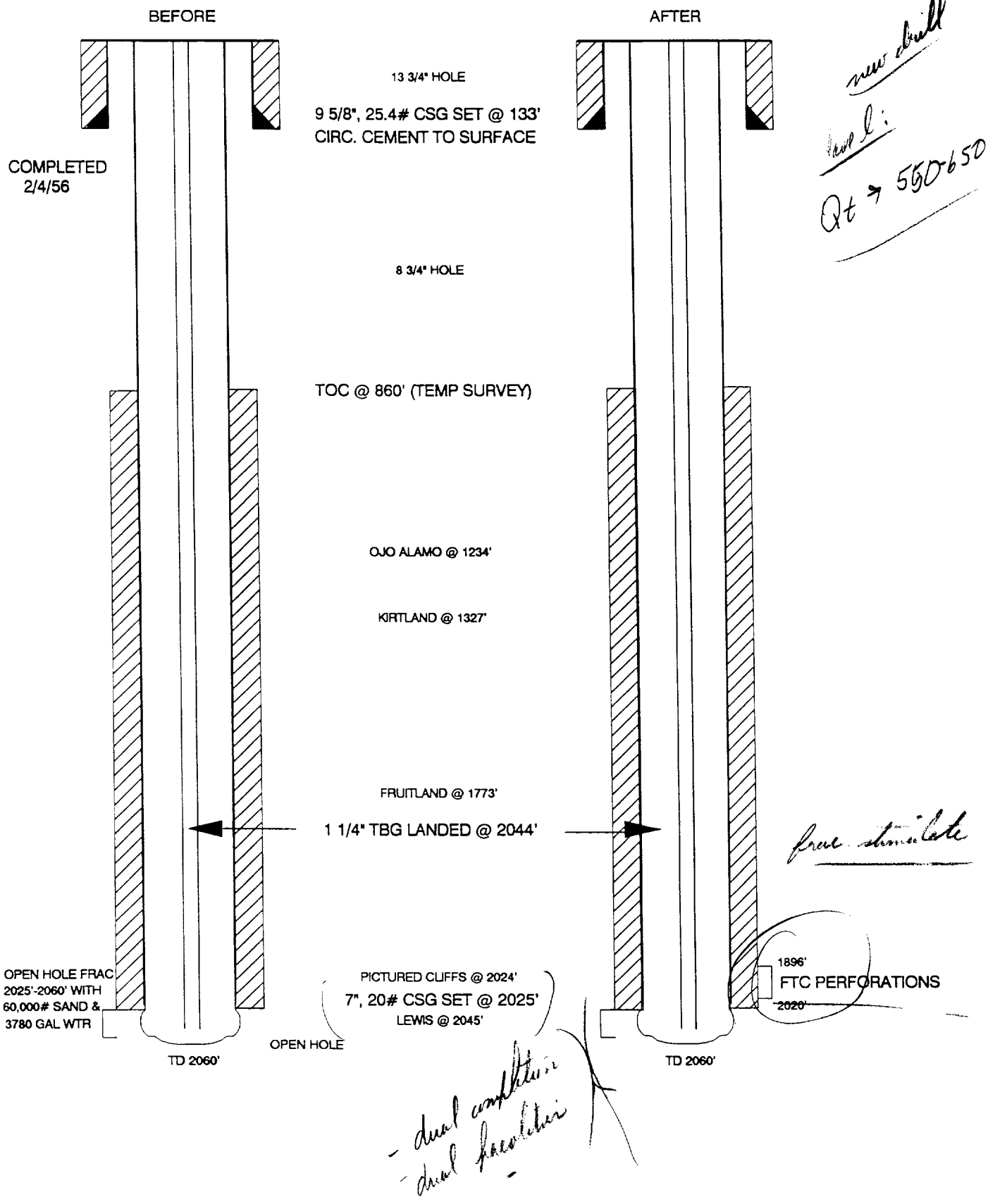
EXHIBIT N

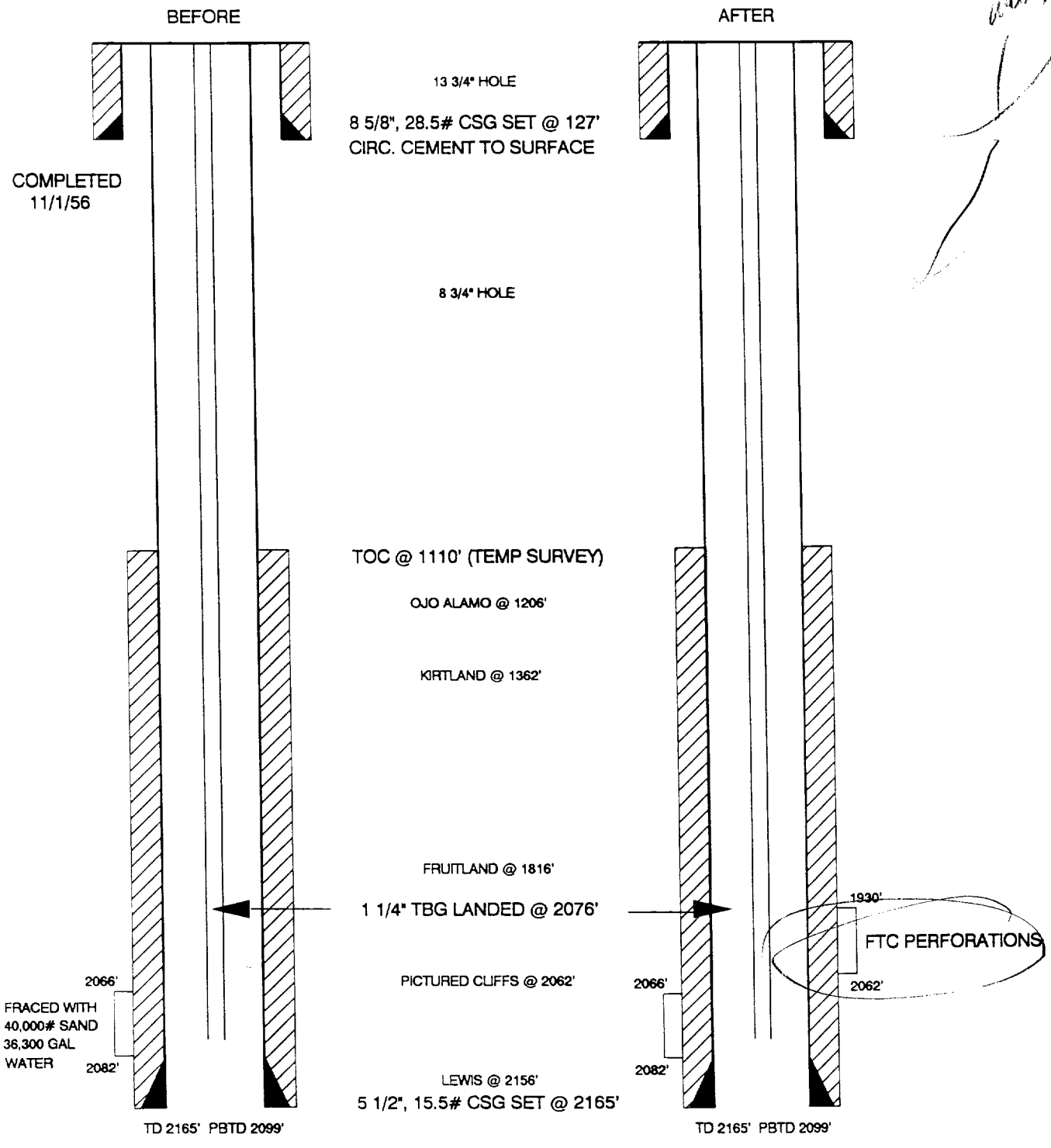
HUERFANO UNIT #46

BALLARD PICTURED CLIFFS
SW/4 SECTION 23, T26N-R09W



HUERFANO UNIT #59

BALLARD PICTURED CLIFFS
NE/4 SECTION 26, T26N-R09W



[redacted]

EXHIBIT O

Huerfano Unit #46 Allocation Formula

Equation Derivation

Given the exponential decline curve analysis formula*:

$$De = 1-(Q_2/Q_1)^{(1/yr)}$$

Where: De = Effective Decline in %/yr
Q_2 = Rate two (at some future date) MCFD
Q_1 = Rate one (current rate) MCFD

Rearranging the equation to solve for Q2:

$$Q_2 = Q_1(1-De)^{yr} \text{ MCFD}$$

Huerfano Unit #46 Formula

Using Production plot (fig 1):

Last production rate = Q1 = 1077 MCFM @ 35 MCFD
De = 5.3% from plot

$$Q_{2PC} = 35\ (1 - 0.053) \text{ MCFD}$$

$Q_{2PC} = 35(0.947)^{yr}$ MCFD FORMULA FOR FUTURE PC RATES

Any production rate over what is calculated using the above PC formula on a specific date is Fruitland Coal.

Curtailment Situations

If any curtailment occurs, both streams will be affected the same and go to 0 MCFD.

When production resumes, the rates will equate to those when the well was shut in:

$$Q_{2PC} = 35\ (0.947)$$

$$Q_{FTC} = Q_{TOT} - Q_{PC}$$

$$Q_{TOT} = Q_{FTC} + Q_{PC}$$

The total amount of PC gas produced will be the EUR calculated through decline curve and P-Sum analysis (see figs 1 & 2).

*Reference: pg. 5-46 Oil Property Evaluation
by R. S. Thompson & J. D. Wright

Example: Date Now = 1/1/93

Assuming the well produces steadily in 1993. On 1/1/94, the well produces 400 MCFD.

Q_1 = 35 MCFD De = 5.3%

$Q_{PC} = 35\ (0.947)^{(yr\ -\ curtailment\ time)}$

$Q_{PC} = 35\ (0.947)^{(1\ -\ 0)} = 33$ MCFD

$Q_{TOT} = 400\ MCFD = Q_{FTC} + Q_{PC}$

$Q_{FTC} = 400 - 35 = 365$ MCFD

Then on 1/2/94, the well gets shut in for 1 month:

On 2/2/94, assume that the PC stream will come back on line at the same rate it left off.

Or:

1 month curtailment = 1/12 = 0.0833

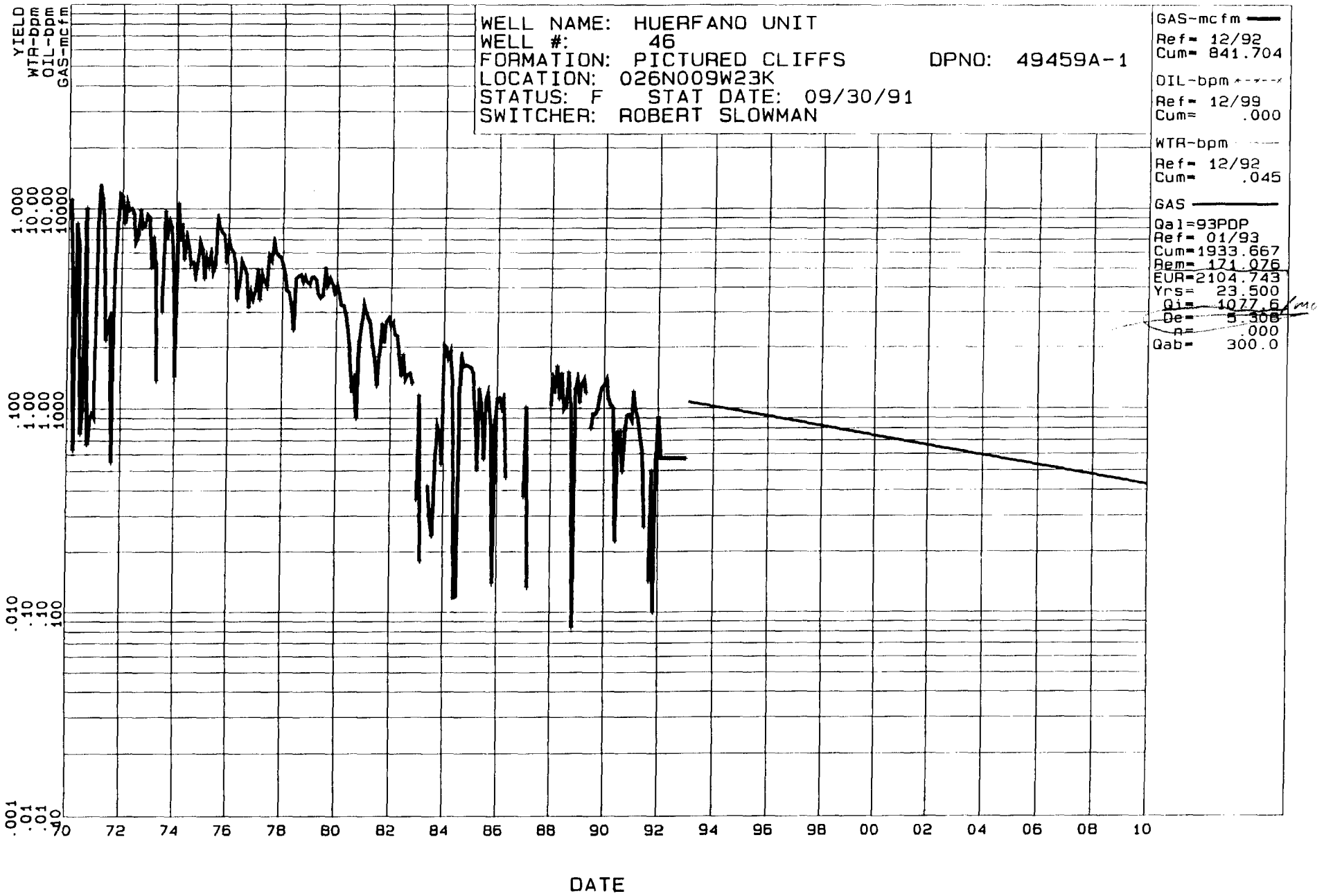
Tot. Time = 1 yr + 1 month = 1 + 1/12 = 1.0833

$Q_{PC} = 35\ (0.947)^{(1.0833\ -\ 0.0833)} = 17$ MCFD.

$Q_{TOT} = 400$ MCFD

$Q_{FTC} = 365$ MCFD

FIG. 1


WELL NAME: HUERFANO UNIT
WELL #: 46
FORMATION: PICTURED CLIFFS
DPNO: 49459A-1
LOCATION: 026N009W23K
STATUS: F STAT DATE: 09/30/91
SWITCHER: ROBERT SLOWMAN
GAS-mcfm
Ref= 12/92
Cum= 841.704
OIL-bpm
Ref= 12/99
Cum= .000
WTR-bpm
Ref= 12/92
Cum= .045
GAS
Qal=93PDP
Ref= 01/93
Cum=1933.667
Rem= 171.076
EUR=2104.743
Yrs= 23.500
Qi= 1077.6
De= 5.308
b= .000
Qab= 300.0
YIELD
WTR-bpm
OIL-bpm
GAS-mcfm
1.000
10.000
10000
.100
1.000
1000
.010
.10
.100
.001
.01
.00
70 72 74 76 78 80 82 84 86 88 90 92 94 96 98 00 02 04 06 08 10
DATE

Huerfano Unit #59 Allocation Formula

Equation Derivation

Given the exponential decline curve analysis formula*:

$$De = 1-(Q_2/Q_1)^{(1/yr)}$$

Where: De = Effective Decline in %/yr
Q_2 = Rate two (at some future date) MCFD
Q_1 = Rate one (current rate) MCFD

Rearranging the equation to solve for Q2:

$$Q_2 = Q_1(1-De)^{yr} \text{ MCFD}$$

Huerfano Unit #59 Formula

Using Production plot (fig 1):

Last production rate = Q1 = 1412 MCFM @ 46 MCFD
De = 2.2% from plot

$$Q_{2PC} = 46 (1 - 0.022) \text{ MCFD}$$

$$\mathbf{Q_{2PC} = 46(0.978)^{yr} \text{ MCFD}} \quad \textbf{FORMULA FOR FUTURE PC RATES}$$

Any production rate over what is calculated using the above PC formula on a specific date is Fruitland Coal.

Curtailment Situations

If any curtailment occurs, both streams will be affected the same and go to 0 MCFD.

When production resumes, the rates will equate to those when the well was shut in:

$$Q_{2PC} = 46 (0.978)$$

$$Q_{FTC} = Q_{TOT} - Q_{PC}$$

$$Q_{TOT} = Q_{FTC} + Q_{PC}$$

The total amount of PC gas produced will be the EUR calculated through decline curve and P-Sum analysis (see figs 1 & 2).

*Reference: pg. 5-46 Oil Property Evaluation
by R. S. Thompson & J. D. Wright

Example: Date Now = 1/1/93

Assuming the well produces steadily in 1993. On 1/1/94, the well produces 400 MCFD.

Q_1 = 46 MCFD De = 2.2%

$Q_{PC} = 46\ (0.978)$ (yr - curtailment time)

$Q_{PC} = 46\ (0.978)^{(1\ -\ 0)} = 45$ MCFD

$Q_{TOT} = 400$ MCFD $= Q_{FTC} + Q_{PC}$

$Q_{FTC} = 400 - 45 = 355$ MCFD

Then on 1/2/94, the well gets shut in for 1 month:

On 2/2/94, assume that the PC stream will come back on line at the same rate it left off.

Or:

1 month curtailment = 1/12 = 0.0833

Tot. Time = 1 yr + 1 month = 1 + 1/12 = 1.0833

$Q_{PC} = 46\ (0.978)^{(1.0833\ -\ 0.0833)} = 17$ MCFD.

$Q_{TOT} = 400$ MCFD

$Q_{FTC} = 355$ MCFD

HUERFANO UNIT #549

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 * e^{-(Dpc)*(t)}

WHERE: **Qpci** = INITIAL PC MONTHLY FLOW RATE (CALCULATED FROM FLOW TEST)

Dpc = PICTURED CLIFFS MONTHLY DECLINE RATE CALCULATED FROM:
Dpc = (Qpci-Qpcabd)/Np(pc)
See Determination of Qpci and PC Estimated Ultimate Recovery (EUR)
Qpcabd = 300 MCF/M

WHERE: **Np(pc)** = PICTURED CLIFFS ESTIMATED ULTIMATE RECOVERY (EUR)
Np(pc) = P*x 1.08 MMCF/PSI x Rf**
P* = INITIAL RESERVOIR PRESSURE (7 DAY SIBHP)
RF = RECOVERY (FIELD ANALOGY): = 0.85
** DETERMINED FROM MATERIAL BALANCE (FIELD ANALOGY) AND VOLUMETRIC RESERVES (LOG ANALYSIS)

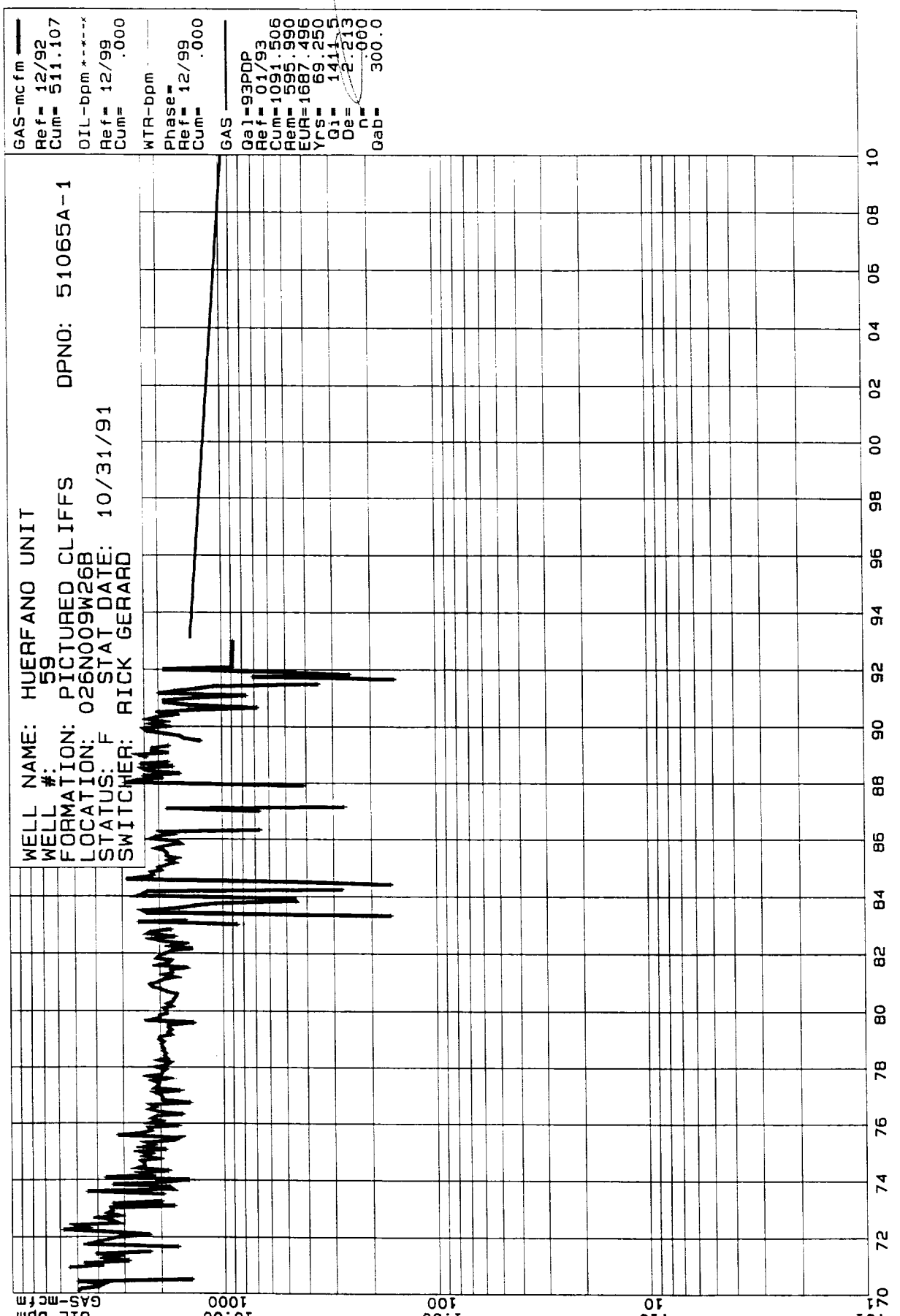
By calculating PC EUR FROM SIBHP and determining PC initial flow rate, Dpc can then be estimated utilizing the previously described parameters

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

WHERE: **(t) IS IN MONTHS**

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

FIG. 1


WELL NAME: HUERFANO UNIT
WELL #: 59
FORMATION: PICTURED CLIFFS
LOCATION: 026N009W26B
STATUS: F STAT DATE: 10/31/91
SWITCHER: RICK GERARD
DPNO: 51065A-1
GAS-mcfm
Ref= 12/92
Cum= 511.107
OIL-bpm
Ref= 12/99
Cum= .000
WTR-bpm
Phase=
Ref= 12/99
Cum= .000
GAS
Qal=93POP
Ref= 01/93
Cum=1091.506
Rem= 595.990
EUR=1687.496
Yrs= 69.250
Qi= 1411.5
De= 2.213
n= .000
Qab= 300.0
YIELD
GAS-mcfm
OIL-bpm
WTR-bpm
1,000
100.0
10.00
1.00
.100
.010
.001
1000
100
10
1.0
.10
.01
70 72 74 76 78 80 82 84 86 88 90 92 94 96 98 00 02 04 06 08 10
DATE

HUERFANO UNIT #549

DETERMINATION OF Qpci:
(INITIAL PICTURED CLIFFS MONTHLY PRODUCTION)

Qpci = Qt(1) X Qpc(p) / {Qpc(p) + Qftc (p)}

WHERE:

Qt(1) = FIRST MONTH TOTAL PRODUCTION (MCF)

Qpc(p) = FINAL PICTURED CLIFFS FLOW TEST (MCFPD)

Qftc(p) = FINAL FRUITLAND COAL FLOW TEST (MCFPD)

Assessment / reassessment

- drill
- log - [illegible]
- cement
- Seismic
- test. P.C. only
- [illegible] [illegible] [illegible]
- 7 day [illegible] [illegible]
- [illegible] [illegible]
- [illegible] [illegible]
- seal off P.C.
- repeat test for Cemt

[illegible] month production

HUERFANO UNIT #549

EXAMPLE DETERMINATION OF:

(a) Np(pc)	PC EUR
(b) Qpci	INITIAL PC MONTHLY FLOW RATE
(c) Dpc	PC MONTHLY DECLINE RATE

(a) DETERMINATION OF Np(pc)

Np(pc) = 1.08 (MMCF/PSI) X P*(PSI) X Rf

P* = 300 PSI (FROM 7 DAY SIBHP)

Np(pc) = 1.08 MMCF/PSI X 300 PSI X 0.85

Np(pc) = 275.4 MMCF

(b) DETERMINATION OF Qpci

Qpci = Qt(1) X {Qpc(p)/(Qpc(p) + Qftc(p))}

Qt(1) =	15,000 MCF	1ST MONTH TOTAL PRODUCTION
Qpc(p) =	500 MCF/D	PC FLOW TEST
Qftc(p) =	400 MCF/D	FTC FLOW TEST

Qpci = 15,000 MCF/M X {500 MCF/D/(500 MCF/D + 400 MCF/D)}

Qpci = 8,333 MCF/M

(c) DETERMINATION OF Dpc

Dpc = (Qpci - Qpcabd)/Npc

Qpcabd = 300 MCF/M

Dpc =(8,333MCF/M - 300MCF/M)/(275,400MCF)

Dpc = 0.029/M

THUS: Qftc = Qt(MCF/M) - 8,333(MCF/M) X e^{-(0.029(1/M)) X t(M)}