

**dugan production corp.**

July 12, 1991

OIL CONSERVATION DIVISION  
RECEIVED  
JUL 15 AM 9 33

New Mexico Oil Conservation Division  
P.O. Box 2088  
Santa Fe, N.M. 87504-2088

Re: Application to Downhole Commingle Wildcat Gallup and Basin  
Dakota in Poles Paradise No. 2, K- 9-30N-14W.

Gentlemen:

Dugan Production Corporation, P.O. Box 420, Farmington, N.M. 87499, makes application for administrative approval to downhole commingle the Basing Dakota and Wildcat Gallup pools in the following well:

Poles Paradise No. 2  
1850' FSL and 1850' FWL  
9-30N-14W  
San Juan Co., New Mexico  
Lease No. NM 16057

Attached is a plat showing acreage dedicated to the well and the ownership of offsetting leases. Dugan Production is 100% owner of both Dakota and Gallup.

The Dakota zone is not capable of production against the existing line pressure for any extended period of time. With several days of build up, production is possible for about two hours. After this time, the well pressure decreases to a point too low for gas rate to be measured. For this reason a C-116 can not be completed. A decline curve is attached which demonstrates the erratic nature of Dakota production.

The Gallup interval was recently completed. A bridge plug was set at 5380' to isolate Dakota perforations. The Gallup was perforated with one shot at the following depths: 4927, 31, 36, 42, 49, 51, 70, 79, 90, 5011, 14, 16, 28, 44, 45, 5189, 94, 98, 5200, 07, 09, 17, 24, 28, 35, 48 (27 total holes). The perforations were acidized and balled out. The interval was fractured with 90,290 gal. 30 lb./1,000 gal. gelled water, carrying 114,000 lb. 20-40 sand. Testing showed production of 2 bopd and 3.5 mcfd.

5799-5822

Bottom hole pressure for the Dakota is 2179 psi and 1900 psi for the Gallup. Both were calculated to mid perforation using pressure measured at the surface with known fluid levels, gas gravities and fluid characteristics from offsetting production in correlative intervals. Production characteristics indicate that both zones have low permeability and so will have minimal cross flow even with extended shut-in periods. Downhole commingling has been allowed in these zones at the Monte Carlo No. 2, M-24-30N-15W in Administrative Order DHC-781.

The Dakota produces a 60° API oil and no water. The Gallup produces a 40.8° API oil. These oils are compatible. Neither interval produces water and both were fractured with fresh water, so no damage from water will result.

Since the Dakota is not capable of producing against line pressure, and the Gallup must be artificially lifted, the commingled production will be greater than the sum of the two zones individually. The 4½" casing will not allow two strings of tubing that will let both zones be produced separately.

Allocation to each zone is recommended as follows:

	Oil	Gas
Gallup	60%	35%
Dakota	40%	65%

These are based on an estimated 40 bopm and 200 mcfm being produced from the Dakota and 60 bopm with 108 mcfm coming from the Gallup.

Offset operators have been notified by certified mail of this application.

Sincerely,



John Alexander  
Operations Manager

cc: NMOCD, Aztec  
Offset Operators

**TOWNSHIP PLAT**

Scale: 1 inch = 1 mile

Printed in U.S.A.

TOWNSHIP **30N** RANGE **14W** COUNTY **SAN JUAN** STATE **NEW MEXICO**

REMARKS: **OFFSET OWNERS**

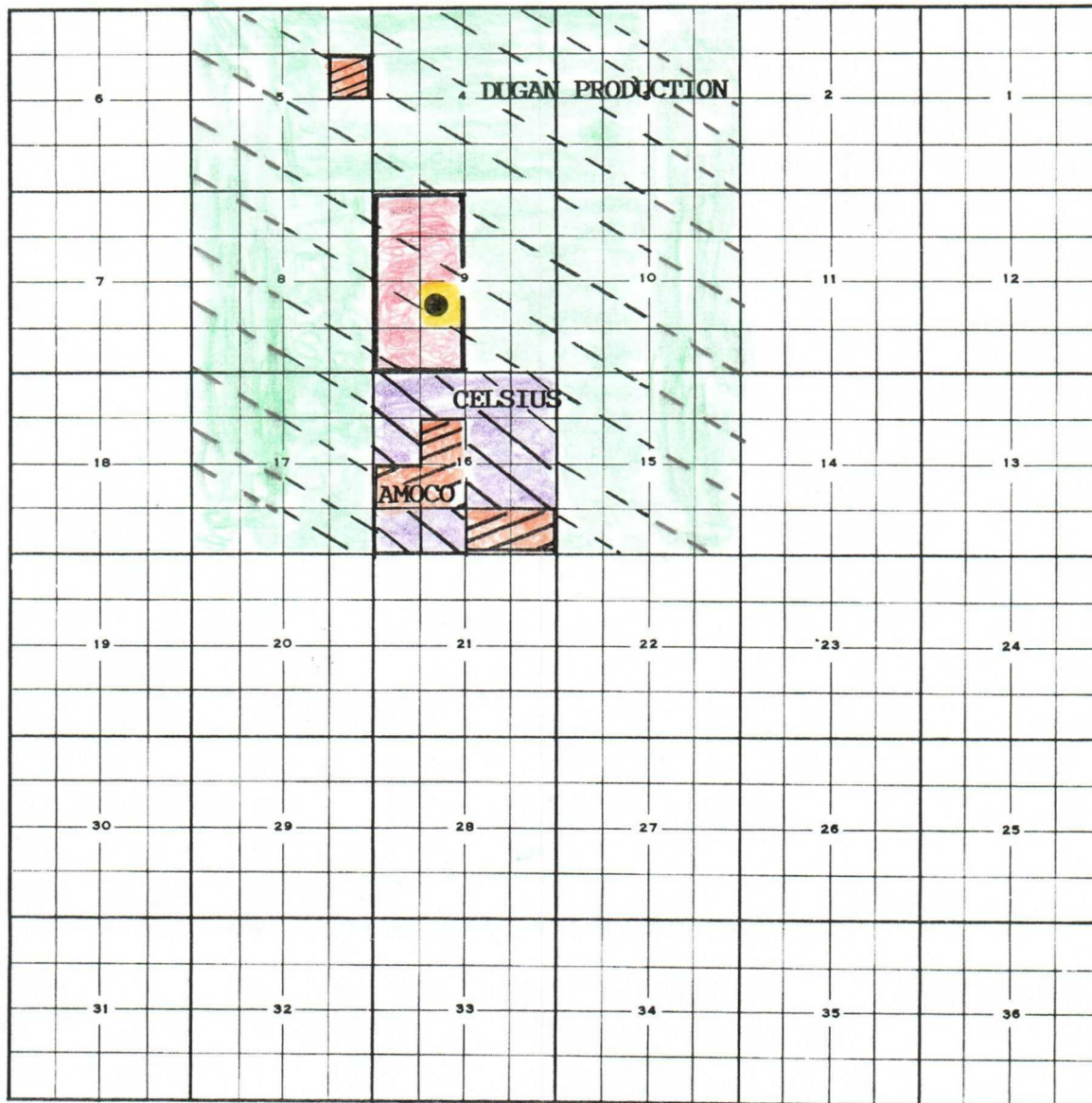
COMPANY

**DUGAN PRODUCTION**

**POLES PARADISE NO. 2** ●

**1850 FSL & 1850 FWL**

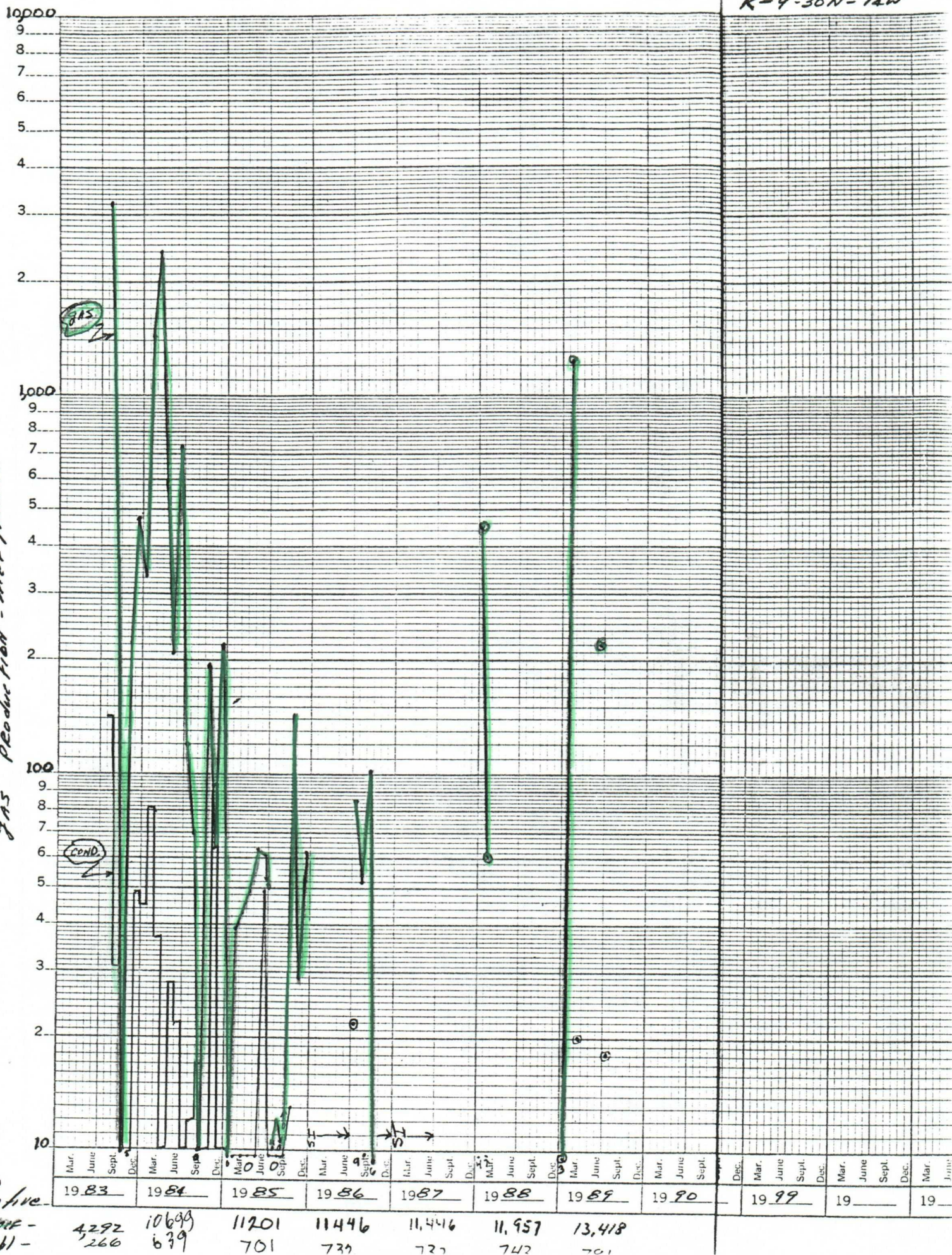
**APPLICATION TO DOWNHOLE COMMINGLE**





Pole's Paradise No. 2  
 Basin Dakota Field  
 K-9-30N-14W

condensate production - bbl/month  
 gas production - mcf/month



END  
 cumulative  
 GAS - 4,292  
 COND. bbl - 260

10693	11201	11446	11446	11,957	13,418
639	701	739	729	742	701





STATE OF NEW MEXICO  
ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION  
AZTEC DISTRICT OFFICE

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

Date: 8-17-91

Oil Conservation Division  
P.O. Box 2088  
Santa Fe, NM 87504-2088

RE: Proposed MC \_\_\_\_\_  
Proposed NSL \_\_\_\_\_  
Proposed WFX \_\_\_\_\_  
Proposed NSP \_\_\_\_\_

Proposed DHC X \_\_\_\_\_  
Proposed SWD \_\_\_\_\_  
Proposed PMX \_\_\_\_\_  
Proposed DD \_\_\_\_\_

Gentlemen:

I have examined the application received on 7/15/91  
for the Dugan Prod. Corp. Pole Paradise #2  
OPERATOR LEASE & WELL NO.

K-9-30N-14W and my recommendations are as follows:  
UL-S-T-R

Approve  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Yours truly,

J. J.