

lampiran 1 Perhitungan Removal Bakteri dan LRV

A. Data Jumlah Total Coliform (Cin dan Ceff)

Waktu Aliran (menit)	Total Coliform MPN/100 mL (indeks MPN x Faktor Pengenceran)							
	4 mL/menit		8 mL/menit		17 mL/menit		Blanko	
	Influent	Effluent	Influent	Effluent	Influent	Effluent	Influent	Effluent
5	1898000	23000	438000	38000	95000	27000	139000	86000
10	438000	21000	271000	39000	139000	44000	1898000	1898000
15	1898000	95000	438000	76000	33000	16000	1898000	1898000
30	139000	27000	33000	21000	44000	38000	1898000	1898000
60	139000	46000	76000	72000	44000	44000	1898000	1898000
90	139000	95000	1898000	1898000	1898000	1898000	1898000	1898000
120	1898000	1898000	1898000	1898000	1898000	1898000	1898000	1898000

B. Contoh Perhitungan Removal Bakteri laju alir 4 mL/menit pada waktu aliran 5 menit

$$R (\%) = \left(\frac{C_{in} - C_{eff}}{C_{in}} \right) \times 100 \%$$

$$R (\%) = \left(\frac{1898000 - 23000}{1898000} \right) \times 100 \%$$

$$R (\%) = 98,79$$

No	Waktu (menit)	% Removal			
		4 mL/menit	8 mL/menit	17 mL/menit	Blanko
1	5	98,79%	91,32%	71,58%	38,13%
2	10	95,21%	85,61%	68,35%	0,00%
3	15	94,99%	82,65%	51,52%	0,00%
4	30	80,58%	36,36%	13,64%	0,00%
5	60	66,91%	5,26%	0,00%	0,00%
6	90	31,65%	0,00%	0,00%	0,00%
7	120	0,00%	0,00%	0,00%	0,00%

C. Contoh Perhitungan LRV laju alir 4 mL/menit pada waktu aliran 5 menit

$$\text{LRV} = \log_{10} \left(\frac{C_{\text{in}}}{C_{\text{eff}}} \right)$$

$$\text{LRV} = \log_{10} \left(\frac{1898000}{23000} \right)$$

$$\text{LRV} = 1,9$$

No	Waktu (menit)	LRV			
		4 mL/menit	8 mL/menit	17 mL/menit	Blanko
1	5	1,9	1,1	0,5	0
2	10	1,3	0,8	0,5	0
3	15	1,3	0,8	0,3	0
4	30	0,7	0,2	0,1	0
5	60	0,5	0	0	0
6	90	0,2	0	0	0
7	120	0	0	0	0