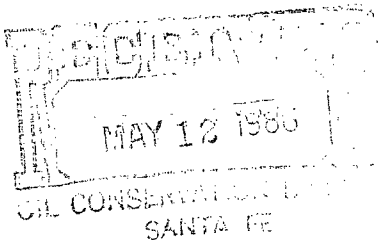
**Chevron** U.S.A. Inc.
P. O. Box 670, Hobbs, NM 88240

**Production Department**
Hobbs Division

May 6, 1986




APPLICATION TO DOWNHOLE COMMINGLE CHEVRON'S W. M. RINEWALT WELL NO. 2 LOCATED IN UNIT E, SECTION 4-T22S-R37E, LEA COUNTY, NEW MEXICO

Richard L. Stamets
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Gentlemen:

Pursuant to the provision of Statewide Rule 303-C, Chevron U.S.A. Inc. respectfully requests administrative approval to commingle production from the Blinebry and Drinkard pools within the subject wellbore. The W. M. Rinewalt Well No. 2 was drilled and completed in 1947 as an Ellenburger producer. The well has since been recompleted in the Wantz Abo, Penrose Skelly, Drinkard and Blinebry. From 1973 to 1984 the well produced from the Drinkard as a flowing gas well. In 1984 the well became a marginal producer and required considerable swabbing to unload the fluid and maintain production. The well ceased producing in late 1985.

The Blinebry horizon was perforated in 1966 and closed in later the same year as an uneconomical producer. The Blinebry perfs have remained isolated in the casing while the Drinkard flowed from beneath a packer.

Under the lease agreement, we had until April 18, 1986 to restore production from the subject well. The well could not be produced without pumping equipment, therefore we requested permission from J. T. Sexton, District 1 Supervisor-OCD, to downhole commingle the two zones while we were working on the well. By doing so we eliminated unnecessary expense.

In the interest of conservation and prevention of waste, we request administrative approval for the downhole commingling of the Blinebry and Drinkard pools within the subject wellbore. Enclosed is pertinent data supporting this application as outlined in Rule No. 303-C. If additional information is necessary, please contact Mike Casey at (505)-393-4121.

Yours very truly,

R. C. Anderson

R. C. ANDERSON

MWC/jc

Attachments

cc: J. T. Sexton
District I Supervisor
Oil Conservation Division
P.O. Box 1980
Hobbs, N.M. 88240

Offset Operators - (List Attached)

T. M. Mighton - Hobbs
M. J. Costello - Houston
D. K. Owen - Hobbs

OFFSET OPERATORS

Texaco Inc.
P.O. Box 728
Hobbs, N.M. 88240

Sohio Petroleum Co.
10 Desta Drive, Ste. 600 W.
Midland, Tx. 79705

Wiser Oil Co.
310 W. Texas, Ste. 904
Midland, Tx. 79701

Shell Oil Co.
P.O. Box 2463
Houston, Tx. 77001

1. Operator: Chevron U.S.A. Inc., P.O. Box 670, Hobbs, N.M. 88240

2. Lease, Well and Location: W. M. Rinewalt Well No. 2, 1874' FNL and 750' FWL of Section 4-T22S-R37E, Lea County, N.M.

3. Producing Zones: Blinebry and Drinkard

4. Decline Curve: The Drinkard is expected to IP at 7 BOPD and 150 MCFGPD and decline at 26% per year. The Blinebry is expected to IP at 2 BOPD and 7 MCFGPD and decline at 14% per year.

Pressure should be okay at a common datum

5. Bottom Hole Pressure: Blinebry calculated BHP of 566 psi at a depth of 5806'. The Drinkard BHP measured 277 psi at a depth of 6300'.

6. Fluid Characteristics: The BLinebry and Drinkard are currently surface commingled at the battery under Commingling Order PC-518. To date there has been no evidence of fluid incompatibility.

7. Well History: The subject well was drilled and completed in 1947 in the Ellenburger at a total depth of 8136'. Thirteen and three-eights inch surface casing was set at 308' and cement was circulated to the surface. Nine and five-eights inch casing was set at 2975' and cemented with 1300 sacks, TOC at 533' by T. S. Seven inch production casing set at 7980' and cemented with 900 sacks, TOC at 3245' by T. S. The well was openhole completed in the Ellenburger.

   10/56: Stimulated with 5000 gal 15% NEFE Acid.

   11/56: Plug back with hydromite to 8030'.

   12/56: Squeeze open hole with cement, plug back to 7900'. Perforate 7592'-7890'. Frac with 5000 gal oil and 5000 lb. sand.

   6/60: Set CIBP @ 7568' w/25 sxs cmt on top. Perforate Wantz Abo from 7132'-7245', acidize and frac with 9000 gal 15% acid and 20,000 gal oil with 18,000 lb. sand.

   10/60: Set CIBP @ 7050' w/25 sxs cmt on top. Perforate Penrose Skelly from 3674'-3734', FRAC with 16,000 gal. oil w/48,000 lb. sand.

   2/66: Squeeze Penrose Skelly perfs and Perforate Blinebry from 5746'-5867', frac with 20,000 gal water w/17,250 lb. sand.

   7/66: Closed well in, uneconomical to produce.

   12/73: Perforated Drinkard from 6376'-6606', frac with 27,000 gal. gel water w/40,000 lb. sand.

4/86: Received temporary permission to downhole commingle the Blinebry and Drinkard from the Oil Conservation District I Supervisor, Jerry Sexton, (Letter Attached). Equipped well to pump.

8. Value of Commingled Fluids: The Blinebry and Drinkard are being commingled at the surface on the subject lease as authorized by Division Order PC-518. Therefore, downhole commingling will not effect the price.

9. Current Production: The downhole commingled Blinebry and Drinkard tested for 9 BOPD, 39 BWPD and 157 MCFGPD.

10. Recommended Oil and Gas Allotments:

| Blinebry | Drinkard |
|---|---|
| 22% Oil | 78% Oil |
| 4% Gas | 96% Gas |

11. Ownership and Royalty Interests: Ownership of the two pools to be commingled is common and correlative rights will not be violated.

12. Future Secondary Operations: Commingling will not jeopardize the efficiency of future secondary recovery operations in either zone.

13. Production Methods: The commingled production will be pumped and the fluid level monitored to maintain a pumped off condition and eliminate the possibility of cross flow between reservoirs.

14. Copies if this application have been furnished to all offset operators by certified mail.


CHEVRON U.S.A. INC.
LEASE PLAT
W. M. RINEWALT WELL NO. 2
LOCATED: UNIT E, S4-T22S-R37E, LEA CTY, NM
5/6/86
MWC

# OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Form C-102
Revised 10-1-78

All distances must be from the outer boundaries of the Section.

| Operator | Lease | Well No. |
|---|---|---|
| Chevron U.S.A. Inc. | W. M. Rinewalt | 2 |

| Unit Letter | Section | Township | Range | County |
|---|---|---|---|---|
| E | 4 | 22S | 37E | Lea |

Actual Footage Location of Well:
1874 feet from the North line and 750 feet from the West line

| Ground Level Elev. | Producing Formation | Pool | Dedicated Acreage: |
|---|---|---|---|
| 3456' | Blinebry/Drinkard | Blinebry/Drinkard (CDH) | 40 Acres |

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

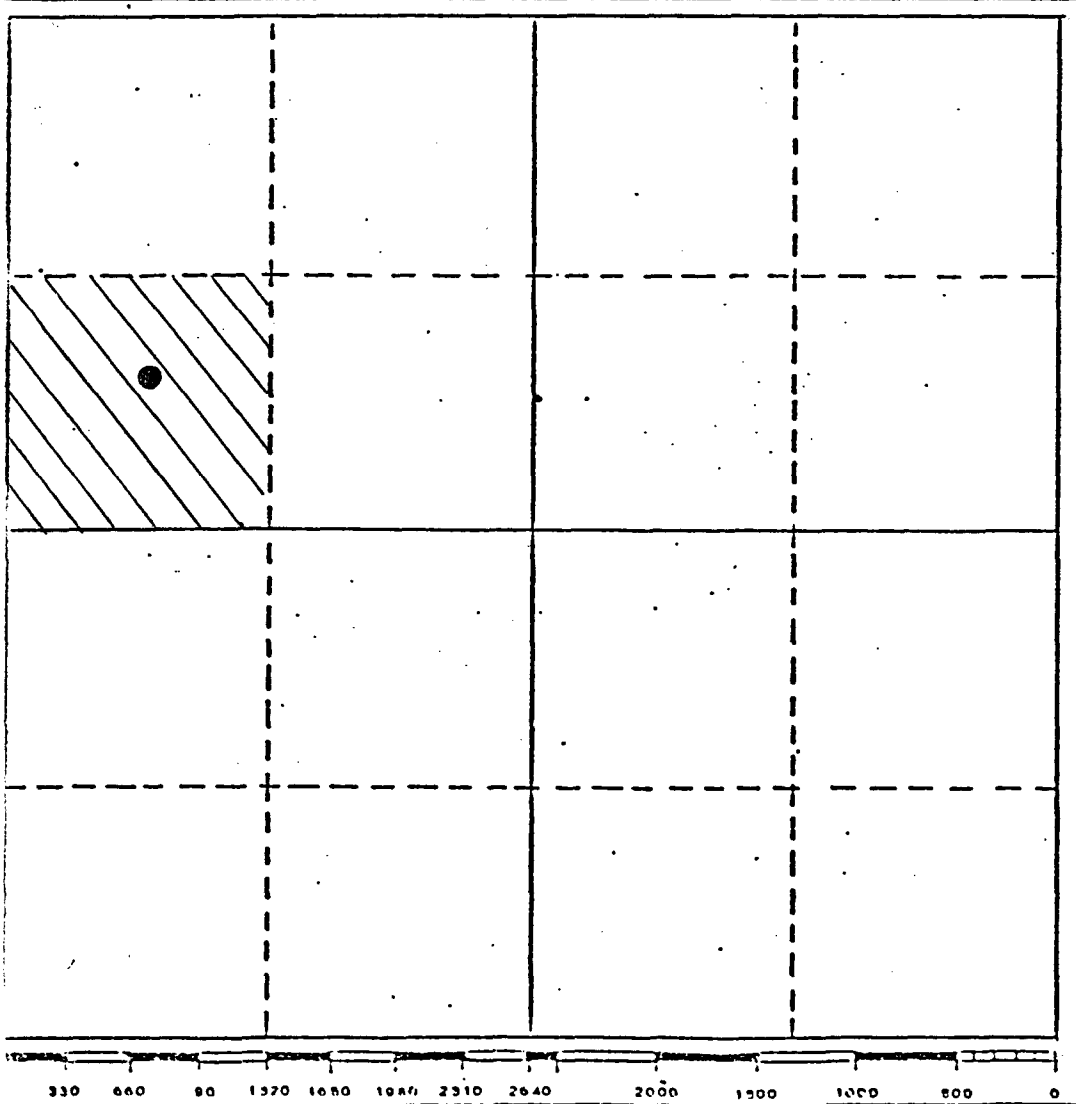
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling. etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

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

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




**CERTIFICATION**

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

Name: M W Casey

Position: Division Proration Engineer

Company: Chevron U.S.A. Inc.

Date: May 6, 1986

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

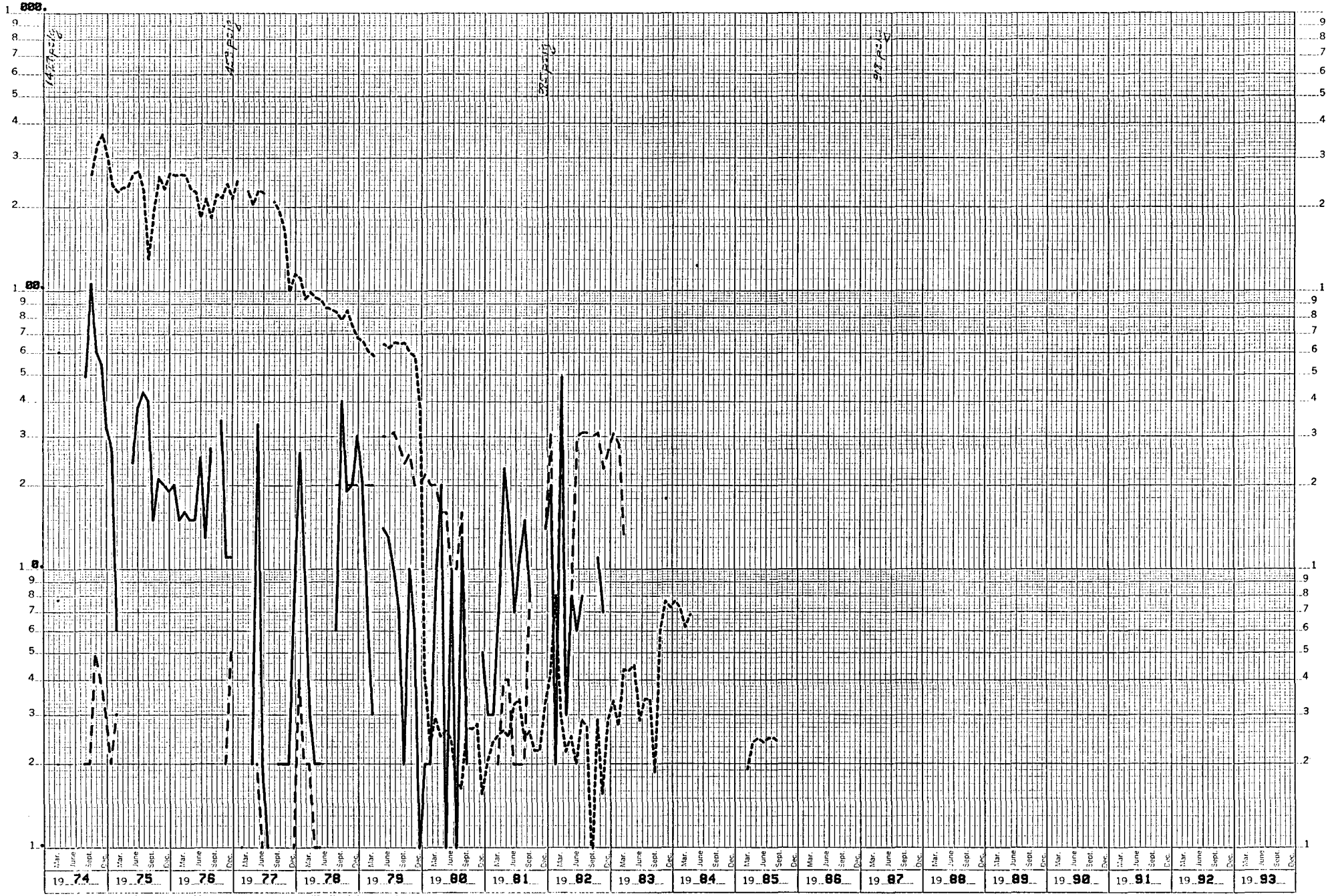
Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.

# DRINKARD

# W. M. RINEWALT #2



Chevron

**CALCULATION SHEET**
**Chevron** U.S.A. Inc.

Date: 5/2/86
Prepared by: MWC
Page No.: of

Title: W.M. RINEWALT WELL NO. 2 - Downhole Commingle
Location:
Department:
Project Number:

## Blinebry BHP Calculation

$$P_{Res} = P_{BHP\ Static} = P_{CSG.\ Press.} + P_{GAS\ Col.} + P_{Oil\ \&\ Wtr\ Column}$$

(1) (2) (3)

(1) $P_{CSG} = 522$ psi (measured)

(2) $P_{GAS\ Col.}$ = Gas Gradient (psi/ft) × Depth (ft)

Gas Gradient = 0.0006 psi/ft (estimated)

Depth to top of Fluid = 5704 ft

$P_{GAS} = (0.0006\ psi/ft)(5704\ ft) = 3.42$ PSI

(3) $P_{oil\ \&\ wtr\ Col.}$ = Fluid Gradient (psi/ft) × Column Ht. (ft)

Fluid Gradient = 0.40 psi/ft (estimated)

Col. Ht = Mid Perfs (ft) − Fluid Level (ft)
= 5806 ft − 5704 ft
= 102 ft

$P_{oil\ \&\ wtr\ Col.} = (0.40\ psi/ft)(102\ ft) = 40.8$ PSI

$\therefore P_{Res.} = P_{CSG} + P_{GAS} + P_{oil\ \&\ wtr} = 522\ psi + 3.42\ psi + 40.8\ psi = 566.2$ PSI

$$\boxed{P_{Res} = 566.2\ PSI}$$

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

TONEY ANAYA
GOVERNOR

April 21, 1986

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88240
(505) 393-6161

Chevron USA Inc.
Box 670
Hobbs, New Mexico 88240

Re: Temporary Approval to Downhole Commingle
Blinebry and Drinkard production in your
W. M. Rinewalt #2-E in Sec. 4, T22S, R37E

Gentlemen:

Your April 16th letter requesting temporary approval to downhole commingle Blinebry and Drinkard production in the above-referenced wellbore has been reviewed. We feel your reasons are sound and you are hereby granted approval for 30 days to produce both zones while your application for a DHC is being filed with our Santa Fe office.

Very truly yours,

OIL CONSERVATION DIVISION

Jerry Sexton
Supervisor, District I

ed

JOHN W. WEST ENGINEERING COMPANY
412 NORTH DAL PASO, HOBBS, NEW MEXICO

TELEPHONES 393-3942
393-3117

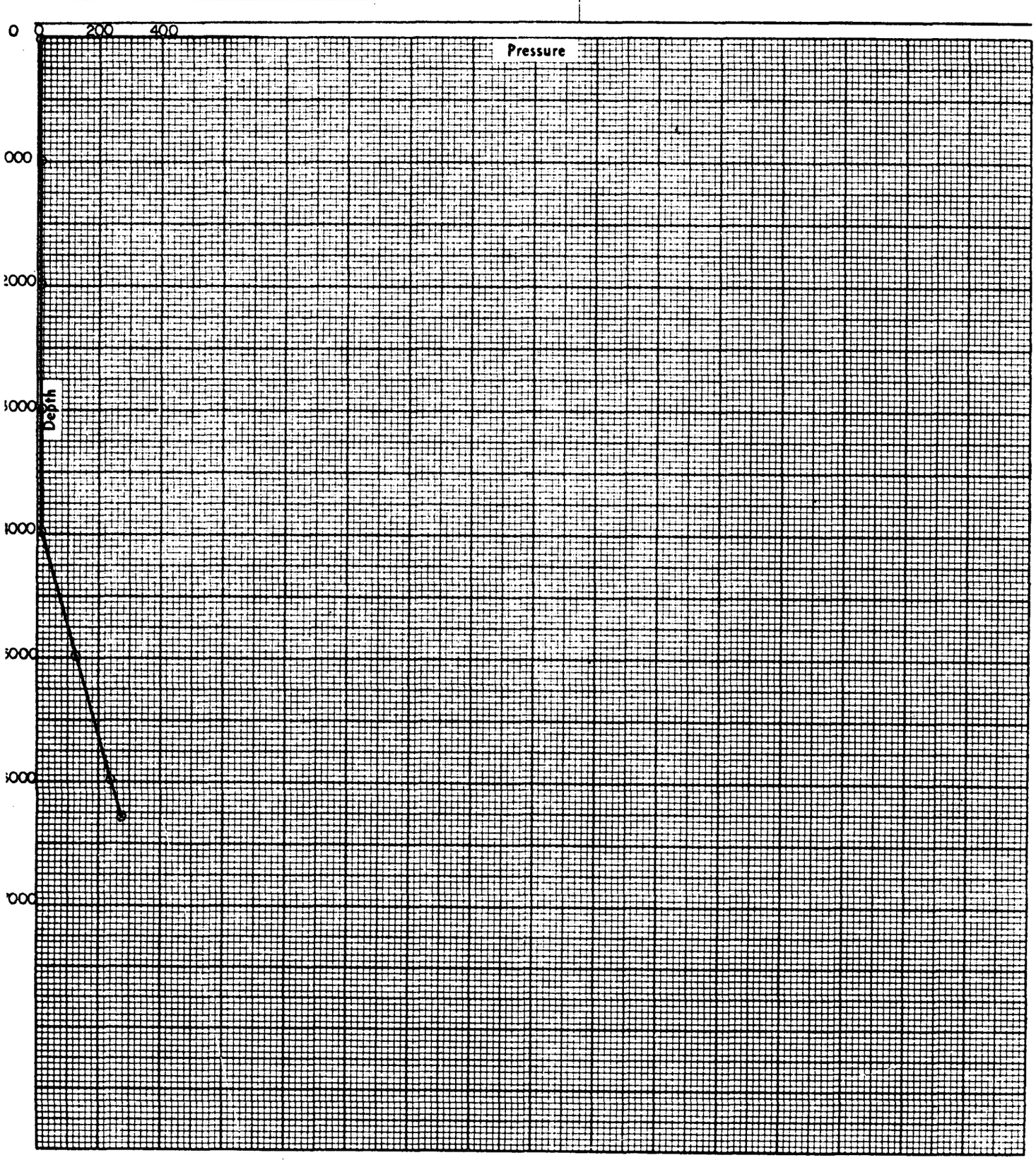
# BOTTOM HOLE PRESSURE SURVEY REPORT

OPERATOR CHEVRON U.S.A., INC.
LEASE RINEWALT
WELL NO. 2
FIELD DRINKARD
DATE 4-9-86 TIME 3:30 P.M.

STATUS Shut-In TEST DEPTH 6300'
TIME S.I. LAST TEST DATE
CAS. PRES. BHP LAST TEST
TUB. PRES. 9 PSI BHP CHANGE
ELEV. FLUID TOP
DATUM WATER TOP
TEMP RUN BY B.T.
CLOCK NO. 24959 GAUGE NO. 16389
ELEMENT NO. 25613 (0-945 PSI)

| DEPTH | PRESSURE | GRADIENT |
|---|---|---|
| 000 | 009 | |
| 1000 | 010 | .001 |
| 2000 | 010 | Neg. |
| 3000 | 012 | .002 |
| 4000 | 013 | .001 |
| 5000 | 122 | .109 |
| 6000 | 240 | .118 |
| 6300 | 277 | .123 |

A 1¼" Sinker Bar was run to 6320'

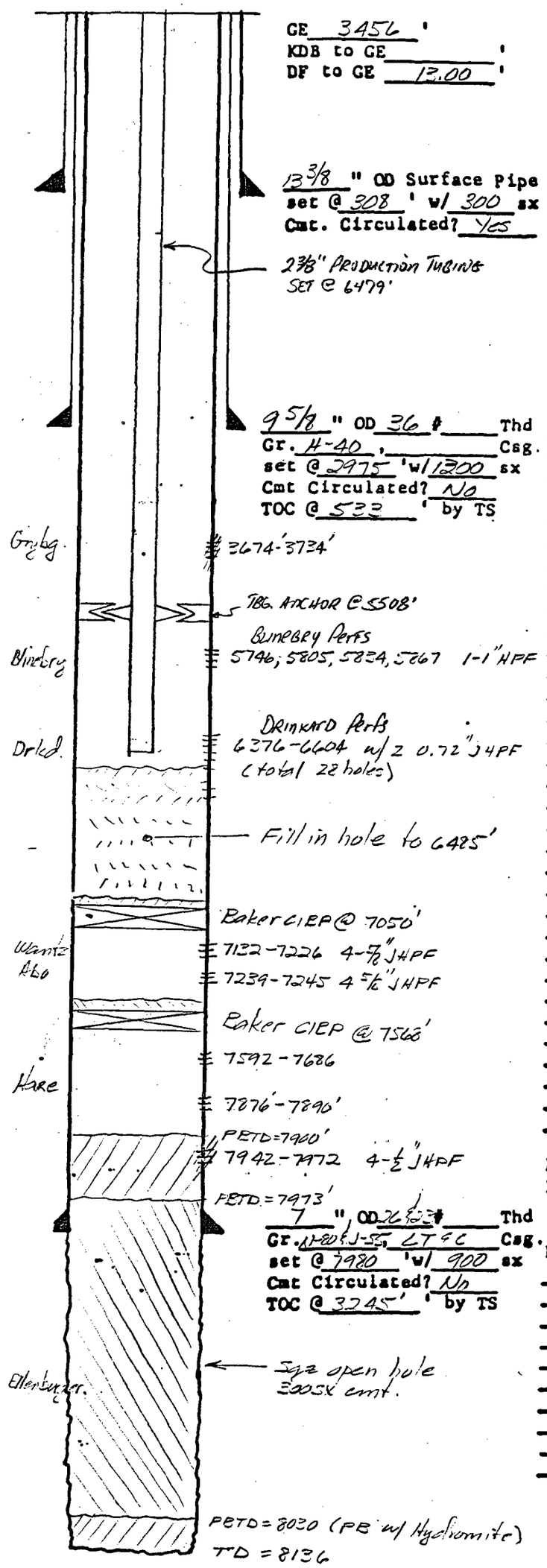


# CURRENT DOWNHOLE COMMINGLED INSTALLATION

LEASE & WELL NO. W.M. Rinewalt #2 FIELD/POOL Blinebry/Drinkard DATE 4-25-86

LOCATION 766 FEET FROM West LINE AND 1874 FEET FROM North LINE

SECTION Section 4 T22S R37E COUNTY Lea STATE NM




GE 3456'
KDB to GE ____'
DF to GE 13.00'

13 3/8" OD Surface Pipe
set @ 308' w/ 300 sx
Cmt. Circulated? Yes

2 3/8" PRODUCTION TUBING SET @ 6479'

9 5/8" OD 36 # ____ Thd
Gr. H-40, ____ Csg.
set @ 2975' w/ 1200 sx
Cmt Circulated? NO
TOC @ 533' by TS

7" OD 26 & 23# ____ Thd
Gr. N-80 & J-55 LT&C Csg.
set @ 7980' w/ 900 sx
Cmt Circulated? No
TOC @ 3245' by TS

Date Completed 9-12-47
Initial Formation Ellenburger
From: 7952' to 8136' COR 1065
Initial: Production ☒ 856 bopd 0 bwpd
Or: Injection ☐ ____ bwpd @ ____ psi
Completion Data:
Natural Completion - no stimulation

**Subsequent Workover or Reconditioning:**

4-51 Install gas lift equipment - Before: 51 Bbls: 271 BO 124 BW
8-52 Install submersible - Before: 51 Bbls: 92 BO 412 BW
6-53 Replaced Rods - Before: 30 BO 97 BW Bbls: 57 BO 446 BW.
7-53 Acidize w/ 2000 gal LTNE - Before 51 BO 254 BW After 59 BO 550 BW.
9-53 Replaced Rods - Before: 19 BO 221 BW After: 71 BO 532 BW.
12-53 Replaced Rods - Before 90 BO 441 BW. After: 91 BO 600 BW.
10-56 Treated 7980-8046 w/ 5000 gal 15% NEFE
11-56 PB w/ Hydromite to 8030'
12-56 PB w/ Cmt to 7973.
12-56 Perf. 7947'-7972' Acidize w/ 4000 gal 15% NEFE Squeeze w/ 100 sx PBTD 7905'
12-56 Perf. 7676'-7686' Frac w/ 5000 gal 25° oil @ 1 lb-PG. Perf 7592-7626 Acidize w/ 500 gal Mud Acid.
6-60 Set CIBP @ 7562' cap w/ 25 sx cmt Perf 7132'-7226' Acidize w/ 11,000 gal 15% NEFE Perf 7239'-7245' Acidize 7132' & 7245' w/ 8000 gal 15% NEFE
7-60 Frac 7132-7245 w/ 20,000 gal ref-oil & 12,000 # sd
10-60 Set CIBP @ 7050 cap w/ 25 sx Cmt Set CIBP @ 3915 cap w/ 25 sx cmt Perf. 3674'-3734' Frac w/ 16000 gal 24 cent. oil @ 2 lb-PG.
2-66 Sqz perfs 3674'-3734'. Perf 5746-5867 Frac w/ 20,000 gal 17,220 # 20-40 sd & 12-20 WCUP glass beads.
11-73 Perf 6376-78, 6452-54, 6480-82, 6572-75, 6596-98 6657-77, 6604-06 Frac w/ 27,000 gal gel w/ 40,000 # 20-40 sd.
4-86 Down Hole Commingled Blinebry/Drinkard: Ran RPD inhi to Pump.

Present Inj. ☐ ____ bwpd @ ____ psi Date ____
Present Prod. ☒ 24 bopd 39 bwpd Date 4-24-86
GAS 120 MCFPD ____

**Remarks Or Additional Data:**

Formation Tops:

| | |
|---|---|
| Anhydrite | 1180 |
| Base salt | 2440 |
| Yates | 2630 |
| San Andres | 3870 |
| Glorieta | 5090 |
| Tubb | 6080 |
| Vivian | 6440-6530 |
| Simpson | 7270 |
| Ellenburger | 7952 |

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

TONEY ANAYA
GOVERNOR

RECEIVED
MAY 15 1986
OIL CONSERVATION DIV.
SANTA FE

May 13, 1986

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88240
(505) 393-5161

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

RE: Proposed:
MC _____
DHC XX
NSL _____
NSP _____
SWD _____
WFX _____
PMX _____

Gentlemen:

I have examined the application for the:

Chevron USA Inc. W. M. Rinewalt #2-E 4-22-37
Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

OK -- Jerry Sexton

Yours very truly,

Jerry Sexton
Supervisor, District 1

/mc