



Chevron U.S.A. Inc.
P. O. Box 670, Hobbs, NM 88240

Hobbs, New Mexico
January 16, 1986

R. C. Anderson
Division Manager
Hobbs Division
Production Department

APPLICATION FOR SALT WATER
DISPOSAL, MEYER B-4 WELL NO. 23
(FUTURE EMSU SWD WELL NO.1),
EUNICE MONUMENT SOUTH UNIT,
LEA COUNTY, NEW MEXICO

W. J. Lemay
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87501

Gentlemen:

Chevron U.S.A Inc. respectfully requests administrative approval to dispose of salt water down the subject well into a porous formation not productive of hydrocarbons in this area. Produced salt water from the Eunice Monument Grayburg and Lower Penrose formations will be disposed of in the San Andres formation which occurs in this wellbore from approximately 4150 feet to 5280 feet and is in the EMSU's unitized interval. Disposal will be through internally plastic coated tubing beneath a packer set at approximately 4400 feet.

The following information is submitted in support of this request:

1. Oil Conservation Division Form C108 with supporting data;
2. Affidavit of publication in newspaper with county-wide circulation;
3. Location plat outlining the subject well's $\frac{1}{2}$ mile radius of review;
4. Log of the subject well;
5. Listing of names and addresses of the offset operators.

Offset operators, the State Land Office, and the Lea County Clerk are being sent a copy of this application by certified mail as their notification. If additional information is necessary, please contact Dennis Hendrix at (505) 393-4121.

Yours very truly,


R. C. ANDERSON

DLH/ds

Attachments

cc: OCD-Hobbs (with attachments)
County Clerk of Lea County (with attachments 1-5 and 7-15)
State Land Office (with attachments)
Offset Operators (with attachments 1-5 and 15)

ATTACHMENT NO. 1

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 670, Hobbs, New Mexico 88240
Contact party: Dennis L. Hendrix Phone: (505) 393-4121
- 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 _____.
- 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: Dennis L. Hendrix Title: Production Engineer
Signature: *Dennis L. Hendrix* Date: January 16, 1987
- * 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. _____

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 footacre 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.

Chevron U.S.A. Inc.
Injection Well Data

- III. A. (1) Lease: Meyer B-4
Well No.: 23
Location: Section 4, T21S-R36E
Footage: 660' FSL, 1980' FEL
- (2) Casing: 8 5/8" 24# set at 1305'.
Cemented with 600 sacks in an 12 1/2" open hole.
Top of cement at surface by circulation.
- 5 1/2" 14# & 15.5# set at 6350'.
Cemented with 720 sacks in an 7 7/8" open hole.
Top of cement at 3000' by temperature survey.
- (3) Tubing: 2 7/8" 6.5# J-55 tubing internally coated with TK-69 to be set at 4345'.
- (4) Packer: 5 1/2" Baker "TSN" to be set at 4350'.
- B. (1) Injection Formation: San Andres
Pool: Eunice Monument Grayburg/San Andres
- (2) Injection Interval: 4410-4834' (perforated)
- (3) Original Well Status: Drilled in November, 1962 as a Blinbry Oil and Gas producer.
- (4) Other perforated intervals: Blinbry - 5837-5871' and 5898-5980' (open). Other - perforated at 2730' and squeezed with 150 sacks of cement.
- (5) Nearest productive zones: Higher - Grayburg Base @ 4150'.
Lower - Glorieta (productive 2 miles east) Top @ 5280'.

LEASE & WELL NO. MEYER "A-4" #22 FIELD/POOL OIL CENTER BLINBRY DATE 1-5-87
LOCATION 660 FEET FROM SOUTH LINE AND 1520 FEET FROM EAST LINE
SECTION UNIT W, SEC 4-T15-R36E COUNTY LEA OPERATOR CONOCO, INC.

GE 3584
KDB to GE
DF to GE

Date Completed 10-30-62
Initial Formation BLINEBRY
From: 5898 to 5920 GOR
Initial: Production ☒ 870 bopd ☒ 8 bwpd
Or: Injection ☐ bwpd ☐ psi
Completion Data:

8 5/8 " OD Surface Pipe
sec 41305 w/ 600 sx
Cmt. Circulated? YES

ACIDIZING W/2000 GAL
FRAC 12/10,000 GAL OIL @ 10,000 # SA

Subsequent Workover or Reconditioning:

1-3-67 BACKED OFF PUMP AT 663' & REINCEA
840 JOINT, FRAC 5898-5920 W/2000
GALS LSR OIL @ 8000 # SA (SA NOT) 15% OIL
W/47,000 GALS @ 40,000 # SA, FRAC
5871-68, 53, 42, 37 W/1750F, ACIDIZING
5837-71 W/10,000 GALS

11-9-72 ACIDIZED W/1500 GALS

10-74 PUMP AT 2730 # SA W/150 SA

5037-71'

Blinebry

5898-5980'

Present Inj. ☐ bwpd 3 psi Date
Present Prod. ☐ bopd bwpd Date
GAS MCFPD

Remarks Or Additional Data:

PBD 6100
TD 4350

5 1/2 " OD 41/2 " Thd
Gr. J-55 (52)
sec 4350 w/ 720 sx
Cmt. Circulated? NO
TOC @ 3000 by IS

LEASE & WELL NO. MEYER "A-4" #2 FIELD/POOL OIL CENTER RANCH DATE 1-5-87

LOCATION 660 FEET FROM SOUTH LINE AND 1450 FEET FROM EAST LINE

SECTION UNIT W, SEC 4-T15-R36E COUNTY LEA OPERATOR CONOCO INC

GE 3584
KDB to GE _____
DF to GE _____

8 5/8" OD Surface Pipe
sec 41305 w/ 600 sx
Cmc. Circulated? YES

Date Completed: 10-30-62
Initial Formation BLINEBRY
From: 5898 to 5980 GOR
Initial: Production ☒ 129 bopd 8 bwpd
Or: Injection ☐ bwpd 8 psi
Completion Data:

ACIDIZED w/2000 GALS
FRAC w/10,000 GALS OIL & 10,000 # SA

Subsequent Workover or Reconditioning:

1-3-67 BACKED OFF 222 AT 663' & REINFORCED
800 JOINT, FRAC 5898-5980 w/8000
GALS LSR OIL & 8000 # SA (50 GWT) 12500
w/47,000 LBS & 40,000 # SA, FRAC
5871, 66, 53, 48, 42, 37 w/17500, ACIDIZED
5837-71 w/10,000 GALS

11-9-72 ACIDIZED w/1500 GALS
10-74 PERM AT 2730 & SA w/150 SA

Present Inj. ☐ bwpd 8 psi Date _____
Present Prod. ☐ bopd _____ bwpd Date _____
GAS _____ MCFPD _____

Remarks Or Additional Data:

PROPOSED
CONDITION

2 7/8" J-55 EUE 8rd
IPC w/ TK-77

Baker TSN Pkr. at 4350'

4410'

San Andres

4834'

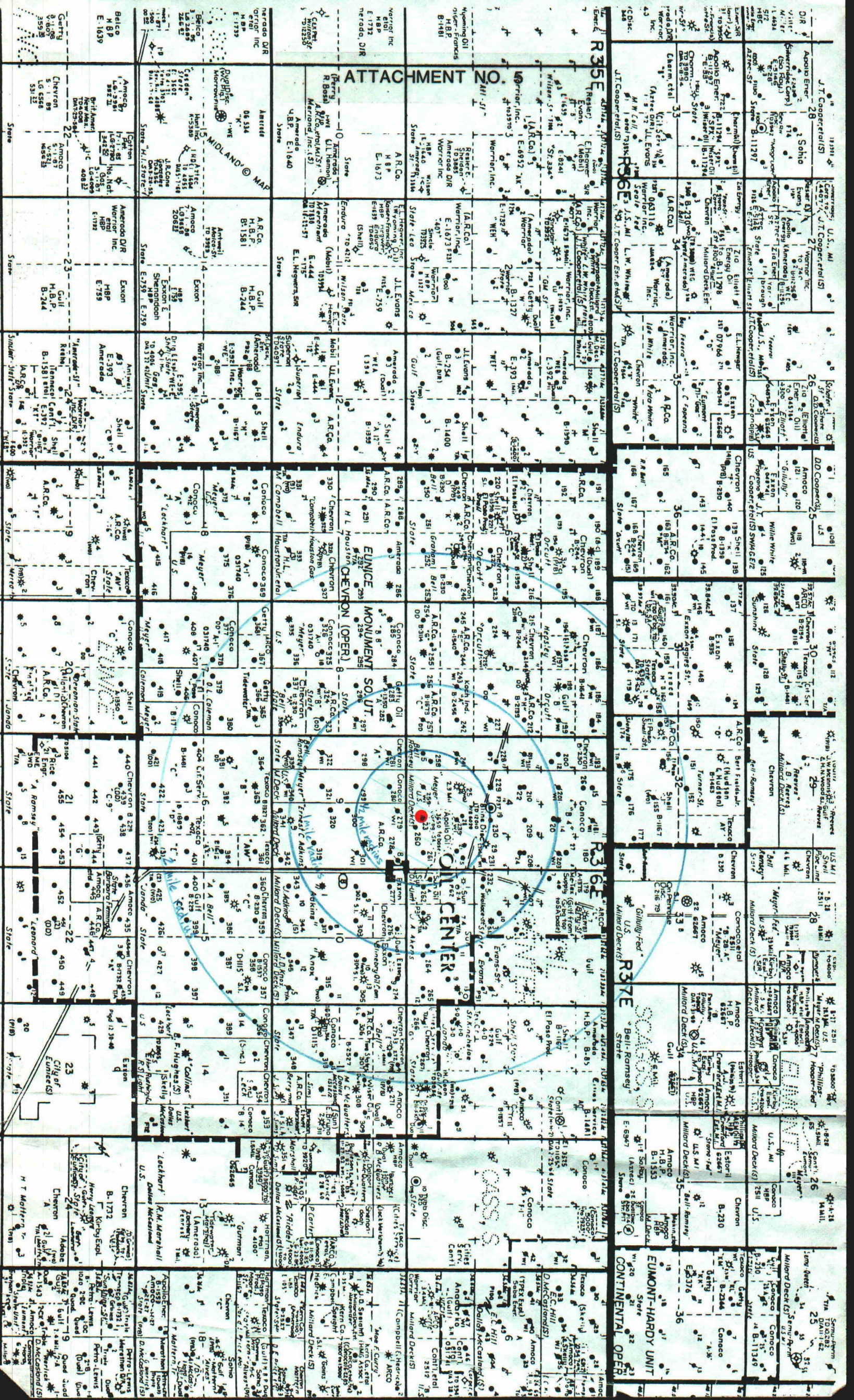
5837-71'

Blinebry

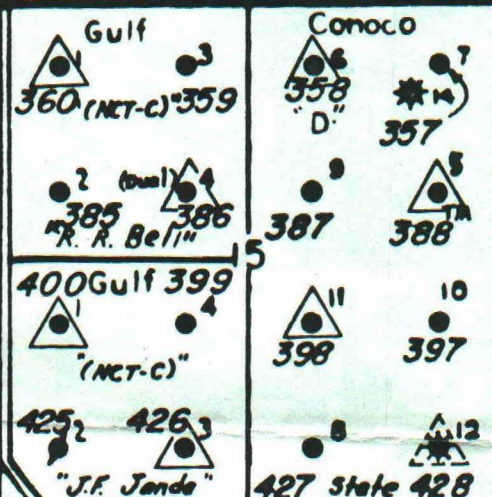
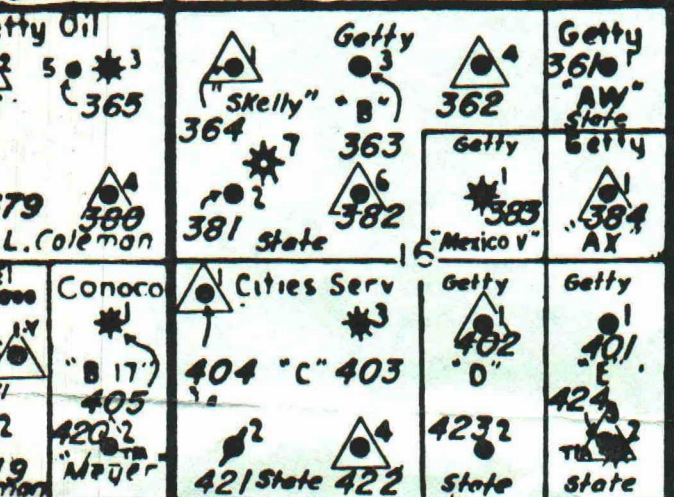
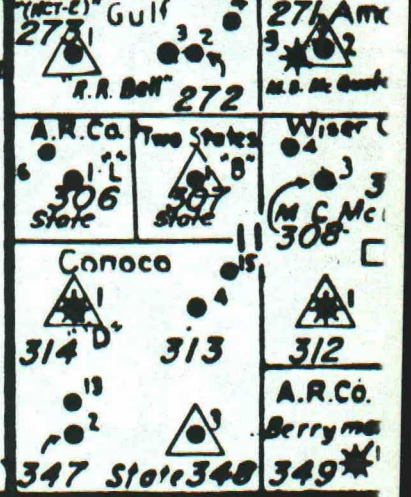
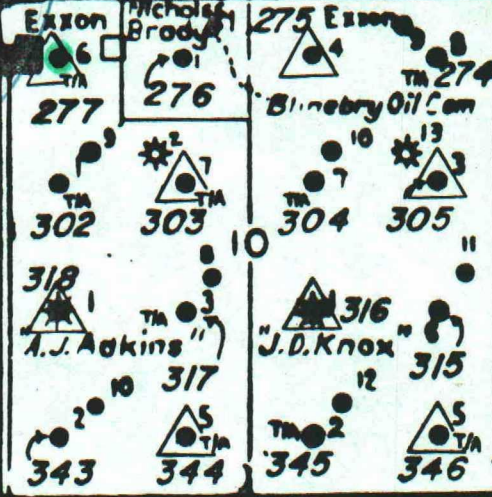
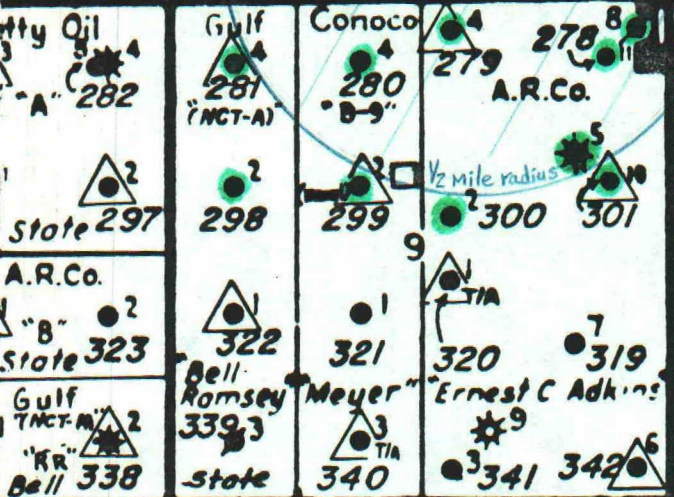
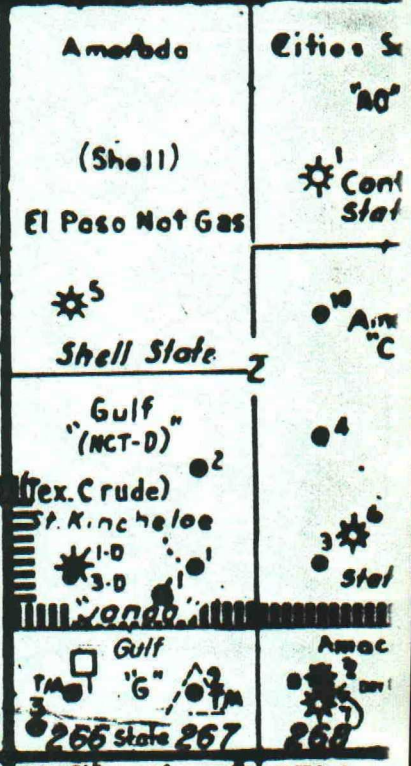
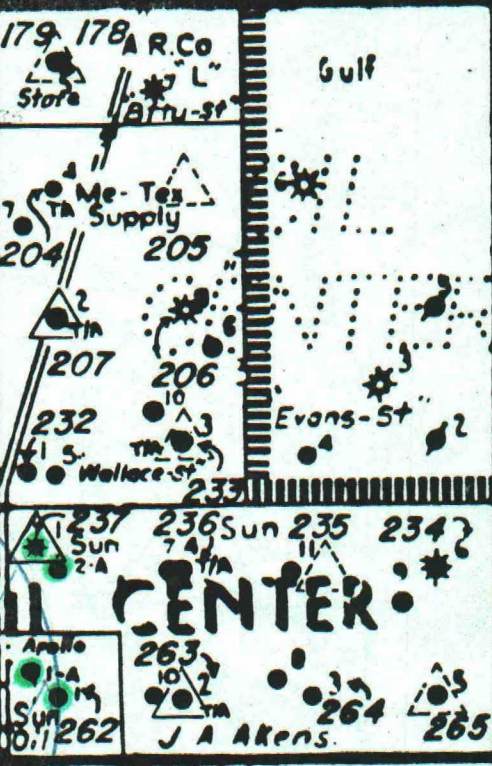
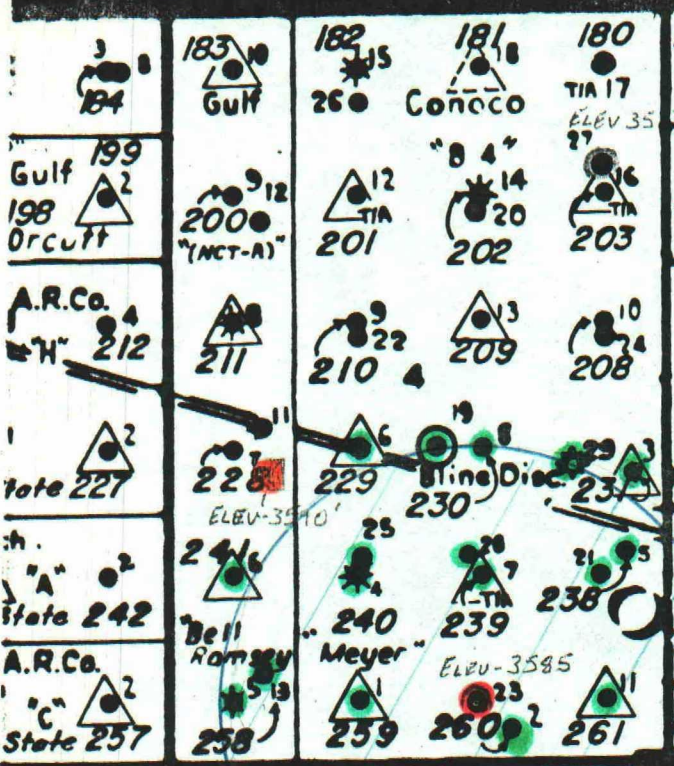
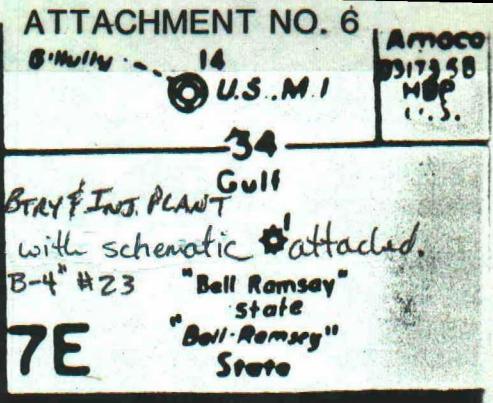
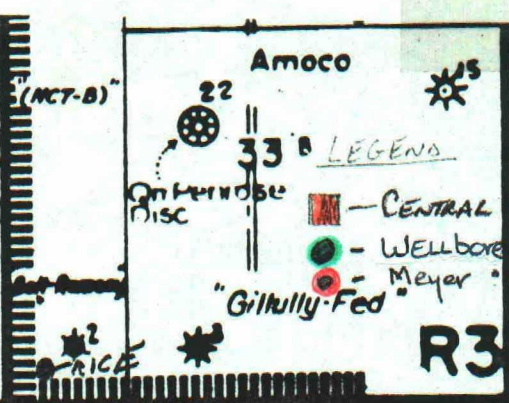
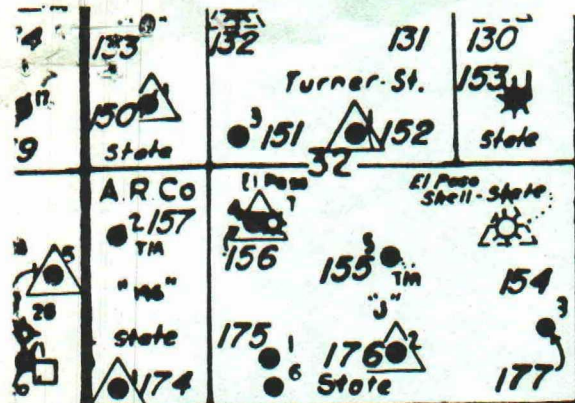
5878-5980'

PBD 6100
TD 6350

5 1/2" OD 41K.5" Thd
Gr. J-55 (Csg.)
sec 41350 w/ 720 sx
Cmc Circulated? NO
TOC 3000 by IS



Amoco
B-17358
HBP
U.S.



PROPOSED INJECTION WELL
WELL DATA SHEET

EMSU #229

LEASE & WELL NO. MEYER "B-4" #6 FIELD/POOL EUNICE MONUMENT DATE 2-9-84

LOCATION 3300 FEET FROM SOUTH LINE AND 1980 FEET FROM WEST LINE

SECTION UNIT N, SEC 4, T21S-R36E COUNTY LEA OPERATOR CONROD, INC.

Date Completed 4-14-36
Initial Formation GRAY AULIF
From: 3782 to 3864 COR 578
Initial: Production ☒ bwpd 1584 bwpd psi
Or: Injection ☐ bwpd psi
Completion Data:

GE 3567
KDB to GE
DF to GE

10 7/4" OD Surface Pipe
set @ 311 w/ 200 sx
Cmt. Circulated? YES
CALC

CSG OK @ 860-1034'
502' D4 200 SX

7 5/8" OD 26.4" Thd
Gr. CSG
set @ 2582 w/ 900 sx
Cmt Circulated? YES
TOC @ SURFACE by CALC

Subsequent Workover or Reconditioning:

3-51 ACIDIZED W/1500 GALS
1-53 ACIDIZED W/500 GALS
7-57 SQ CSG OK 860-1034' W/200 SX
10-75 CO & STRIKE SHOT ON

Present Inj. ☐ bwpd @ psi Date
Present Prod. ☐ bwpd bwpd Date
GAS MCF PD

Remarks Or Additional Data:

CSG @ -215

5 1/2" OD 17" Thd
Gr. CSG
set @ 3782 w/ 150 sx
Cmt Circulated? NO
TOC @ 1885 by CALC

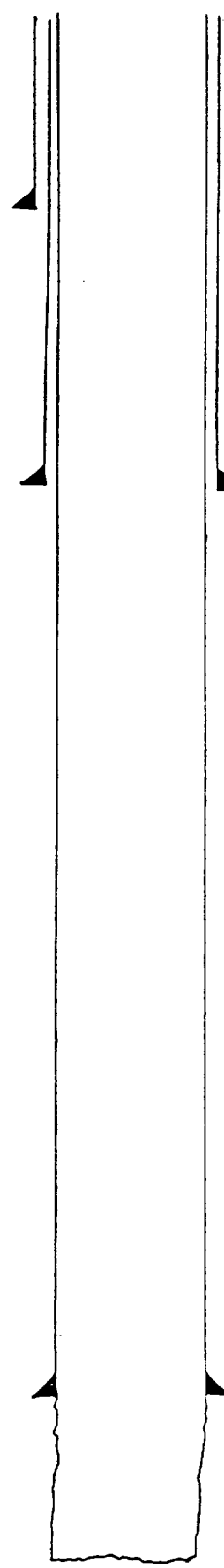
EUNICE
MONUMENT

PBD
TD 3864

EMS#230

WELL DATA SHEET

LEASE & WELL NO. MEYER "B-4" #B FIELD/POOL EUNICE MONUMENT DATE 2-9-84
 LOCATION 3300 FEET FROM SOUTH LINE AND 1980 FEET FROM EAST LINE
 SECTION UNIT 0, SEC 4-T21S-R36E COUNTY LEA OPERATOR PONOCO, INC.



CE 3564
 KDB to CE _____
 DF to CE _____

10 3/4 " OD Surface Pipe
 set @ 313 ' w/ 200 sx
 Cmt. Circulated? YES
CALC

7 9/8 " OD 26.4 " Thd
 Gr. _____ Csg _____
 set @ 1687 ' w/ 400 sx
 Cmt Circulated? YES
 TOC @ SURFACE ' by FB
CALC

5 1/2 " OD 17 " Thd
 Gr. _____ Csg _____
 set @ 3743 ' w/ 400 sx
 Cmt Circulated? YES
 TOC @ SURFACE ' by FB
CALC

EUNICE
 MONUMENT

PED
 TD 3852

Date Completed 5-1-36
 Initial Formation GRAYBARK
 From: 3743 ' to 3852 ' GOR 720
 Initial: Production ☒ F220B bopd 0 bwpd
 Or: Injection ☐ bwpd 0 psi
 Completion Data:

NONE

Subsequent Workover or Reconditioning:

8-54 INSTALL PMP EQUIP
3-28-83 CD ON TO 3852' STRING SHOT ON
& ACQUIRED W/ 4200 GALS

Present Inj. ☐ bwpd @ _____ psi Date _____
 Present Prod. ☐ bopd _____ bwpd Date _____
 GAS _____ MCF PD _____

Remarks Or Additional Data:

Csg @ -179

LEASE & WELL NO. MEYER "R-4" #19 FIELD/POOL OIL CENTER BLUNERY DATE 2-16-84
LOCATION 3300 FEET FROM SOUTH LINE AND 2310 FEET FROM EAST LINE
SECTION UNIT 0, SEC 4-T21S-R36E COUNTY LEA OPERATOR CONOCO, INC.

Date Completed 2-5-82
Initial Formation BLUNERY
From: 5907 to 5946 GOR
Initial: Production 81F240 bopd 3 bwpd
Or: Injection ☐ bwpd @ psi
Completion Data:

GE 3570
KDB to GE 12
DF to GE

13 3/8" OD Surface Pipe
set @ 342 w/ 300 sx
Cmt. Circulated? YES

ACIDIZED W/8000 GALS

Subsequent Workover or Reconditioning:
1-67 ATTACHED DUAL COMP IN PADDOCK,
LEAF 5230-5419', NO OIL, SO LEAFS
5230-5419', RETURN TO PADD.
2-20-81 LEAF 5888-5945', ACIDIZED W/8000
GALS 15%

Present Inj. ☐ bwpd @ psi Date
Present Prod. ☐ bopd bwpd Date
GAS MCF PD

Remarks Or Additional Data:

5 1/2" LWR, 1026', 17#/ft, N-80
W/325 SX, CIRC

5230-5419', SO2D Paddock

9 7/8" OD 36 # Thd
Gr. J-55 Csg
set @ 5144 w/ 525 sx
Cmt Circulated? NO
TOC @ 2450 by TS

BLUNERY

PBD 6020
TD 12,010

CURRENT CONDITIONS
PROPOSED INJECTION WELL
WELL DATA SHEET

EMSU #231

LEASE & WELL NO. MEYER 12-4" #3 FIELD/POOL EUNICE MONUMENT DATE 2-9-84
LOCATION 2970 FEET FROM SOUTH LINE AND 330 FEET FROM EAST LINE
SECTION UNIT P, SEC 4-T21S-R36E COUNTY LEA OPERATOR CONDOR, INC

CE 3556
KDB to CE _____
DF to CE _____

Date Completed 2-11-36
Initial Formation GRAYBANK
From: 3746 to 3870 GOR 2586
Initial: Production ☒ 116 bopd 0 bwpd
Or: Injection ☐ _____ bwpd 0 psi
Completion Data:

10 3/4" OD Surface Pipe
set @ 3 1/4' w/ 200 sx
Cmt. Circulated? YES
CNC

2-36 ACIDIZED W/3000 GALS

Subsequent Workover or Reconditioning:

7 5/8" OD 264 # _____ Thd
Gr. _____ Csg
set @ 1671' w/ 400 sx
Cmt Circulated? YES
TOC @ SURFACE by ME
CNC

6-52 ACIDIZED OH W/1000 GALS

8-54 INSTALL PMA EQUIP

6-55 REPAIR CSG AT 488' & 950' W/400 SX

6-60 ACIDIZED W/6000 GALS

3-21-81 CO TO 3867' STRING SHOT OH
& ACIDIZED W/5040 GALS

9-23-82 PERM UPPER GRAYBANK 3654-3720'
SET CIPR AT 3735' & ACIDIZED PERMS
W/1850 GALS, Tot 040.35 GW

Present Inj. ☐ _____ bwpd @ _____ psi Date _____
Present Prod. ☐ _____ bopd _____ bwpd Date _____
GAS _____ MCFPD _____

Remarks Or Additional Data:

3654-3920'
5 1/2" OD 17 # _____ Thd
Gr. _____ Csg
set @ 3746' w/ 400 sx
Cmt Circulated? YES
TOC @ SURFACE by ME
CNC

EUNICE
MONUMENT

PBD
TD 3870

LEASE & WELL NO. MEYER 8-4" #29 FIELD/POOL EUMONT GAS DATE 2-16-84
LOCATION 4883 FEET FROM NORTH LINE AND 990 FEET FROM EAST LINE
SECTION UNIT P, SEC 4-T215-R36E COUNTY LEA OPERATOR CONOCO INC.

Date Completed 4-7-75
Initial Formation GREEN
From: 3356 to 3517 GOR
Initial: Production DE/170 bwpd 4000 bwpd
Or: Injection ☐ bwpd @ psi
Completion Data:

GE 3561
KDB to GE
DF to GE

8 5/8" OD Surface Pipe
set 519 w/ 375 sx
Cmt. Circulated? YES

FRACED W/ 3000 GALS 6-2 PAA, 2500
GALS 7 1/2% ACID, 15,000 GALS 6-2 PAA
30,000 #30

Subsequent Workover or Reconditioning:

NONE

3356-3517' EUMONT

Present Inj. ☐ bwpd @ psi Date
Present Prod. ☐ bwpd bwpd Date
GAS MCFPD

Remarks Or Additional Data:

PBD 3750
TD 3919

5 1/2" OD 15.5 # Thd
Gr. A-55 Csg.
set 3919 w/ 375 sx
Cmt Circulated? NO
TOC @ 2140 by IS

EMSU #238
LEASE & WELL NO. MEYER "B-4" #5 FIELD/POOL EUNICE MONUMENT DATE 2-9-84
LOCATION 2200 FEET FROM SOUTH LINE AND 440 FEET FROM EAST LINE
SECTION UNIT Q, SEC 4-T21S-R36E COUNTY LEA OPERATOR CONOCO, INC

GE 3563
KDB to GE _____
DF to GE 10

Date Completed 2-14-36
Initial Formation GRAYBURG
From: 3748 to 2880 GOR 1111
Initial: Production ☒ F 180 bopd 0 bwpd
Or: Injection ☐ bwpd 0 psi
Completion Data:

10 7/8" OD Surface Pipe
set @ 313 w/ 200 sx
Cmt. Circulated? YES
CNC

2-19-36 ACIDIZED W/1500 GALS

7 7/8" OD 264 Thd
Gr. _____ Csg
set @ 1683 w/ 400 sx
Cmt Circulated? YES
TOC @ SURFACE by ES
CNC

Subsequent Workover or Reconditioning:

12-54 INSTALL PMP EQUIP

2-64 ACIDIZED W/1000 GALS

2-74 CO 2 ACIDIZED W/1000 GALS

4-83 CO OH TO 3872, STAKE SHOT OH
& CHCA T&T

Present Inj. ☐ bwpd @ _____ psi Date _____
Present Prod. ☐ bopd _____ bwpd Date _____
GAS _____ MCFPD _____

Remarks Or Additional Data:

5 1/2" OD 17 Thd
Gr. _____ Csg
set @ 3748 w/ 400 sx
Cmt Circulated? YES
TOC @ SURFACE by ES
CNC

EUNICE
MONUMENT

PBD
TD 3880

LEASE & WELL NO. MEYER "B-4" #21 FIELD/POOL OIL CENTER BLINEBRY DATE 2-16-84
LOCATION 1980 FEET FROM SOUTH LINE AND 660 FEET FROM EAST LINE
SECTION UNIT 2, SEC 4-T21S-A36E COUNTY LEA OPERATOR CONDOR, INC

Date Completed 7-19-62
Initial Formation ALINEARY
From: 6160 to 6245 GOR 1131
Initial: Production ☒ F168 bopd 0 bwpd
Or: Injection ☐ bwpd @ psi
Completion Data:

GE 3564
KDB to GE
DF to GE 12

8 5/8" OD Surface Pipe
set @ 1340' w/ 400 sx
Cmc. Circulated? YES

ACIDIZED W/2000 GALS

Subsequent Workover or Reconditioning:

8-63 SET MODEL "D" PRR AT 6100' PERF
5861-5915, ACIDIZED W/1000 GALS,
FRAC W/12,000 LBS OIL & 10,000 # SD

ck

5861-5915' BLINEBRY

6100' MODEL "D" PRR

6160-6245 BLINEBRY

Present Inj. ☐ bwpd @ psi Date
Present Prod. ☐ bopd bwpd Date
GAS MCF PD

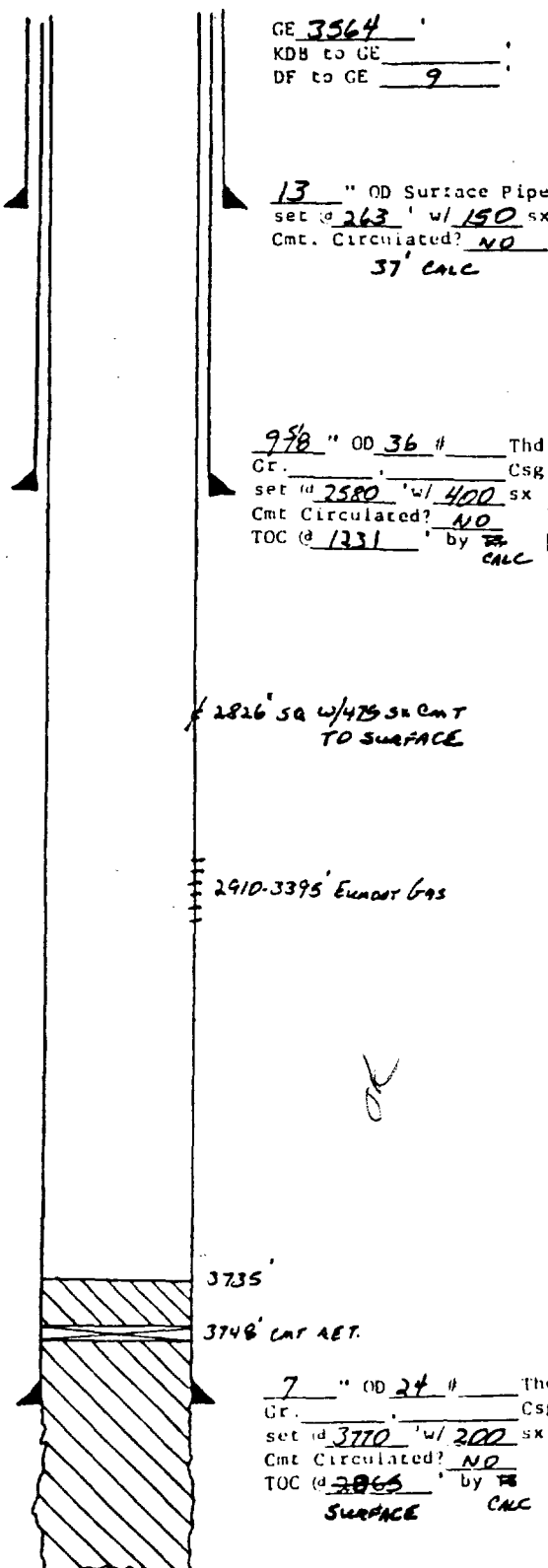
Remarks Or Additional Data:

PBD 6258
TD 6265

5 1/2" OD 141/554 Thd
Gr. J-55 Csg.
Set @ 6265 w/ 420 sx
Cmc Circulated? NO
TOC @ 2500 by IS

CURRENT CONDITIONS
PROPOSED INJECTION WELL
WELL DATA SHEET

EMSU #237
LEASE & WELL NO. J.A. ARENS #1 FIELD/POOL Element Gas DATE 2-6-84
LOCATION 1786 FEET FROM SOUTH LINE AND 466 FEET FROM WEST LINE
SECTION UNIT T, SEC 3-T215-R36E COUNTY LEA OPERATOR SUN PRODUCTION CO.



Date Completed 11-15-35
Initial Formation GRAYWACK
From: 3770 to 3885 GOR
Initial: Production ☒ F2160 bopd bupd
Or: Injection ☐ bopd psi
Completion Data:

11-15-35 ACUMBER W/4000 LBS

Subsequent Workover or Reconditioning:

12-28-43 SPT 102X CMT IN ON TO PA 3861'
12-7-50 SET CMT RET AT 3748' & SPT ON WHAT
TOP AT 3735, PERE ELEMENT GAS
2910-3395
1-10-67 RAN CAL 2600-3732' TPC 2836
PERF T' AT 2826, SQ W/475 SX,
CIRC DET ANNULUS 7-9 3/4"
11-8-80 FRAC PERFS W/17,500 LBS FROM
22,440 LB SA REFRACT W/50,000
LBS FROM # 40,000 LB SA

Present Inj. ☐ bupd @ psi Date
Present Prod. ☐ bopd bupd Date
GAS MCFPD

Remarks Or Additional Data:

PERD 3735
TD 3885

WELL DATA SHEET

LEASE & WELL NO. J.A. ARENS "A" Com #2 FIELD/POOL OIL CENTER BUNEARY DATE 2-15-84
 LOCATION 1980 FEET FROM SOUTH LINE AND 660 FEET FROM WEST LINE
 SECTION UNIT 1, SEC 3-T21S-A36E COUNTY LEA OPERATOR SUN

GE 3566
 KDB to GE _____
 DF to GE _____

Date Completed 9-14-79
 Initial Formation BUNEARY
 From: 5858 to 6181 GOR 1741
 Initial: Production ☒ 62 bopd 30 bwpd
 Or: Injection ☐ _____ bwpd @ _____ psi
 Completion Data:

8 5/8 " OD Surface Pipe
 set @ 1270 ' w/ 400 sx
 Cmt. Circulated? YES

ACIDIZED w/ 2500 GALS
FRAC w/ 41,500 GALS / 24,000 GALS

Subsequent Workover or Reconditioning:

Present Inj. ☐ _____ bwpd @ _____ psi Date _____
 Present Prod. ☐ _____ bopd _____ bwpd Date _____
 GAS _____ MCFPD _____

Remarks Or Additional Data: _____

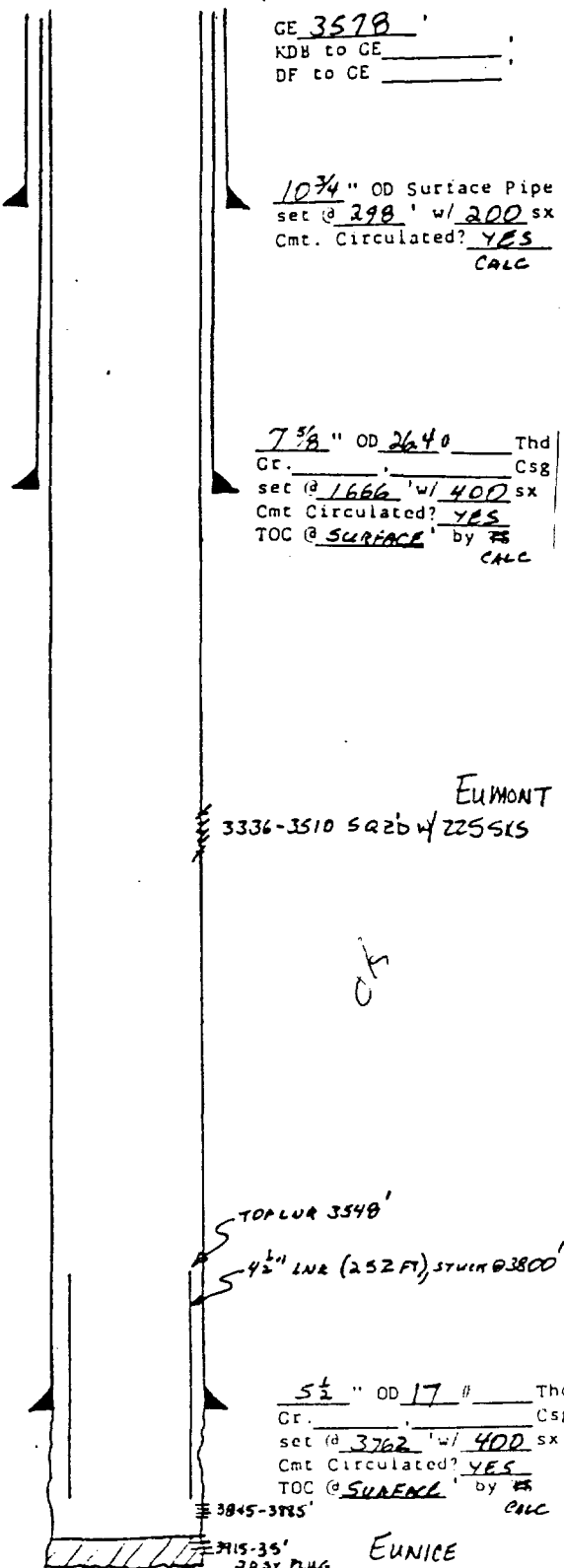
5858 - 6181' BUNEARY

5 1/2 " OD 15.5 # _____ Thd
 Gr. _____ Csg. _____
 set @ 6300 ' w/ 1200 sx
 Cmt Circulated? NO
 TOC @ 1455 ' by IS

PBD 6272 '
 TD 6300 '

CURRENT CONDITIONS
PROPOSED INJECTION WELL
WELL DATA SHEET

EMSU #239
LEASE & WELL NO. MEYER "B-4" #7 FIELD/POOL EUNICE MONUMENT DATE 2-9-84
LOCATION 1980 FEET FROM SOUTH LINE AND 1980 FEET FROM EAST LINE
SECTION UNIT R, SEC 4-T21S-R36E COUNTY LEA OPERATOR CONDOR, INC.



GE 3578
KDB to GE _____
DF to CE _____

10 3/4 " OD Surface Pipe
set @ 298 ' w/ 200 sx
Cmt. Circulated? YES
CALC

7 5/8 " OD 2640 Thd
Gr. _____ Csg
set @ 1666 ' w/ 400 sx
Cmt Circulated? YES
TOC @ SURFACE by FR
CALC

3336-3510 SQZB w/ 225 SX
EUNIMONT

TOP LWR 3548'
4 1/2" LNR (252 FT) STUCK @ 3800'

5 1/2 " OD 17 # Thd
Gr. _____ Csg
set @ 3762 ' w/ 400 sx
Cmt Circulated? YES
TOC @ SURFACE by FR
CALC

3845-3985'
2032 PLUG
EUNICE
MONUMENT

PBD
TD 3940

Date Completed 4-19-36
Initial Formation GRAYBURG
From: 3762 to 3873 GOR 540
Initial: Production 0 bopd 0 bwpd
Or: Injection 0 bwpd 0 psi
Completion Data:

NONE

Subsequent Workover or Reconditioning:

- 11-54 INSTALL DMF EQUIP.
- 1-54 DRILL W/ EUNIMONT GAS 3336-3510' & FILL PERFS W/ 10,000 GALS & 10,000 GALS
- 4-30-59 ACIDIZED OH W/ 3000 GALS
- 9-73 SQ PERFS 3336-3510' W/ 225 SX, DRILL TO 3946, RAN 4 1/2" LNA, STUCK AT 3800', UNABLE TO RECOVER LWR TOP AT 3548' DRILL OUT TO 3940, PERF OH 3915, 20, 25, 30, 35' ACIDIZED W/ 500 GALS, SPOT 20 SX PLUG & PERF OH 3845-3885' & ACIDIZED W/ 2500 GALS
- 7-77 INSTALL RDA PUMP
- 8-81 CI

Present Inj. ☐ bwpd @ _____ psi Date _____
Present Prod. ☐ bopd _____ bwpd Date _____
GAS _____ MCF PD _____

Remarks Or Additional Data: _____

LEASE & WELL NO. MEYER "B-4" #28 FIELD/POOL OIL CENTER BLINERY DATE 2-16-84
LOCATION 2230 FEET FROM SOUTH LINE AND 1980 FEET FROM EAST LINE
SECTION UNIT R, SEC 4-T21S-R36E COUNTY LEA OPERATOR LANDCO, INC.

Date Completed 3-18-72
Initial Formation BLINERY
From: 5865 ' to 6176 ' GOR 2191
Initial: Production ☒ P 68 bopd 1 bwpd
Or: Injection ☐ bwpd 3 psi
Completion Data:

GE 3576 '
KDB to GE _____
DF to GE _____

8 5/8" OD Surface Pipe
set 1227 ' w/ 600 sx
Cmt. Circulated? YES

ACIDIZED W/ 8400 GAL

Subsequent Workover or Reconditioning:

NONE

ok

5865-6176 ' BLINERY

Present Inj. ☐ bwpd @ _____ psi Date _____
Present Prod. ☐ bopd _____ bwpd Date _____
GAS _____ MCFPD _____

Remarks Or Additional Data:

PBD 6395 '
TD 6335 '

5 1/2" OD 14 1/8" Thd
GE _____ Csg. _____
set 6335 ' w/ 450 "x
Cmt Circulated? NO
TOC @ 2460 ' by CC

EMSU #240

WELL DATA SHEET

LEASE & WELL NO. MEYER "B-4" #4 FIELD/POOL EUAMONT GAS DATE 2-9-84
 LOCATION 1980 FEET FROM SOUTH LINE AND 1980 FEET FROM WEST LINE
 SECTION Unit 5, Sec 4-T215-A36E COUNTY LEA OPERATOR CONDOR, INC

Date Completed 1-9-36
 Initial Formation GRAYAVAL
 From: 3747 to 3890 GOR 985
 Initial: Production ☒ 780 bopd bwpd
 Or: Injection ☐ bwpd psi
 Completion Data:

GE 3585
 KDB to GE
 DF to GE

10 3/4" OD Surface Pipe
 set @ 332 w/ 200 sx
 Cmt. Circulated? YES
CALC

Subsequent Workover or Reconditioning:

7 7/8" OD 26.4" Thd
 Cr. 1612 w/ 400 Csg
 set @ 1612 w/ 400 sx
 Cmt Circulated? YES
 TOC @ SURFACE by FB
CALC

11-45 ACIDIZED W/1000 GALS
4-52 ACIDIZED W/1000 GALS
10-54 INSTALL AND EQUIP

2-73 RECDMA TO EUAMONT GAS 3358-3534'
ACIDIZED TESTS W/1500 GALS & FRACED
W/20,000 GAL / 48,000 LB SA

3358-3534' EUAMONT GAS

3700' CIGA W/25K CAP

Present Inj. ☐ bwpd @ _____ psi Date _____
 Present Prod. ☐ bopd _____ bwpd Date _____
 GAS _____ MCF PD _____

Remarks Or Additional Data:

5 1/2" OD 17" Thd
 Cr. 3747 w/ 400 Csg
 set @ 3747 w/ 400 sx
 Cmt Circulated? YES
 TOC @ SURFACE by FB
CALC

PBD
 TD 3890

LEASE & WELL NO. MEYER "B-4" #25 FIELD/POOL OIL CENTER BLINEBRY DATE 2-16-84
LOCATION 2180 FEET FROM SOUTH LINE AND 1980 FEET FROM WEST LINE
SECTION UNIT 5, SEC 4-T215-R36E COUNTY LEA OPERATOR CONOCO, INC.

Date Completed 3-9-63
Initial Formation BLINEBRY
From: 5893 to 5987 GOR 1961
Initial: Production ☒ 91 bopd 6 bwpd
Or: Injection ☐ bwpd @ psi
Completion Data:

GE 3583
KDB to GE
DF to GE

7 7/8 " OD Surface Pipe
set # 1274 w/ 500 sx
Cmt. Circulated? YES

ACIDIZED w/ 8000 FALS

Subsequent Workover or Reconditioning:

NONE

Present Inj. ☐ bwpd @ psi Date
Present Prod. ☐ bopd bwpd Date
GAS MCF PD

Remarks Or Additional Data:

5893-5987 BLINEBRY

4 1/2 " OD 9 5/16 Thd
Gr. J-55 Csg.
set # 6300 w/ 1550 sx
Cmt Circulated? NO
TOC @ 2400 by IS

PBD 6130
TD 6300

CURRENT CONDITIONS
PROPOSED INJECTION WELL
WELL DATA SHEET

EMSU #241

LEASE & WELL NO. BELL RAMSAY (NCT-A) #6 FIELD/POOL EUNICE MONUMENT DATE 1-22-84
LOCATION 1980 FEET FROM SOUTH LINE AND 660 FEET FROM WEST LINE
SECTION UNIT T, SEC 4-T215-R36E COUNTY LEA GULF OIL

GE 3594
KDB to GE _____
DF to GE _____

Date Completed 12-8-35
Initial Formation GRAYBURG
From: 3723 to 3896 GOR 1136
Initial: Production ☒ F 660 bopd 0 bwpd
Or: Injection ☐ bwpd 0 psi
Completion Data:

NONE - NATURAL

10 3/4 " OD Surface Pipe
set 350 ' w/ 225 sx
Cmt. Circulated? YES

Subsequent Workover or Reconditioning:

7 5/8 " OD 26 # 8 Thd |
Gr. _____ Csg _____
set 1334 ' w/ 350 sx
Cmt Circulated? Yes
TOC 1 SURFACE by 1 CALC

6-17-53 INSTALL PMA EQUIP.

2-24-58 P.B. TO 3876 w/ 38 GALS HYDROMITE,
FRAC w/ 3780 GAL # 1 AM 34 SCREEN
OUT, CO TO 3876

1-31-66 ACIDIZED w/ 500 GALS 15% NE

4-17-69 ACIDIZED w/ 750 GALS 15% NE

Present Inj. ☐ bwpd @ _____ psi Date _____
Present Prod. ☐ bopd _____ bwpd Date _____
GAS _____ MCF PD _____

Remarks Or Additional Data:

5 1/2 " OD 17 # 10 Thd |
Gr. _____ Csg _____
set 3723 ' w/ 325 sx
Cmt Circulated? YES
TOC 1 SURFACE by 1 CALC

EUNICE
MONUMENT

PBD 3876
TD 3896

WELL DATA SHEET

LEASE & WELL NO. BELL RAMSAY (NCT-A) #5 FIELD/POOL EUMONT GAS DATE 1-23-84
 LOCATION 660 FEET FROM SOUTH LINE AND 660 FEET FROM WEST LINE
 SECTION UNIT 11, SEC 4-T21S-R36E COUNTY LEA GULF OIL

Date Completed 10-16-35
 Initial Formation GRAY ROCK
 From: 3707 to 3868 GOR 895
 Initial: Production ☒ 6670 bopd 0 bwpd
 Or: Injection ☐ bwpd 0 psi
 Completion Data:

NONE - NATURAL

GE 3588
 KDB to GE _____
 DF to GE _____

10 3/4 " OD Surface Pipe
 set @ 352 ' w/ 250 sx
 Cmt. Circulated? YES
 CALC

Subsequent Workover or Reconditioning:

7 3/4 " OD 26 # 8 Thd
 Gr. _____ Csg
 set @ 1335 ' w/ 250 sx
 Cmt Circulated? NO
 TOC @ 55 ' by 8
 CALC

9-18-43 ACIDIZED w/1000 GALs
6-23-52 ACIDIZED w/2000 GALs 15%
11-25-52 ACIDIZED w/1500 GALs 15%
12-2-55 PB w/CALSEAL TO 3844' PMA 55X
CMT, CD TO 3824' DUMP 32 GALs
HYDROMITE PA TO 3789' ACIDIZED
ON 3707-89 w/500 GALs DUMPED
24 GALs HYDROMITE PA 3746' DUMPED
7 GALs HYDROMITE PA 3770' INSTALL
PMA RRVIP

3000-3360'; 3440'; 5020' w/40 sx
3350-80'
3375-3455'
3475-95'

EUMONT
GAS

4-10-56 SET CMT RET AT 3674' CMT w/1175X
REVE OUT 25 SX, PA DEPTH 3672', PMA
55" CSE, 3460, 3360, 3000, SET CMT RET
AT 3327', PMA 45 SX CMT RET OUT 5 SX
CD & PMA EUMONT 3350-80, 3375-3455,
3475-95' w/2-1/2" THPE, ACIDIZED w/500
GALs

3672'
3674' CMT RET

Present Inj. ☐ bwpd @ _____ psi Date _____
 Present Prod. ☐ bopd _____ bwpd Date _____
 CAS _____ MCF PD _____

Remarks Or Additional Data:

5 1/2 " OD 17 # 10 Thd
 Gr. _____ Csg
 set @ 3707 ' w/ 325 sx
 Cmt Circulated? NO
 TOC @ 2680 ' by 8
 CALC

PBD 3672
 TD 3868

EMSU #258

LEASE & WELL NO. BELL RANSAY (UCT-A) #13 FIELD/POOL EUNICE MONUMENT DATE 1-22-84

LOCATION 940 FEET FROM SOUTH LINE AND 940 FEET FROM WEST LINE

SECTION UNIT U, SEC 4-T 215- R36E COUNTY LEA GULF OIL

Date Completed 4-12-65
Initial Formation OIL CENTER BLINBAY
From: 5872 to 5949 GOR
Initial: Production ☒ P 34 bopd 111 bwpd
Or: Injection ☐ bwpd @ 3 psi
Completion Data:

GE 3581
KDB to GE
DF to GE

8 3/4" OD Surface Pipe
set @ 1246' w/ 375 sx
Cmt. Circulated? YES

ACIATED w/ 3300 GALS 15% NE, FLAG w/
30,550 GAL GULF OIL BRINE #18 TO 2 PPG

Subsequent Workover or Reconditioning:

5-11-65 SET CTRAP AT 3920' w/ 1 3/4" CMT CTRAP
APPR GRABBAR 3768-3771', 3814-17,
3845-48' w/ 4-56" JHPE, ACIATED
w/ 3000 GALS 15% NE

12-13-76 PERFORM ADDITIONAL PAV 3711-13, 3737-39,
ACIATED w/ 3000 GALS 15% NE.

3711-13'
3737-39'
3768-71'
3814-17'
3845-48'

EUNICE
MONUMENT

3907'
3920' CTRAP

5872-74'
5903-05'
5924-26'
5947-49'

BLINBAY

Present Inj. ☐ bwpd @ psi Date
Present Prod. ☐ bopd bwpd Date
GAS MCFPD

Remarks Or Additional Data:

PBD 3907
TD 6025

4 1/2" OD 11.6 # Thd
GE J-55 Csg.
set @ 6024' w/ 550 sx
Cmt Circulated? NO
TOC @ 3400' by IS

PROPOSED INJECTION WELL
WELL DATA SHEET

EMSU #259
LEASE & WELL NO. MEYER 3-4" #1 FIELD/POOL EUNICE MONUMENT DATE 2-9-84
LOCATION 660 FEET FROM SOUTH LINE AND 1980 FEET FROM WEST LINE
SECTION UNIT V, SEC 4-T21S-R36E COUNTY LEA OPERATOR CONDICO, INC

Date Completed 2-28-36
Initial Formation GRAYALL
From: 3783 to 3900 GOR 6000
Initial: Production ☒ 384 bopd 0 bwpd
Or: Injection ☐ bopd 0 psi
Completion Data:

GE 3582
KDB to GE _____
DF to GE _____

10 3/4 " OD Surface Pipe
set @ 329 w/ 200 sx
Cmt. Circulated? YES
CALL

Subsequent Workover or Reconditioning:

7 5/8 " OD 26.4 " Thd
Gr. _____ Csg _____
set @ 1614 w/ 400 sx
Cmt Circulated? YES
TOC @ SURFACE by _____
CALL

9-11-50 ACIDIZED w/1000 FALS
5-16-54 FRAC w/4000 GAL OIL & 6000 LB SD
10-20-54 INSTAL PVC PERM
3-10-64 STRING SHOT ON & ACIDIZED

Present Inj. ☐ bopd @ _____ psi Date _____
Present Prod. ☐ bopd _____ bwpd Date _____
GAS _____ MCF PD _____

Remarks Or Additional Data:

5 1/2 " OD 17 " Thd
Gr. _____ Csg _____
set @ 3783 w/ 400 sx
Cmt Circulated? YES
TOC @ SURFACE by _____
CALL

EUNICE
MONUMENT

PBD
TO 3900

WELL DATA SHEET

EMSU # 260
 LEASE & WELL NO. MEYER "B-4" #2 FIELD/POOL EUNICE MONUMENT DATE 2-9-84
 LOCATION 330 FEET FROM SOUTH LINE AND 2310 FEET FROM EAST LINE
 SECTION UNIT W, SEC 4-T21S-R36E COUNTY LEA OPERATOR CONOCO, INC.

GE 3582
 KDB to GE _____
 DF to GE _____

Date Completed 2-18-36
 Initial Formation GRAYMUD
 From: 3747 to 3885 GOR 8620
 Initial: Production ☒ bopd 0
 Or: Injection ☐ bopd 0 psi
 Completion Data: _____

10 3/4" OD Surface Pipe
 set @ 310 w/ 200 sx
 Cmt. Circulated? YES
 CALC.

7 3/8" OD 26.40 Thd
 Gr. _____ Csg
 set @ 1626 w/ 400 sx
 Cmt. Circulated? YES
 TOC @ SURFACE by FF CALC

Subsequent Workover or Reconditioning:

9-54 INSTANT FOR EQUIP
3-64 ACIDIZED OH
2-81 STRAIN SNOT OH, CD TO 3884', ACIDIZED
 W/4200 GALS

Present Inj. ☐ bopd @ _____ psi Date _____
 Present Prod. ☐ bopd _____ bopd Date _____
 GAS _____ MCF PD _____

Remarks Or Additional Data: _____

5 1/2" OD 17" Thd
 Gr. _____ Csg
 set @ 3747 w/ 400 sx
 Cmt. Circulated? YES
 TOC @ SURFACE by FF CALC

EUNICE
 MONUMENT

PBD
 TD 3895

CURRENT CONDITIONS
PROPOSED INJECTION WELL
WELL DATA SHEET

EMSU #261
LEASE & WELL NO. MEYER "B-4" #11 FIELD/POOL EUNICE MONUMENT DATE 2-9-84
LOCATION 660 FEET FROM SOUTH LINE AND 660 FEET FROM EAST LINE
SECTION UNIT X, SEC 4-T21S-R36E COUNTY LEA OPERATOR CONOCO INC

Date Completed 8-14-36
Initial Formation FRATBURG
From: 3795 to 3890 COR 279
Initial: Production ☒ 1968 bopd 0 bwpd
Or: Injection ☐ bwpd 0 psi
Completion Data:

NONE

Subsequent Workover or Reconditioning:

11-54 INSTALL ANN EQUIP

3-68 SCALE TRMT

Present Inj. ☐ bwpd @ _____ psi Date _____
Present Prod. ☐ bopd _____ bwpd Date _____
GAS _____ MCF PD _____

Remarks Or Additional Data:

CE 3583
KDB to CE _____
DF to CE _____

10 3/4" OD Surface Pipe
set @ 323 w/ 200 sx
Cmt. Circulated? YES
CALC

7 5/8" OD 26.4" Thd
Gr. _____ Csg _____
set @ 1334 w/ 400 sx
Cmt Circulated? YES
TOC @ SURFACE by PS
CALC

5 1/2" OD 17" Thd
Gr. _____ Csg _____
set @ 3795 w/ 425 sx
Cmt Circulated? YES
TOC @ SURFACE by PS
CALC

EUNICE
MONUMENT

PBD
TD 3890

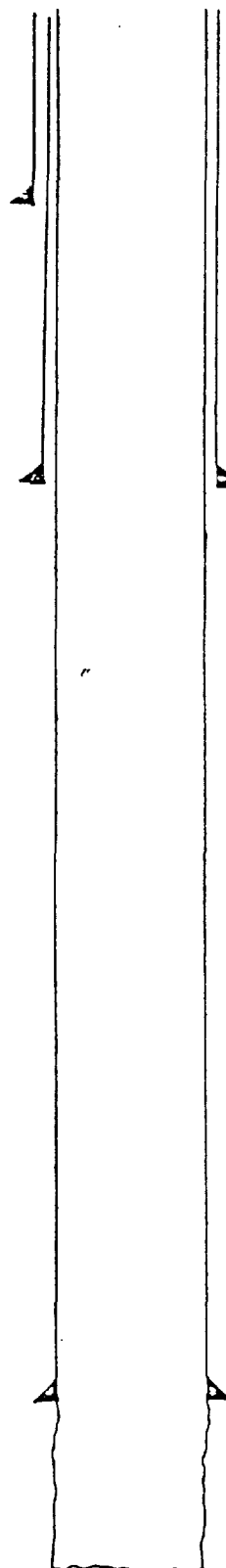
EMSU #262

WELL DATA SHEET

LEASE & WELL NO. JOSEPH ARENS #1 FIELD/POOL EUNICE MONUMENT DATE 2-15-84

LOCATION 660 FEET FROM SOUTH LINE AND 660 FEET FROM WEST LINE

SECTION Unit U, Sec 3-T21S-R36E COUNTY LEA OPERATOR SUN OIL



GE 3572

KDB to GE

DF to GE

Date Completed 11-16-35

Initial Formation GRAYAUGG

From: 3775 to 3885 GOR

Initial: Production ☒ 587 bopd bwpd

Or: Injection ☐ bwpd @ psi

Completion Data:

11-15-35 ADDZ w/ 4000 GALS

13 " OD Surface Pipe

set @ 331 w/ 200 sx

Cmt. Circulated? YES

Subsequent Workover or Reconditioning:

9 5/8 " OD 36 # 8 Thd

Gr. Csg

set @ 1461 w/ 400 sx

Cmt Circulated? NO

TOC @ 112 by calc

9-14-50 ACIDIZED w/ 1000 GALS

OK

Present Inj. ☐ bwpd @ psi Date
Present Prod. ☐ bopd bwpd Date
GAS MCFPD

Remarks Or Additional Data:

7 " OD 24 # 10 Thd

Gr. Csg

set @ 3775 w/ 300 sx

Cmt Circulated? NO

TOC @ 1660 by calc

EUNICE
MONUMENT

ORIGINAL SKELLY OIL WELL
1973 ADOLPH TOOK OVER OPERATIONS
1974 SUN TOOK OVER OPERATIONS

PBD
TD 3885

WELL DATA SHEET

LEASE & WELL NO. J.A. ARENS "A" #1 FIELD/POOL OIL CENTER BLINEBRY DATE 2-15-84
 LOCATION 990 FEET FROM SOUTH LINE AND 376 FEET FROM WEST LINE
 SECTION Unit 11, Sec 3-T21S-R36E COUNTY LEA OPERATOR SUN

GE 3582
 KDB to GE _____
 DF to GE _____

8 5/8" OD Surface Pipe
 set @ 1293' w/ 500 sx
 Cmt. Circulated? YES

Date Completed 8-2-63
 Initial Formation BLINEBRY
 From: 5884 to 6197 GOR _____
 Initial: Production ☐ bopd _____ bwpd _____
 Or: Injection ☐ bwpd @ _____ psi
 Completion Data: _____

ACIDIZED w/1500 GALS

Subsequent Workover or Reconditioning:

3-10-70 ACIDIZED 5884-6197 w/1000 GALS

8-74 FNA LK AT 4364' SQZ'D w/150 SX
0 150 SX PERF 5884-98 5900-97
6048-86, 618-89, ACIDIZED w/9800
GALS

CSG LK @ 4364' SQZ'D
w/150 SX

5884-6197' BLINEBRY

Present Inj. ☐ bwpd @ _____ psi Date _____
 Present Prod. ☐ bopd _____ bwpd Date _____
 GAS _____ MCFPD _____

Remarks Or Additional Data: _____

PBD _____
 TD 6300

4 1/2" OD 92 1/2" Thd
 Gr. _____ Csg. _____
 set @ 6300' w/ 700 sx
 Cmt Circulated? N/O
 TOC @ 2435' by JS

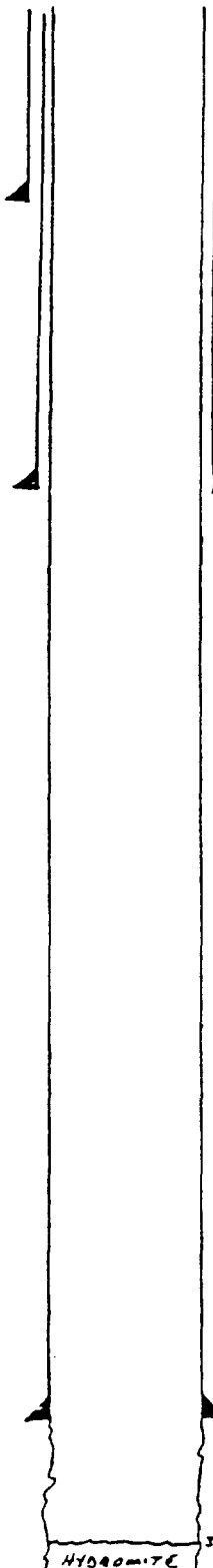
PROPOSED INJECTION WELL
WELL DATA SHEET

EMSU #281

LEASE & WELL NO. BELL RAMSAY (NCT-A) BATTERIZ #4 FIELD/POOL EWING MONUMENT DATE 1-22-84

LOCATION 660 FEET FROM NORTH LINE AND 660 FEET FROM WEST LINE

SECTION UNIT D, SEC 9-T21S-R36E COUNTY LEA GUIDE



CE 3571
KDB to CE
DF to CE

Date Completed 4-8-35
Initial Formation GRAYWACK
From: 3728 to 3880 GOR 737
Initial: Production ☒ F 678 bopd 0 bwpd
Or: Injection ☐ bwpd 0 psi
Completion Data:

10 " OD Surface Pipe
set @ 359 ' w/ 250 sx
Cmt. Circulated? YES
CALC

NONE - NATURAL

Subsequent Workover or Reconditioning:

7 " OD 24 # 10 Thd
Gr. Csg
set @ 2818 ' w/ 450 sx
Cmt Circulated? YES
TOC @ SURFACE by ES
CALC

5-28-53 INSTALL PUMP EQUIP.

9-24-64 PA TO 3855 w/ 372 GALS HYDROMITE
ACIDIZED w/ 2000 GALS 15% NE.

8-26-68 ACIDIZED w/ 500 GALS 15% NE.

Present Inj. ☐ bwpd @ _____ psi Date _____
Present Prod. ☐ bopd _____ bwpd Date _____
GAS _____ MCFPD _____

Remarks Or Additional Data:

4 3/4 " OD 16 # 10 Thd
Gr. Csg
set @ 3728 ' w/ 100 sx
Cmt Circulated? _____
TOC @ 2880 ' by ES
CALC

PBD 3855
TD 3880

EWING
MONUMENT

EMSU #280

WELL DATA SHEET

LEASE & WELL NO. MEYER "B-9" #4 FIELD/POOL EUNICE MONUMENT DATE 2-10-84
 LOCATION 660 FEET FROM NORTH LINE AND 1980 FEET FROM WEST LINE
 SECTION UNIT C, SEC 9-T21S-R36E COUNTY LEA OPERATOR CONOCO, INC

Date Completed 7-8-35
 Initial Formation GRANITE
 From: 3703 to 3884 COR 1736
 Initial: Production ☒ 144 bopd 0 bwpd
 Or: Injection ☐ bwpd 0 psi
 Completion Data:

GE 3580
 KDB to GE
 DF to GE

10 3/4" OD Surface Pipe
 set @ 94 w/ 75 sx
 Cmt. Circulated? YES
 CALC

Subsequent Workover or Reconditioning:

7 5/8" OD 0 Thd
 Gr. 0 Csg
 set @ 1606 w/ 400 sx
 Cmt Circulated? YES
 TOC @ SURFACE by 28
 CALC

10-35 ACIDIZED W/3000 GALS
7-52 ACIDIZED W/500 GALS
9-17-60 DEEPENED TO 3921' SET 4 1/2" LNA
AT 3920 W/ TOP AT 3664' 1000' LNA
3791-3908 ACIDIZED W/2000 GALS
(3791-3801'; 3806-3812'; 3820-3824'; 3842-51'; 3864-71';
3870-96'; 3903-3908')

4-10-83 Perf GB @ 3794'; 97'; 3808'; 10'; 21'; 23';
34'; 36'; 44'; 47'; 67'; 67'; 492' (13 HOLES) ACID W/ 2000
GALS 15% NEPE HCL. PERF GB @ 3740'; 43'; 43'; 46';
59'; 60'; 108'; 164' (8 HOLES) ACID W/ 1000 GALS 15% NEPE
HCL

Present Inj. ☐ bwpd @ _____ psi Date _____
 Present Prod. ☐ bopd _____ bwpd Date _____
 GAS _____ MCFPD _____

Remarks Or Additional Data:

PBD
 TD 3921

5 1/2" LNA 3664'-3920'

5 1/2" OD 0 Thd
 Gr. 0 Csg
 set @ 3703 w/ 400 sx
 Cmt Circulated? YES
 TOC @ SURFACE by 28
 CALC

EUNICE
 MONUMENT

CURRENT CONDITIONS
PROPOSED INJECTION WELL
WELL DATA SHEET

EMSU #279
EASE & WELL NO. E.C. ADKINS #4 FIELD/POOL EUNICE MONUMENT DATE 2-6-84
LOCATION 330 FEET FROM NORTH LINE AND 2310 FEET FROM EAST LINE
SECTION UNIT B, SEC 9, T21S, R36E COUNTY LEA OPERATOR ARGO

GE 3590
KDB to GE _____
DF to GE _____

Date Completed 10-24-35
Initial Formation GRAYBURG
From: 3771 to 3100 GOR
Initial: Production ☒ 472 bopd _____ bwpd
Or: Injection ☐ _____ bwpd @ _____ psi

Completion Data:
10-35 NATURAL COMPLETION

1 1/2" OD Surface Pipe
set @ 258 ' w/ 300 sx
Cmt. Circulated? YES-CALC

Subsequent Workover or Reconditioning:
2-57 ACP = 3773-3700 w/ 500 GAS 15% ACP
& 500 GAS 5% ACP

10" OD _____ # _____ Thd
Gr. _____ Csg
set @ 1451 ' w/ 500 sx
Cmt Circulated? YES
TOC @ SURFACE ' by _____
CALC

Present Inj. ☐ _____ bwpd @ _____ psi Date _____
Present Prod. ☐ _____ bopd _____ bwpd Date _____
GAS _____ MCFPD _____

Remarks Or Additional Data: _____

7" OD _____ # _____ Thd
Gr. _____ Csg
set @ 3771 ' w/ 400 sx
Cmt Circulated? _____
TOC @ 961 ' by _____
CALC

EUNICE
MONUMENT

PBD _____
TD 3700

WELL DATA SHEET

EMSU #278

EASE & WELL NO.

E.C. ADKINS #11

FIELD/POOL

EUNICE MONUMENT DATE 2-6-84

LOCATION

610 FEET FROM NORTH

LINE AND

660 FEET FROM EAST LINE

SECTION

UNIT A, SEC 9, T15, R36E

COUNTY

LEA OPERATOR ARCO

Date Completed 5-27-74

Initial Formation OIL CENTER BLINEBRY

From: 3767' to 3876' GOR 14000

Initial: Production BP 8 bopd 125 bwpd

Or: Injection ☐ bwpd @ psi

Completion Data:

5-74 Perf 6211, 6214, 6217, 6270' ADZ w/200
GALS ACID. RE-ACDZ w/200 GALS MA. ACZ w/2000 GALS
ACID (100% wtr). 59210 PERFS w/100 SXS. Perf BLINEBRY
P. 5945, 5950, 5953' w/2 JHPF. ACZ w/4000 GALS MA. ACZ
w/2000 GALS LST ACZ. FRAC'D w/10000 GALS GEL OIL &
10000 #SD. SANDER OUT AFTER 6000 GALS & 6000#. Subd
K. Perf F. @ 5945-60' w/60 HOLES. SPOT 400 GALS MA. ACZ
w/10000 ACID. FRAC. w/20000 GALS GELED BRINE & 20,000#
SAND

Subsequent Workover or Reconditioning:

4-74. CIBP @ 4000' & SPOT 31' CMT ON TOP.
Perf 3767, 71, 74, 82, 93, 3808, 17, 19, 23, 30, 35, 40, 44,
52, 60, 74. SPOT ACZ w/100 GALS 15% NEA. ACZ w/3000
GALS 15% NEA. FRAC'D w/20,000 GALS, 18000 # 20/70,
14,500 # 10/20

GE 3590

KDB to GE

DF to GE

8 5/8" OD 0 Thd
Gr. CSG
set @ 1300' w/ 500 sx
Cmt Circulated?
TOC @ 27' by CAC

EUNICE

MONUMENT

3767-3876'

CIBP @ 4000' w/31' CMT CAP

5945' } RE-PERF 5945-5960' w/60 HOLES
5950' } w/2 JHPF;
5953' }
5960' }

BLINEBRY

6211' } S&E'D w/100 SXS CMT
6214' }
6217' }
6270' }

PBD 6361'

5 1/2" OD 0 Thd
Gr. CSG
set @ 6400' w/ 700 sx
Cmt Circulated?
TOC @ 2450' by TS

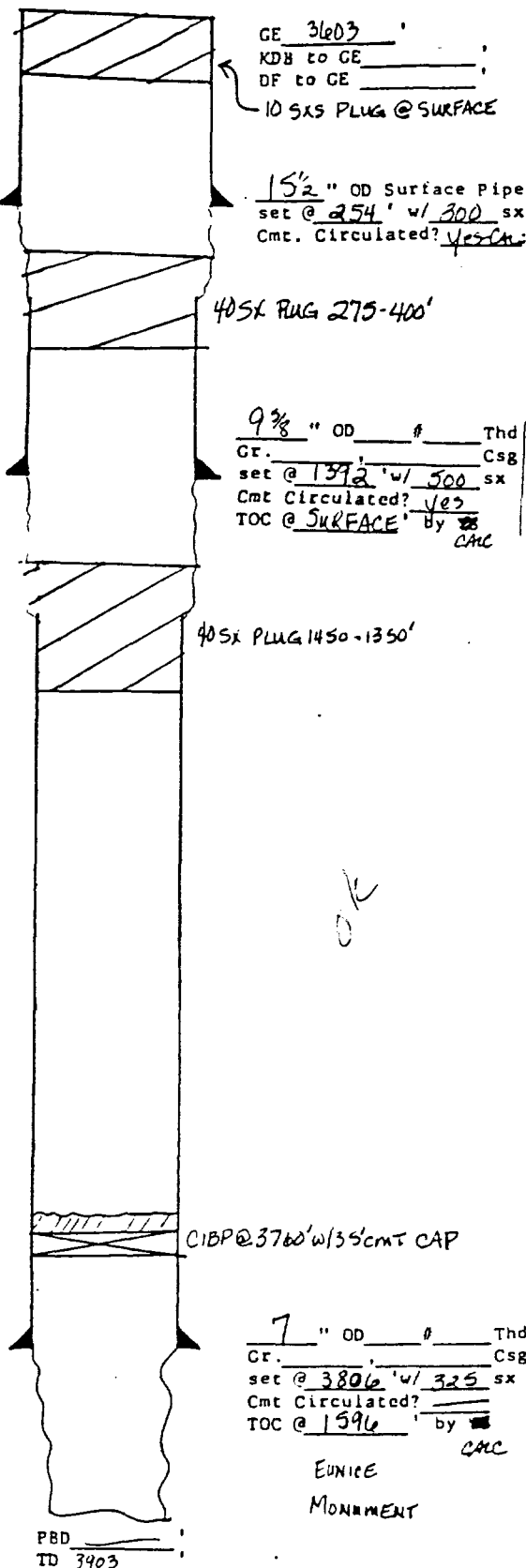
Present Inj. ☐ bwpd @ psi Date
Present Prod. ☐ bopd bwpd Date
GAS MCFPD

Remarks Or Additional Data:

PBD 3969'
TD 6400'

WELL DATA SHEET

EASE & WELL NO. E.C. ADKINS #8 FIELD/POOL EUNICE MONUMENT DATE 2-6-84
 LOCATION 330 FEET FROM NORTH LINE AND 330 FEET FROM EAST LINE
 SECTION UNITA, SEC 9, T21S, R36E COUNTY LEA OPERATOR ARCA



Date Completed 4-25-38
 Initial Formation GRAY/BUCK
 From: 3879 to 3903 COR
 Initial: Production ☒ 792 bopd bwpd
 Or: Injection ☐ bwpd @ psi
 Completion Data:
4-38 NATURAL COMPLETION

Subsequent Workover or Reconditioning:

12-73 P4A: SET CIBP @ 3760' & CAPPED W/ 35'
CMT (7 SXS) - SHOT 7" CSG @ 1420' & PULLED 1420'. SHOT
9 3/8" @ 373' & PULLED. SPOT 40 SX PLUG 1350-1450'. 40 SX
PLUG IN + OUT OF 9 3/8" @ 373'. 40 SXS PLUG @ 254'. SET
10 SX PLUG @ SURFACE

Present Inj. ☐ bwpd @ psi Date
 Present Prod. ☐ bopd bwpd Date
 GAS MCF PD

Remarks Or Additional Data:

7 " OD # Thd
 Gr. Csg
 set @ 3806 w/ 325 sx
 Cmt Circulated?
 TOC @ 1596 by CAC

EUNICE
 MONUMENT

PBD
 TD 3903

CURRENT CONDITIONS
PROPOSED INJECTION WELL
WELL DATA SHEET

EMSU # 277

LEASE & WELL NO. A. J. ADKINS #16 FIELD/POOL EUNICE MONUMENT DATE 2-9-84
LOCATION 6060 FEET FROM NORTH LINE AND 6060 FEET FROM WEST LINE
SECTION UNIT D, SEC. 10, T21S, R36E COUNTY LEA OPERATOR EXXON

GE 3594
KDB to GE _____
DF to GE _____

Date Completed 7-24-36
Initial Formation GRANBURG
From: 3793 to 3880 GOR 523
Initial: Production RF 780 bopd _____ bwpd _____
Or: Injection ☐ bwpd @ _____ psi
Completion Data:
7-36 NATURAL COMPLETION

10 1/4" OD Surface Pipe
set @ 269 w/ 200 sx
Cmt. Circulated? Yes-CALC

Subsequent Workover or Reconditioning:
12-5-80 PBD to 3862 w/ HYDROMITE ACIDZOH
w/ 3000 GALS
4-70 SHUT IN

7 7/8" OD _____ # _____ Thd _____
Gr. _____ Csg _____
set @ 1258 w/ 400 sx
Cmt Circulated? Yes
TOC @ SURFACE by _____
CALC

Present Inj. ☐ bwpd @ _____ psi Date _____
Present Prod. ☐ bopd _____ bwpd Date _____
GAS _____ MCF PD _____

Remarks Or Additional Data: _____

5 1/2" OD _____ # _____ Thd _____
Gr. _____ Csg _____
set @ 3793 w/ 100 sx
Cmt Circulated? _____
TOC @ 2529 by _____
CALC

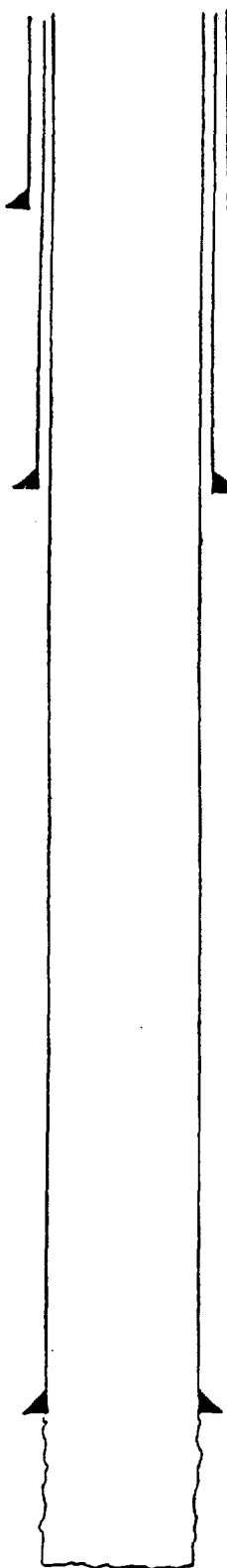
EUNICE
MONUMENT

PBD 3862
TD 3880

EMSU # 298

WELL DATA SHEET

LEASE & WELL NO BELL RAMSH (NGT-A) BATTERY 2 #2 FIELD/POOL EUNICE MONUMENT DATE 1-23-84
 LOCATION 1980 FEET FROM NORTH LINE AND 660 FEET FROM WEST LINE
 SECTION UNIT E, SEC 9-T215-R36E COUNTY LEA GULF OIL



GE 3575
 KDB to GE _____
 DF to GE _____

10 3/4 " OD Surface Pipe
 set @ 334 ' w/ 225 sx
 Cmt. Circulated? YES

7 " OD 24 # 10 Thd
 Cr. _____ Csg
 set @ 2805 ' w/ 465 sx
 Cmt Circulated? YES
 TOC @ SURFACE by ME
CALC

1/0

4 3/4 " OD 16 # 10 Thd
 Cr. _____ Csg
 set @ 3741 ' w/ 100 sx
 Cmt Circulated? NO
 TOC @ 2520 ' by ME
CALC

EUNICE
 MONUMENT

Date Completed 11-7-34
 Initial Formation GRAYWAX
 From: 3741 ' to 3886 ' GOR 1203
 Initial: Production ☒ F1039 bopd 0 bwpd _____
 Or: Injection ☐ _____ bwpd (d) _____ psi
 Completion Data:

NONE - NATURAL

Subsequent Workover or Reconditioning:

3-16-40 ACIDIZED W/2000 GALS 15% NE
7-6-49 ACIDIZED W/1000 GALS
5-28-53 INSTALL PMA EQUIP
3-25-64 ACIDIZED W/500 GALS 15% NE
2-2-67 ACIDIZED W/500 GALS 15% NE
1-16-73 ACIDIZED W/750 GALS 15% NE
8-20-81 ACIDIZED W/500 GALS 15% NE
7-8-82 ACIDIZED W/1000 GALS 15% NE

Present Inj. ☐ _____ bwpd @ _____ psi Date _____
 Present Prod. ☐ _____ bopd _____ bwpd Date _____
 GAS _____ MCFPD _____

Remarks Or Additional Data: _____

PBD
 TD 3886

PROPOSED INJECTION WELL
• WELL DATA SHEET

EMSU #299

LEASE & WELL NO. MEYER "B-9" #2 FIELD/POOL EUNICE GAS/EUNICE MON DATE 2-9-84

LOCATION 1980 FEET FROM NORTH LINE AND 1980 FEET FROM WEST LINE

SECTION UNIT F, SEC 9-T21S-R36E COUNTY LEA OPERATOR KNOCO, INC

(3558' prev Conn'd)
GE 3548
KDB to GE _____
DF to GE _____

Date Completed 4-6-35
Initial Formation GRAYBURK
From: 3673 to 3824 GOR 2917
Initial: Production ☒ RF 1200 bopd 0 bwpd
Or: Injection ☐ bwpd @ _____ psi
Completion Data:

10 3/4" OD Surface Pipe
set @ 148' w/ 100 sx
Cmt. Circulated? YES
CALC

7 7/8" OD _____ Thd
Gr. _____ Csg
set @ 1592' w/ 400 sx
Cmt Circulated? YES
TOC @ SURFACE by CNC

Subsequent Workover or Reconditioning:
6-35 ACIDIZED W/1000 FALS PB
7-31-35 SET PRR @ 3745' ACIDIZED W/1000 AM
9-7-35 RESET PRR AT 3763' ACIDIZED
W/1500 FALS
7-11-48 DEEPENED TO 3870' SET 4" LNR, PRR
3803-3865' PB TO 3786' PERF
3745-84' ACIDIZED W/500 FALS
5Q OFF PERFS 3803-3865
11-4-55 DUAL W/EUNICE GAS, PERF 3385-3425'
3522-70' ACIDIZED W/1000 FALS
FRAC PERFS W/6000 FALS OIL @ 6000 LB
5Q BOTH SETS EACH.
9-25-57 INSTALL PMP EQUIP

3385-3425'
W/4JAPF } EUNICE
3522-70' } GAS

Present Inj. ☐ bwpd @ _____ psi Date _____
Present Prod. ☐ bopd _____ bwpd Date _____
GAS _____ MCFPD _____

Remarks Or Additional Data:

5 1/2" OD _____ Thd
Gr. _____ Csg
set @ 3673' w/ 300 sx
Cmt Circulated? YES
TOC @ SURFACE by CNC

3745-84
3803-3865; 5Q2D
EUNICE
MONUMENT

PBD 3786
TD 3870

WELL DATA SHEET

EMSU #300

CASE & WELL NO. E.C. ADKINS #2FIELD/POOL EUNICE MONUMENT DATE 2-6-84LOCATION 2310 FEET FROM NORTH LINE AND 2310 FEET FROM EAST LINESECTION UNIT 6, SEC 9, T21S, R36E COUNTY LEA OPERATOR ARCODate Completed 6-3-35Initial Formation GRANITEFrom: 3762 to 3880 GORInitial: Production 275 bopd bwpdOr: Injection ☐ bwpd @ psi

Completion Data:

6-35 NATURAL COMPLETIONGE 3570
KDB to GE
DF to GE15 1/2 " OD Surface Pipe
set @ 710 ' w/ 100 sx
Cmt. Circulated? yes - calc10 " OD # Thd
Gr. Csg
set @ 1433 ' w/ 500 sx
Cmt Circulated? yes
TOC @ SURFACE ' by calc

Subsequent Workover or Reconditioning:

11-35 ACDZ 3860-3880 w/2000 gal 5 15% ACD8-36 ACDZ w/2000 gal 5 ACDPresent Inj. ☐ bwpd @ psi Date
Present Prod. ☐ bopd bwpd Date
CAS MCF PD

Remarks Or Additional Data:

7 " OD # Thd
Gr. Csg
set @ 3762 ' w/ 420 sx
Cmt Circulated?
TOC @ 601 ' by calcEUNICE
MONUMENTPBD
TD 3880

LEASE & WELL NO. E. C. ADKINS #10 FIELD/POOL EUNICE MONUMENT DATE 2-6-84

LOCATION 198 FEET FROM NORTH LINE AND 660 FEET FROM EAST LINE

SECTION UNIT H, SEC. 9, T21S, R36E COUNTY LEA OPERATOR ARCO

Date Completed 10-22-57

Initial Formation GRAYBURG

From: 3838 to 3870 GOR -

Initial: Production ☒ 16 bopd 80 bwpd

Or: Injection ☐ bwpd @ - psi

Completion Data:

10-57 PERF 3838-44' + 3853-70' w/4 JAPF
FRAC w/20000 GALS + 20,000 # SAND IN 2 stages

GE _____
KDB to GE _____
DF to GE _____

8 1/2 " OD Surface Pipe
set @ 3516 w/ 250 sx
Cmt. Circulated? yes

Subsequent Workover or Reconditioning:

Present Inj. ☐ bwpd @ _____ psi Date _____
Present Prod. ☐ bopd _____ bwpd Date _____
GAS _____ MCFPD _____

Remarks Or Additional Data:

3838-44'
3853-70'
EUNICE
MONUMENT
w/4 JAPF

PBD 3895'

PBD 3895
TD 3900

5 1/2 " OD _____ # _____ Thd _____
Gr. _____ Csg. _____
set @ 3900 w/ 200 sx
Cmt Circulated? _____
TOC @ 890 by TS

WELL DATA SHEET

EASE & WELL NO. E.C. ADKINS #5 FIELD/POOL EUMONT DATE 2-6-84
 LOCATION 11650 FEET FROM NORTH LINE AND 990 FEET FROM EAST LINE
 SECTION UNIT 4, SEC 9, T21S, R36E COUNTY LEA OPERATOR ARCO

Date Completed 3-14-84
 Initial Formation GRAY/BURG
 From: 3787 to 3837 GOR -
 Initial: Production PF 720 bopd - bwpd -
 Or: Injection □ bwpd @ - psi
 Completion Data:
3-3/4 NATURAL COMPLETION

GE -
 KDB to GE -
 DF to GE -

15 1/2" OD Surface Pipe
 set @ 221 w/ 200 sx
 Cmt. Circulated? Yes-CMC

Subsequent Workover or Reconditioning:

6 5/8 PB TO 3670' Port 3368-3620' Adz
W/1000 GAS MA

10" OD - Thd
 Cr. - Csg
 set @ 1482 w/ 500 sx
 Cmt Circulated? Yes
 TOC @ SURFACE By CMC

3368-3620' EUMONT

Present Inj. □ bwpd @ - psi Date -
 Present Prod. □ bopd - bwpd Date -
 GAS - MCFPD -

Remarks Or Additional Data:

JUNK IN HOLE @ 3735 to 3675' (CABLE TOOLS)

6 7/8" OD - Thd
 Cr. - Csg
 set @ 3787 w/ 325 sx
 Cmt Circulated? -
 TOC @ 1861 by CMC

EUNICE
 MONUMENT

PBD 3670'
 TD 3895

CHEVRON U.S.A. INC.
Meyer B-4 No. 23
(Future EMSU SWD No.1)
Proposed Disposal Operations

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

Average Rate: 3000 BBLS water per day
Maximum Rate: 6000 BBLS water per day

2. System Description: The system is a closed system utilizing common oilfield storage tanks and transfer pumps.

3. Proposed average and maximum injection pressure:

Average Surface Pressure: 0 psi
Maximum Surface Pressure: 800 psi

4. Source of Disposal Water:

The Chevron-operated Eunice Monument South Unit which produces from the Grayburg and lower Penrose formations. Also filter-backwash water from the EMSU which will be a combination of produced water mentioned above and San Andres water.

5. An analyses of the San Andres water and produced waters are attached, along with compatibility tests.



ATTACHMENT NO. 8

Home Office 707 N. Leech, P.O. Box 1499 / Hobbs, NM 88240 / Ph. 505/393-7751, TWX 910/986-0010

October 20, 1986

Mr. Elvin Allen
Chevron U.S.A.
P. O. Box 670
Hobbs, New Mexico 88240

SUBJECT: CHEMICAL PROGRAM FOR EMSU WATERFLOOD

Dear Elvin:

We would like to submit this recommendation to treat water on the above listed lease. We analyzed water from WSU #457. At your request, we made mixtures with produced water in an effort to predict compatibility at varying ratios. We used water from O. L. Coleman A#1 as a typical producing well. Attached are the results of these tests.

The primary problem to be encountered in mixing these waters is the increased barium sulfate potential. This insoluble scale is very prevalent in all fluids and the history of producing wells show damage if left untreated. Your current program of squeezing producing wells will provide measurable amounts of phosphate residual in the co-mingled produced waters. To insure complete protection, we would like to recommend treating at each water supply well with Techni-Hib 798. This complex organic phosphate ester has been formulated to prevent the deposition of barium sulfate throughout a waterflood system. We recommend injecting Techni-Hib 798 at each supply well at an initial rate of 24 ppm based on daily water supplied. We will monitor phosphate residuals through the system and regulate the pump rates in an effort to maintain a concentrate minimum of 12 ppm at the injection wells. Because of the volume of supply water, this will be done twice a week in our effort to optimize your chemical expense. Phosphate residuals and barium concentrations will be monitored in our lab using the Atomic Absorption Unit. This device is the most accurate method of determining barium concentrate in water. We also utilize the Atomic Absorption Unit to determine composition of scale.

Another part of our monitoring the system will be millipore filter analysis and oil counts at all points through the system. This will help determine the effectiveness of the mechanical filters and aid in establishing oil recovery from supply water. During start up of this system, we will conduct these tests two times per week or as necessary.

Chevron, U.S.A.
Page 2
October 20, 1986



Your material composition combined with coating will reduce corrosion to a minimum. These considerations were employed from the metal selection in the water supply well pump and through the total injection. An area of concern is the casing in the supply wells. To combat any potential damage, we recommend injecting Techni-Hib 368 water soluble corrosion inhibitor at a rate of 15 ppm down the annulus of each supply well. This unique blend of materials has been formulated to provide excellent protection in water systems containing large concentrations of both CO_2 and H_2S . Monitoring the effectiveness of this treatment will be done by running manganese present in fluids from each well. This element is alloyed with steel and has proven to be a more reliable method of determining protection than iron counts. This is especially true in water containing natural iron. Manganese determination is also run on our AA Unit.

Elvin, as stated, our total facilities are available to Chevron to ensure complete protection of this system. We will monitor all programs and build a library of information to be used for future reference. We appreciate this opportunity to be of service and will initiate treatment upon your approval.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Skeet', with a stylized flourish at the end.

M. L. 'Skeet' Raybon
New Mexico Area Manager

SR:gh

cc: Fred Ortiz
Clint Morrill
David Tuk

CHEVRON U.S.A.

EUNICE MONUMENT SOUTH UNIT

WATER TREATMENT



UNICHEM INTERNATIONAL

707 NORTH LEECH

P.O. BOX 1499

HOBBS, NEW MEXICO 88240

COMPANY : CHEVRON COMPANY USA

DATE : 10/18/85

FIELD, LEASE & WELL : EMSU WELL #457 WATER SOURCE WELL

SAMPLING POINT: WELLHEAD

DATE SAMPLED : 10/15/85

SPECIFIC GRAVITY = 1.013

TOTAL DISSOLVED SOLIDS = 20662

PH = 5.98

		ME/L	MG/L
CATIONS			
CALCIUM	(CA)+2	84	1683.
MAGNESIUM	(MG)+2	72	875.
SODIUM	(NA), CALC.	195.	4498.

ANIONS			
BICARBONATE	(HCO3)-1	13.2	805.
CARBONATE	(CO3)-2	0	0
HYDROXIDE	(OH)-1	0	0
SULFATE	(SO4)-2	62.4	3000
CHLORIDES	(CL)-1	276	9800

DISSOLVED GASES		
CARBON DIOXIDE	(CO2)	NOT RUN
HYDROGEN SULFIDE	(H2S)	NOT RUN
OXYGEN	(O2)	NOT RUN

IRON(TOTAL)	(FE)	1.9
BARIUM	(BA)+2	.2
MANGANESE	(MN)	NOT RUN

IONIC STRENGTH (MOLAL) = .465

SCALING INDEX

TEMP

30C

86F

-.35

CARBONATE INDEX

CALCIUM CARBONATE SCALING

UNLIKELY

CALCIUM SULFATE INDEX

CALCIUM SULFATE SCALING

10.7

LIKELY

UNICHEM INTERNATIONAL

707 NORTH LEECH

P.O. BOX 1499

HOBBS, NEW MEXICO 88240

COMPANY : GULF OIL COMPANY

DATE : 02/28/85

FIELD, LEASEWELL : O.L. COLEMAN A WELL #1-368

SAMPLING POINT:

DATE SAMPLED : 02/21/85

SPECIFIC GRAVITY = 1.004

TOTAL DISSOLVED SOLIDS = 8673

PH = 6.75

		ME/L	MG/L
CATIONS			
CALCIUM	(CA)+2	19.2	384.
MAGNESIUM	(MG)+2	17.6	239.
SODIUM EC.	(NA), CALC.	99.9	2297.

		ME/L	MG/L
ANIONS			
BICARBONATE	(HCO3)-1	30.8	1879.
CARBONATE	(CO3)-2	0	0
HYDROXIDE	(OH)-1	0	0
SULFATE	(SO4)-2	.95	45.5
CHLORIDES	(CL)-1	107	3800

		ME/L	MG/L
DISSOLVED GASES			
CARBONDIOXIDE	(CO2)	4.0	179.
HYDROGEN SULFIDE	(H2S)	22	374.
OXYGEN	(O2)	NOT RUN	

		ME/L	MG/L
IRON(TOTAL)	(FE)		.3
BARIUM	(BA)+2	.39	26.5
MANGANESE	(MN)	NOT RUN	

IONIC STRENGTH (MOLAL) = .16

SCALING INDEX	TEMP
	30C
	86F
CARBONATE INDEX	.569
CALCIUM CARBONATE SCALING	LIKELY
CALCIUM SULFATE INDEX	-23.
CALCIUM SULFATE SCALING	UNLIKELY

UNICHEM INTERNATIONAL

707 NORTH LEECH

P.O. BOX 1499

HOBBS, NEW MEXICO 88240

COMPANY : CHEVRON COMPANY USA

DATE : 10/18/85

FIELD, LEASE & WELL : EMSU WSW #457 90%/OL COLEMAN A #1-368 10%

SAMPLING POINT:

DATE SAMPLED : 10/15/85 & 02/21/85

SPECIFIC GRAVITY = 1.013

TOTAL DISSOLVED SOLIDS = 19464

PH = 6.05700001

		ME/L	MG/L
CATIONS			
CALCIUM	(CA)+2	77.5	1553.
MAGNESIUM	(MG)+2	66.7	814.
SODIUM	(NA), CALC.	185.	4275.
ANIONS			
BICARBONATE	(HCO3)-1	14.9	912.
CARBONATE	(CO3)-2	0	0
HYDROXIDE	(OH)-1	0	0
SULFATE	(SO4)-2	56.3	2704.
CHLORIDES	(CL)-1	259	9200
DISSOLVED GASES			
CARBON DIOXIDE	(CO2)	.40	17.9
HYDROGEN SULFIDE	(H2S)	2.2	37.4
OXYGEN	(O2)	NOT RUN	
IRON(TOTAL)	(FE)		1.7
BARIUM	(BA)+2	.03	2.8
MANGANESE	(MN)	NOT RUN	

IONIC STRENGTH (MOLAL) = .434

SCALING INDEX

TEMP

30C

86F

-.23

UNLIKELY

CARBONATE INDEX

CALCIUM CARBONATE SCALING

CALCIUM SULFATE INDEX

6.22

CALCIUM SULFATE SCALING

LIKELY

UNICHEM INTERNATIONAL

707 NORTH LEECH

P.O. BOX 1499

HOBBS, NEW MEXICO 88240

COMPANY : CHEVRON COMPANY USA

DATE : 10/18/85

FIELD, LEASE & WELL : EMSU WSW #457 10%/OL COLEMAN A #1-368 90%

SAMPLING POINT:

DATE SAMPLED : 10/15/85 & 02/21/85

SPECIFIC GRAVITY = 1.006

TOTAL DISSOLVED SOLIDS = 9874

PH = 6.673

		ME/L	MG/L
CATIONS			
CALCIUM	(CA)+2	25.6	514.
MAGNESIUM	(MG)+2	24.8	303.
SODIUM	(NA), CALC.	109.	2520.
ANIONS			
BICARBONATE	(HCO3)-1	29.0	1771.
CARBONATE	(CO3)-2	0	0
HYDROXIDE	(OH)-1	0	0
SULFATE	(SO4)-2	7.1	340.
FLORIDES	(CL)-1	124	4400
DISSOLVED GASES			
CARBON DIOXIDE	(CO2)	3.6	161.
HYDROGEN SULFIDE	(H2S)	19.8	337.
OXYGEN	(O2)	NOT RUN	
IRON(TOTAL)	(FE)		.91
BARIUM	(BA)+2	.35	23.8
MANGANESE	(MN)	NOT RUN	

IONIC STRENGTH (MOLAL) = .19

SCALING INDEX

TEMP

30C

86F

.505

CARBONATE INDEX

CALCIUM CARBONATE SCALING

LIKELY

CALCIUM SULFATE INDEX

CALCIUM SULFATE SCALING

-25.

UNLIKELY

UNICHEM INTERNATIONAL

707 NORTH LEECH

P.O.BOX 1499

HOBBS, NEW MEXICO 88240

COMPANY : CHEVRON COMPANY USA

DATE : 10/24/85

FIELD, LEASE & WELL : EMSU WSW #457 50%/OL COLEMAN A #1-368 50%

SAMPLING POINT:

DATE SAMPLED : 10/15/85 & 02/21/85

SPECIFIC GRAVITY = 1.009

TOTAL DISSOLVED SOLIDS = 14680

PH = 6.365

		ME/L	MG/L
CATIONS			
CALCIUM	(CA)+2	51.6	1034.
MAGNESIUM	(MG)+2	45.8	558.
SODIUM	(NA), CALC.	148.	3409.
ANIONS			
BICARBONATE	(HCO3)-1	22	1342.
CARBONATE	(CO3)-2	0	0
HYDROXIDE	(OH)-1	0	0
SULFATE	(SO4)-2	31.7	1522.
CHLORIDES	(CL)-1	192	6800
DISSOLVED GASES			
CARBON DIOXIDE	(CO2)	2.0	89.9
HYDROGEN SULFIDE	(H2S)	11	187.
OXYGEN	(O2)	NOT RUN	
IRON(TOTAL)	(FE)		1.3
BARIUM	(BA)+2	.19	13.3
MANGANESE	(MN)	NOT RUN	

IONIC STRENGTH (MOLAL) = .313

SCALING INDEX

TEMP

30C

86F

CARBONATE INDEX

.173

CALCIUM CARBONATE SCALING

LIKELY

CALCIUM SULFATE INDEX

-10.

CALCIUM SULFATE SCALING

UNLIKELY

Geological Data
Disposal Zone
Chevron's
Meyer "B-4" #23
(Future EMSU SWD No.1)

San Andres 4153'-5283' (1130')

The top of the San Andres is capped with 250' of tight dolomite, siltstone, and shale. Below this is 600-800 feet of porous San Andres dolomite with porosities ranging from 5-20%, with scattered fractured intervals. This is underlain by 400-500 feet of tight (0-4%) dolomite and siltstone which make up the base of the San Andres.

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

CHEVRON U.S.A. INC.
Meyer B-4 No. 23
(Future EMSU SWD No.1)
Proposed Stimulation Program

A cast-iron bridge plug will be set above the Blinbry perforations at a depth of 5500'. A 35' cement cap will be placed on top of the bridge plug. The San Andres will be perforated from 4410' to 4834' and acidized with 15,000 gallons of 15% NeFe HCL.

ATTACHMENT NO. 12

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 Engineer's Office)
- Sample No. 5 -Unit D Section 10, T-21-S, R-36-E
Vanoye Water Well
Triassic Chinle Formation

P O BOX 1468
MONAHANS TEXAS 79756
PH 843-3234 OR 983-1040

Martin Water Laboratories, Inc.

708 W INDIANA
MIDLAND TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

TO: Mr. Stan Chapman LABORATORY NO. 284225
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). ← Within 3/4 mile of subject well, Meyer B-4 #23.
NO. 3 Fresh water (sample #3).
NO. 4 Sample Nos. 1-3

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.

UNICHEM INTERNATIONAL

601 NORTH LEECH

P. O. BOX 1499

HOBBS, NEW MEXICO 88240

COMPANY GULF OIL
DATE 9-28-84
FIELD LEASE & WELL SECTION 17-T215-R36E, UNIT O
SAMPLING POINT: WELLHEAD-FRESH WATER SAMPLE
DATE SAMPLED 9-27-84

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

Sample No. 4

		ME/L	MG/L
CATIONS			
CALCIUM	(CA)+2	4.4	
MAGNESIUM	(MG)+2	3.8	88.1
SODIUM	(NA)+CALC	7.2	46.1
			167.
ANIONS			
BICARBONATE	(HCO3)-1	4.6	
CARBONATE	(CO3)-2	0	280
HYDROXIDE	(OH)-1	0	0
SULFATE	(SO4)-2	5.8	0
CHLORIDES	(CL)-1	5	282.
			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) = 0.23

UNICHEM INTERNATIONAL

707 NORTH LEECH

P.O.BOX 1499

HOBBS, NEW MEXICO 88240

COMPANY : CHEVRON COMPANY U.S.A.

DATE : 1-13-87

FIELD, LEASE & WELL : EUNICE MONUMENT SOUTH UNIT

SAMPLING POINT: VANOYE WATER WELL

DATE SAMPLED : 1-13-87

SPECIFIC GRAVITY = 1

TOTAL DISSOLVED SOLIDS = 953

PH = 7.98

Sample No. 5

		ME/L	MG/L
CATIONS			
CALCIUM	(CA)+2	.64	12.8
MAGNESIUM	(MG)+2	.96	11.6
SODIUM	(NA), CALC.	11.1	256.
ANIONS			
BICARBONATE	(HCO3)-1	6.8	414.
CARBONATE	(CO3)-2	0	0
HYDROXIDE	(OH)-1	0	0
SULFATE	(SO4)-2	2.9	142
CHLORIDES	(CL)-1	3	116
DISSOLVED GASES			
CARBON DIOXIDE	(CO2)	NOT RUN	
HYDROGEN SULFIDE	(H2S)	NOT RUN	
OXYGEN	(O2)	NOT RUN	
IRON(TOTAL)	(FE)		4.4
BARIUM	(BA)+2	NOT RUN	
MANGANESE	(MN)	NOT RUN	

IONIC STRENGTH (MOLAL) = .015

SCALING INDEX	TEMP
	30C
	86F
CARBONATE INDEX	1.72
CALCIUM CARBONATE SCALING	LIKELY
CALCIUM SULFATE INDEX	-18.
CALCIUM SULFATE SCALING	UNLIKELY

ATTACHMENT NO. 13

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.

Chevron U.S.A. Inc.
Meyer B-4 Lease
Offset Operators List

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

Arco Oil and Gas Company
P.O. Box 1610
Midland, Texas 79702

Sun Exploration and Production
P.O. Box 1861
Midland, Texas 79702

Exxon U.S.A. Inc.
P.O. Box 1700
Midland, Texas 79702