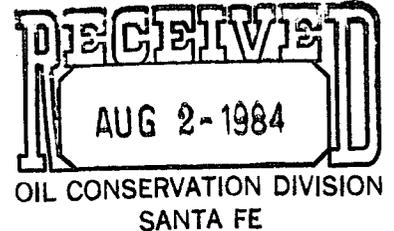




dugan production corp.

July 27, 1984

Joe Ramey, Director
New Mexico Oil Conservation Division
P.O. Box 2088
Santa Fe, NM 87501



Re: Request for Administrative Approval to Downhole
Commingle Ladd Petroleum's Lindrith #14 Well
Largo Gallup and Basin Dakota Pools
Unit H, Sec. 4, T26N, R7W, NMPM
Rio Arriba Co., NM

Gentlemen:

We are writing on behalf of Ladd Petroleum Corp. to request administrative approval to commingle production in the wellbore of the Lindrith #14 Well.

The subject well was drilled and completed in 1962 and is located 1850' FNL and 790' FEL, Section 4, T-26-N, R-7-W, NMPM, Rio Arriba County, New Mexico. The well is currently dually completed in the Largo Gallup and Basin Dakota pools. The pressure of the Dakota reservoir has declined to a point that it will not flow continuously against the existing pipeline pressure, which averages approximately 350 psi, and will load with liquids necessitating the blowing of the Dakota tubing to the atmosphere in order to unload a minor amount of water and condensate that accumulates. At present, the Gallup reservoir is produced through a compressor to meet pipeline pressure requirements and it is our plan to produce the commingled stream through the existing compressor. We believe that downhole commingling of the Lindrith #14 well will improve the Dakota production, eliminate the waste of the gas and condensate (which results from our efforts to unload accumulated fluids and keep the Dakota producing) and will generate increased revenues. This well is assigned a 320 acre production unit consisting of the E/2 of Section 4 (See Figure 1 attached).

Gas from the Gallup and Dakota horizons are subject to the Natural Gas Policy Act Section 104 pricing under a replacement contract. Likewise, the produced condensates from the subject pools are classed as Tier 1 and as such are qualified for Tier 1 windfall profit taxes.

We estimate the remaining reserves of the two pools at 1,072,596 Mcf. The Gallup production represents the majority contribution at 884,040 Mcf or 82%. The Dakota production is estimated to be 188,556 Mcf or 18% of the remaining hydrocarbons. These figures were arrived at using a 9%/year decline for the Largo Gallup pool and a 7%/year decline for the

NMOCD
July 27, 1984
Page Two

Basin Dakota pool. Refer to Figures 2 and 2a for the respective production decline curves. Please accept as evidence, the fact that there are Gallup-Dakota commingled wells in the subject area, to show that the fluids from the respective horizons are compatible. Sand and water frac's are a common stimulation practice in the area, therefore, indicating that the formations in question are not fluid-sensitive. We do not anticipate crossflow between zones to be a problem.

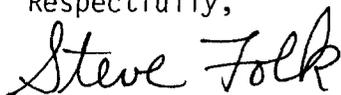
The current bottom hole pressure of the Gallup at a depth of 6656' (top perf) is calculated to be 417 psia and the bottom hole pressure of the Dakota at a common datum of 6656' is 746 psia.

The ownership of the subject pools is common. The offset operators indicated in Figure 1 have been notified in writing of this application and by copy of this application we are notifying the Minerals Management Service as this well is located on Federal Lease No. SF-079161.

In summary, we would like to request permission to downhole commingle Ladd Petroleum Corp's Lindrith #14 Well. The pools to be commingled are the Largo Gallup and the Basin Dakota. There are several wells with the Gallup-Dakota commingled in the subject area, namely Ladd Petroleum's Lindrith #13, Unit K, Section 3, T-26-N, R-7-W, NMPM, and Ladd Petroleum's Lindrith #24, Unit F, Section 4, T-26-N, R-7-W, NMPM. We believe that commingling the Lindrith #14 Well will eliminate waste, improve production and prolong the economic life of the well.

If you require more information regarding this application, please do not hesitate to contact me or Mr. John Roe at Dugan Production Corp.

Respectfully,



Steve Folk
Geologist

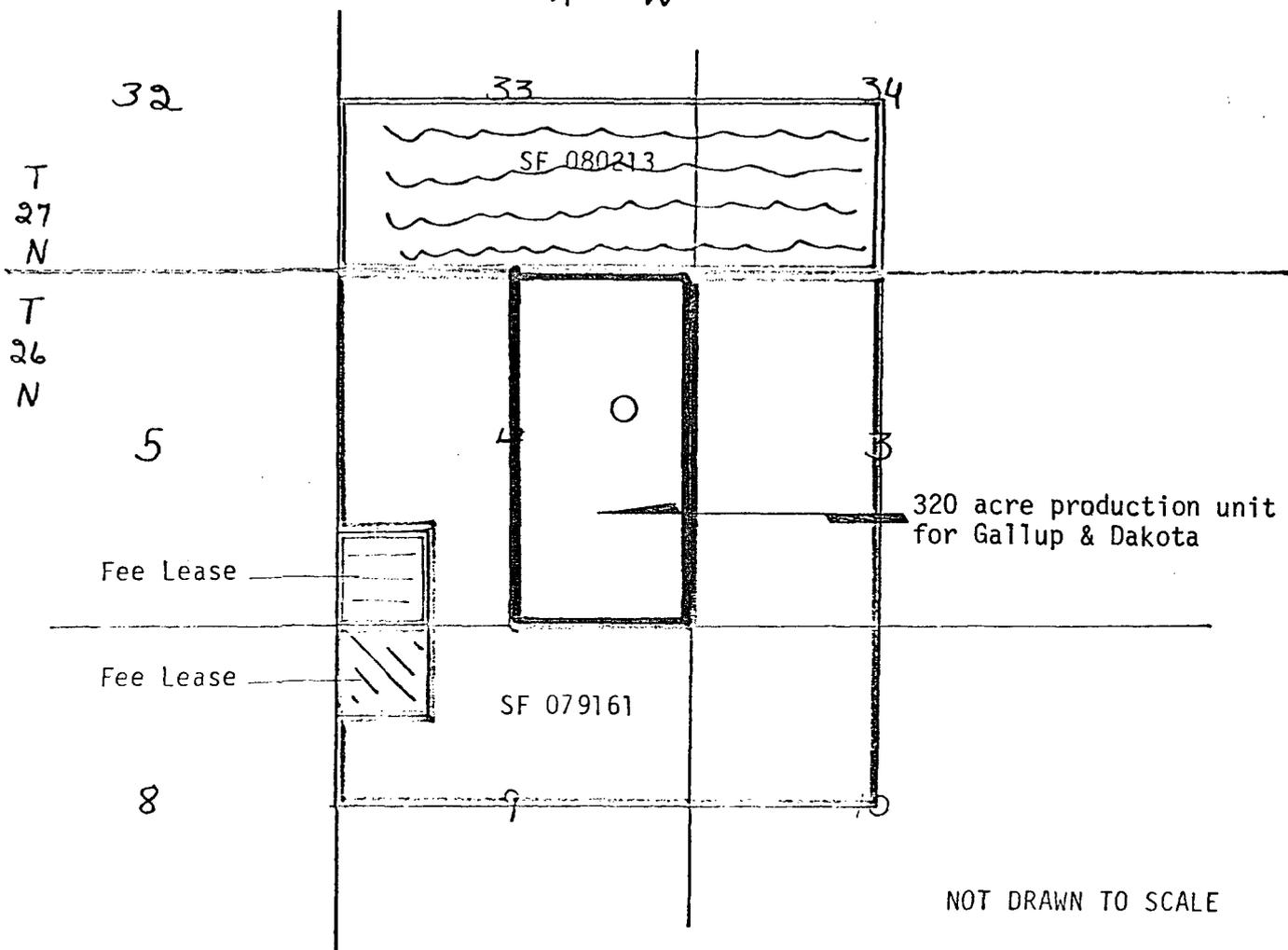
SF/nw

enc.

cc: NMOCD-Aztec
BLM-Farmington
All Offset Operators
Ladd Petroleum Corp.
Mike Tornes - Denver
Mike Zachery - Midland

Figure 1

R-7-W



Federal Lease SF 079161 ✓
 D.P. Bowlin 25%; R.L. Bowlin 25%; C.W. Bowlin 25% ✓
 R.L. Bowlin, Ind. Exec. of D.H. Bowlin Estate 25% ✓
 1120 Oil & Gas Building
 Wichita Falls, TX 76301



Federal Lease SF 080213 ✓
 El Paso Natural Gas Co. ✓
 P O Box 1492,
 El Paso, TX 79978



Fee Lease (SCR-58) ✓
 Depco Oil Co. 50% ✓
 1562 So. Parker Rd., Suite 116
 Denver, CO 80231

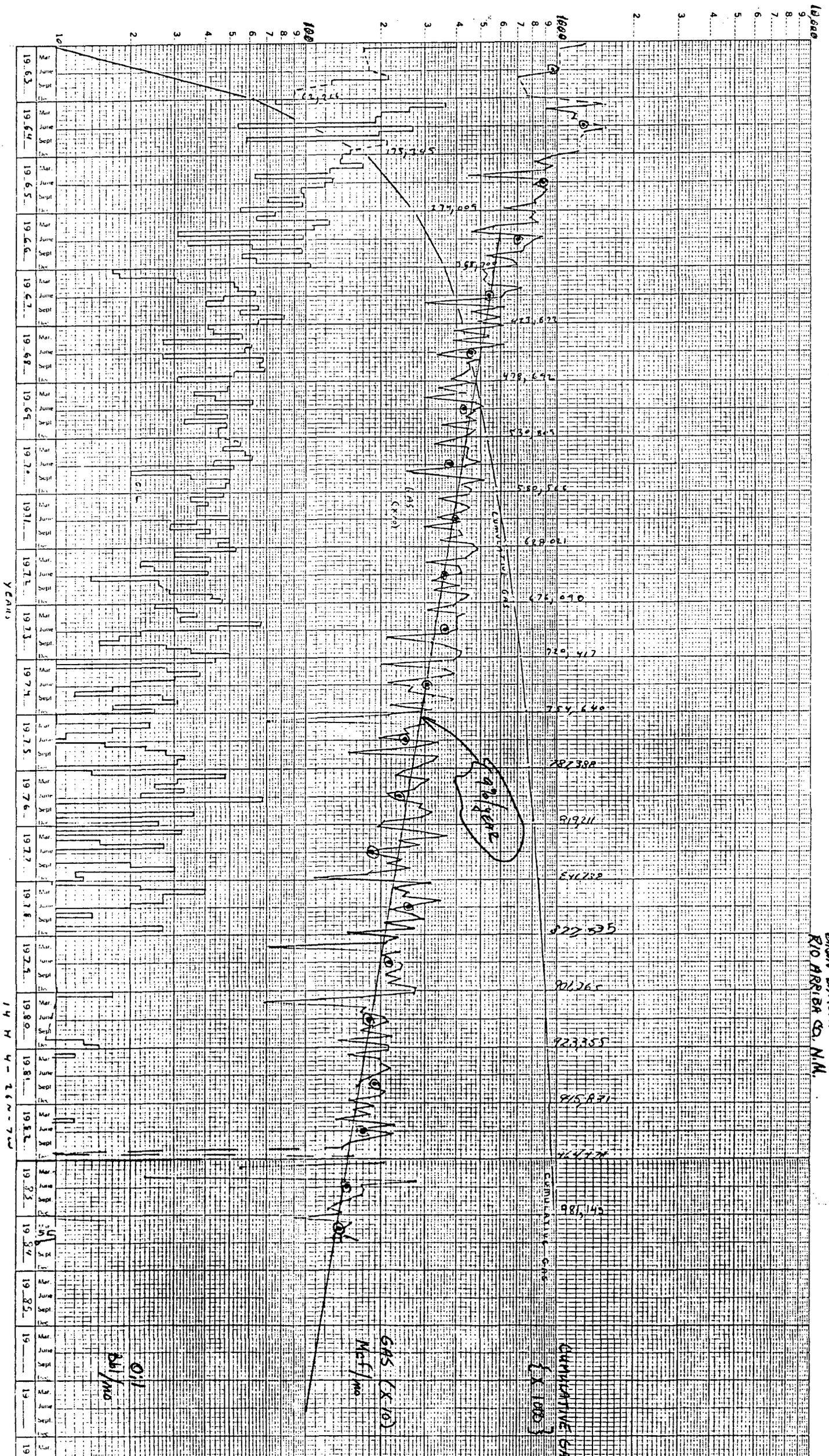
Husky Oil Co. 50% ✓
 6060 So. Willow Dr.
 Englewood, CO 80111



Fee Lease (SCR-54) ✓
 Depco Oil Co. 50% ✓

Husky Oil Co. 50% ✓

LADD PETROLEUM CORP.
 Lindrith #14
 E/2 Sec. 4, T26N, R7W, NMPM
 Rio Arriba County, NM



DECLINE CURVE { thru 6-84 }
Average monthly gas production for year

Figure 2a

LADD PETROLEUM CORP
LINDBERGH WELL NO. 4
RIO ARRIBA CO., N.M.

Years

14 W 4-262-700



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE

1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178

OIL CONSERVATION DIVISION
BOX 2088
SANTA FE, NEW MEXICO 87501

DATE July 31, 1984

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

Gentlemen:

I have examined the application dated July 31, 1984
for the Arco Petroleum Corp. Lease #14 H-4-26N-DW
Operator Lease and Well No. Unit, S-T-R

and my recommendations are as follows:

Approve

Yours truly,

Frank J. Dwyer

RECEIVED
AUG 6 - 1984
OIL CONSERVATION DIVISION
SANTA FE