

Release Nov 22, 1984

Shell Western E&P Inc.

A Subsidiary of Shell Oil Company

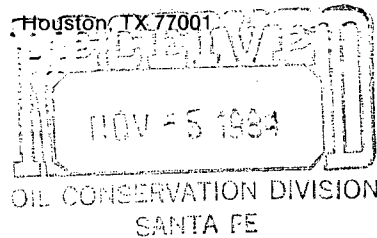


November 2, 1984

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

P.O. Box 991

Houston, TX 77001



Gentlemen:

SUBJECT: APPLICATION TO DOWNHOLE COMMINGLE
SHELL - TURNER NO. 4
660' FSL AND 330' FWL, UNIT LETTER "M"
SECTION 22, T-21-S, R-37-E
DRINKARD AND HARE SIMPSON POOLS
LEA COUNTY, NEW MEXICO

Pursuant to the provisions of Rule 303-C, Shell Western E&P Inc. respectfully requests administrative approval to commingle production within the wellbore from the Drinkard and Hare Simpson Pools in the subject well. Turner No. 4 was drilled as a Hare Simpson producer in 1949 and recompleted to the Drinkard in 1964. With the indicated marginal production, installation of dual equipment cannot be justified. In the interest of conservation and prevention of waste, we now propose to downhole commingle the production from the Hare Simpson and Drinkard Pools in the subject well.

This well qualifies for administrative approval in accordance with Statewide Rule 303-C; and in support thereof, the following facts are submitted:

1. The attached plat indicates the Turner lease.
2. The latest tests are as follows:

 Drinkard: (7-07-84) 5 BO + 0 BW + 256 MCFG

 Hare Simpson: (8-27-84) 21 BO + 12 BW + 46 MCFG
3. Neither zone produces more water than the combined oil limit as determined in Rule 303-C, Section 1, paragraph (1).
4. Shell Western E&P Inc. has commingled these fluids at the surface and has encountered no incompatibility problems; therefore, no reservoir damage will result from downhole commingling.
5. Administrative Order No. DHC-427 authorized the commingling of production from the subject pools for a well on this lease (Shell - Turner No. 8)
6. Surface commingling resulted in no reduction of oil value; therefore, downhole commingling will not reduce oil value. (PC-180, 2-11-74)

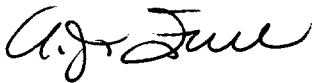
7. The ownership of both zones to be commingled is common.
8. A resume of the well's completion history is attached.
9. The bottom-hole pressures at common datum of 7500' are:
Drinkard: 550 psig
Hare Simpson: 292 psig
 We do not anticipate crossflow of fluids since the well will be maintained at pumped off conditions.
10. Commingling will not jeopardize the efficiency of future secondary operations in either zone.
11. Copies of this application have been furnished to all offset operators by certified mail.
12. Recommended oil and gas allotments would be as follows:

<u>Drinkard</u>		<u>Hare Simpson</u>
19%	Oil	81%
85%	Gas	15%

Other supporting data attached are C-116 for each zone and a schematic of the present and proposed downhole configuration.

If additional information is required, please advise.

Yours very truly,



A. J. Fore
 Supervisor Regulatory and Permitting
 Mid-Continent Division

JMW

Attachments

cc: State of New Mexico
 Energy and Minerals Department
 Oil Conservation Division
 P. O. Box 1980
 Hobbs, New Mexico 88240

Bill Powers
 New Mexico Production Unit

SHELL TURNER #4
COMPLETION HISTORY

5/20/49 to 7/15/49	Drilled to a total depth of 7890'.
7/30/49	Opened and produced McKee zone 7383-7543'.
1/22/64	Set CIBP @ 7350' and capped with 1 sack cement. Recompleted from McKee to Drinkard interval. Perforated Drinkard 6504-6642'.
2/9/72	Opened additional pay in the Drinkard 6420-50'.
7/7/84	Drinkard - 5 BO + 0 BW + 256 MCFG.
8/84	Drilled out bridge plug @ 7350'. PBD 7546'. AT perfs 7383-7543' with 3750 gal acid in 2 stages & frac with 40,000 gal KCl wtr & 37,500# 20-40 mesh sand.
8/27/84	Well pumped 26 BO + 12 BW + 302 MCF/D from combined Drinkard/Hare Simpson perfs.

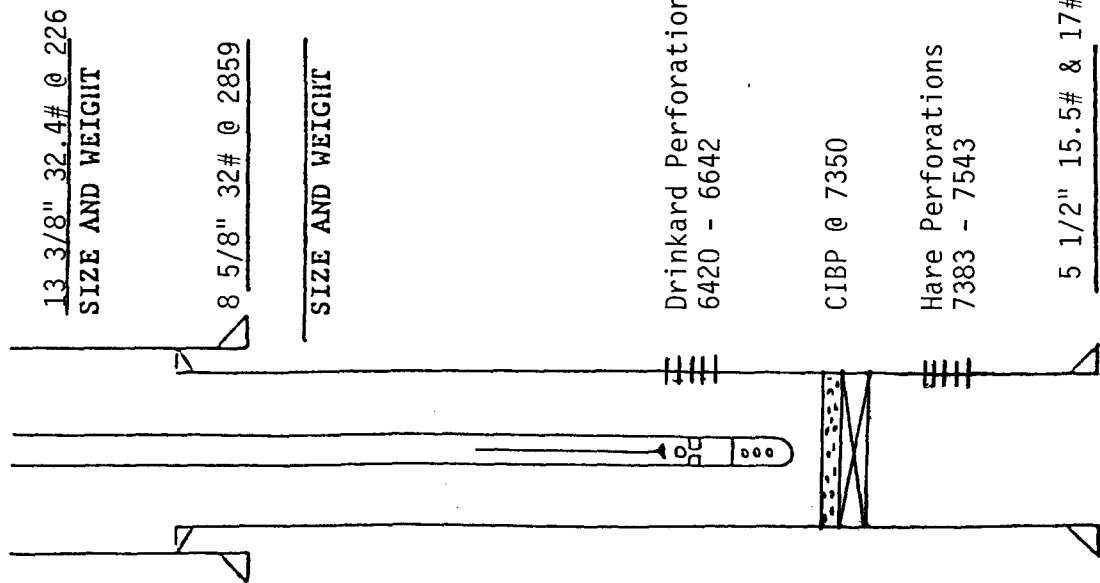
MECHANICAL CONFIGURATION

WELL SHELL - TURNER NO. 4

FIELD DRINKARD

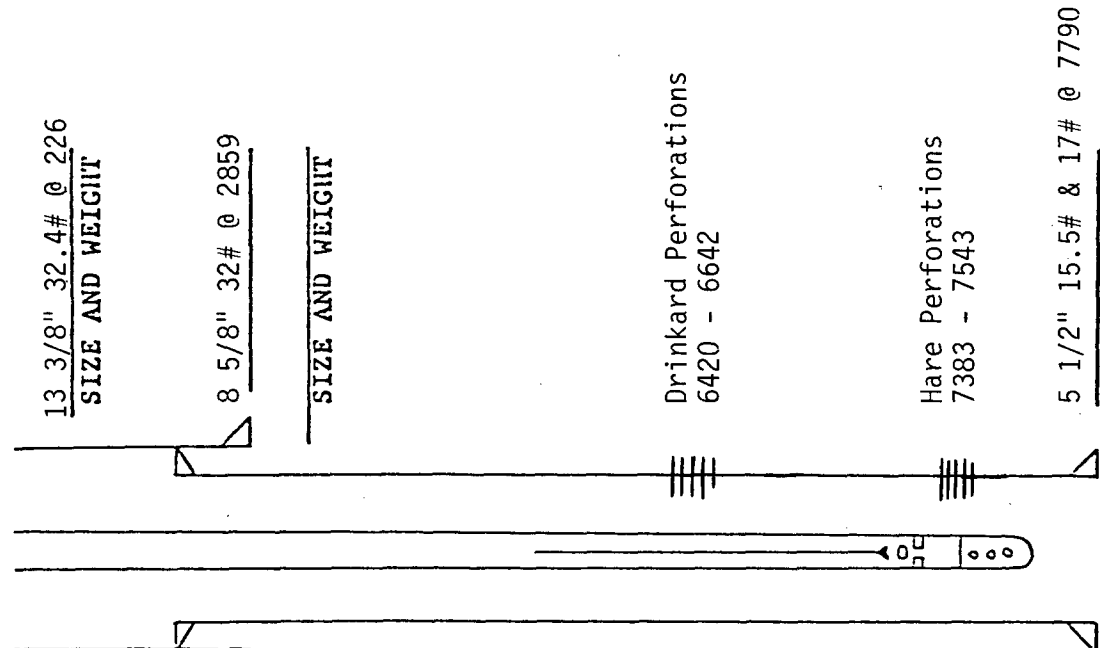
DATE AUGUST, 1984

PRESENT



TD - 7890
PBTD - 7350

PROPOSED



TD - 7890
PBTD - 7546

PRODUCTION UNIT 647: NEW MEXICO

FLD: DRINKARD

LSE: TURNER

30764

WLL: 4

RES: DRINKARD LOWER CLEARFORK

31329

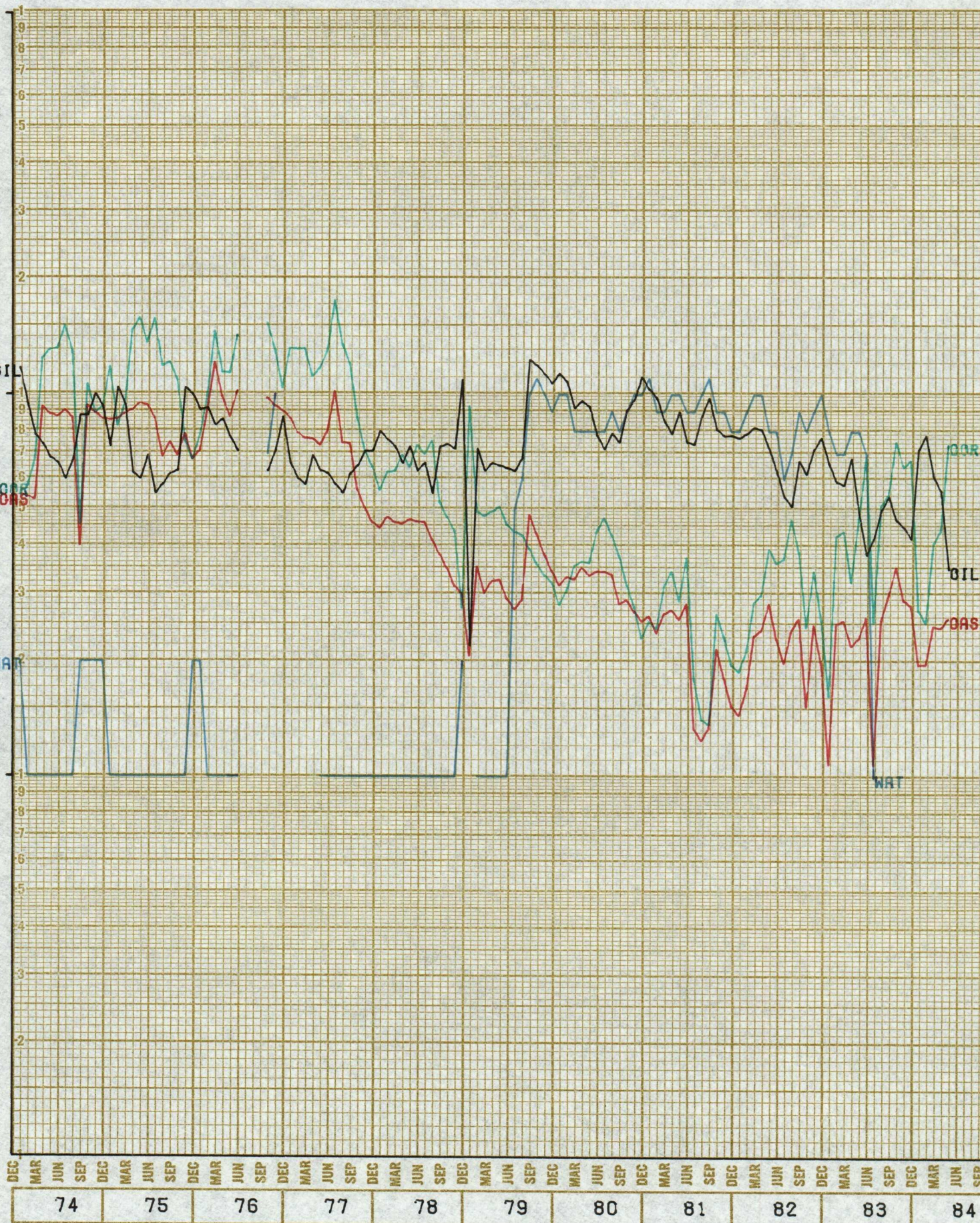
1000000
100000
10000
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10
1

GOR SCF/B
GAS MCF/D
WATER B/D
OIL B/D

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1

10000
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100
10
1

1000
100
10
1



GAS-OIL RATIO TESTS

LEASE NAME	WELL NO.	LOCATION			DATE OF TEST	CHOKE SIZE	TBG. PRESS.	DAILY ALLOW. ABLE	WATER BBL/D	PROO. DURING TEST			GAS - OIL RATIO CU.FT/BBL					
		U	S	T						GRAV. OIL	OIL BBL/D	GAS MCF/D						
TURNER	4	M	22	21-S 37-E	8-27-84	P	40		24	12	43.8	26	302	11,615				
															DRINKARD HARE SIMPSON	19%	5 BOPD	
																81%	21 BOPD	
																100%	26 BOPD	
DRINKARD HARE SIMPSON	85%	256 MCF/D																
	15%	46 MCF/D																
	100%	302 MCF/D																

No well will be assigned an allowable greater than the amount of oil produced on the official test.

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 33 percent. Operator is encouraged to take advantage of this 33 percent tolerance in order that well can be assigned increased allowable when authorized by the Division.

Gas volumes must be reported in MCF measured at a pressure base of 14.73 psia and a temperature of 60° F. Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing.

Well original and one copy of this report to the district office of the New Mexico Oil Conservation Division in accordance with Rule 301 and appropriate pool rules.

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

A. J. Foul
(Signature)

SUPERVISOR REG. & PERMITTING

(Initials)

11-02-84

OFFSET OPERATORS

SHELL - TURNER LEASE

TEXACO USA
P. O. BOX 52332
HOUSTON, TEXAS 77052

CONOCO INC.
P. O. BOX 2197
HOUSTON, TEXAS 77252

GULF EXPLORATION AND PRODUCTION COMPANY
P. O. BOX 670
HOBBS, NEW MEXICO 88240

J. R. CONE
P. O. BOX 10217
LUBBOCK, TEXAS 79408

SUN EXPLORATION AND PRODUCTION COMPANY
P. O. BOX 2880
DALLAS, TEXAS 75221-2880

PORTION OF HARE SIMPSON AND
DRINKARD POOLS
LEA COUNTY, NEW MEXICO
O SUBJECT WELL

- ☒ (a) Name and address of the operator.
- ☒ (b) Lease name, well number, well location, name of the pools to be commingled.
- (c) A plat of the area showing the acreage dedicated to the well and the ownership of all offsetting leases.
- ☒ (d) A current (within 30 days) 24-hour productivity test on Division Form C-116 showing the amount of oil, gas, and water produced from each zone.
- ☒ (e) A production decline curve for both zones showing that for a period of at least one year a steady rate of decline has been established for each zone which will permit a reasonable allocation of the commingled production to each zone for statistical purposes. (This requirement may be dispensed with in the case of a newly completed or recently completed well which has little or no production history. However, a complete resume of the well's completion history including description of treating, testing, etc., of each zone, and a prognostication of future production from each zone shall be submitted.)
- ☒ (f) Estimated bottom-hole pressure for each artificially lifted zone. A current (within 30 days) measured bottom-hole pressure for each zone capable of flowing.
- ☒ (g) A description of the fluid characteristics of each zone showing that the fluids will not be incompatible in the well-bore.
- ☒ (h) A computation showing that the value of the commingled production will not be less than the sum of the values of the individual streams.
- ☒ (i) A formula for the allocation of production to each of the commingled zones and a description of the factors or data used in determining such formula.
- ☒ (j) A statement that all offset operators and, in the case of a well on Federal land, the United States Geological Survey, have been notified in writing of the proposed commingling.



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE
November 6, 1984

TONEY ANAYA
GOVERNOR

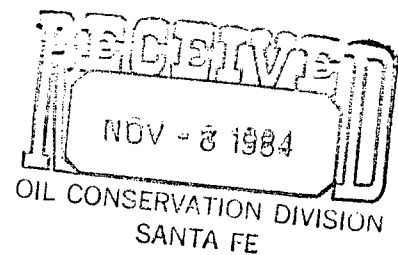
David Catanaek

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

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:

Shell Oil Company	Turner	No. 4-M	22-21-37
Operator	Lease & Well No.	Unit	S-T-R

and my recommendations are as follows:

O.K.----J.S.

Yours very truly,

Jerry Sexton
Jerry Sexton
Supervisor, District 1

/mc