

ABSTRAK

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STUDI KADAR SISA KLOR DAN MPN *COLIFORM* PADA JARINGAN DISTRIBUSI AIR PDAM KOTA SURABAYA TAHUN 2017

ix + 83 Halaman + 5 Tabel + 7 gambar + 12 Lampiran

Air hasil olahan PDAM yang memiliki jarak jauh dari reservoir hampir tidak berbau klor sehingga dimungkinkan kurang dari standar baku mutu sehingga menyebabkan adanya bakteri pada distribusi air PDAM. Tujuan penelitian adalah mengetahui kadar sisa klor dan MPN *coliform* pada distribusi air IPAM Karangpilang 1 PDAM Kota Surabaya tahun 2017.

Jenis penelitian adalah deskriptif menggambarkan kadar sisa klor dan MPN *coliform* hasil olahan IPAM Karangpilang 1. Prosedur pengambilan sampel dilakukan pada 4 lokasi dengan replikasi 3 kali pagi dan siang hari. Pemeriksaan kadar sisa klor menggunakan komparator *test kit*, MPN *coliform* pada laboratorium, sedangkan pH, suhu air dan suhu udara dilakukan di lapangan. Data yang diperoleh disajikan dalam bentuk tabel dan dianalisis serta dibandingkan dengan standar baku mutu.

Hasil penelitian rata-rata sisa klor pagi hari 0,57 mg/l dan siang hari 0,5 mg/l, telah memenuhi standar baku mutu kadar sisa klor air perpipaan yaitu 0,2-1,0 mg/l. Rata-rata MPN *coliform* pagi hari 8,5 koloni/100 ml sampel dan siang hari 10,7 koloni/ 100 ml sampel, sehingga pada siang hari sampel belum memenuhi standar baku mutu MPN *coliform* air perpipaan sebesar 10 koloni/ 100 ml sampel. pH rata-rata pagi hari 7,7 dan siang hari 7,8, suhu air pagi hari 26,8°C dan siang hari 27,7°C dan suhu udara pagi hari 27,7°C dan siang hari 30,3°C.

Disarankan pada instansi terkait dilakukan penambahan klor aktif pada titik terjauh yaitu 9 km yang mempunyai kadar sisa klor rendah.

Kata Kunci : Jarak Distribusi Air PDAM, Kadar Sisa Klor, MPN *Coliform*

Daftar bacaan : 12 Buku (2002 – 2015)

ABSTRACT

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THE STUDY LEVELS OF CHLORINE AND MPN COLIFORM ON DISTRIBUTION NETWORK PDAM CITY SURABAYA IN 2017

ix + 83 pages + 5 tables + 7 pictures + 12 appendix

Water processed PDAM have remotely from a reservoir almost odorless chlorine so that made possible less than the standard quality standards so as to cause the presence of bacteria in water distribution PDAM. Research purposes is to know the rest of the chlorine levels and coliform MPN on water distribution IPAM Karangpilang 1 PDAM city Surabaya 2017.

The kind of research is described the descriptive levels of chlorine and MPN coliform processing the IPAM Karangpilang 1. The sample procedure performed on 4 location by 3 times replication morning and afternoon. Examination of chlorine levels using komparator test kit, MPN coliform in laboratory, while ph, water temperature and temperature carried out in the field. The data presented in the form of table and analyzed and by comparison with a standard of quality.

The results of the study the average the rest of chlorine the morning 0,57 mg / l and day 0,5 mg / l, have met the standards of quality standard the content of chlorine water pipes and 0,2-1,0 mg / l. average MPN coliform the morning 8,5 colonies / 100 ml samples and the daytime 10,7 colonies / 100 ml sample, so at noon not comply with sample of quality standard MPN coliform water pipes as much as 10 colonies / 100 ml sample. Ph average the morning 7,7 and day 7,8, water temperature the morning 26,8°C and day 27,7°C and temperature the morning 27,7°C and day 30,3°C.

Suggested in agencies done the addition of chlorine active in the farthest point that 9 km with the rest of chlorine low levels.

Keywords : Distance distribution PDAM, the rest of chlorine, MPN coliform

Reading List : 12 Books (2002 – 2015)