C M MORRIS 100
MONTHLY GAS PRODUCTION ALLOCATION FORMULA

GENERAL EQUATION

$$Qt = Qftc + Qpc$$

WHERE: Qt = TOTAL MONTHLY PRODUCTION (MCF/MONTH)

    Qftc = **FRUITLAND COAL (ftc) MONTHLY PRODUCTION**
    Qpc = **PICTURED CLIFFS (pc) MONTHLY PRODUCTION (MCF/MONTH)**

REARRANGING THE EQUATION TO SOLVE FOR Qftc:

    Qftc = **Qt - Qpc**

ANY PRODUCTION RATE OVER WHAT IS CALCULATED FOR THE PICTURED CLIFFS (PC) USING THE APPLIED FORMULA IS FRUITLAND COAL (FTC) PRODUCTION.

PICTURED CLIFFS (PC) FORMATION PRODUCTION FORMULA IS:

    Qpc = **Qpci X e^{-(Dpc) X (t)}**

WHERE: **Qpci** = INITIAL PC MONTHLY FLOW RATE (OBTAINED FROM C M MORRIS #1 PRODUCTION HISTORY)

    Qpci = 1521 MCF//MONTH

    Dpc = PICTURED CLIFFS MONTHLY DECLINE RATE CALCULATED FROM DECLINE CURVE AND MATERIAL BALANCE ANALYSIS.

    Dpc 0.0329 / YR = .00274 / MONTH

WHERE: **Np(pc) =** PICTURED CLIFFS ESTIMATED ULTIMATE RECOVERY (EUR)
    Np(pc) = DETERMINED FROM MATERIAL BALANCE CALCULATIONS OBTAINED FROM THE C M MORRIS #1 (PC) WELLBORE PREVIOUSLY LOCATED IN THE SAME 1/4 SECTION (REMAINING RESERVES = 436.794 MMCF).

THUS: **Qftc** = **Qt - Qpci X e^{-(.00274) X (t)}**
WHERE: **(t) IS IN MONTHS**

REFERENCE: Thompson, R. S., and Wright, J. D., "Oil Property Evaluation", pages 5-2, 5-3, 5-4.

Lease   : C M MORRIS   1
Field   : FULCHER KUTZ PICTURED CLIFFS
Location   : 027N010W10G
County, St   : SAN JUAN   NM
Major Product : GAS   DP Number: 3019
Post Well Accountability - Production Forecasts

GAS ━━━

Qol=MED
Ref= 01/95
Cum=1325.043
Rem= 436.794
EUR=1761.837
Yrs= 48.167
Qi= 1520.8
De=   3.287
n=   .000
Qob=   304.2

GAS-MCF

DATE
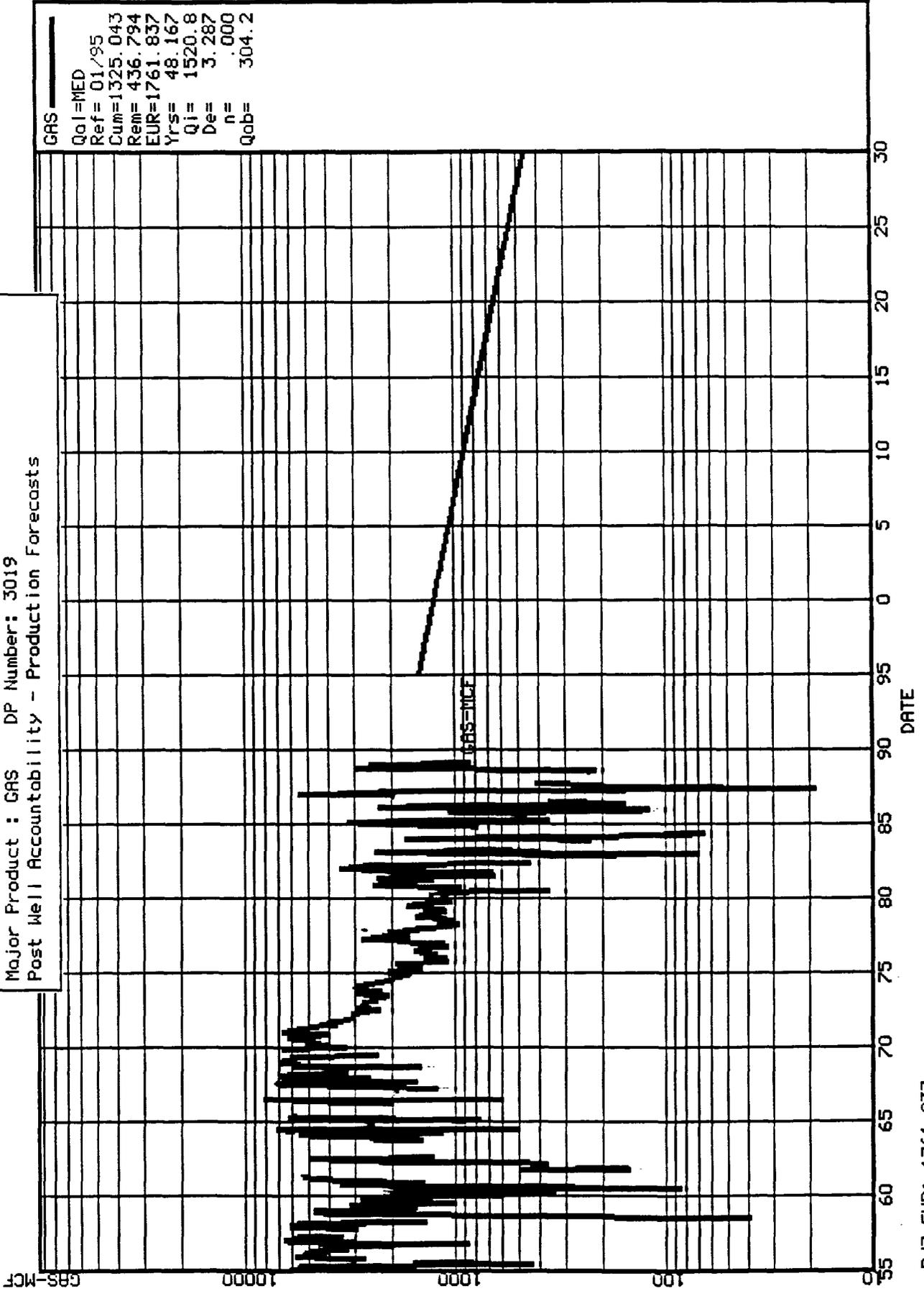
P/Z EUR: 1761.837
    CUM: 1325.043
    REM: 436.794