

Table 7.3—FALLING-HEAD PERMEAMETER DATA

|                  |                                     |                                       |                                     |                                       |                        |                           |
|------------------|-------------------------------------|---------------------------------------|-------------------------------------|---------------------------------------|------------------------|---------------------------|
| Sample<br>B      | Tubing Area (a): 911                |                                       | Sample Length ( $\Delta l$ ): 17.5  |                                       | Sample Area (A): 911   |                           |
|                  | Temperature (T) 27                  |                                       |                                     |                                       |                        |                           |
| Run              | Start                               |                                       |                                     |                                       | End                    |                           |
|                  | $h_0$ _____                         |                                       | $(h_0 h_1)^{1/2}$ _____             |                                       | $h_1$ _____            |                           |
|                  | Time<br>$h_0$                       | $\Delta t$<br>$h_0 - (h_0 h_1)^{1/2}$ | Time<br>$(h_0 h_1)^{1/2}$           | $\Delta t$<br>$(h_0 h_1)^{1/2} - h_1$ | Time<br>$h_1$          | $\Delta t$<br>$h_0 - h_1$ |
| 1                | 37.5                                | 1.39                                  |                                     |                                       | 35.5                   |                           |
| 2                | 35.5                                | 1.36                                  |                                     |                                       | 33.5                   |                           |
| 3                | 33.5                                | 1.52                                  |                                     |                                       | 31.5                   |                           |
| Average          |                                     |                                       |                                     |                                       |                        |                           |
| $K_T$            | 1) 0.00969    2) 0.001    3) 0.0179 |                                       |                                     |                                       |                        |                           |
| $K_{15.5}$       |                                     |                                       |                                     |                                       |                        |                           |
| $k$              |                                     |                                       |                                     |                                       |                        |                           |
| Sand description |                                     |                                       |                                     |                                       |                        |                           |
|                  |                                     |                                       |                                     |                                       |                        |                           |
| Sample<br>_____  | Tubing Area (a): _____              |                                       | Sample Length ( $\Delta l$ ): _____ |                                       | Sample Area (A): _____ |                           |
|                  | Temperature (T) _____               |                                       |                                     |                                       |                        |                           |
| Run              | Start                               |                                       |                                     |                                       | End                    |                           |
|                  | $h_0$ _____                         |                                       | $(h_0 h_1)^{1/2}$ _____             |                                       | $h_1$ _____            |                           |
|                  | Time<br>$h_0$                       | $\Delta t$<br>$h_0 - (h_0 h_1)^{1/2}$ | Time<br>$(h_0 h_1)^{1/2}$           | $\Delta t$<br>$(h_0 h_1)^{1/2} - h_1$ | Time<br>$h_1$          | $\Delta t$<br>$h_0 - h_1$ |
| 1                |                                     |                                       |                                     |                                       |                        |                           |
| 2                |                                     |                                       |                                     |                                       |                        |                           |
| 3                |                                     |                                       |                                     |                                       |                        |                           |
| Average          |                                     |                                       |                                     |                                       |                        |                           |
| $K_T$            |                                     |                                       |                                     |                                       |                        |                           |
| $K_{15.5}$       |                                     |                                       |                                     |                                       |                        |                           |
| $k$              |                                     |                                       |                                     |                                       |                        |                           |
| Sand description |                                     |                                       |                                     |                                       |                        |                           |

$t_1 = 1.39$

$t_2 = 1.36$

$t_3 = 1.52$