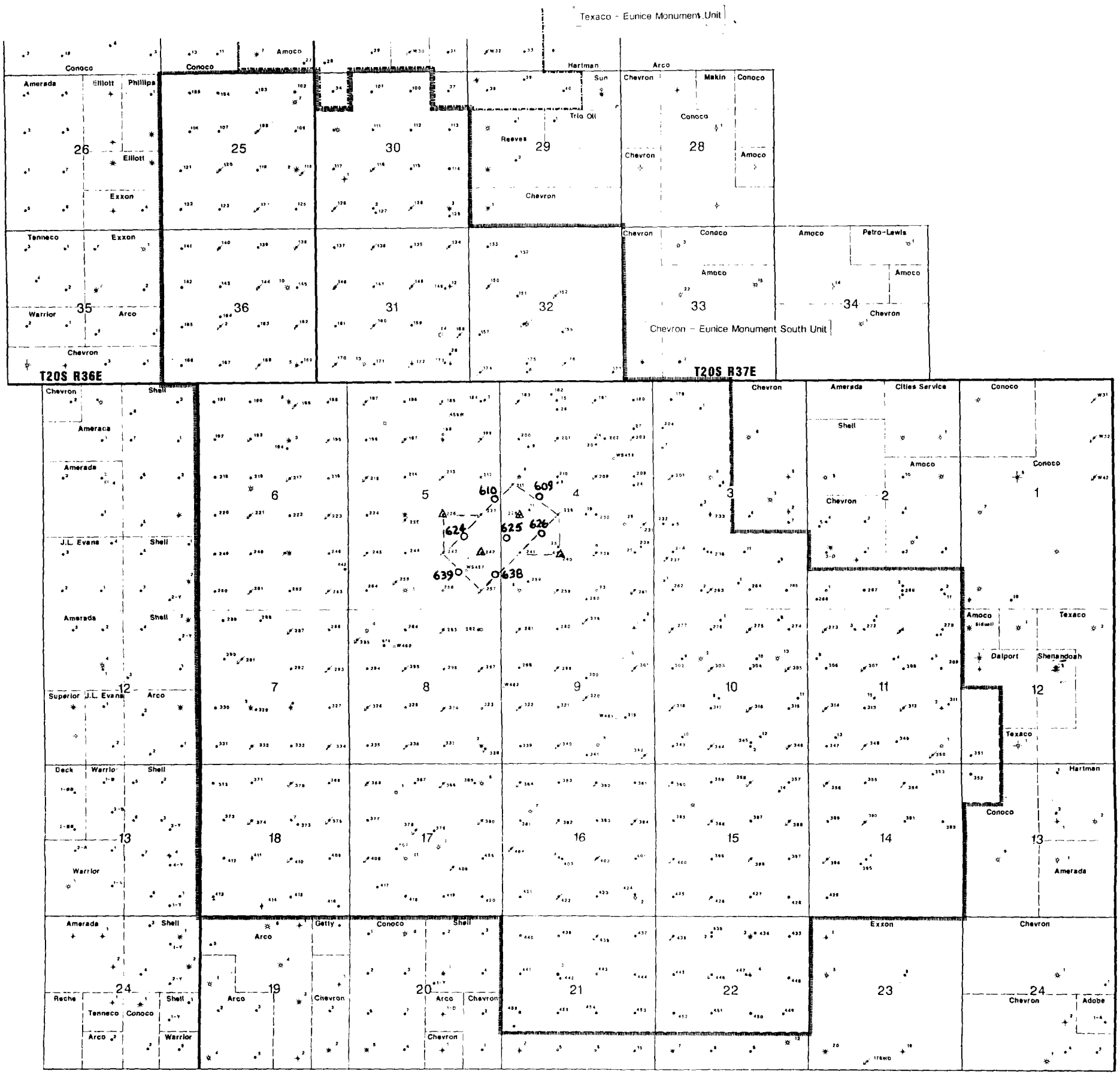
1. Name of the injection formation Eunice Monument Grayburg
2. Name of Field or Pool (if applicable) Eunice Monument
3. Is this a new well drilled for injection? ☐ Yes ☑ No
   If no, for what purpose was the well originally drilled? Drilled in 1935 as a Grayburg producer.
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) No other zones perf'd.
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. OVERLYING - Eumont Y-SR-Q Gas Pool. T/Yates @ 2746', T/SR @ 2926', T/Qn @ 3375'
   UNDERLYING - No productive pools.

BASE MODEL



ITEM V OF NMOCD FORM C-108 11-18-91

CURRENT PATTERN



LEGEND

- ● Oil
- ● P&A Oil
- ● TA'd Oil
- ● Oil & Gas
- ● P&A Oil & Gas
- ○ Proposed 20-Ac. Infill Producers
- △ Proposed Conversions
- Proposed 40-Ac. 5-Spot Pilot Area

Chevron USA Inc
Southern Region - Exploration, Land and Production

EUNICE MONUMENT SOUTH UNIT

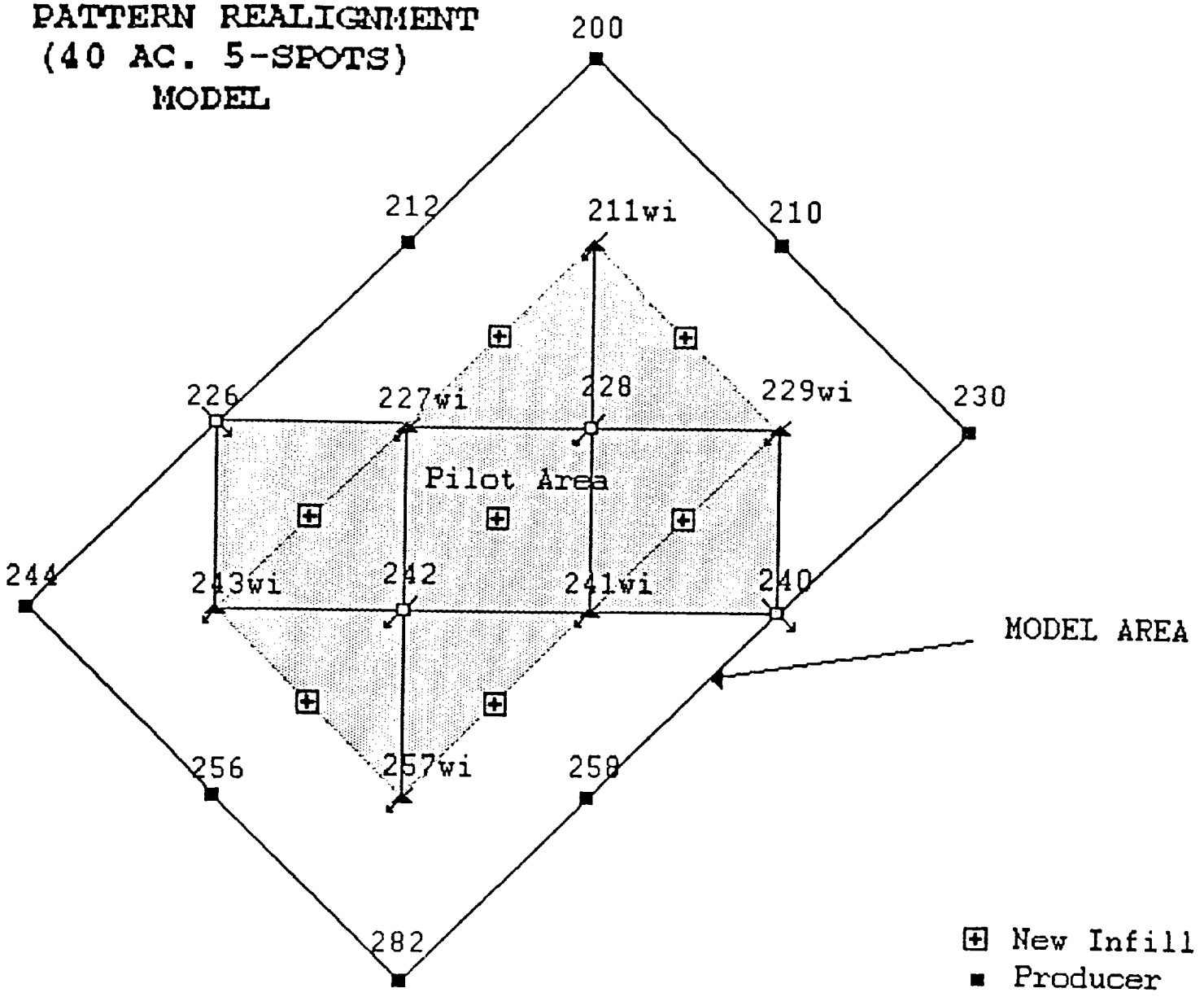
Lea County, New Mexico

SCALE: 1" = 4000'

ITEM V OF NMOCD FORM C-108 11-18-91

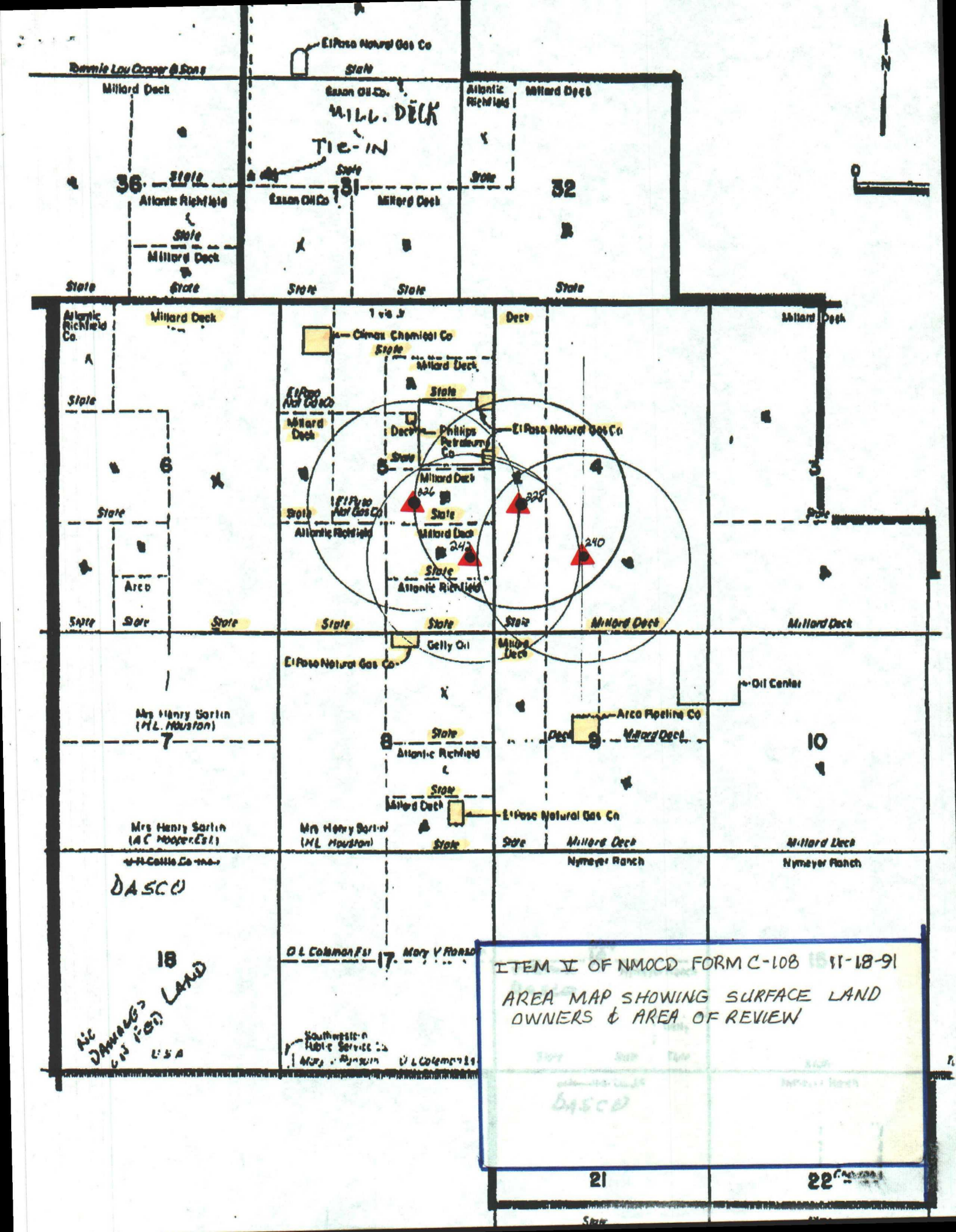
20-ACRE INFILL PILOT PROJECT
EUNICE MONUMENT SOUTH UNIT

PATTERN REALIGNMENT
(40 AC. 5-SPOTS)
MODEL



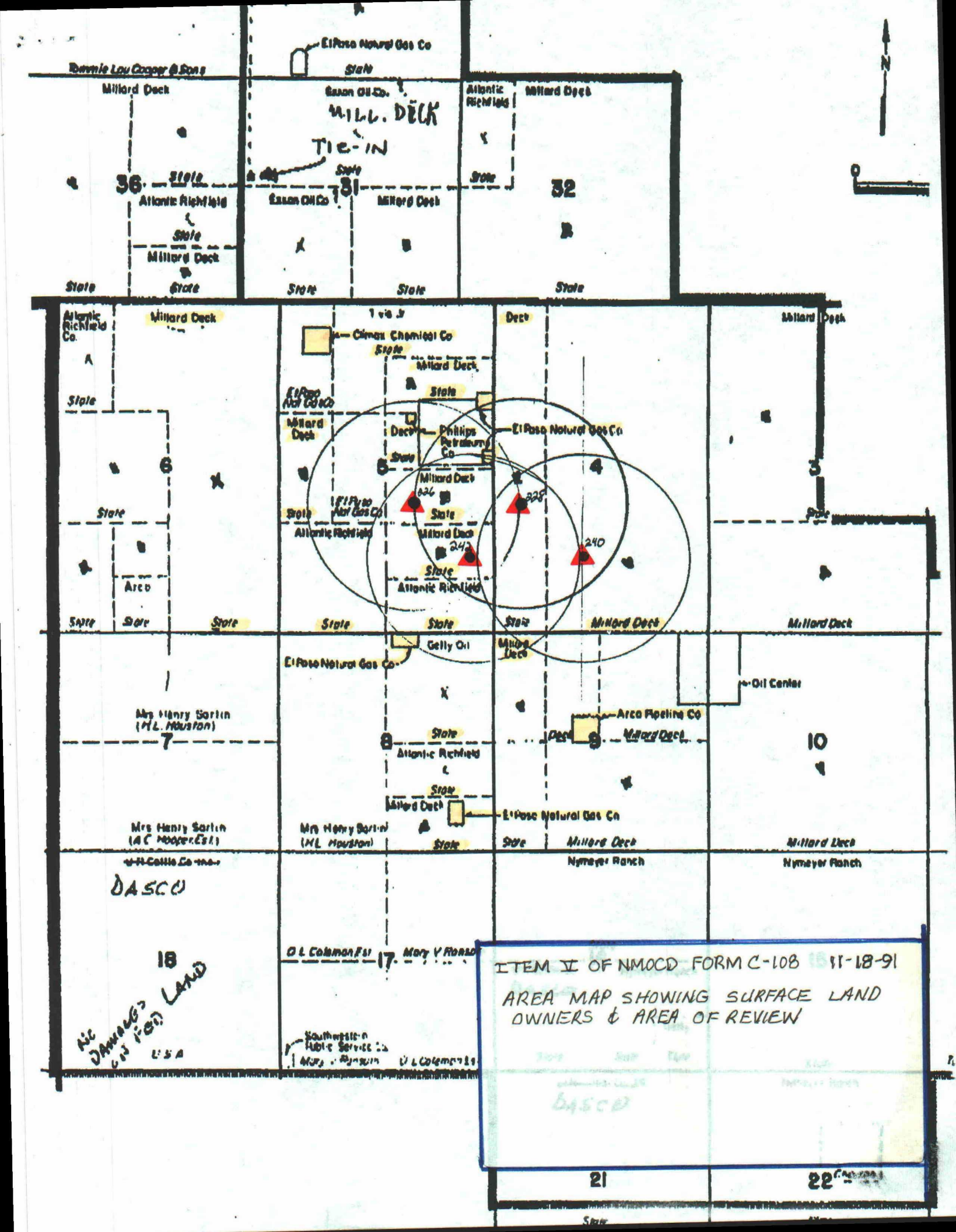
ITEM V OF NMOCD FORM C-108 11-18-91

PROPOSED PATTERN



ITEM V OF NMOCD FORM C-108 11-18-91

AREA MAP SHOWING SURFACE LAND OWNERS & AREA OF REVIEW


Ronnie Lou Cooper & Sons
El Paso Natural Gas Co
State
Millard Deck
Esson Oil Co.
MILL. DECK
TIE-IN
Atlantic Richfield
36
31
32
Millard Deck
Atlantic Richfield Co.
Cimax Chemical Co
Phillips Petroleum Co
El Paso Natural Gas Co
6
5
4
3
Arco
Gelly Oil
Oil Center
Arco Pipeline Co
Mrs Henry Sarlin (H.L. Houston)
7
8
9
10
Nymeyer Ranch
DASCO
18
17
O L Coleman Est
Mary V Ronan
Southwestern Public Service Co
U S A
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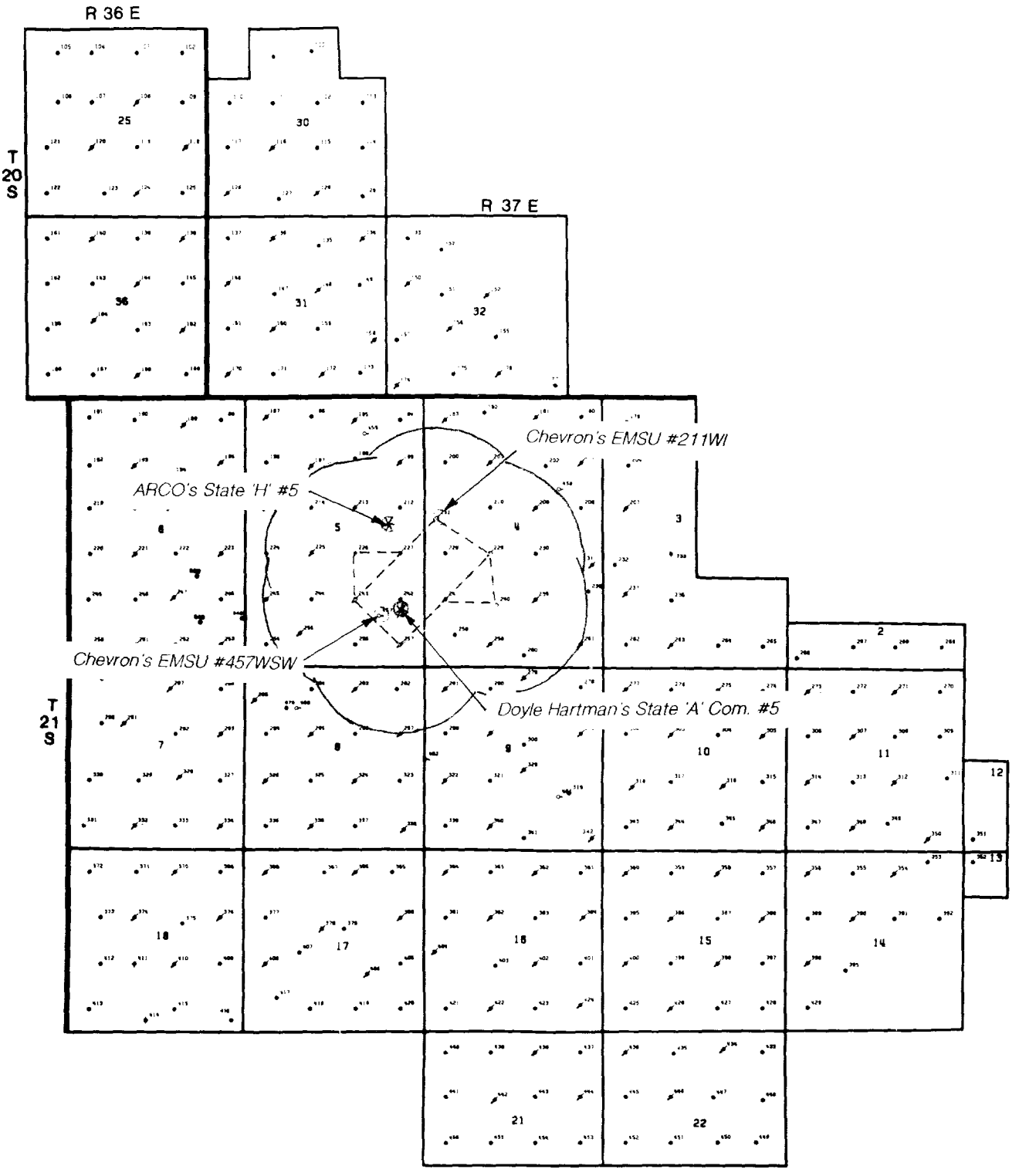
ITEM V OF NMOCD FORM C-108 11-18-91
AREA MAP SHOWING SURFACE LAND OWNERS & AREA OF REVIEW
21
22

ITEM XII OF NMOCD FORM C-108 11-18-91



LEGEND

- Location or Drilling
- Oil
- P&A Oil
- TA or Cl Oil
- Gas
- P&A Gas
- TA or Cl Gas
- Oil & Gas
- P&A Oil & Gas
- Dry & Abn.
- Inj

Wells drilled or P&A'd after approval of original C-108

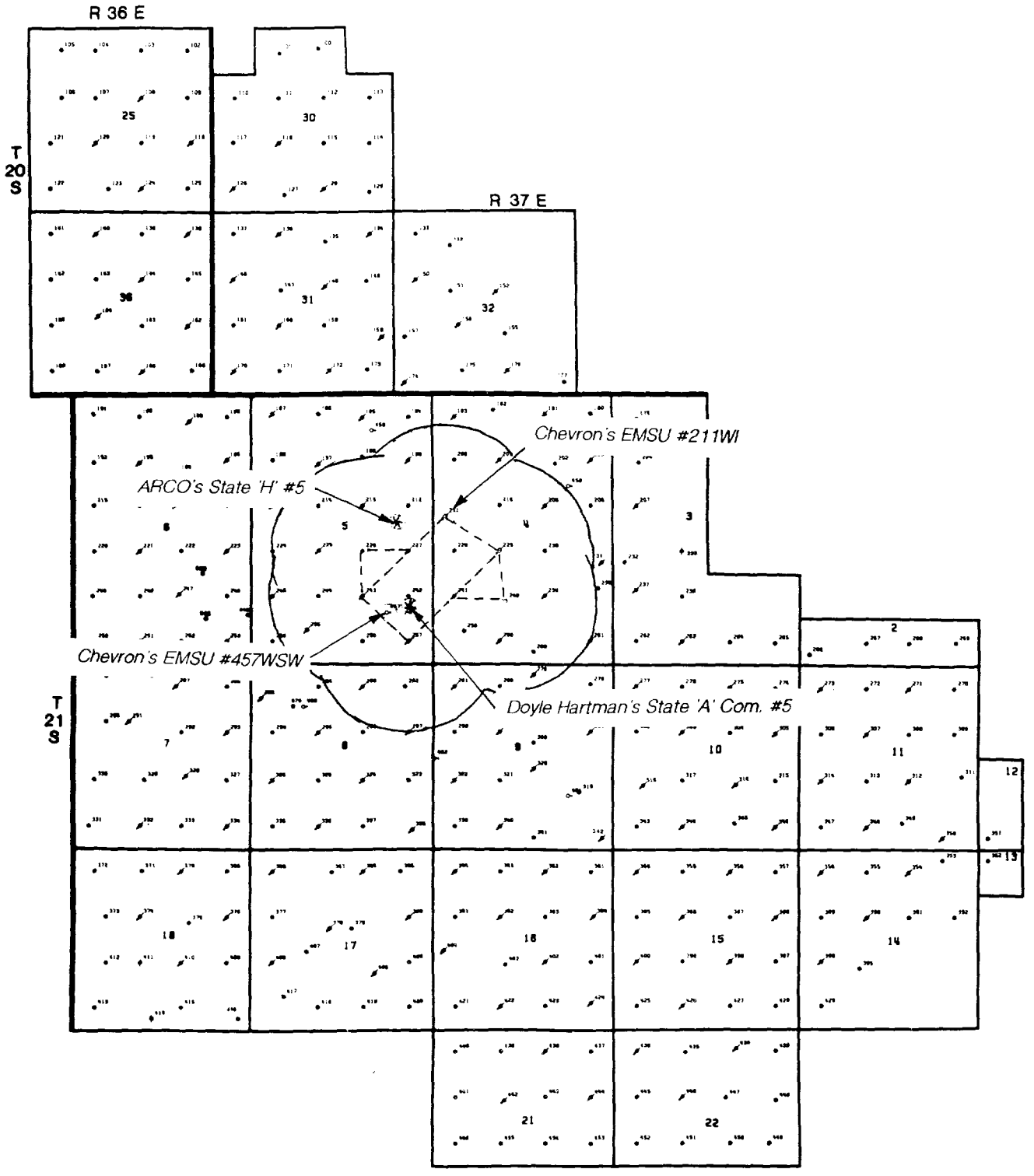
denotes 1/2 mile radius of review from Pilot Project

Chevron U.S.A. Inc.
Central Region - Exploration, Land and Production

EUNICE MONUMENT SOUTH UNIT
Lea County, New Mexico

Scale: 1" = 1000'

ITEM XI OF NMOCD FORM C-108 11-18-91



LEGEND	
Location or Drilling	Wells drilled or P&A'd after approval of original C-108
Oil	
P&A Oil	
TA or Cl Oil	
Gas	
P&A Gas	
TA or Cl Gas	
Oil & Gas	denotes 1/2 mile radius of review from Pilot Project
P&A Oil & Gas	
Dry & Abn.	
Inj.	

Chevron U.S.A. Inc.
Central Region - Exploration, Land and Production

EUNICE MONUMENT SOUTH UNIT
Lea County, New Mexico

Scale: 1" = 1000'

ITEM XI OF NMOCD FORM C-108 11-8-91

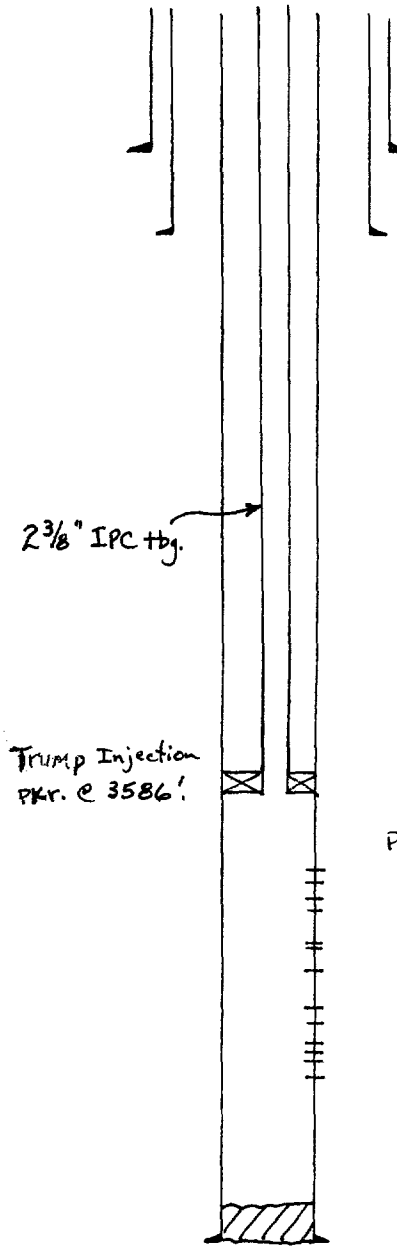
WELL DATA SHEET

CHEVRON

LEASE: EUNICE MONUMENT SO. UNIT WELL NO.: 211 WI FIELD: EUNICE MONUMENT

LOCATION: 3508 FEET FROM N LINE, 410 FEET FROM W LINE. CHEVRON W.I.: 38.3 %

SECTION: 4 TOWNSHIP: 21S RANGE: 36E UNIT: L, COUNTY: LEA STATE: NM



GE: 3564.4'

KB - GE: 12.5'

11 3/4" @ 350'. Cmtd. to surf. w/ 325 sx. (14 3/4" hole)

8 5/8"
Casing @ 2589'
w/ 650 sx cmt.
Circ? yes
(11" hole)

Perfs: 3698-3700'
3706-08'
3713-15'
3719-21'
3740-44'
3754-56'
3794-96'
3806-08'
3825-27'
3836-38'
3845-47'
3860-62'

5 1/2" 15.5#
Casing @ 4124'
w/ 675 sx cmt.
Circ? yes
TOC @ surf. by circ.
(7 7/8" hole)

PBD: 4055'
TD: 4125'

Initial Completion Data: Date: 10/11/85

Compl. in Grayburg for water injection service in the EMSU WF Project. Perf'd @ 3698-3862' selectively. Acd'd perfs w/ 15% NeFeHCl Acid. Placed on injection service 11-6-86.

Initial ~~Prod~~/Inj: 653 BWIPD @ 0 Psi.

Subsequent Operations:

Remarks or Additional Data:

Formation Tops: T/ Yates @ 2720'
T/ 7Rivers @ 2923'
T/ Queen @ 3342'
T/ Grayburg @ 3637'

Present Prod/Inj:

Last Update:

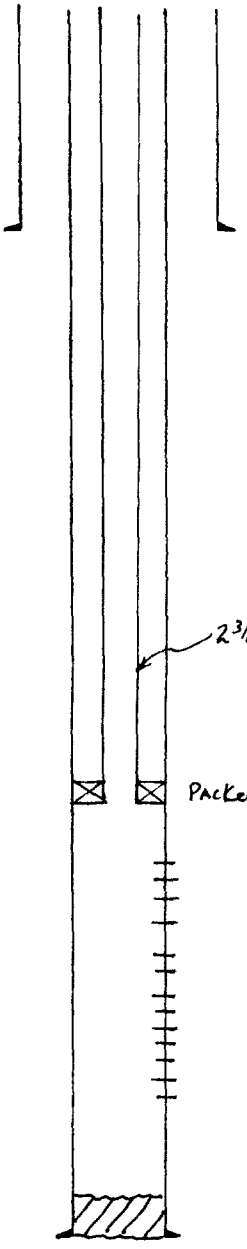
ITEM VI OF NMOCD FORM C-108 11-18-91

WELL DATA SHEET

LEASE: ARCO STATE 'H' WELL NO.: 5 FIELD: EUMONT Y-SR-Q GAS POOL

LOCATION: 3591 FEET FROM N LINE, 920 FEET FROM E LINE. CHEVRON W.I.: 0 %

SECTION: 5 TOWNSHIP: 21S RANGE: 36E UNIT: I, COUNTY: LEA STATE: NM



GE: 3571'

KB - GE: 10'

8 5/8"
Casing @ 382'
w/ 300 sx cmt.
Circ? yes
(12 1/4" hole)

5 1/2" 15.5#
Casing @ 3600'
w/ 750 sx cmt.
Circ? yes
TOC @ surf. by circ.

PBD: 3558'
TD: 3600'

Initial Completion Data: Date: 10/25/86

Compl. in Eumont as gas producer. Perf'd 3364-3453' w/ 12 select holes. Acdz. w/ 15% NeHCl & fracture-treated perfs. Placed on prod.

Initial Prod/~~Inj~~: 748 MCFGPD.

Subsequent Operations:

Remarks or Additional Data:

Formation Tops: T/Yates @ 2718'
T/7 Rivers @ 2920'
T/Queen @ 3350'

Present Prod/Inj:

Last Update:

ITEM XI OF NMOCD FORM C-105 11-10-91

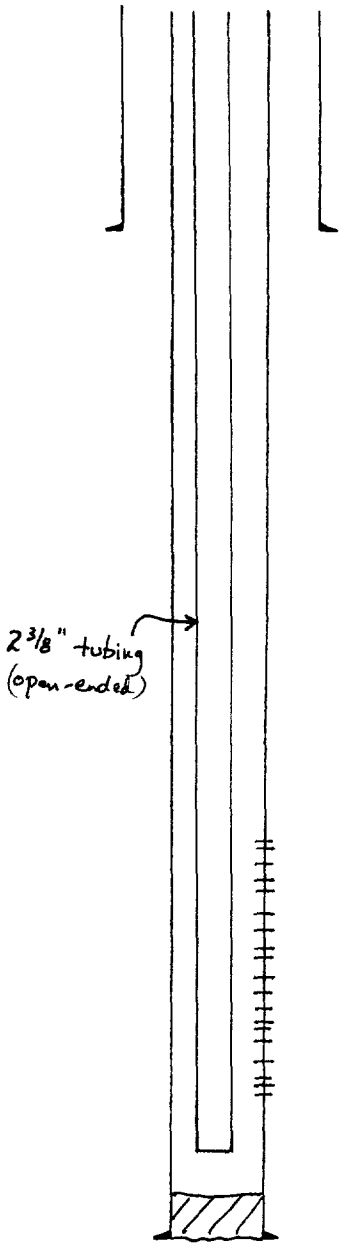
WELL DATA SHEET

Doyle Hartman

LEASE: STATE 'A' COM. WELL NO.: 5 FIELD: EUMONT Y-SR-Q GAS

LOCATION: 1650 FEET FROM S LINE, 845 FEET FROM E LINE. CHEVRON W.I.: 0 %

SECTION: 5 TOWNSHIP: 21S RANGE: 36E UNIT: Q, COUNTY: LEA STATE: NM



GE: 3586'

KB - GE: 13'

9 5/8"
Casing @ 497'
w/ 375 sx cmt.
Circ? yes
(12 1/4" hole)

Perfs: 3357-3582.5
(27 select holes)

7", 26#
Casing @ 3900'
w/ 1500 sx cmt.
Circ? yes
TOC @ surf. by circ.
(8 3/4" hole)

PBD: 3860'
TD: 3900'

Initial Completion Data: Date: 1/21/91

Compl in Eumont as a gas producer. Perfid @ 3357-3582.5 selectively (27 holes) Acdz'd w/ 15% NeHCl & fracture-treated perfs. Placed on prod.

Initial Prod/~~Test~~: 448 MCFGPD

Subsequent Operations:

Remarks or Additional Data:

Formation Tops: T/Yates @ 2705'
T/Seven Rivers @ 2981'
T/Queen @ 3399'

Present Prod/Inj:

Last Update:

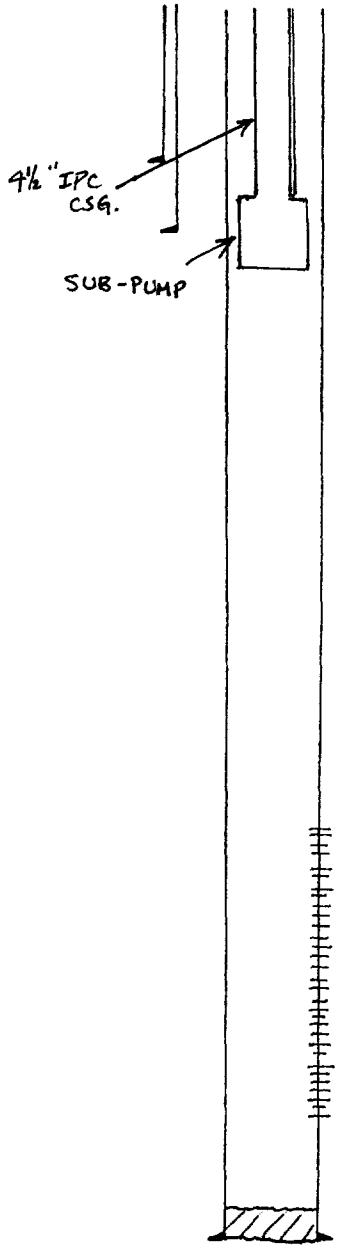
ITEM VI OF NMOCD FORM C-108 11-18-91

WELL DATA SHEET

LEASE: CHEVRON EUNICE MONUMENT So. UNIT WELL NO.: 457 WSW FIELD: EUNICE MONUMENT GB/SA

LOCATION: 1500 FEET FROM S LINE, 1280 FEET FROM E LINE. CHEVRON W.I.: 38.3 %

SECTION: 5 TOWNSHIP: 21S RANGE: 36E UNIT: O, COUNTY: LEA STATE: NM.



GE: 3578.6'

KB - GE: 22'

16" @ 417'. Cmtd. w/ 385 sx. Circ. to surface. (20" hole)

11 3/4"

Casing @ 2837'

w/ 2800 sx cmt.

Circ? yes - circ.

(14 3/4" hole)

Perfs: 4252-62'
4266-76'
4280-90'
4322-32'
4334-44'
4358-68'
4428-33'
4477-82'
4502-12'
4516-26'
4532-42'
4578-88'
4594-4604'
4766-76'
4782-92'
4850-60'
4866-76'

8 5/8" 32#

Casing @ 5000'

w/ _____ sx cmt.

Circ? yes

TOC @ surf. by circ.

(10 5/8" hole)

PBD: 4942'

TD: 5000'

Initial Completion Data: Date: 10/2/86

Compl. in San Andres for water supply to EMSU WF Project. Perf'd 4252-4876' selectively & Acidized w/ 15% NeFeHCl. RAN submersible pump on 4½" IPC csg. to 2587'. Placed on production.

Initial Prod/~~Inj~~: 14,000 BWPD

Subsequent Operations:

Remarks or Additional Data:

Formation Tops: T/Yates @ 2832'
T/S.Rivers @ 3006'
T/Queen @ 3416'
T/Grayburg @ 3736'
T/San Andres @ 4232'

Present Prod/Inj: _____

Last Update: _____

EMSU 20-ACRE INFILL PILOT PROJECT
EUNICE MONUMENT SOUTH UNIT
LEA COUNTY, NEW MEXICO

INFORMATION FOR NMOCD FORM C-108
ITEM VII:

WELL NO.	ANTICIPATED DAILY INJECTION VOLUMES (BBLS / DAY)		ANTICIPATED INJECTION PRESSURES (PSIG)		SYSTEM	
	AVG.	MAX.	AVG.	MAX.	OPEN	CLOSED
226	750	1500	650	740		X
228	750	1500	650	740		X
240	750	1500	650	740		X
242	750	1500	650	740		X

Data on Proposed Operation of Eunice Monument South Unit

1. Proposed average and maximum daily rate and volume of fluids to be injected:

   Average daily rate of 400 BWPD
   Maximum daily rate of 500 BWPD

2. System is closed.

3. Proposed average and maximum injection pressures:

   Average injection pressure of 350 psi
   Maximum injection pressure of 740 psi *

4. The source of injection fluids will be from the San Andres formation initially, then produced water from Unit wells will be used as the primary source of water when the Unit becomes fully developed.

5. The make-up water from the San Andres formation to be used as injection fluid is compatible with the produced water from the Unit wells (See attached water analysis).

* Until a fracture gradient is determined, maximum injection pressure will be based on a .2 psi/foot gradient.

EXHIBIT NO. 33a
Case No. 8397
November 7, 1984

#336

P O BOX 1468
MONAHANS TEXAS 79756
PH 943-3234 OR 563-1040

Martin Water Laboratories, Inc.

709 W INDIANA
MIDLAND TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

LABORATORY NO. 284226
SAMPLE RECEIVED 2-15-84
RESULTS REPORTED 2-20-84

TO: Mr. Stan Chapman
P.O. Box 670, Hobbs, NM

COMPANY Gulf Oil Exploration & Production Company LEASE
FIELD OR POOL
SECTION BLOCK SURVEY COUNTY STATE
SOURCE OF SAMPLE AND DATE TAKEN.
NO. 1 Make-up water.
NO. 2 Produced water.
NO. 3
NO. 4
REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES

	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0465	1.0051		
pH When Sampled				
pH When Received	6.80	7.22		
Bicarbonate as HCO_3	964	1,830		
Supersaturation as $CaCO_3$	75	120		
Undersaturation as $CaCO_3$	---	---		
Total Hardness as $CaCO_3$	5,400	800		
Calcium as Ca	1,400	144		
Magnesium as Mg	462	107		
Sodium and/or Potassium	23,244	2,308		
Sulfate as SO_4	3,432	300		
Chloride as Cl	36,575	2,841		
Iron as Fe	0.27	7.5		
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	66,077	7,530		
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	600	325		
Resistivity, ohms/m at 77° F.	0.126	0.935		
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				
Calcium Carbonate Scaling Tendency	NONE	NONE		
Calcium Sulfate Scaling Tendency	NONE	NONE		

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks We see no evidence in the above results that would indicate any incompatibility when mixing these two waters in any proportion. Please contact us if we can be of any additional assistance in this regard.

EXHIBIT NO. 336
Case No. 8397
November 7, 1984

Form No. 3

By
Waylan C. Martin, M.A.

Re Item VIII of C-108 34a

Geological Data
Injection Zones
in the
Proposed Eunice Monument South Unit

Penrose - Approx. depth 3,400'-3,800*, approx. 170 gross feet.

The Penrose is the lower portion of the Queen formation and overlies the Grayburg. The Penrose is composed of alternating layers of hard dolomite and sand lenses. The Penrose is productive of oil and/or gas, depending on structural position.

Grayburg - Approx. depth 3,500'-3,900*, approx. 490 gross feet.

The Grayburg is a massive dolomite with thin stringers of sand interspersed within it. The majority of oil production comes from intercrystalline porosity in the dolomite.

The range in depths to the top of the Grayburg is due to an asymmetrical anticlinal structure running NW to SE through the Eunice-Monument Pool. The structure dips steeply along the western and southern flanks and therefore the Grayburg top runs deeper, approximately 3,700'-3,900'. Along the axis and the gently dipping eastern flank of the anticline the Grayburg depths run at approximately 3,500-3,700 feet.

San Andres - Approx. depth 4,100'-4,500*, approx. 1,130 gross feet.

The San Andres is a massive dolomite with intercrystalline porosity, which lies directly below the Grayburg. The contact between the Grayburg and the San Andres is gradational and there is no clear marker for the top of the San Andres which can be traced across the field. The San Andres contributes very little if any oil production to the field and serves primarily as a source for injection make-up water and as a zone for salt water disposal.

There are no known faults cutting through the San Andres and Grayburg which would act as a conduit for gas, oil or injection water to seep into fresh water horizons above the injection zones in the Grayburg and San Andres.

* Depth depends upon structural position of the well.

EXHIBIT NO. 34a
Case No. 8397
November 7, 1984

Geological Data
Fresh Water Aquifers
in the Area of the
Proposed Eunice Monument South Unit
Lea County, New Mexico

The proposed Eunice Monument South Unit is located approximately 3/4 of a mile southwest of the Mescalero Ridge on the Eunice Plain.

The fresh water zones within the proposed Eunice Monument South Unit boundaries are the Quaternary alluvium, Pliocene Ogallala, and the Triassic Chinle and Santa Rosa formations.

The Quaternary aquifers are in recent sediments and are very localized in extent. They are made up of dune sands and sands filling channels or depressions in the underlying Ogallala. The sands are unconsolidated to semiconsolidated, fine to medium grained sands. They are found at the surface to a depth of approximately 100 feet.

The Pliocene Ogallala aquifer underlies the Quaternary alluvium and is present across the entire area but is not a major water source. The Ogallala is a calcareous unconsolidated sand containing some silt, clay and gravel. The Ogallala is found at approximately 60-125 feet.

The Triassic Chinle and Santa Rosa aquifers are the principal fresh water bearing zones in this area. They are both fine to medium grained sandstones interbedded with red clays and silt stones. At the northern end of the proposed unit, the Chinle is at a depth of approximately 50 feet and the Santa Rosa is at about 675 feet. At the southern end of the unit the Chinle is at approximately 200 feet and the Santa Rosa is at about 1000 feet.

Below the Santa Rosa are un-differentiated Permian and Triassic red beds. These "red beds" consist of red shales and red silty sandstones, and are not known to produce fresh water.

At the base of the Santa Rosa and/or the un-differentiated Permian and Triassic "red beds" is the Permian Rustler. At the top of the Rustler is an impermeable anhydrite bed, approximately 60-70 feet thick which provides an excellent barrier against contamination from brine waters in the Permian oil producing formations. The Rustler anhydrite is at approximately 1000 feet at the northern end of the unit and approximately 1400 feet at the southern end of the unit. There are no known fresh water horizons below the Rustler anhydrite.

For the protection of all fresh water zones within the unit boundary, cement will be circulated to surface around casing on all new injection wells and producing wells converted to injection wells.

Reference - Ground Water Report 6, USGS, 1961.

EXHIBIT NO. 36
Case No. 8397
November 7, 1984

EMSU 20-ACRE INFILL PILOT PROJECT
EUNICE MONUMENT SOUTH UNIT
LEA COUNTY, NEW MEXICO

INFORMATION FOR NMOCD FORM C-108

ITEM IX:

The proposed stimulation program for the conversions will consist of some isolation and acidization with 15% NEFEHCL acid, using ball sealers for diversion. The normal job uses a formula of 50-75 gallons of acid per foot of perforated interval as a guideline.

Below is a typical stimulation procedure for the EMSU:

Step a) Isolate, if needed, the zone to be stimulated using an RBP and packer.

Step b) Establish a rate with 8.6# brine of 2-3 BPM or at a maximum pressure of 1250 psi. Pump 2500 gallons of 15% NEFEHCL acid with additives, dropping 50 - 7/8" ball sealers evenly throughout last 2000 gallons.

Step c) Flush acid to bottom perf and overflush by 2-3 bbls. w/ 8.6# brine. Swab back acid load water. Report results.

Additives: 1 gal/1000 non-emulsifier.
1 gal/1000 non-ionic surfactant.
5000 ppm iron sequestering agent.
2 gal/1000 corrosion inhibitor.

#37

Chemical Analysis of Fresh Water Within The Proposed Eunice Monument South Unit Lea County, New Mexico

See attached water analysis results.

Sample No. 1 - Unit A Section 16, T-21-S, R-36-E
Livestock Water Source
Ogallala Formation
State Engineer's Well No. CP 00505

Sample No. 2 - Unit D Section 10, T-21-S, R-36-E
Domestic and Commercial Sale Source
Triassic Chinle Formation
State Engineer's Well No. CP 00147

Sample No. 3 - Unit K Section 36, T-20-S, R-36-E
Livestock Water Source
(Not on file with State Engineer's office)

Sample No. 4 - Unit O Section 17, T-21-S, R-36-E
Livestock Water Source
Ogallala Formation
(Not on file with State Engineers Office)

EXHIBIT NO. 37
Case No. 8397
November 7, 1984

Ref: Item XI of C-108

P O BOX 1468
MONAHANS TEXAS 79756
PH 943-3234 OR 563-1040

Martin Water Laboratories, Inc.

709 W INDIANA
MIDLAND TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

LABORATORY NO. 284225

TO: Mr. Stan Chapman
P.O. Box 670, Hobbs, NM

SAMPLE RECEIVED 2-15-84

RESULTS REPORTED 2-20-84

COMPANY Gulf Oil Exploration & Production LEASE

FIELD OR POOL Company

SECTION BLOCK SURVEY COUNTY STATE

SOURCE OF SAMPLE AND DATE TAKEN.

NO. 1 Fresh water (sample #1).

NO. 2 Fresh water (sample #2).

NO. 3 Fresh water (sample #3).

NO. 4

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0047	1.0020	1.0022	
pH When Sampled				
pH When Received	7.56	8.20	8.27	
Bicarbonate as HCO_3	212	494	476	
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	1,680	75	68	
Calcium as Ca	376	16	15	
Magnesium as Mg	180	8	7	
Sodium and/or Potassium	744	289	413	
Sulfate as SO_4	1,492	186	300	
Chloride as Cl	1,115	60	138	
Iron as Fe	0.31	1.3	1.3	
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	4,119	1,065	1,391	
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0	0.0	0.0	
Resistivity, ohms/m at 77° F.	1.60	8.10	5.50	
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				
Carbonate, as CO_3	0	12	42	

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks Please contact us if we can be of any assistance in interpretation of the above results.

Form No. 3

By Waylan C. Martin, M.A.

UNICHEM INTERNATIONAL

601 NORTH LEECH P.O BOX1499

HOBBS, NEW MEXICO 88240

COMPANY : GULF OIL
DATE : 9-28-84
FIELD,LEASE&WELL SECTION 17-T21S-R36E, UNIT O
SAMPLING POINT: WELLHEAD-FRESH WATER SAMPLE
DATE SAMPLED : 9-27-84

SPECIFIC GRAVITY = 1
TOTAL DISSOLVED SOLIDS = 1055
PH = 7.21

		ME/L	MG/L
CATIONS			
CALCIUM	(CA)+2	4.4	88.1
MAGNESIUM	(MG)+2	3.8	46.1
SODIUM	(NA).CALC	7.2	167.
ANIONS			
BICARBONATE	(HCO3)-1	4.6	280
CARBONATE	(CO3)-2	0	0
HYDROXIDE	(OH)-1	0	0
SULFATE	(SO4)-2	5.8	282.
CHLORIDES	(CL)-1	5	190
DISSOLVED GASES			
CARBON DIOXIDE	(CO2)	NOT RUN	
HYDROGEN SULFIDE	(H2S)	NOT RUN	
OXYGEN	(O2)	NOT RUN	
IRON(TOTAL)	(FE)		1.4
BARIUM	(BA)+2	0	.4
MANGANESE	(MN)	NOT RUN	

IONIC STRENGTH (MOLAL) = .023

Ref: Item XII of C-108

#38

Proposed Eunice Monument South Unit
Lea County, New Mexico

Affirmative Statement

Gulf Oil Corporation has examined available geological and engineering data and finds no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

EXHIBIT NO. 38
Case No. 8397
November 7, 1984

APPLICATION TO INJECT INTO
FOUR WELLS IN A
EMSU 20-ACRE INFILL PILOT PROJECT
EUNICE MONUMENT SOUTH UNIT
LEA COUNTY, NEW MEXICO

SURFACE LAND OWNERS

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79978
Attn: Regulatory Affairs

Millard Deck Trust
NCNB Trust Department
P. O. Box 1479
Fort Worth, Texas 76101
Attn: Ron Rowden

Phillips Petroleum Company
4001 Penbrook
Odessa, Texas 79762
Attn: Regulatory Affairs

State Of New Mexico
State Land Office
P. O. Box 1148
State Land Office Bldg.
Santa Fe, New Mexico 87501
Attn: Floyd Prando,
Director Oil & Gas Dept.

Chevron U.S.A. Inc.
P.O. Box 1150, Midland, TX 79702

Permian Basin Production Business Unit

November 1, 1991

REQUEST TO PUBLISH
LEGAL NOTICE

Hobbs News-Sun
201 N. Thorp
Hobbs, New Mexico 88240

Attention: Classified Department

Chevron U.S.A. Inc. requests that you publish the attached notice in your newspaper, one time only, as soon as possible.

Please mail the invoice to the letterhead address, Attention: New Mexico Proration Engineer. Also, please attach a copy of the notice as run in your newspaper and an affidavit certifying publication of the attached notice and the date of publication.

Your prompt assistance in this matter will be greatly appreciated. Questions may be directed to Mr. Alan W. Bohling at (915) 687-7246.

Yours very truly,

Alan W. Bohling
Proration Engineer

AWB
Attachment

LEGAL NOTICE
(Date)

Chevron U.S.A. has applied to the Oil Conservation Division of the State of New Mexico for approval to convert four wells to injection wells in their Eunice Monument South Unit. These injection wells are part of a pilot program designed to improve the efficiency of the waterflood pattern and enhance the production of the EMSU secondary recovery project. Two of the proposed injection wells, #228 and #240, are located in Units M and S, respectively, in Section 4, while the other two wells, #226 and #242, are located in Units O and Q, respectively, in Section 5, all in Township 21 South, Range 36 East, NMPM, Lea County, New Mexico. Water will be injected into the unitized interval of the Eunice Monument Grayburg-San Andres Pool which has an upper limit of 100 feet below mean sea level or the top of the Grayburg formation, whichever is higher, to a lower limit being the base of the San Andres formation. Injection will be at at an expected maximum rate of 1500 barrels of water per day and an expected maximum pressure of 740 pounds per square inch. Persons wishing to contact Chevron U.S.A. should direct their inquiries to the New Mexico District Engineer, P. O. Box 1150, Midland, Texas 79702, phone (915) 687-7836 or (915) 687-7337.

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.

AFFIDAVIT OF PUBLICATION

State of New Mexico,
County of Lea.

I, Kathi Bearden

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

of

One weeks.
Beginning with the issue dated

Nov. 7, 1991
and ending with the issue dated

Nov. 7, 1991

Kathi Bearden
General Manager

Sworn and subscribed to before me this 11 day of Nov, 1991

Paula Parrish
Notary Public.

My Commission expires

Aug. 5, 1995
(Seal)

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

LEGAL NOTICE
November 7, 1991

Chevron U.S.A. has applied to the Oil Conservation Division of the State of New Mexico for approval to convert four wells to injection wells in their Eunice Monument South Unit. These injection wells are part of a pilot program designed to improve the efficiency of the waterflood pattern and enhance the production of the EMSU secondary recovery project. Two of the proposed injection wells, #228 and #240, are located in Units M and S, respectively, in Section 4, while the other two wells, #226 and #242, are located in Units O and Q, respectively, in Section 5, all in Township 21 South, Range 36 East, NMPM, Lea County, New Mexico. Water will be injected into the unitized interval of the Eunice Monument Grayburg-San Andres Pool which has an upper limit of 100 feet below mean sea level or the top of the Grayburg formation, whichever is higher, to a lower limit being the base of the San Andres formation. Injection will be at an expected maximum rate of 1500 barrels of water per day and an expected maximum pressure of 740 pounds per square inch. Persons wishing to contact Chevron U.S.A. should direct their inquiries to the New Mexico District Engineer, P.O. Box 1150, Midland, Texas 79702, phone (915) 687-7836 or (915) 687-7337.

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.

AWB

STATE OF NEW MEXICO
DEPARTMENT OF ENERGY AND MINERALS
OIL CONSERVATION COMMISSION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION FOR THE PURPPOSE OF CONSIDERING:

CASE No. 8398
Order No. R-7766

APPLICATION OF GULF OIL CORPORATION FOR A WATERFLOOD PROJECT, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This case came on for hearing at 9:00 A.M. on November 7, 1984, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission".

NOW, on this 27th day of December, 1984, the Commission, a quorum having been present, having considered the testimony and the record and being otherwise fully advised in the premises,

FINDS THAT:

(1) Due public notice has been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) The applicant, Gulf Oil Corporation, in Commission Case 8398, seeks authority to institute a waterflood project in its Eunice Monument South Unit, by the injection of water into the unitized interval which shall include the formations which extend from an upper limit of 100 feet below mean sea level or the top of the Grayburg formation, whichever is higher, to a lower limit being the base of the San Andres formation in the proposed unitized area, all as shown on Exhibit "A" attached to this order.

(3) The subject Commission Case 8398 was consolidated for hearing with Commission Cases 8397 and 8399.

(4) Gulf proposes to utilize an 80-acre five spot injection pattern using a well number system and proposed

Unit injection wells all as shown and identified on Exhibit "B" attached hereto.

(5) Said injection wells shall be conversions of existing wells or newly drilled wells as noted on said Exhibit "B".

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

(7) The producing formations in the proposed project area are in an advanced stage of depletion and the area is suitable for waterflooding.

(8) There are five wells within or adjacent to the proposed project which may not have been completed or plugged in a manner which will assure that their wellbores will not serve as a conduit for movement of injected fluid out of the injection interval.

(9) The five possible problem wells are identified and described on Exhibit "C" attached hereto.

(10) Prior to instituting injection within one-half mile of any of the five possible "problem wells" Gulf shall first contact the Oil Conservation Division's District Supervisor at Hobbs to develop a plan acceptable to the Director of said Division for repairing or replugging such wells, for monitoring for determination of fluid movement from the injected interval, or for the drilling of replacement producing wells to lower reservoir pressure and fluid levels in order to protect neighboring properties and to protect other oil or gas zones or fresh water.

(11) The operator should otherwise take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface from injection, production, or plugged and abandoned wells.

(12) The injection wells or injection pressurization system should be so equipped as to limit injection pressure at the wellhead to no more than 0.2 psi per foot of depth from the surface to the top injection perforation in any injection well, but the Division Director should have authority to increase said pressure limitation, should circumstances warrant.

(13) The subject application should be approved and the project should be governed by the provisions of Rule 701 through 708 of the Commission Rules and Regulations.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Gulf Oil Corporation, is hereby authorized to institute a waterflood project in the Eunice Monument South Unit Area for the acreage described on Exhibit "A" attached hereto and made a part hereof, by the injection of water into the unitized interval which shall include the formations which extend from an upper limit described as 100 feet below mean sea level or at the top of the Grayburg formation, whichever is higher, to a lower limit being the base of the San Andres formation said geologic markers having been as found to occur at 3,666 feet to 5,283 feet, respectively, in the Continental Oil Company's Meyer B-4 Well No. 23 located 660 feet from the South line and 1980 feet from the East line of Section 4, Township 21 South, Range 36 East, Lea County, New Mexico.

(2) Applicant, Gulf Oil Corporation, is hereby authorized to utilize for injection purposes the wells identified and described on Exhibit "B" attached hereto and made a part hereof.

(3) The injection wells herein authorized and/or the injection pressurization system shall be so equipped as to limit injection pressure at the wellhead to no more than 0.2 psi per foot of depth from the surface to the top injection perforation, provided however, the Division Director may authorize a higher surface injection pressure upon satisfactory showing that such pressure will not result in fracturing of the confining strata.

(4) Injection into each of said wells shall be through plastic or cement-lined tubing, set in a packer which shall be located as near as practicable to the uppermost perforations, or, in the case of open-hole completions, as near as practicable to the casing-shoe; that the casing-tubing annulus shall be loaded with an inert fluid and equipped with an approved pressure gauge or attention attracting leak detection device.

(5) Prior to injection into any well located within one-half mile of any of the five wells listed on Exhibit "C" attached to this order, the applicant shall consult with the supervisor of the Oil Conservation Division's district office at Hobbs to develop a plan acceptable to

the Director of said Division, for the repairing, plugging, or replugging of said wells or for the monitoring for determination of fluid movement from the injected interval or for the drilling of producing wells to lower reservoir pressure and fluid levels in the vicinity of said wells in order to protect neighboring properties and to protect other oil or gas zones or fresh water.

(6) The operator shall immediately notify the supervisor of the Division's Hobbs District Office of the failure of the tubing or packer in any of said injection wells, the leakage of water or oil from around any producing well, or the leakage of water or oil from any plugged and abandoned well within the project area, and shall take such timely steps as may be necessary or required to correct such failure or leakage.

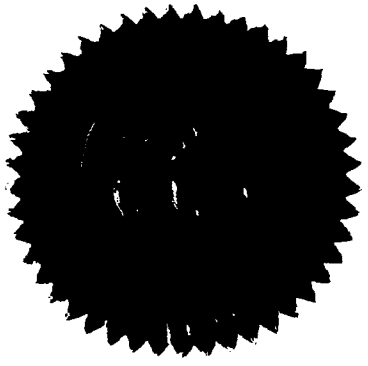
(7) The authorized subject waterflood project is hereby designated the Eunice Monument South Unit Waterflood Project and shall be governed by the provisions of Rules 701 through 708 of the Commission Rules and Regulations.

(8) Monthly progress reports of the waterflood projects herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

(9) Jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION



S E A L

JIM BACA, Member

ED KELLEY, Member

R. L. STAMETS, Chairman and Secretary

LEA COUNTY, NEW MEXICO

TOWNSHIP 20 SOUTH, RANGE 36 EAST, NMPM
Section 25: All
Section 36: All

TOWNSHIP 20 SOUTH, RANGE 37 EAST, NMPM
Section 30: S/2, S/2 N/2, NE/4 NW/4 and NW/4 NE/4
Section 31: All
Section 32: All

TOWNSHIP 21 SOUTH, RANGE 36 EAST, NMPM
Section 2: S/2 S/2
Section 3: Lots 3, 4, 5, 6, 11, 12, 13, and 14 and S/2
Sections 4 through 11: All
Section 12: W/2 SW/4
Section 13: NW/4 NW/4
Sections 14 through 18: All
Section 21: N/2 and N/2 S/2
Section 22: N/2 and N/2 S/2

CASE NO. 8398
ORDER NO. R-7766
EXHIBIT "A"

LEA COUNTY, NEW MEXICO

UNIT WELL NO.	UNIT LETTER	SECTION	TOWNSHIP SOUTH	RANGE EAST	NEW WELL
101	C	30	20	37	N
102	A	25	20	36	
104	C	25	20	36	
106	E	25	20	36	
108	G	25	20	36	
110	E	30	20	37	
112	G	30	20	37	
114	I	30	20	37	
116	K	30	20	37	
118	I	25	20	36	
120	K	25	20	36	
122	M	25	20	36	
124	O	25	20	36	
126	M	30	20	37	
128	O	30	20	37	
130	A	32	20	37	N
132	C	32	20	37	
134	A	31	20	37	
136	C	31	20	37	
138	A	36	20	36	
140	C	36	20	36	
142	E	36	20	36	
144	G	36	20	36	
146	E	31	20	37	
148	G	31	20	37	
150	E	32	20	37	
152	G	32	20	37	
154	I	32	20	37	N
156	K	32	20	37	
158	I	31	20	37	
160	K	31	20	37	
162	I	36	20	36	
164	K	36	20	36	
166	M	36	20	36	
168	O	36	20	36	
170	M	31	20	37	
172	O	31	20	37	
174	M	32	20	37	
176	O	32	20	37	

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ORDER NO. R-7766
EXHIBIT "B"

LEA COUNTY, NEW MEXICO

179	D	3	21	36	
181	B	4	21	36	
183	D	4	21	36	
185	B	5	21	36	
187	D	5	21	36	
189	B	6	21	36	
191	D	6	21	36	
193	F	6	21	36	
195	H	6	21	36	
197	F	5	21	36	
199	H	5	21	36	
201	F	4	21	36	
203	H	4	21	36	
205	F	3	21	36	N
207	L	3	21	36	
209	J	4	21	36	
211	L	4	21	36	
213	J	5	21	36	
215	L	5	21	36	
217	J	6	21	36	
219	L	6	21	36	N
221	N	6	21	36	
223	P	6	21	36	
225	N	5	21	36	
227	P	5	21	36	
229	N	4	21	36	
231	P	4	21	36	
233	N	3	21	36	
235	R	3	21	36	N
237	T	3	21	36	
239	R	4	21	36	
241	T	4	21	36	
243	R	5	21	36	
245	T	5	21	36	
247	R	6	21	36	

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EXHIBIT "B"

LEA COUNTY, NEW MEXICO

249	T	6	21	36
251	V	6	21	36
253	X	6	21	36
255	V	5	21	36
257	X	5	21	36
259	V	4	21	36
261	X	4	21	36
263	V	3	21	36
265	X	3	21	36
267	V	2	21	36
269	X	2	21	36
271	B	11	21	36
273	D	11	21	36
275	B	10	21	36
277	D	10	21	36
279	B	9	21	36
281	D	9	21	36
283	B	8	21	36
285	D	8	21	36
287	B	7	21	36
289	D	7	21	36
291	F	7	21	36
293	H	7	21	36
295	F	8	21	36
297	H	8	21	36
299	F	9	21	36
301	H	9	21	36
303	F	10	21	36
305	H	10	21	36
307	F	11	21	36
309	H	11	21	36
310	L	12	21	36
312	J	11	21	36
314	L	11	21	36
316	J	10	21	36
318	L	10	21	36
320	J	9	21	36
322	L	9	21	36
324	J	8	21	36

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EXHIBIT "B"

LEA COUNTY, NEW MEXICO

326	L	8	21	36
328	J	7	21	36
330	L	7	21	36
332	N	7	21	36
334	P	7	21	36
336	N	8	21	36
338	P	8	21	36
340	N	9	21	36
342	P	9	21	36
344	N	10	21	36
346	P	10	21	36
348	N	11	21	36
350	P	11	21	36
352	D	13	21	36
354	B	14	21	36
356	D	14	21	36
358	B	15	21	36
360	D	15	21	36
362	B	16	21	36
364	D	16	21	36
366	B	17	21	36
368	D	17	21	36
370	B	18	21	36
372	D	18	21	36
374	F	18	21	36
376	H	18	21	36
378	F	17	21	36
380	H	17	21	36
382	F	16	21	36
384	H	16	21	36
386	F	15	21	36
388	H	15	21	36
390	F	14	21	36
392	H	14	21	36
394	J	14	21	36
396	L	14	21	36
398	J	15	21	36
400	L	15	21	36
402	J	16	21	36
404	L	16	21	36

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EXHIBIT "B'

LEA COUNTY, NEW MEXICO

406	J	17	21	36
408	L	17	21	36
410	J	18	21	36
412	L	18	21	36
414	N	18	21	36
416	P	18	21	36
418	N	17	21	36
420	P	17	21	36
422	N	16	21	36
424	P	16	21	36
426	N	15	21	36
428	P	15	21	36
430	N	14	21	36
432	P	14	21	36
434	B	22	21	36
436	D	22	21	36
438	B	21	21	36
440	D	21	21	36
442	F	21	21	36
444	H	21	21	36
446	F	22	21	36
448	H	22	21	36
450	J	22	21	36
454	J	21	21	36
456	L	21	21	36
452	L	22	21	36

CASE 8398
ORDER NO. R-8398
EXHIBIT "B"

(1) Amoco Production Co. State "C" Tr. 11 Well No. 3 located 1980 feet from the South line and 1980 feet from the East line of Section 2, Township 21 South, Range 36 East;

(2) Amoco Production Co. State "C" Tr. 11 Well No. 4 located 3300 feet from the South line and 1980 feet from the East line of Section 2, Township 21 South, Range 36 East;

(3) Texas Crude Oil Co. Kincheloe 2 State Well No. 1 located 1980 feet from the South line and 1980 feet from the West line of Section 2, Township 21 South, Range 36 East;

(4) El Paso Natural Gas Co. Coleman Well No. 1 located 2310 feet from the South line and 2310 feet from the East line of Section 17, Township 21 South, Range 36 East;

(5) Texaco Inc. New Mexico "H" NCT-1 Well No. 28, a dry hole, located 990 feet from the South line and 660 feet from the East line of Section 31, Township 20 South, Range 37 East;

all in Lea County, New Mexico.

CASE NO. 8398
Order No. R-7766
EXHIBIT "C"

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

'91 DEC 16 AM 9 21

12-16-91

BRUCE KING
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 X
PMX_____

#228-M 4-21-36
#240-S 4-21-36
#226-O 5-21-36
#242-Q 5-21-36

Gentlemen:

I have examined the application for the:

Chevron U.S.A. Inc. Eunice Monument South Unit
Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

OK

Yours very truly,

Jerry Sexton
Supervisor, District 1

/ed