

Setting up "Flash" calculation in Excel

INPUT: T, P, Z_i Needed
 K_i estimates

$\theta_i \in \{(M_i), T_{ci}, P_{ci}, \omega_i\}$ App. A
Table 5.2

p_{K_i} estimate $K_i \rightarrow 1$

C_6, C_7, \dots

EQUATIONS:

$$h(\underline{f}_v) = \sum (y_i - x_i) = 0 \quad \text{Eq. 4.39 | 4.36}$$

MM RR

$$\left. \begin{matrix} y_i \\ x_i \end{matrix} \right\} \text{Eq. 4.41}$$

$$\begin{matrix} f_{\min} & , & f_{\max} & & \text{Eq. 4.43} \\ (K_{\max}) & & (K_{\min}) & & \end{matrix}$$

K_i Modified Wilson Eq. 3.159-160

$K_i (P_i, T_i, P_{K_i}, p_{ci}, T_{ci}, \omega_i)$

SOLVE: Excel Solver to solve $h(\underline{f}_v)$
 constrained by $f_{\min} < f_v < f_{\max}$

APPLICATIONS:

(i) Calculate / Quantify the amount of
 * surface SEPARABLE products $(\bar{g}, \bar{\delta})$

Several "FLASH" papers 1937 1949/50 570

(2) Quantity phase amounts (volumes) @ (P, T)
* for flow DP calculations from the Reservoir thru Pipe to Surface.

