

Shell Western E&P Inc.

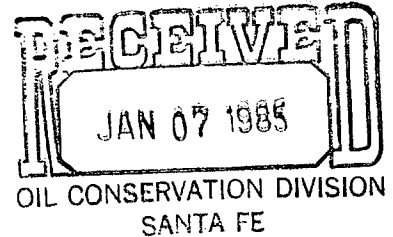
A Subsidiary of Shell Oil Company



December 31, 1984

P.O. Box 991
Houston, TX 77001

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 - ARGO "A" NO. 1
660' FNL AND 660' FWL, UNIT LETTER "D"
SECTION 22, T-21-S, R-37-E
BLINEBRY & TUBB OIL AND GAS 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 Blinebry and Tubb Oil And Gas Pools in the subject well. Argo "A" No. 1 was drilled as a Drinkard producer in 1947 and recompleted in the Tubb formation in 1952 to produce dually with the Drinkard. The Drinkard was abandoned in 1963 and the well recompleted to the Blinebry formation for dual production with the Tubb. The Tubb was abandoned in 1974 and the well has since singly produced from the Blinebry zone. 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 Blinebry and Tubb Oil And Gas 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 Argo "A" lease.
2. The latest tests are as follows:

Blinebry: (10-03-84) 4 BO + 0 BW + 192 MCFG
Tubb: (11-20-84) 4 BO + 2 BW + 141 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.

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 6100' are:
Blinebry: 299 psig (24 hrs SI)
Tubb: 279 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. Recommended oil and gas allotments would be as follows:

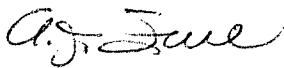
<u>Blinebry</u>		<u>Tubb</u>
50%	Oil	50%
58%	Gas	42%

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

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

WELL HISTORY
ARGO A #1

11/47 Drilled and completed in the Drinkard formation.

10/52 Recompleted in the Tubb formation and produced dually
 Drinkard/Tubb.

3/63 Set CIBP over Drinkard and recompleted in the Blinebry
 formation producing dually Blinebry/Tubb.

5/74 Set CIBP over Tubb formation.

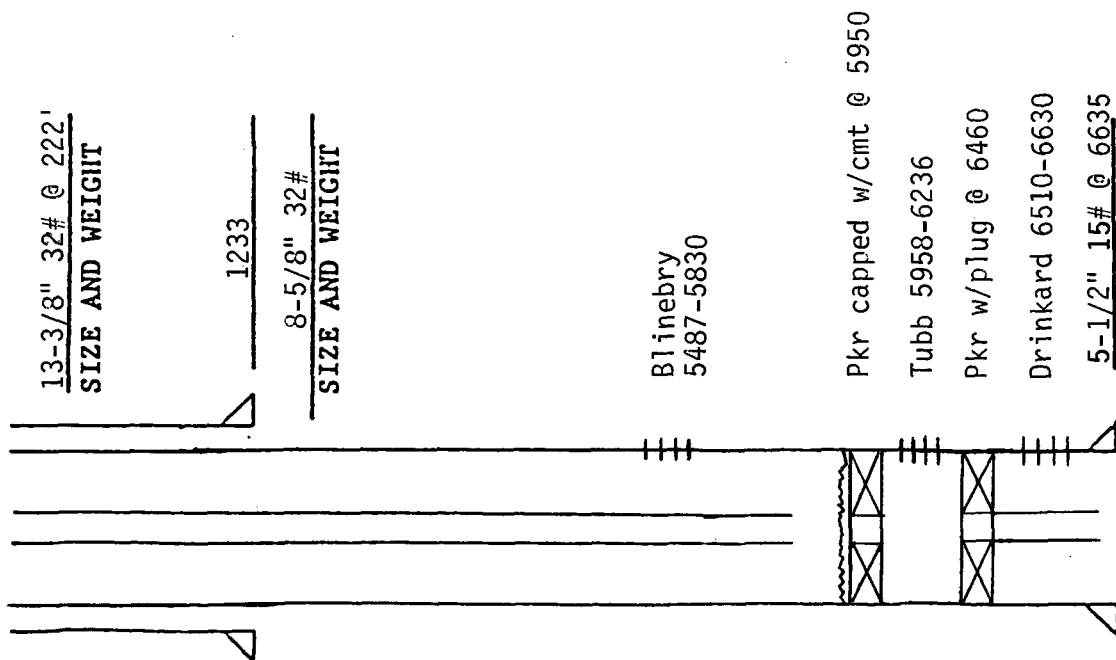
10/81 Installed artificial lift.

11/84 Commingled Blinebry/Tubb formations.

MECHANICAL CONFIGURATION

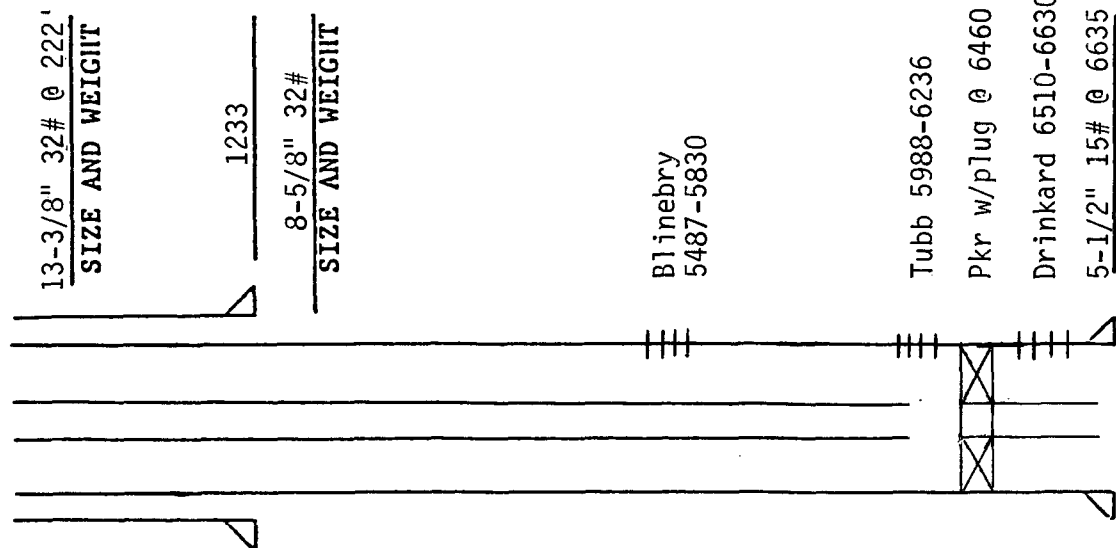
WELL Argo "A" #1
 FIELD Blinebry Oil and Gas Pool
 DATE November, 1984

PRESENT



TD - 6636

PROPOSED



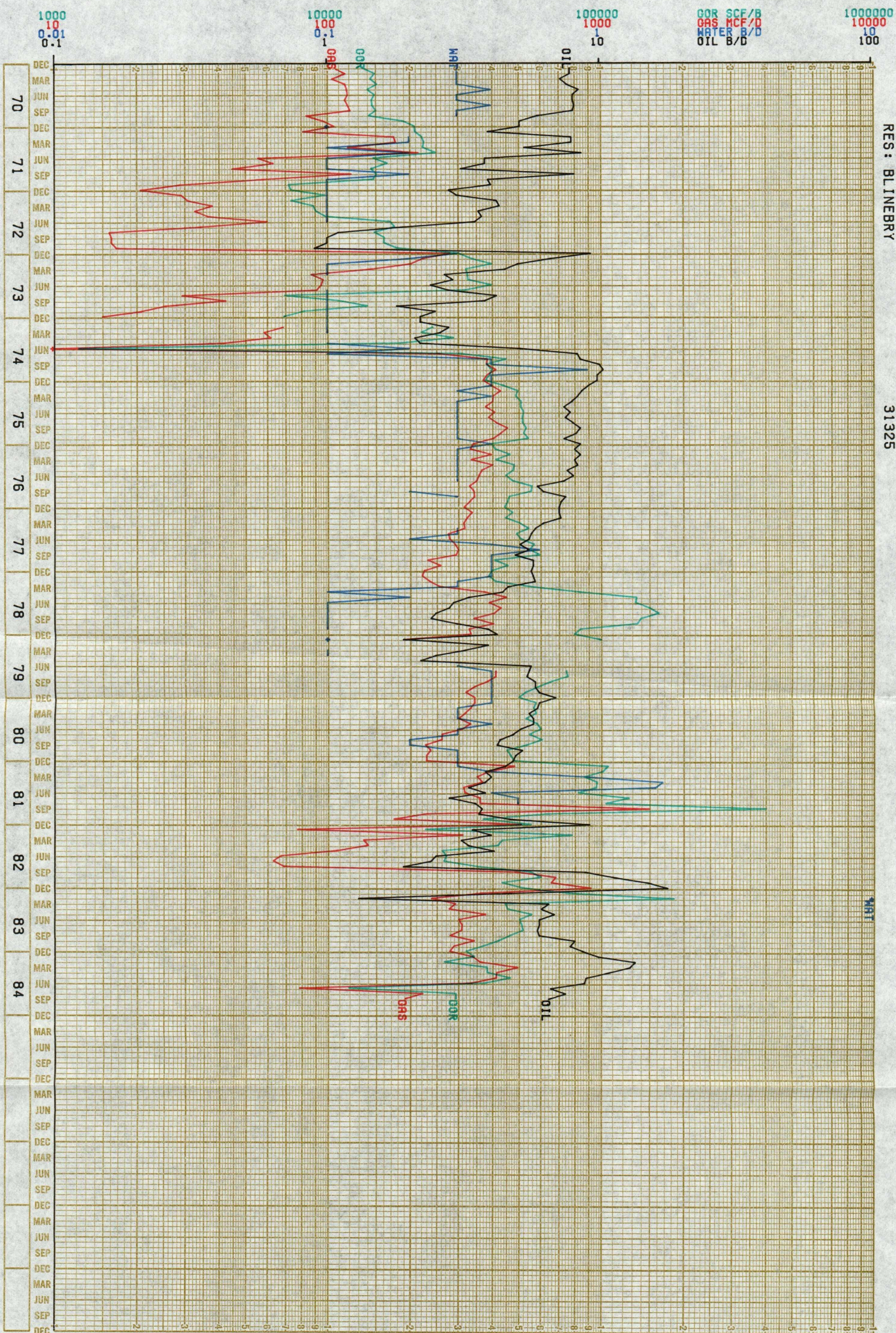
TD - 6636

PRODUCTION UN11647:NEW MEXICO
LSE: ARGO -A-
RES: BLINEBRY

30619
31325

FLD: DRINKARD
WLL: 1

3115
23297



GAS-OIL RATIO TESTS

LEASE NAME	WELL NO.	LOCATION			DATE OF TEST	CHOKE SIZE	TBG. PRESS.	DAILY ALLOW. ABLE	WATER BBL.	PROD. DURING TEST			(COMMINGLE TEST) Special ☒						
		U	S	T						A	WATER BBL.	GRAV. OIL	OIL BBL.	GAS MCF.	GAS - OIL RATIO CU.FT/BBL.				
																TYPE OF TEST - (X)		Completion ☐	
ARGO "A"	1	D	22	21-S	37-E	P	30	11-20-84	4 BOPD	2	36.4	8	333	41,625					
															BLINEBRY TUBB	50%	4 BOPD		
																		50%	4 BOPD
BLINEBRY TUBB	58%	192 MCF/D																	
			42%	141 MCF/D															
					100%	333 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 assigned by more than 33 percent. Operator is encouraged to take advantage of this 33 percent tolerance in order that well can be assigned a greater allowable when authorized by the Division.

Gas volume must be reported in MCF measured at a pressure base of 14.7 psia and a temperature of 60° F. Specific gravity base 11.65.

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

Well operator shall submit a copy of this report to the district office of the New Mexico Oil Conservation Division in accordance with the 301 and appropriate Pool Rules.

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

(Signature)

SUPERVISOR REG. & PERMITTING

12-31-84

OFFSET OPERATORS

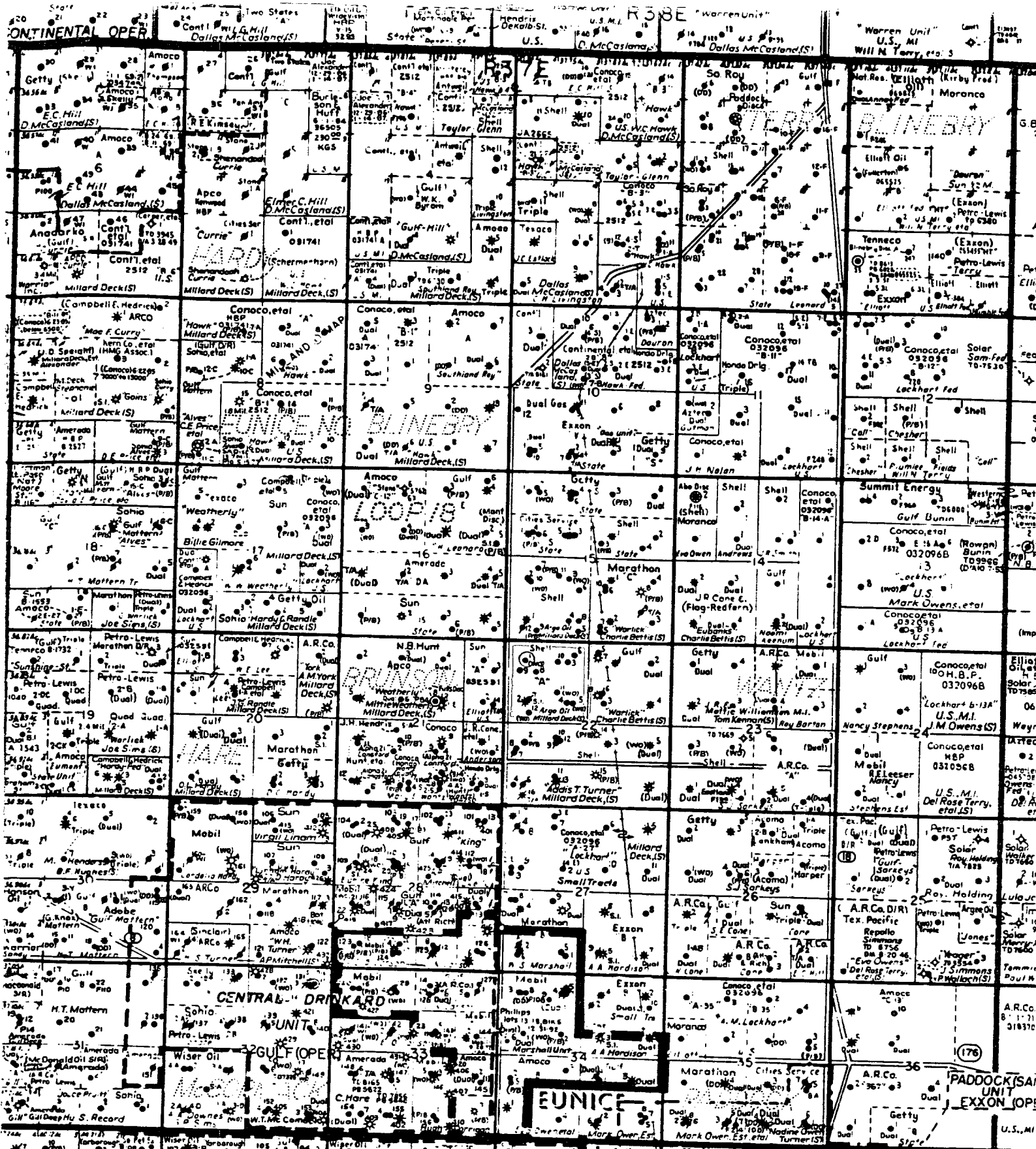
SHELL - ARGO "A" LEASE

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

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

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

MARATHON OIL COMPANY
P.O. BOX 2409
HOBBS, NEW MEXICO 88240



PORTION OF BLAINE & TUBB
OIL AND GAS POOLS
LEA COUNTY, NEW MEXICO

○ SUBJECT WELL

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

Form C-103
Revised 10-1-78

NO. OF COPIES RECEIVED	
DISTRIBUTION	
SANTA FE	
FILE	
U.S.G.S.	
LAND OFFICE	
OPERATOR	

5a. Indicate Type of Lease	
State ☐	Fee ☒
5. State Oil & Gas Lease No.	

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT -" (FORM C-101) FOR SUCH PROPOSALS.)

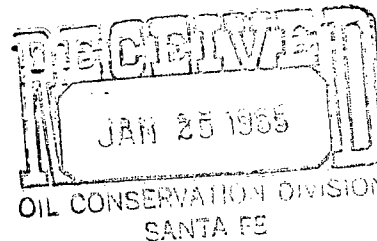
OIL WELL ☒ GAS WELL ☐ OTHER-		7. Unit Agreement Name
Name of Operator		8. Farm or Lease Name
SHELL WESTERN E&P INC.		ARGO "A"
Address of Operator		9. Well No.
P.O. BOX 991, HOUSTON, TEXAS 77001		1
Location of Well		10. Field and Pool or Wildcat
UNIT LETTER <u>D</u> , <u>660</u> FEET FROM THE <u>NORTH</u> LINE AND <u>660</u> FEET FROM		TUBB OIL AND GAS
THE <u>WEST</u> LINE, SECTION <u>22</u> TOWNSHIP <u>21-S</u> RANGE <u>37-E</u> NMPM.		BLINEBRY OIL AND GAS
15. Elevation (Show whether DF, RT, GR, etc.)		12. County
3434' DF		LEA

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data.

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☐	COMMENCE DRILLING OPNS. ☐	PLUG AND ABANDONMENT ☐
ULL OR ALTER CASING ☐	OTHER ☐	CASING TEST AND CEMENT JOB ☐	
		OTHER RE-OPENED TUBB ZONE, DOWNHOLE ☒	
		COMMINGLED W/ BLINEBRY	

Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

- 10-19 to 10-22-84: Pulled rods & pump. Shut well in for static BHP survey of Blinebry formation.
- 10-26 to 10-27-84: Milled out packer (capped w/35' cmt) @ 5950' and pushed packer to 6448'.
- 10-29 to 11-2-84: Took static BHP survey of Tubb formation and determined pressures were compatible.
- 11-7-84: Decision made to not commingle Drinkard zone due to tail pipe in bottom packer @ 6460'. Installed production equipment and started well to pump as a downhole commingled Blinebry/Tubb producer.



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

A. J. FORE A. J. FORE TITLE SUPERVISOR REG. & PERMITTING DATE JANUARY 16, 1985

PROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

- (X) Name and address of the operator.
- (X) Lease name, well number, well location, name of the pools to be commingled.
- (X) A plat of the area showing the acreage dedicated to the well and the ownership of all offsetting leases.
- (X) 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.
- (X) 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.)
- (X) Estimated bottom-hole pressure for each artificially lifted zone. A current (within 30 days) measured bottom-hole pressure for each zone capable of flowing.
- (X) A description of the fluid characteristics of each zone showing that the fluids will not be incompatible in the well-bore.
- (X) A computation showing that the value of the commingled production will not be less than the sum of the values of the individual streams.
- (X) 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.
- (X) 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

BHP -



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

January 3, 1985

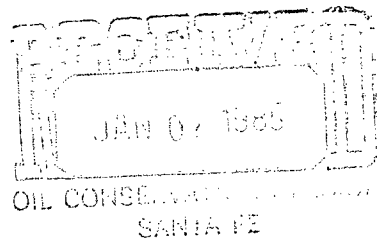
TONEY ANAYA
GOVERNOR

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

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

RE: Proposed:

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



Gentlemen:

I have examined the application for the:

Shell Western E&P, Inc.	Argo "A"	No. 1-D	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
Supervisor, District 1

/mc