FEUILLE A #2

NW/NE 17-29N-10W

MONTHLY GAS PRODUCTION ALLOCATION FORMULA

GENERAL EQUATION

$$\mathbf{Qt = Qftc + Qpc}$$

WHERE:
- **Qt** = Total Monthly Production (Mcf / Month)
- **Qftc** = Fruitland Coal (ftc) Monthly Production (Mcf / Month)
- **Qpc** = Pictured Cliffs (pc) Monthly Production (Mcf / Month)

Rearranging the Equation to Solve for **Qftc**:

$$\mathbf{Qftc = Qt - Qpc}$$

Any Production Rate Over What is Calculated for the Pictured Cliffs (Qpc), Using the Applied Formula is Fruitland Coal Production (Qftc).

The Pictured Cliffs (Qpc) Formation Production Formula is:

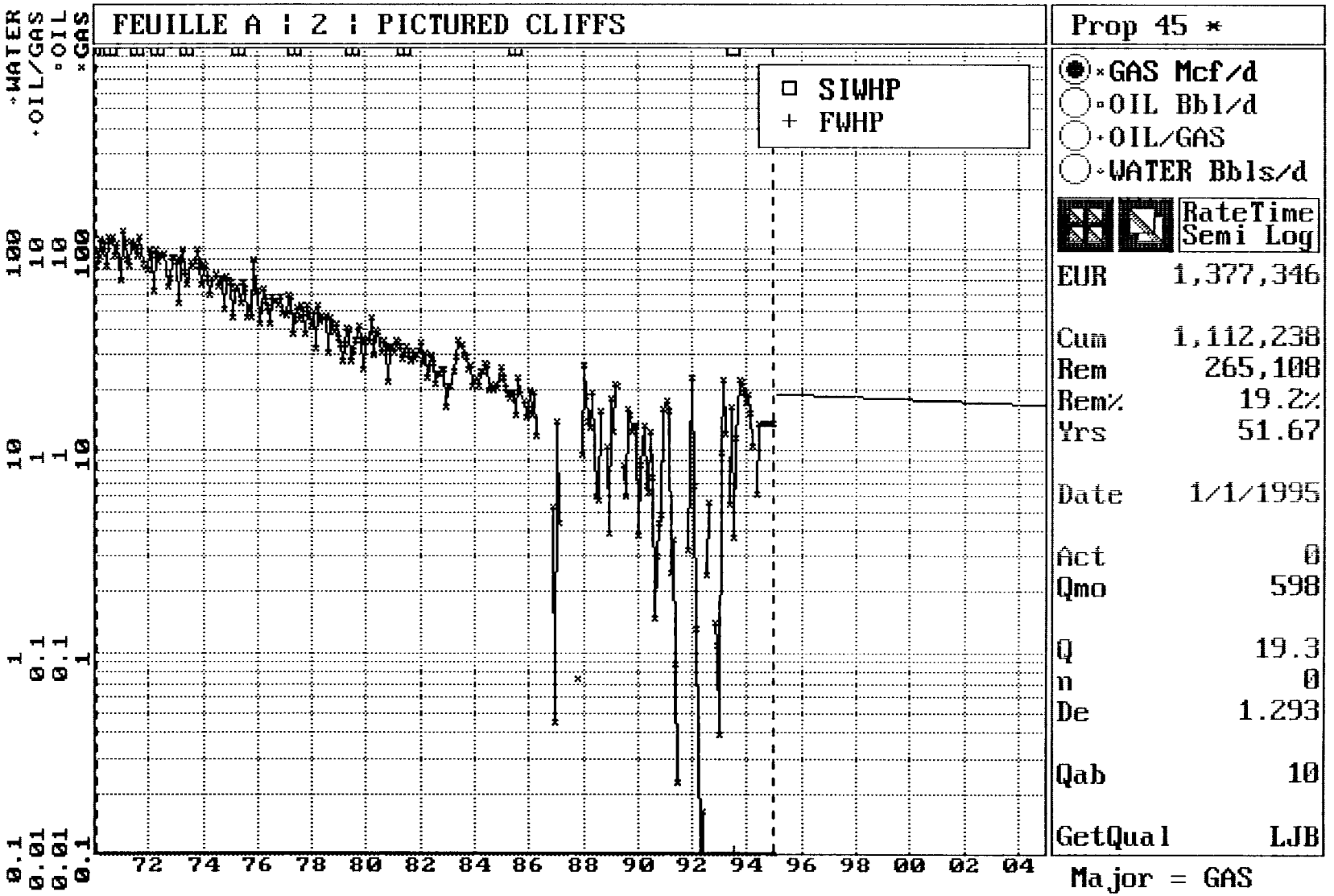
$$\mathbf{Qpc = Qpci \; X \; e^{-(Dpc) \; X \; (t)}}$$

WHERE:
- **Qpci** = Pictured Cliffs Initial Monthly Rate = **598 Mcf/M** (Determined from the attached decline curve)
- **Dpc** = Pictured Cliffs Monthly Decline Rate Calculated from Decline Curve and Material Balance Analysis:
- **Dpc** = **(0.0011/M)**

THUS: **Qftc = Qt - Qpci X e^{-(0.0011) X (t)}**

NOTE: **(t)** is in Months

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


FEUILLE A ¦ 2 ¦ PICTURED CLIFFS
SIWHP
FWHP
·WATER
·OIL/GAS
▫OIL
×GAS
100
10
10
100
10
1
1
10
1
0.1
0.1
1
0.1
0.01
0.01
0.1
72 74 76 78 80 82 84 86 88 90 92 94 96 98 00 02 04
Prop 45 *
×GAS Mcf/d
▫OIL Bbl/d
·OIL/GAS
·WATER Bbls/d
RateTime
Semi Log
EUR 1,377,346
Cum 1,112,238
Rem 265,108
Rem% 19.2%
Yrs 51.67
Date 1/1/1995
Act 0
Qmo 598
Q 19.3
n 0
De 1.293
Qab 10
GetQual LJB
Major = GAS