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STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

50 YEARS
1935 - 1985

TONEY ANAYA
GOVERNOR

August 21, 1986

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-5800

Administrative Order No. DHC-625

Chevron USA
P. O. Box 670
Hobbs, New Mexico 88240

Attention: R. C. Anderson

Re: Harry Leonard (NCT-E) No. 3
Unit B, Sec. 16, T-21-S, R-37-E,
NMPM, Lea County, New Mexico
Blinebry Oil & Gas and Drinkard Pools

Gentlemen:

Reference is made to your recent application for an exception to Rule 303-A of the Division Rules and Regulations for the subject dually completed well to permit the removal of the down-hole separation equipment and to commingle the production from both pools in the wellbore.

It appearing that the subject well qualifies for approval for such exception pursuant to the provisions of Rule 303-C, and that reservoir damage or waste will not result from such downhole commingling, and correlative rights will not be violated thereby, you are hereby authorized to commingle the production as described above and any Division Order which authorized the dual completion and required separation of the two zones is hereby placed in abeyance.

In accordance with the provisions of Rule 303.C.4., total commingled oil production from the subject well shall not exceed 40 barrels per day, and total water production from the well shall not exceed 80 barrels per day. The maximum amount of gas which may be produced daily from the well shall be determined by multiplying 4,000 by top unit allowable for the Blinebry Oil & Gas Pool.

Assignment of allowable to the well and allocation of production from the well shall be on the following basis:

Blinebry Pool: Oil 48%, Gas 50%
Drinkard Pool: Oil 52%, Gas 50%

Pursuant to Rule 303-C 5, the commingled authority granted by this order may be rescinded by the Division Director if, in his opinion, conservation is not being best served by such commingling.

Very truly yours,

R. L. STAMETS,
Director

cc: Gas Co. of N.M.
OCD District Office - Hobbs

STATE OF NEW MEXICO

ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

7-25-86

TONEY ANAYA
GOVERNOR

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

DHC-625

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

RE: Proposed:
MC_____
DHC X
NSL_____
NSP_____
SWD_____
WFX_____
PMX_____

Gentlemen:

I have examined the application for the:

Chevron USA Inc Harry Leonard NCT-E H 3-B 16-21-37
Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

OK J S

Yours very truly,

Jerry Sexton
Supervisor, District 1

/mc

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

Production Department
Hobbs Division

July 22, 1986

APPLICATION TO DOWNHOLE
COMMINGLE HARRY LEONARD (NCT-E)
WELL NO. 3 LOCATED IN UNIT B,
SECTION 16-T21S-R37E,
LEA COUNTY, NEW MEXICO

Richard L. Stamets
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87501

Gentlemen:

Pursuant to the provision of Statewide Rule 303-C, Chevron respectfully requests administrative approval to commingle production within the subject wellbore from the Blinebry and Drinkard pools. The Blinebry is producing by means of a plunger lift system which requires considerable attention and maintenance. The Drinkard is flowing and requires frequent swabbing to maintain production. Attempts in the past to pump the Drinkard from below the packer were unsuccessful due to the high producing GOR.

In the interest of conservation and the prevention of waste, we propose to downhole commingle the Blinebry and the Drinkard in the subject well. Enclosed is pertinent data supporting this application as outlined in Rule No. 303-C. If additional information is necessary, please contact Mike Casey at area code 505-393-4121.

Yours very truly,

P. H. Bailey Jr 7-23-86

for R. C. ANDERSON

MWC/jc

Attachments

cc: J. T. Sexton
District 1 Supervisor
Oil Conservation Division
P.O. Box 1980
Hobbs, N.M. 88240

Offset Operators List - List Attached

C. J. Fesmire
T. M. Mighton

Chevron U.S.A. Inc.
Harry Leonard (NCT-E) Well No. 3
Downhole Commingle Application
List of Offset Operators

Amoco
P.O. Box 68
Hobbs, N.M. 88240

Conoco
P.O. Box 460
Hobbs, N.M. 88240

Exxon
P.O. Box 2180
Houston, Tx. 77001

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

Cities Service
P.O. Box 1919
Midland, Tx. 79705

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

Amerada Hess
P.O. Box 840
Seminole, Tx. 79360

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

2. LEASE, WELL, AND LOCATION: Harry Leonard (NCT-E) Well No. 3, 660'FNL and 1980'FEL of Section 16-T21S-R37E, Lea County, N. M.

3. PRODUCING ZONES: Blinebry and Drinkard

4. DECLINE CURVE: The Blinebry is expected to decline at 15% per year after an IP of 10 BOPD and 210 MCFGPD. The Drinkard is expected to decline at 18% per year after an IP of 11 BOPD and 210 MCFGPD.

5. BOTTOM HOLE PRESSURE: Blinebry calculated BHP of 288 psi at a depth of 5888'. Drinkard BHP measured 419 psi at a depth of 6539'.

6. FLUID CHARACTERISTICS: The Blinebry and Drinkard are currently surface commingled at the battery under Commingling Order No. PC-391. To date there has been no evidence of fluid incompatibility.

7. WELL HISTORY: The subject well was drilled in 1948 to a total depth of 6710'. Thirteen and three-eights inch surface casing was set at 304' and cement was circulated to the surface. Nine and five-eights inch casing was set at 2800' and cement was circulated to the surface. Seven inch casing was set at 6649' and cemented with 700 sacks, temperature survey indicated top of cement at 3200'. The well was open hole completed in the Drinkard.

   05/50: Perforated the Drinkard from 6625-6640'

   06/61: Perforated the Blinebry from 5813-5963' and fraced with 1500 gals. 15% NEA w/ 24000 gals. oil and 72000 # sand.

   12/74: Squeezed perfs from 6625-6640' w/ 75 sxs cmt. Perforated 6467-6611' and fraced with 5000 gals 15% NEA, 35000 gals gelled wtr., and 37500 # sand. Treated Blinebry with 4300 gals. 15% NEA.

   07/79: Install pumping equipment on the Blinebry.

   10/85: Install plunger lift on the Blinebry.

8. VALUE OF COMMINGLED FLUIDS: The subject pools are surface commingled, therefore downhole commingling will not effect the price.

9. CURRENT PRODUCTION: The Blinebry last tested on 5-1-86, 8 BOPD, 1 BWPD, AND 164 MCFGPD. The Drinkard last tested on 5-15-86, 3 BOPD, 1 BWPD, AND 154 MCFGPD.

10. RECOMMENDED OIL AND GAS ALLOCATIONS: Based on expected IP's

Blinebry		Drinkard
48%	OIL	52%
50%	GAS	50%

11. OWNERSHIP AND ROYALTY INTERESTS: Ownership of the two pools is common and correlative rights will not be violated.

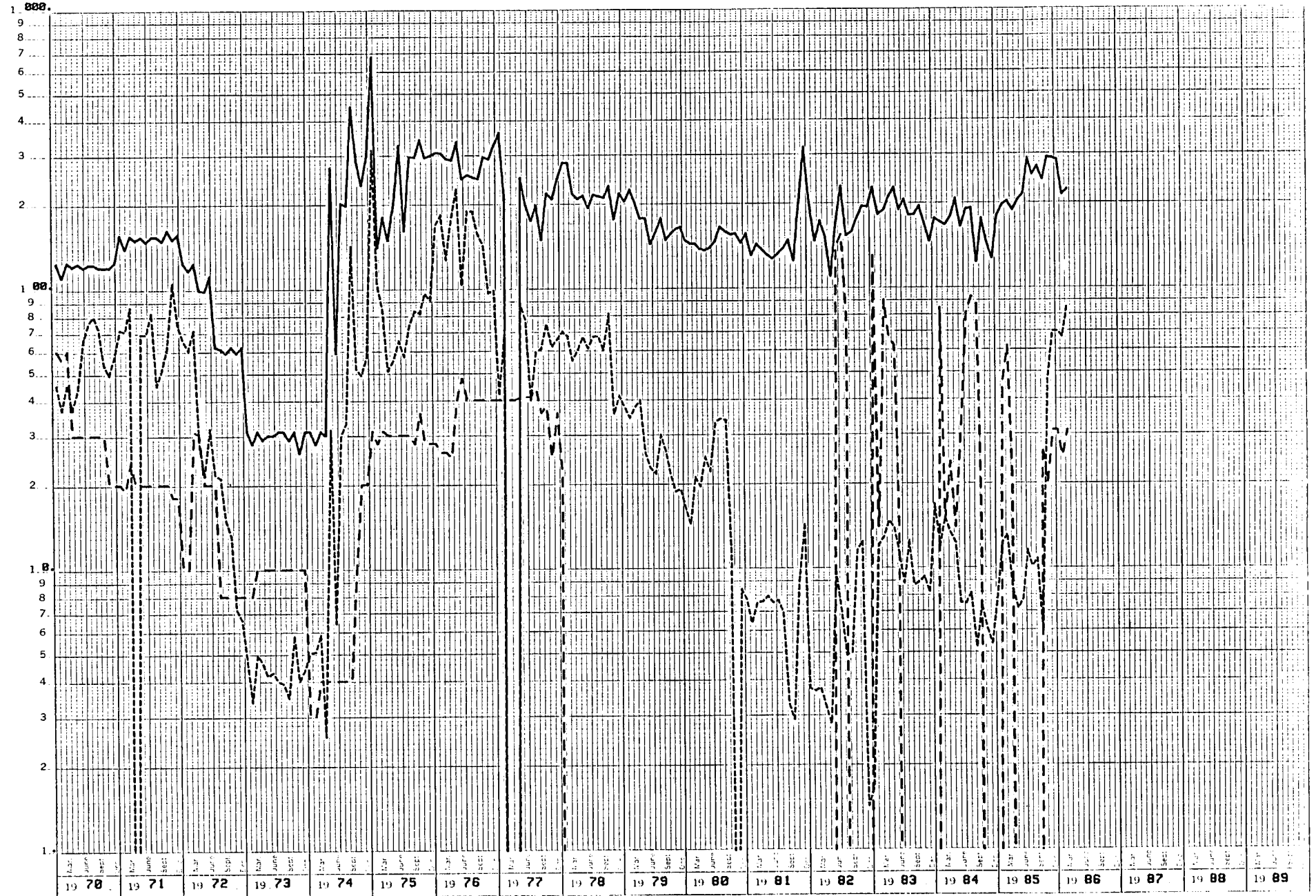
12. FUTURE SECONDARY OPERATIONS: Commingling will not jeopardize the efficiency of future secondary recovery operations in either zone.

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.

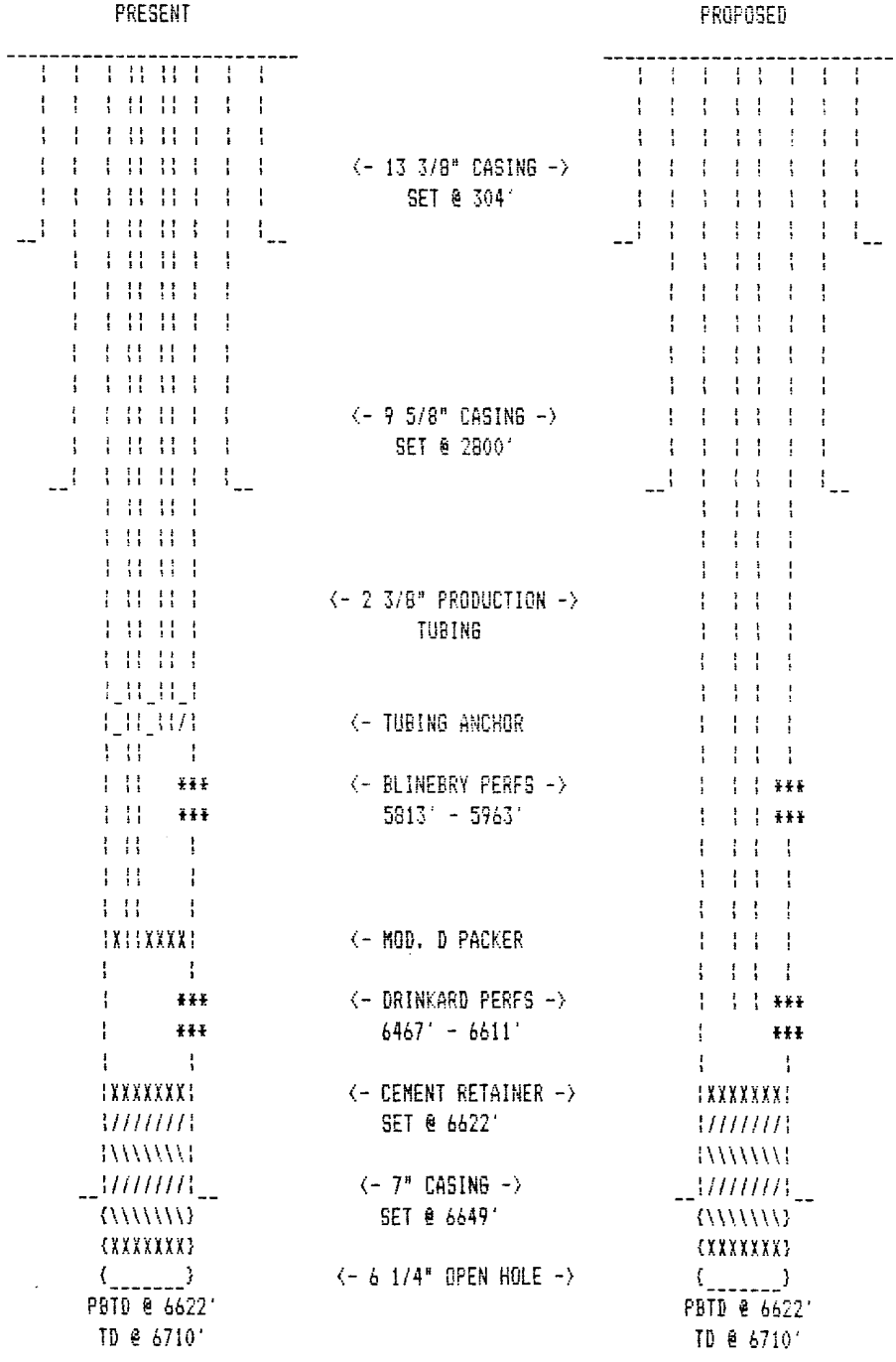
14. Copies of this application have been furnished to all offset operators by certified mail.

HARRY LEONARD (NCT-E) #3

BLINEBRY



CHEVRON U.S.A. INC.
HARRY LEONARD (NCT-E) WELL NO. 3
WELLBORE DIAGRAM



HARRY LEONARD (NCT-E) WELL NO. 3
BLINEBRY BHP CALCULATIONS

P1 = static bottom hole pressure
P2 = casing pressure
P3 = gas column hydrostatic pressure
P4 = oil column hydrostatic pressure

Static fluid level = 5596' from surface

Mid-Perf depth = 5888'

P1 = P2 + P3 + P4

P2 = 178 psi (measured)

P3 = (.0006 psi/ft)*(5596 ft) = 3.4 psi

P4 = (.365 psi/ft)*(5888-5596)ft = 106.5 psi

P1 = 178 psi + 3.4 psi + 106.5 psi = 288 psi

STATIC BOTTOM HOLE PRESSURE AT 5888' = 288 PSI

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 HARRY LEONARD "E" (Drinkard)
WELL NO. 3
FIELD
DATE 4-18-86 TIME 10:15 A.M.

STATUS TEST DEPTH 6539'
TIME S.I. LAST TEST DATE
CAS. PRES. BHP LAST TEST
TUB. PRES. 52 PSI BHP CHANGE
ELEV. FLUID TOP 4650'
DATUM WATER TOP
TEMP RUN BY B.T.
CLOCK NO. 24959 GAUGE NO. 16389
ELEMENT NO. 25549 (0-1500 PSI)

DEPTH	PRESSURE	GRADIENT
000	052	
1000	052	Neg.
2000	052	Neg.
3000	053	.001
4000	055	.002
4500	056	.002
5000	123	.134
5500	228	.205
6000	320	.184
6539	419	.184

a 1¼ inch Sinker Bar was run to 6555' The Sinker Bar was spudded several times and would go no deeper.