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**Lampiran 1. Keputusan Menteri Negara Lingkungan Hidup No. 58
Tahun 1995 Tanggal 21 Desember 1995**

BAKU MUTU LIMBAH CAIR BAGI KEGIATAN RUMAH SAKIT

No	Parameter	Kadar Maksimum
A. FISIKA		
1	Suhu	= 30 °C
2	SS	30 mg/L
B. KIMIA		
3	pH	6 - 9
4	BOD ₅	30 mg/L
5	COD	80 mg/L
6	NH ₃ Bebas	0,1 mg/L
7	PO ₄	2 mg/L
C. MIKROBIOLOGIK		
8	MPN - Kuman Golongan Koli/100 ml	10.000
D. RADIOAKTIVITAS		
9	³² P	7 x 10 ² Bq/L
10	³⁵ S	2 x 10 ³ Bq/L
11	⁴⁵ Ca	3 x 10 ² Bq/L
12	⁵¹ Cr	7 x 10 ⁴ Bq/L
13	⁶⁷ Ga	1 x 10 ³ Bq/L
14	⁸⁵ Sr	4 x 10 ³ Bq/L
15	⁹⁹ Mo	7 x 10 ³ Bq/L
16	¹¹³ Sn	3 x 10 ³ Bq/L
17	¹²⁵ I	1 x 10 ⁴ Bq/L
18	¹³¹ I	7 x 10 ⁴ Bq/L
19	¹⁹² Ir	1 x 10 ⁴ Bq/L
20	²⁰¹ Tl	1 x 10 ⁵ Bq/L

Menteri Negara Lingkungan Hidup,

Ttd.

Sarwono Kusumaatmadja

Salinan sesuai aslinya
Asisten IV Menteri Negara Lingkungan Hidup
Bidang Pengembangan Pengawasan dan Pengendalian

Hambar Martono

Lampiran 2. Rata-rata dan persentase penyisihan setiap perlakuan pada pengolahan biofilter aerobik

Lampiran 2 a. Rata-rata dan persentase penyisihan kadar SS

PERLAKUAN	U L A N G A N			RATA-RATA mg/L	PENYISIHAN (%)
	I	II	III		
A0	98,5	97,9	96,7	97,7	
K40T1	86,5	84,1	88,9	86,5	11,5
K40T2	74,0	79,2	74,4	75,9	22,3
K40T3	70,3	69,7	67,3	69,1	29,3
K50T1	63,8	62,7	62,0	62,8	35,7
K50T2	58,2	61,9	52,0	57,4	41,3
K50T3	57,9	60,8	45,1	54,6	44,1
K60T1	50,5	52,2	53,4	52,0	46,7
K60T2	51,7	47,8	48,5	49,3	49,5
K60T3	47,2	49,1	44,2	46,8	52,1

Lampiran 2 b. Rata-rata dan persentase penyisihan kadar BOD

PERLAKUAN	U L A N G A N			RATA-RATA mg/L	PENYISIHAN (%)
	I	II	III		
A0	126	126	125	126	
K40T1	100	101	103	101	19,4
K40T2	90	88	93	90	28,1
K40T3	86	85	83	85	32,6
K50T1	78	77	82	79	37,1
K50T2	70	66	75	70	44,1
K50T3	68	60	63	64	49,3
K60T1	56	55	58	56	55,2
K60T2	52	51	54	52	58,4
K60T3	50	47	54	50	59,9

Lampiran 2 c. Rata-rata dan persentase penyisihan kadar COD

PERLAKUAN	U L A N G A N			RATA-RATA mg/L	PENYISIHAN (%)
	I	II	III		
A0	287	287	285	286	
K40T1	228	225	220	224	21,7
K40T2	217	213	219	216	24,4
K40T3	208	211	201	207	27,8
K50T1	200	189	191	193	32,5
K50T2	189	190	185	188	34,3
K50T3	169	168	175	171	40,4
K60T1	138	134	131	134	53,1
K60T2	123	120	117	120	58,1
K60T3	110	101	103	105	63,4

Lampiran 2 d. Rata-rata dan persentase penyisihan kadar MBAS

PERLAKUAN	U L A N G A N			RATA-RATA	PENYISIHAN (%)
	I	II	III		
A0	5,6	5,2	5,9	5,6	
K40T1	4,8	4,6	4,7	4,7	15,6
K40T2	4,4	4,2	4,0	4,2	24,6
K40T3	4,0	3,9	3,9	3,9	29,4
K50T1	3,4	3,5	3,5	3,5	37,8
K50T2	3,5	3,3	3,3	3,4	39,6
K50T3	3,0	3,1	3,2	3,1	44,3
K60T1	2,1	2,4	2,0	2,2	61,1
K60T2	1,5	1,6	1,9	1,7	70,1
K60T3	0,6	0,7	0,7	0,7	88,0

Keterangan:

- A0 = Perlakuan sampel sebelum pengolahan.
- K40, 50, 60 = Ketebalan filter 40 cm, 50cm , dan 60 cm.
- T 1, 2, 3 = Waktu Tinggal 6 jam, 12 jam, dan 18 jam.

Lampiran 3. Analisis sidik ragam pengaruh perlakuan kombinasi ketebalan media filter dan waktu tinggal terhadap kadar SS

Tests of Between-Subjects Effects

Dependent Variable: SS

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	4224,859	8	528,107	38,072	,000
Intercept	102477,761	1	102477,761	7387,855	,000
Ketebalan	3617,336	2	1808,668	130,391	,000
td	482,979	2	241,489	17,410	,000
Ketebalan * td	124,544	4	31,136	2,245	,105
Error	249,680	18	13,871		
Total	106952,300	27			
Corrected Total	4474,539	26			

a R Squared = ,944 (Adjusted R Squared= ,919)

Lampiran 4. Nilai rata-rata dan kesalahan baku pada SS

Lampiran 4 a. Nilai rata-rata dan kesalahan baku pengaruh ketebalan media filter pada SS

Dependent Variable: SS

Ketebalan	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
K40	77,156	1,241	74,547	79,764
K50	58,267	1,241	55,658	60,875
K60	49,400	1,241	46,792	52,008

Lampiran 4 b. Nilai rata-rata dan kesalahan baku pengaruh waktu tinggal pada SS

Dependent Variable: SS

td	Mean	S td. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
T1	67,122	1,241	64,514	69,730
T2	60,856	1,241	58,247	63,464
T3	56,844	1,241	54,236	59,453

Lampiran 4 c. Nilai rata-rata dan kesalahan baku pengaruh interaksi antara ketebalan media filter dengan waktu tinggal pada SS

Dependent Variable: SS

Ketebalan	td	Mean	S td. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
K40	T1	86,500	2,150	81,982	91,018
	T2	75,867	2,150	71,349	80,384
	T3	69,100	2,150	64,582	73,618
K50	T1	62,833	2,150	58,316	67,351
	T2	57,367	2,150	52,849	61,884
	T3	54,600	2,150	50,082	59,118
K60	T1	52,033	2,150	47,516	56,551
	T2	49,333	2,150	44,816	53,851
	T3	46,833	2,150	42,316	51,351

Lampiran 5. Analisis BNJ perbandingan berganda dan subset pada SS

Lampiran 5 a. Analisis BNJ perbandingan berganda antar ketebalan media filter pada SS

Dependent Variable: SS

Tukey HSD

(I) Ketebalan	(J) Ketebalan	Mean Difference (I-J)	S td. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
K40	K50	18,889*	1,7557	,000	14,408	23,370
	K60	27,756*	1,7557	,000	23,275	32,236
K50	K40	-18,889*	1,7557	,000	-23,370	-14,408
	K60	8,867*	1,7557	,000	4,386	13,347
K60	K40	-27,756*	1,7557	,000	-32,236	-23,275
	K50	-8,867*	1,7557	,000	-13,347	-4,386

Based on observed means.

* The mean difference is significant at the ,05 level.

Lampiran 5 b. Analisis subset antar ketebalan media filter pada SS

Tukey HSD

Ketebalan	N	Subset		
		1	2	3
K60	9	49,400	58,267	77,156
K50	9			
K40	9			
Sig.		1,000	1,000	1,000

Means for groups in homogeneous subsets are displayed. Based on Type III Sum of Squares The error term is Mean Square(Error) = 13,871.

a Uses Harmonic Mean Sample Size = 9,000.

b Alpha = ,05.

Lampiran 5 c. Analisis BNJ perbandingan berganda antar waktu tinggal pada SS

Dependent Variable: SS

Tukey HSD

(I) td	(J) td	Mean Difference (I-J)	S td. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
T1	T2	6,267*	1,7557	,006	1,786	10,747
	T3	10,278*	1,7557	,000	5,797	14,759
T2	T1	-6,267*	1,7557	,006	-10,747	-1,786
	T3	4,011*	1,7557	,084	-,470	8,492
T3	T1	-10,278*	1,7557	,000	-14,759	-5,797
	T2	-4,011*	1,7557	,084	-8,492	,470

Based on observed means.

* The mean difference is significant at the ,05 level.

Lampiran 5 d. Analisis subset antar waktu tinggal pada SS

Tukey HSD

td	N	Subset	
		1	2
T3	9	56,844	
T2	9	60,856	
T1	9		67,122
Sig.		,084	1,000

Means for groups in homogeneous subsets are displayed. Based on Type III Sum of Squares The error term is Mean Square(Error) = 13,871.

a Uses Harmonic Mean Sample Size = 9,000.

b Alpha = ,05.

Lampiran 6. Analisis sidik ragam pengaruh perlakuan kombinasi ketebalan media filter dan waktu tinggal terhadap kadar BOD

Dependent Variable: BOD

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	7739,630	8	967,454	121,494	,000
Intercept	140112,037	1	140112,037	17595,465	,000
Ketebalan	6898,074	2	3449,037	433,135	,000
td	736,519	2	368,259	46,247	,000
Ketebalan * td	105,037	4	26,259	3,298	,034
Error	143,333	18	7,963		
Total	147995,000	27			
Corrected Total	7882,963	26			

a R Squared = ,982 (Adjusted R Squared = ,974)

Lampiran 7. Nilai rata-rata dan kesalahan baku pada BOD

Lampiran 7 a. Nilai rata-rata dan kesalahan baku pengaruh ketebalan media filter pada BOD

Dependent Variable: BOD

Ketebalan	Mean	S td. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
K40	92,111	,941	90,135	94,087
K50	71,000	,941	69,024	72,976
K60	53,000	,941	51,024	54,976

Lampiran 7 b. Nilai rata-rata dan kesalahan baku pengaruh waktu tinggal pada BOD

Dependent Variable: BOD

td	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
T1	78,889	,941	76,913	80,865
T2	71,000	,941	69,024	72,976
T3	66,222	,941	64,246	68,198

Lampiran 7 c. Nilai rata-rata dan kesalahan baku pengaruh interaksi antara ketebalan media filter dengan waktu tinggal pada BOD

Dependent Variable: BOD

Ketebalan	td	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
K40	T1	101,333	1,629	97,910	104,756
	T2	90,333	1,629	86,910	93,756
	T3	84,667	1,629	81,244	88,090
K50	T1	79,000	1,629	75,577	82,423
	T2	70,333	1,629	66,910	73,756
	T3	63,667	1,629	60,244	67,090
K60	T1	56,333	1,629	52,910	59,756
	T2	52,333	1,629	48,910	55,756
	T3	50,333	1,629	46,910	53,756

Lampiran 8. Analisis BNJ perbandingan berganda dan subset pada BOD

Lampiran 8 a. Analisis BNJ perbandingan berganda antar ketebalan media filter pada BOD

Dependent Variable: BOD

Tukey HSD

(I) Ketebalan n	(J) Ketebalan n	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
K40	K50	21,1111*	1,33024	,000	17,7161	24,5061
	K60	39,1111*	1,33024	,000	35,7161	42,5061
K50	K40	-21,1111*	1,33024	,000	-24,5061	-17,7161
	K60	18,0000*	1,33024	,000	14,6050	21,3950
K60	K40	-39,1111*	1,33024	,000	-42,5061	-35,7161
	K50	-18,0000*	1,33024	,000	-21,3950	-14,6050

Based on observed means.

* The mean difference is significant at the ,05 level.

Lampiran 8 b. Analisis subset antar ketebalan media filter pada BOD

BOD

Tukey HSD

Ketebalan	N	Subset		
		1	2	3
K60	9	53,0000	71,0000	92,1111
K50	9			
K40	9			
Sig.		1,000	1,000	1,000

Means for groups in homogeneous subsets are displayed. Based on Type III Sum of Squares The error term is Mean Square(Error) = 7,963.

a Uses Harmonic Mean Sample Size = 9,000.

b Alpha = ,05.

Lampiran 8 c. Analisis BNJ perbandingan berganda antar waktu tinggal pada BOD

Dependent Variable: BOD

Tukey HSD

(I) td	(J) td	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
T1	T2	7,8889*	1,33024	,000	4,4939	11,2839
	T3	12,6667*	1,33024	,000	9,2717	16,0617
T2	T1	-7,8889*	1,33024	,000	-11,2839	-4,4939
	T3	4,7778*	1,33024	,006	1,3828	8,1728
T3	T1	-12,6667*	1,33024	,000	-16,0617	-9,2717
	T2	-4,7778*	1,33024	,006	-8,1728	-1,3828

Based on observed means.

* The mean difference is significant at the ,05 level.

Lampiran 8 d. Analisis subset antar waktu tinggal pada BOD

BOD

Tukey HSD

td	N	Subset		
		1	2	3
T3	9	66,2222		
T2	9		71,0000	
T1	9			78,8889
Sig.		1,000	1,000	1,000

Means for groups in homogeneous subsets are displayed. Based on Type III Sum of Squares The error term is Mean Square(Error) = 7,963.

a Uses Harmonic Mean Sample Size = 9,000.

b Alpha = ,05.

Lampiran 9. Analisis sidik ragam pengaruh perlakuan kombinasi ketebalan media filter dan waktu tinggal terhadap kadar COD

Dependent Variable: COD

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	45790,741	8	5723,843	340,405	,000
Intercept	809467,593	1	809467,593	48140,143	,000
Ketebalan	43157,852	2	21578,926	1283,328	,000
td	2485,852	2	1242,926	73,919	,000
Ketebalan * td	147,037	4	36,759	2,186	,112
Error	302,667	18	16,815		
Total	855561,000	27			
Corrected Total	46093,407	26			

a R Squared = ,993 (Adjusted R Squared = ,991)

Lampiran 10. Nilai rata-rata dan kesalahan baku pada COD

Lampiran 10 a. Nilai rata-rata dan kesalahan baku pengaruh ketebalan media filter pada COD

Dependent Variable: COD

Ketebalan	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
K40	215,778	1,367	212,906	218,649
K50	184,000	1,367	181,128	186,872
K60	119,667	1,367	116,795	122,538

Lampiran 10 b. Nilai rata-rata dan kesalahan baku pengaruh waktu tinggal pada COD

Dependent Variable: COD

td	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
T1	184,000	1,367	181,128	186,872
T2	174,778	1,367	171,906	177,649
T3	160,667	1,367	157,795	163,538

Lampiran 10 c. Nilai rata-rata dan kesalahan baku pengaruh interaksi antara ketebalan media filter dengan waktu tinggal pada COD

Dependent Variable: COD

Ketebalan	td	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
K40	T1	224,333	2,367	219,359	229,307
	T2	216,333	2,367	211,359	221,307
	T3	206,667	2,367	201,693	211,641
K50	T1	193,333	2,367	188,359	198,307
	T2	188,000	2,367	183,026	192,974
	T3	170,667	2,367	165,693	175,641
K60	T1	134,333	2,367	129,359	139,307
	T2	120,000	2,367	115,026	124,974
	T3	104,667	2,367	99,693	109,641

Lampiran 11. Analisis BNJ perbandingan berganda dan subset pada COD

Lampiran 11 a. Analisis BNJ perbandingan berganda antar ketebalan media filter pada COD

Dependent Variable: COD

Tukey HSD

(I) Ketebalan n	(J) Ketebalan n	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
K40	K50	31,778*	1,9330	,000	26,844	36,711
	K60	96,111*	1,9330	,000	91,178	101,045
K50	K40	-31,778*	1,9330	,000	-36,711	-26,844
	K60	64,333*	1,9330	,000	59,400	69,267
K60	K40	-96,111*	1,9330	,000	-101,045	-91,178
	K50	-64,333*	1,9330	,000	-69,267	-59,400

Based on observed means.

* The mean difference is significant at the ,05 level.

Lampiran 11 b. Analisis subset antar ketebalan media filter pada COD

COD

Tukey HSD

Ketebalan	N	Subset		
		1	2	3
K60	9	119,667	184,000	215,778
K50	9			
K40	9			
Sig.		1,000	1,000	1,000

Means for groups in homogeneous subsets are displayed. Based on Type III Sum of Squares The error term is Mean Square(Error) = 16,815.

a Uses Harmonic Mean Sample Size = 9,000.

b Alpha = ,05.

Lampiran 11 c. Analisis BNJ perbandingan berganda antar waktu tinggal pada COD

Dependent Variable: COD

Tukey HSD

(I) td	(J) td	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
T1	T2	9,222*	1,9330	,000	4,289	14,156
	T3	23,333*	1,9330	,000	18,400	28,267
T2	T1	-9,222*	1,9330	,000	-14,156	-4,289
	T3	14,111*	1,9330	,000	9,178	19,045
T3	T1	-23,333*	1,9330	,000	-28,267	-18,400
	T2	-14,111*	1,9330	,000	-19,045	-9,178

Based on observed means.

* The mean difference is significant at the ,05 level.

Lampiran 11 d. Analisis subset antar waktu tinggal pada COD

COD

Tukey HSD

td	N	Subset		
		1	2	3
T3	9	160,667	174,778	184,000
T2	9			
T1	9			
Sig.		1,000	1,000	1,000

Means for groups in homogeneous subsets are displayed. Based on Type III Sum of Squares The error term is Mean Square(Error) = 16,815.

a Uses Harmonic Mean Sample Size = 9,000.

b Alpha = ,05.

Lampiran 12. Analisis sidik ragam pengaruh perlakuan kombinasi ketebalan media filter dan waktu tinggal terhadap kadar MBAS

Tests of Between-Subjects Effects
Dependent Variable: MBAS

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	40,416	8	5,052	267,461	,000
Intercept	247,824	1	247,824	13120,078	,000
KETEBALA	35,792	2	17,896	947,431	,000
td	3,499	2	1,749	92,608	,000
KETEBALA * td	1,126	4	,281	14,902	,000
Error	,340	18	1,889E-02		
Total	288,580	27			
Corrected Total	40,756	26			

a R Squared = ,992 (Adjusted R Squared = ,988)

Lampiran 13. Nilai rata-rata dan kesalahan baku pada MBAS

Lampiran 13 a. Nilai rata-rata dan kesalahan baku pengaruh ketebalan media filter pada MBAS

1. KETEBALAN

Dependent Variable: MBAS

KETEBALAN	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
K40	4,278	,046	4,182	4,374
K50	3,311	,046	3,215	3,407
K60	1,500	,046	1,404	1,596

Lampiran 13 b. Nilai rata-rata dan kesalahan baku pengaruh waktu tinggal pada MBAS

2. td

Dependent Variable: MBAS

td	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
T1	3,444	,046	3,348	3,541
T2	3,078	,046	2,982	3,174
T3	2,567	,046	2,470	2,663

Lampiran 13 c. Nilai rata-rata dan kesalahan baku pengaruh interaksi antara ketebalan media filter dengan waktu tinggal pada MBAS

3. KETEBALAN * td

Dependent Variable: MBAS

KETEBALAN	td	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
K40	T1	4,700	,079	4,533	4,867
	T2	4,200	,079	4,033	4,367
	T3	3,933	,079	3,767	4,100
K50	T1	3,467	,079	3,300	3,633
	T2	3,367	,079	3,200	3,533
	T3	3,100	,079	2,933	3,267
K60	T1	2,167	,079	2,000	2,333
	T2	1,667	,079	1,500	1,833
	T3	,667	,079	,500	,833

Lampiran 14. Analisis BNJ perbandingan berganda dan subset pada MBAS

Lampiran 14 a. Analisis BNJ perbandingan berganda antar ketebalan media filter pada MBAS

Dependent Variable: MBAS

Tukey HSD

(I) KETEBALAN	(J) KETEBALAN	Mean Difference (I- J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
K40	K50	,9667*	,06479	,000	,8013	1,1320
	K60	2,7778*	,06479	,000	2,6124	2,9431
K50	K40	-,9667*	,06479	,000	-1,1320	-,8013
	K60	1,8111*	,06479	,000	1,6458	1,9765
K60	K40	-2,7778*	,06479	,000	-2,9431	-2,6124
	K50	-1,8111*	,06479	,000	-1,9765	-1,6458

Based on observed means.

* The mean difference is significant at the ,05 level.

Lampiran 14 b. Analisis subset antar ketebalan media filter pada MBAS

MBAS

Tukey HSD

KETEBALAN	N	Subset		
		1	2	3
K60	9	1,5000		
K50	9		3,3111	
K40	9			4,2778
Sig.		1,000	1,000	1,000

Means for groups in homogeneous subsets are displayed. Based on Type III Sum of Squares The error term is Mean Square(Error) = 1,889E -02.

a Uses Harmonic Mean Sample Size = 9,000.

b Alpha = ,05.

Lampiran 14 c. Analisis BNJ perbandingan berganda antar waktu tinggal pada MBAS

Dependent Variable: MBAS

Tukey HSD

(I) TD	(J) TD	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
T1	T2	,3667*	,06479	,000	,2013	,5320
	T3	,8778*	,06479	,000	,7124	1,0431
T2	T1	-,3667*	,06479	,000	-,5320	-,2013
	T3	,5111*	,06479	,000	,3458	,6765
T3	T1	-,8778*	,06479	,000	-1,0431	-,7124
	T2	-,5111*	,06479	,000	-,6765	-,3458

Based on observed means.

* The mean difference is significant at the ,05 level.

Lampiran 14 d. Analisis subset antar waktu tinggal pada MBAS

MBAS

Tukey HSD

td	N	Subset		
		1	2	3
T3	9	2,5667		
T2	9		3,0778	
T1	9			3,4444
Sig.		1,000	1,000	1,000

Means for groups in homogeneous subsets are displayed. Based on Type III Sum of Squares The error term is Mean Square(Error) = 1,889E -02.

a Uses Harmonic Mean Sample Size = 9,000.

b Alpha = ,05.

Lampiran 15. Pengolahan Limbah Cair RS sistem Aerob



Keterangan :

1. Bak Pengendap Awal
2. Zona Aerob
3. Bak Pengendap Akhir

Lampiran 16. Media Filter Serpihan Plastik



Lampiran 17. Pengambilan dan pemeriksaan sampel



Pengambilan sampel limbah cair RS Labuang Baji Makassar



Pemeriksaan sampel di Laboratorium Politeknik Makassar

Lampiran 18. Sampel Limbah cair RS Sebelum dan Sesudah Diolah



