$kL = 2.78 \times 10^{-6}(Dw/Dether)^{2/3}$

Where U10 is > 3.25 and 14 < F/D < 51.2, Calculate kL as follows:
$kL = [2.605 \times 10^{-9}(F/D) + 1.277 \times 10^{-7}]\, U10^{2}\, (Dw/Dether)^{2/3}$

Where U10 > 3.25 m/s and F/D > 51.2, calculate kL as follows:
$kL = (2.611 \times 10^{-7})U10^{2}\, (Dw/Dether)^{2/3}$

B. Calculate the gas phase mass transfer coefficient, kG, using the following procedure from MacKay and Matsasugu, (m/s):

Calculate the Schmidt number on the gas side, ScG, as follows: $ScG = \mu G/\ GDa$

Calculate the effective diameter of the impoundment, de, as follows, (m):
$de = (4A/3.14)^{0.5}$

Calculate kG as follows, (m/s): $kG = 4.82 \times 10^{-3}\, U10^{.78}\, ScG^{-0.67}\, de^{-0.11}$

C. Calculate the partition coefficient, Keq, as follows: $Keq = H/[R(T+273)]$

D. Calculate the overall mass transfer coefficient, Kq, as follows, (m/s):
$1/Kq = 1/kL + 1/(Keq\text{-}kG)$

Where the total impoundment surface is quiescent:
$KL = Kq$

Where a portion of the impoundment surface is turbulent, continue with Form 6.