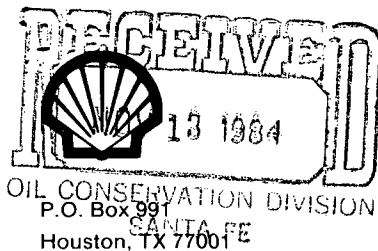


Shell Western E&P Inc.

A Subsidiary of Shell Oil Company



November 6, 1984

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

Gentlemen:

SUBJECT: APPLICATION TO DOWNHOLE COMMINGLE
SHELL - LIVINGSTON WELL NO. 9
915 FSL AND 2208 FWL, UNIT LETTER V
SECTION 3, T-21-S, R-37-E
BLINEBRY OIL & GAS AND DRINKARD 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 Blinebry Oil and Gas Pools in the subject well. Livingston No. 9 was drilled and dually completed in the subject pools in 1952. The Drinkard zone was plugged off in 1961 and the well has since singly produced from the Blinebry zone. With the indicated marginal production, reinstallation 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 Drinkard and Blinebry Oil and Gas Pools in the subject well.

An exception to Rule 303-C has previously been granted for the following wells:
Livingston No. 8 - located in Unit Letter N, 2970 FSL, 2308 FWL, Section 3, T-21-S, R-37-E. (DHC-104 dated February 6, 1972);
Livingston No. 10 - located in Unit Letter P, 3200 FSL, 660 FEL, Section 4, T-21-S, R-37-E. (DHC-68 dated September 29, 1970);
Livingston No. 13 - located in Unit Letter I, 3300 FNL, 467 FEL, Section 4, T-21-S, R-37-E. (DHC-361 dated May 17, 1982).

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 Livingston lease.
2. The latest tests are as follows:
Blinebry: (8-12-84) 6 BO + 1 BW + 324 MCFG
Drinkard: (10-30-84) 4 BO + 0 BW + 0 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. Surface commingling resulted in no reduction of oil value; therefore, downhole commingling will not reduce oil value (PC-47, March 5, 1968).
6. The ownership of both zones to be commingled is common.
7. A resume of the well's completion history is attached.
8. The bottom-hole pressures at common datum of 6584' are:
Blinebry: 447 psig (65 hrs SI)
Drinkard: 390 psig (24 hrs SI)
 We do not anticipate crossflow of fluids since the well will be maintained at pumped off conditions.
9. Commingling will not jeopardize the efficiency of future secondary operations in either zone.
10. Copies of this application have been furnished to all offset operators by certified mail.
11. Recommended oil and gas allotments would be as follows:

<u>Blinebry</u>		<u>Drinkard</u>
60%	Oil	40%
100%	Gas	0%

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

If additional information is required, please advise.

Yours very truly,



A. J. Fore
 Supervisor Regulatory and Permitting
 Production Administration
 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

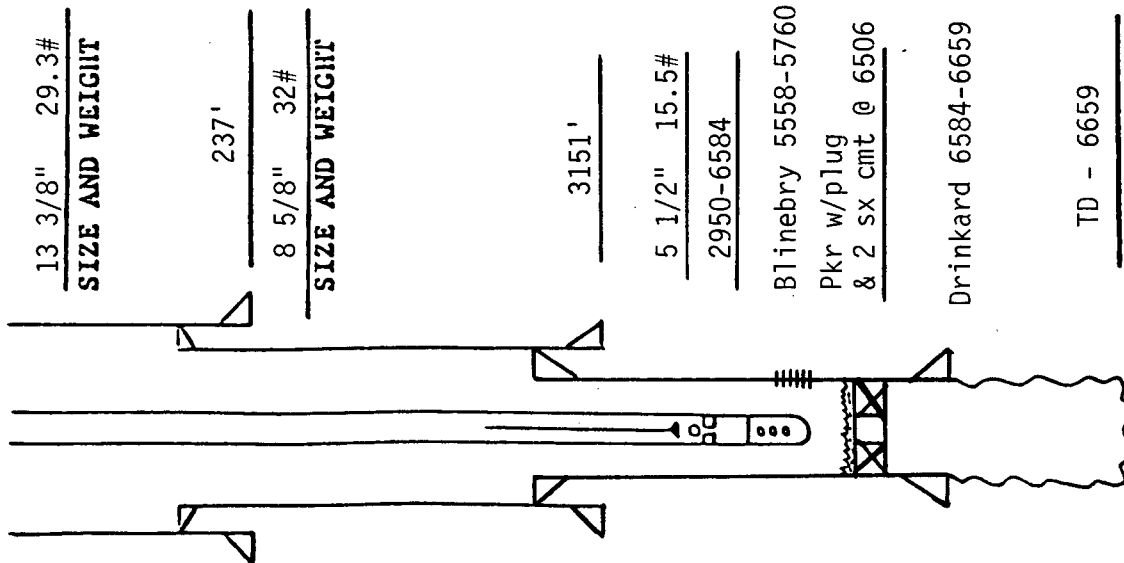
SHELL LIVINGSTON #9
COMPLETION HISTORY

10/13/52- 11/10/52	Drilled to a total depth of 6659'
11/11/52	Completed in Drinkard 6584-6659 open hole
12/19/52	Completed in the Blinebry 5558-5760 and produced as a dual Blinebry/Drinkard well.
7/28/61	Dropped Baker seal into Model "D" packer at 6506' and capped with 2 sx cement. Produced Blinebry zone singly.
8/12/84	Blinebry - 6 BO + 1 BW + 324 MCFG.
10/84	Washed over Baker Model "D" packer and pushed to TD @ 6650. Acid treated Drinkard 6584-6659 w/5100 g 15% NEA. Well pumped from combined Drinkard/Blinebry perfs.

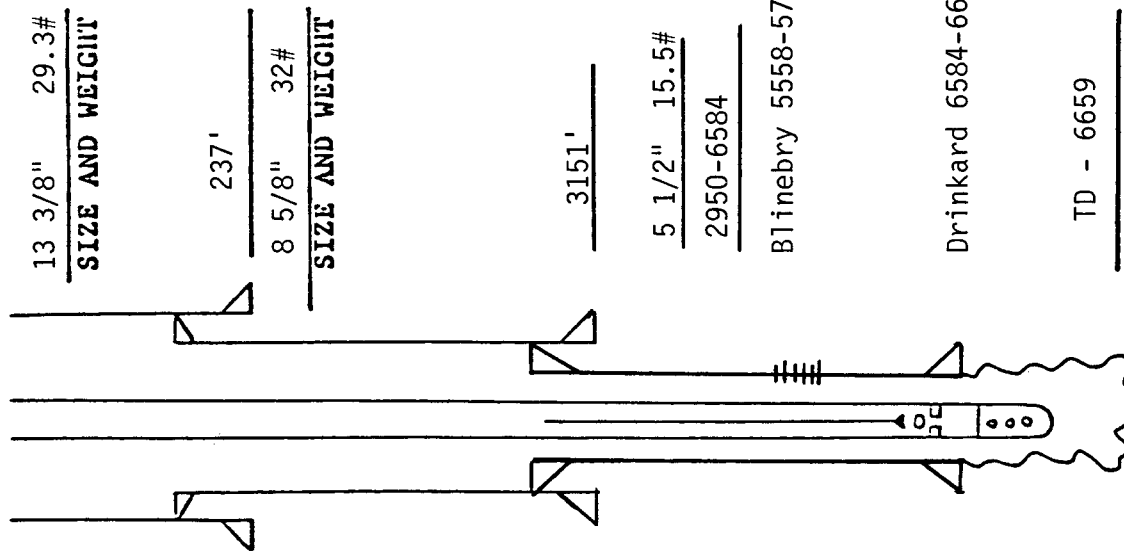
MECHANICAL CONFIGURATION

WELL Livingston #9
 FIELD Drinkard
 DATE 11/84

PRESENT



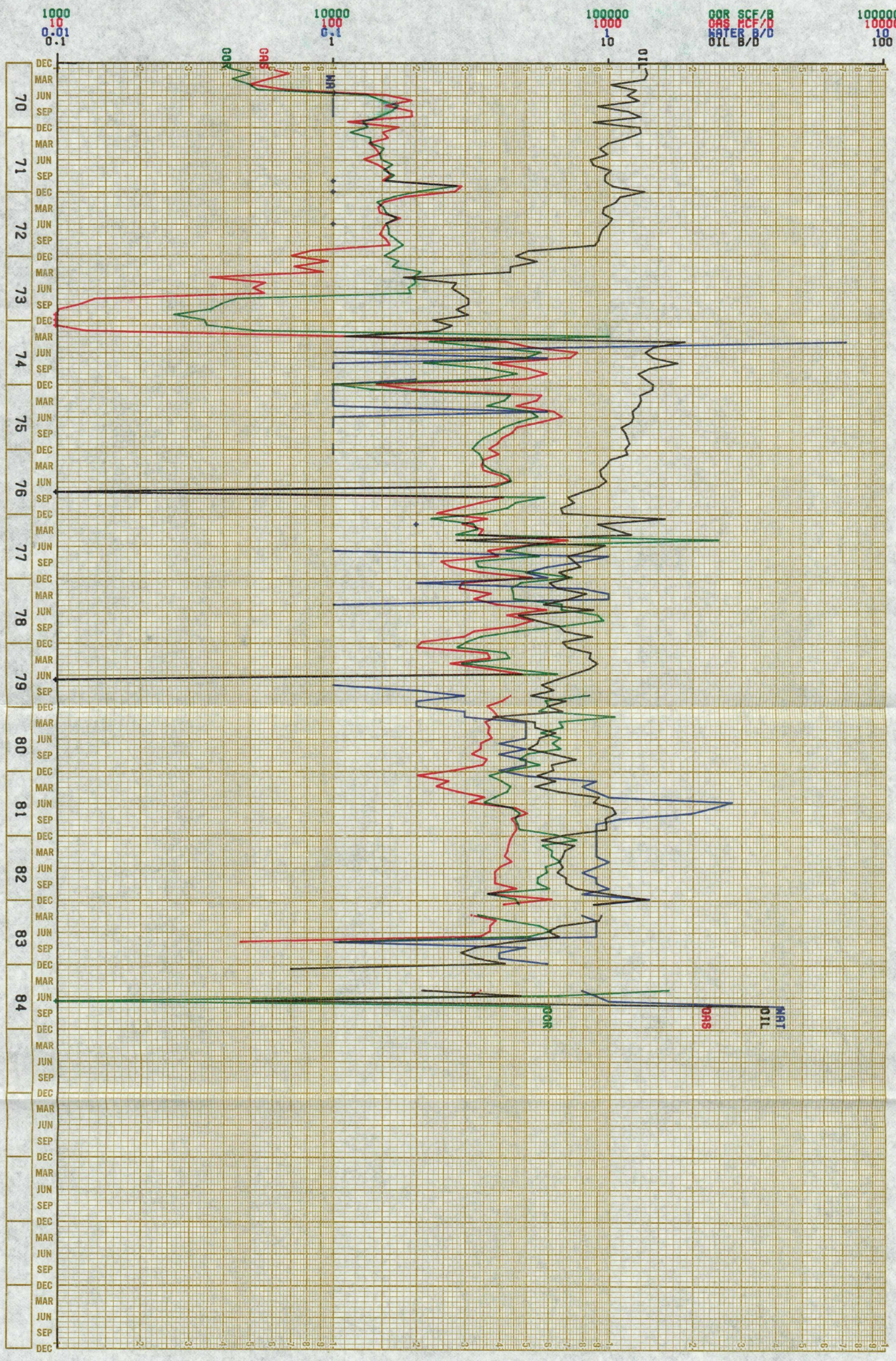
PROPOSED



PRODUCTION UNIT 647: NEW MEXICO
LSE: LIVINGSTON
RES: BLINEBRY

FLO: DRINKARD
30644
31325

3115
23355



11-06-84
(T.O.)

OFFSET OPERATORS

SHELL - LIVINGSTON LEASE

/ AMOCO PRODUCTION CO.
P. O. BOX 3092
HOUSTON, TEXAS 77253

/ ANTWEIL OIL CO.
P. O. BOX 2010
HOBBS, NEW MEXICO 88240

/ *BRAVO ENERGY INC.
P. O. BOX 1919
HOBBS, NEW MEXICO 88240

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

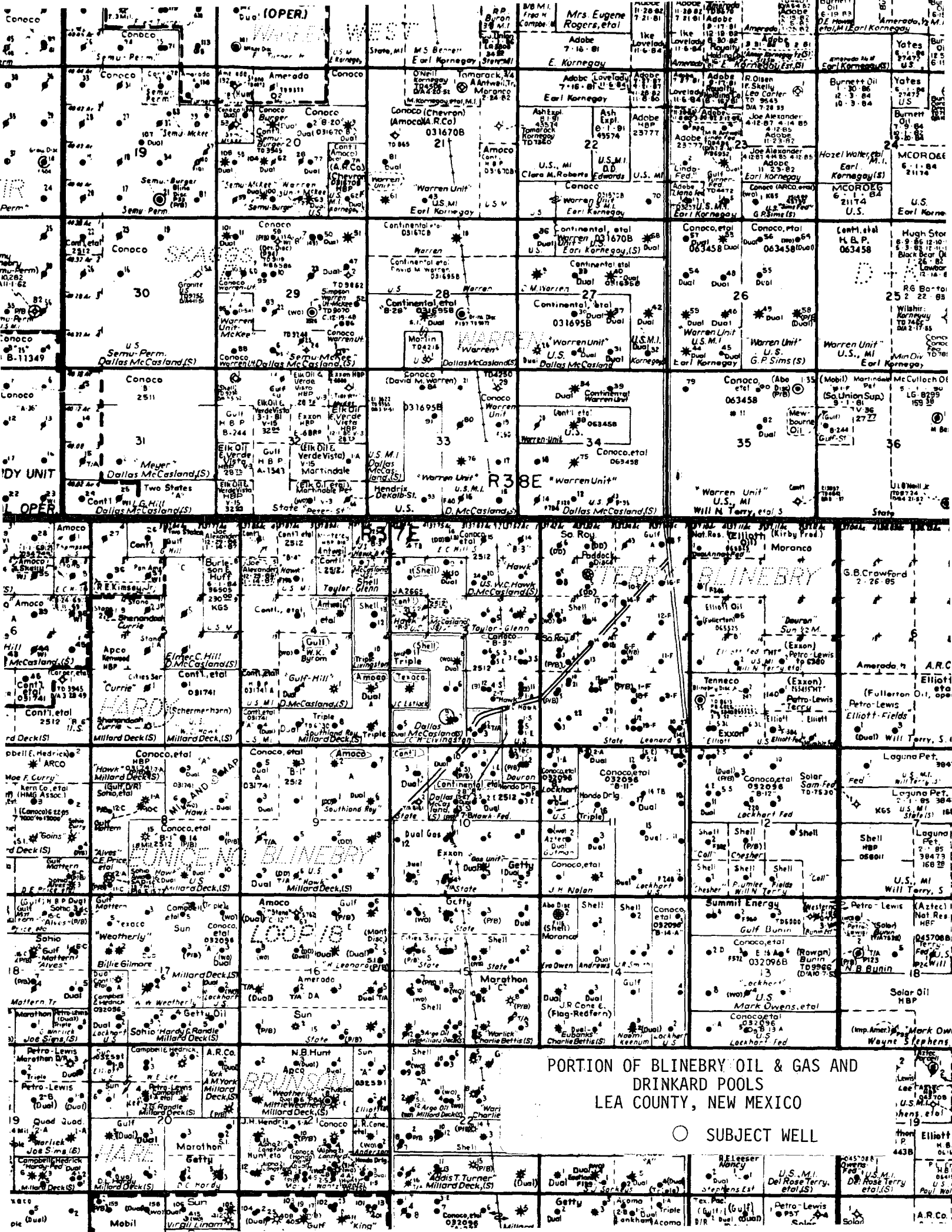
/ *SOUTHLAND ROYALTY CO. (FORMERLY AZTEC OIL & GAS)
21 DESTA DR.
MIDLAND, TEXAS 79701

/ **SUMMIT ENERGY INC.
112 N 1ST
ARTESIA, NEW MEXICO 88210

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

*BOTH OPERATORS OF "DAURON" LEASE AS PER OIL PRORATION ORDER.

**PRESENT OPERATOR OF "GULF HILL" LEASE AS PER OIL PRORATION ORDER.
FORMER OPERATOR: GULF OIL CORP.



- ~~(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

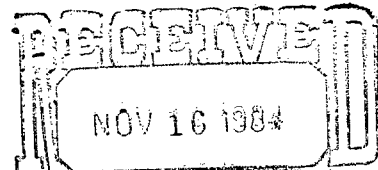


STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE
November 14, 1984

TONEY ANAYA
GOVERNOR

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

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



OIL CONSERVATION DIVISION
SANTA FE

RE: Proposed:

MC	_____
DHC	_____ X _____
NSL	_____
NSP	_____
SWD	_____
WFX	_____
PMX	_____

Gentlemen:

I have examined the application for the:

Shell Western E&P Inc.	Livingston	No. 9-V	3-21-37
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