Loading & Concentration Calculations

Monthly Average (all of the samples in a month) Weekly Average (samples within a certain week) C= concentration F=flow L= loading

NOT continuous recorder

<u>concentration</u>		
Concentration Average=		<u>C1 + C2 + C3 + C4</u> 4
<u>loadings</u>		
Loading Average=		<u>L1 + L2 + L3 + L4</u> 4
	Day 1 Day 2 Day 3 Day 4	(F1)(C1)(8.34 lbs/day) (F2)(C2)(8.34 lbs/day) (F3)(C3)(8.34 lbs/day) (F4)(C4)(8.34 lbs/day)

WITH continuous recorder

concentration	
Concentration Average (C ^{fw})=	C1(F1) + C2(F2) + C3(F3) + C4(F4) F1 + F2 + F3 + F4
<u>loadings</u>	
Loading Average=	C ^{fw} x <u>F1+F2+F3+F4</u> x 8.34 lbs/day

Fecal Coliform Geometric Average

Geometric Mean (Average) = $\sqrt[n]{(C1)(C2)(C3)(C4)...}$

Geometric Mean (Average) is the product of all the sample values followed by taking the nth root of the resulting value where n equals the number of samples

Example: 4 samples of 150, 75, 200, 24

Multiplied together equals 54,000,000

The 4th root equals 85.72