

Lampiran 7. Perhitungan konsentrasi timbal (Pb) di udara ambien

A. Tahapan perhitungan konsentrasi timbal (Pb) di udara ambien

Hari, tanggal : Kamis, 26 Mei 2018

Lokasi : Terminal Giwangan

Waktu/ titik : Weekdays / titik 1 (Pintu masuk)

Diketahui :

$$Q_s = 1,084 \text{ m}^3/\text{menit}$$

$$V = 390,32 \text{ m}^3$$

$$V_t = 50 \text{ mL}$$

S = panjang x lebar filter utuh

$$= 190 \text{ mm} \times 240 \text{ mm} = 45600 \text{ mm}^2$$

S_t = panjang x lebar filter yang dianalisis

$$= 95 \text{ mm} \times 120 \text{ mm} = 11400 \text{ mm}^2$$

$$V = 390,32 \text{ m}^3$$

$$C_{t1} = 0,758 \text{ } \mu\text{g/mL}$$

$$C_{t2} = 0,646 \text{ } \mu\text{g/mL}$$

$$C_{pb} = \frac{C_t \times V_t \times \frac{S}{S_t}}{V}$$

$$C_{pb1} = \frac{0,758 \text{ } \mu\text{g/mL} \times 50 \text{ mL} \times \frac{45600}{11400}}{390,32 \text{ m}^3} = 0,3884 \text{ } \mu\text{g/m}^3$$

$$C_{pb2} = \frac{0,646 \text{ } \mu\text{g/mL} \times 50 \text{ mL} \times \frac{45600}{11400}}{390,32 \text{ m}^3} = 0,331 \text{ } \mu\text{g/m}^3$$

$$\text{rerata } C_{pb} = 0,3597 \text{ } \mu\text{g/m}^3$$

B. Hasil perhitungan di masing-masing titik

No	Lokasi	Titik Sampling	Keterangan Waktu	Waktu Pengambilan Data	Laju Alir Terkoreksi	Volume udara (m ³)	Kons. Pb dari sampel uji (µg/mL)	Konsentrasi Pb di udara ambien (µg/m ³)	Rata-rata (µg/m ³)	Keterangan
1	Terminal Giwangan	Pintu masuk	Weekdays	Kamis, 26 Mei 2018	1,084	390,32	0,758	0,3884	0,3597	-
0,646							0,3310	Duplo		
2			Weekend	Sabtu, 28 Mei 2018	1,076	390,71	0,717	0,3670	0,3445	-
0,629							0,3220	Duplo		
3		Area bus	Weekdays	Jumat, 27 Mei 2018	1,085	387,46	0,672	0,3469	0,3404	-
0,647							0,3340	Duplo		
4			Weekend	Minggu, 29 Mei 2018	1,084	390,39	0,563	0,2884	0,2915	-
0,575							0,2946	Duplo		
5	Terminal Jombor	Pintu masuk	Weekdays	Senin, 7 Mei 2018	1,086	390,85	0,327	0,1673	0,1637	-
0,313							0,1602	Duplo		
6			Weekend	Minggu, 6 Mei 2018	1,083	389,89	0,356	0,1826	0,1895	-
0,383							0,1965	Duplo		
7		Area bus	Weekdays	Jumat, 4 Mei 2018	1,083	389,77	0,334	0,1714	0,1765	-
0,354							0,1816	Duplo		
8			Weekend	Sabtu, 5 Mei 2018	1,085	390,44	0,405	0,2075	0,1995	-
0,374							0,1916	Duplo		