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# LAMPIRAN

**Lampiran 1. Data Hasil Analisis Kandungan Logam Pb di Sedimen**

Stasiun	Ulangan	Kandungan Pb (mg/kg)	Rata-rata (mg/kg)
CPI	I	7,30	6,40
	II	5,21	
	III	5,94	
	IV	7,16	
PAOTERE	I	10,01	11,79
	II	10,78	
	III	13,06	
	IV	13,29	
SAMALONA	I	0,07	0,07
	II	0,07	
	III	0,07	
	IV	0,08	

**Lampiran 2. Data Hasil Analisis Kandungan Logam Cd di Sedimen**

Stasiun	Ulangan	Kandungan Cd (mg/kg)	Rata-rata (mg/kg)
CPI	I	0,094	0,072
	II	0,007	
	III	0,083	
	IV	0,102	
PAOTERE	I	0,105	0,133
	II	0,137	
	III	0,138	
	IV	0,151	
SAMALONA	I	0,022	0,031
	II	0,029	
	III	0,035	
	IV	0,038	

**Lampiran 3. Hasil Uji Statistik Oneway ANOVA Logam Pb dan Cd**

**Descriptives**

Logam Pb

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
					CPI	4		
PAOTERE	4	11,7850	1,63822	,81911	9,1782	14,3918	10,01	13,29
SAMALONA	4	,0725	,00500	,00250	,0645	,0805	,07	,08
Total	12	6,0867	5,09929	1,47204	2,8467	9,3266	,07	13,29

### Lampiran 3. Lanjutan

#### Test of Homogeneity of Variances

Logam Pb

Levene Statistic	df1	df2	Sig.
29,207	2	9	,000

#### ANOVA

Logam Pb

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	274,964	2	137,482	111,808	,000
Within Groups	11,067	9	1,230		
Total	286,030	11			

#### Descriptives

Logam Kadmium (cd)

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
					CPI	4		
PAOTERE	4	,13275	,019568	,009784	,10161	,16389	,105	,151
SAMALONA	4	,03100	,007071	,003536	,01975	,04225	,022	,038
Total	12	,07842	,050471	,014570	,04635	,11048	,007	,151

#### Test of Homogeneity of Variances

Logam Kadmium (cd)

Levene Statistic	df1	df2	Sig.
3,410	2	9	,079

#### ANOVA

Logam Kadmium (cd)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	,021	2	,010	13,442	,002
Within Groups	,007	9	,001		
Total	,028	11			

**Lampiran 4.** Data Kecepatan Arus di Lokasi Penelitian

Stasiun	Ulangan	Jarak (m)	Waktu (s)	Kecepatan (m/s)	Rata-rata (m/s)
CPI	I	10	511	0,020	0,036
	II		236	0,042	
	III		457	0,022	
	IV		163	0,061	
PAOTERE	I	10	306	0,033	0,027
	II		384	0,026	
	III		457	0,022	
	IV		386	0,026	
SAMALONA	I	10	63	0,159	0,143
	II		74	0,135	
	III		65	0,154	
	IV		80	0,125	

**Lampiran 5.** Hasil Uji Korelasi Pearson Logam Pb dan Cd dengan BOT

		Correlations	
		BOT	Logam Pb
Logam Pb	Pearson Correlation	,828**	1
	Sig. (2-tailed)	,001	
	N	12	12
Logam Cd	Pearson Correlation	,711**	1
	Sig. (2-tailed)	,010	
	N	12	12

\*\* . Correlation is significant at the 0.01 level (2-tailed).



### Lampiran 6. Hasil Uji Korelasi Pearson Logam Pb dan Eh

<b>Correlations</b>			
		<b>Eh</b>	<b>Logam Pb</b>
<b>Eh</b>	Pearson Correlation	1	-,822**
	Sig. (2-tailed)		,001
	N	12	12
<b>Logam Pb</b>	Pearson Correlation	-,822**	1
	Sig. (2-tailed)	,001	
	N	12	12

\*\* . Correlation is significant at the 0.01 level (2-tailed).

### Lampiran 7. Hasil Uji Korelasi Pearson Logam Cd dan Eh

<b>Correlations</b>			
		<b>Eh</b>	<b>Logam Cd</b>
<b>Eh</b>	Pearson Correlation	1	-,630*
	Sig. (2-tailed)		,028
	N	12	12
<b>Logam Cd</b>	Pearson Correlation	-,630*	1
	Sig. (2-tailed)	,028	
	N	12	12

\*. Correlation is significant at the 0.05 level (2-tailed).

**Lampiran 8.** Data Hasil Analisis Kandungan BOT pada Sedimen

Stasiun	Ulangan	BCK (gr)	BS (gr)	BCK + BSP (B.awal) (gr)	Berat Setelah Pijar (B.akhir) (gr)	B.aw - B.ak (gr)	Berat BO/B.sampel (gr)	LOI (%)	Rata- rata (%)
CPI	I	31,223	5,007	36,230	34,827	1,403	0,280207709	28,02	<b>17,67</b>
	II	45,604	5,047	50,651	49,866	0,785	0,155537943	15,55	
	III	41,612	5,003	46,615	46,042	0,573	0,114531281	11,45	
	IV	31,288	5,062	36,350	35,557	0,793	0,156657448	15,67	
PAOTERE	I	44,308	5,004	49,312	48,253	1,059	0,211630695	21,16	<b>20,03</b>
	II	43,315	5,022	48,337	47,245	1,092	0,21744325	21,74	
	III	43,319	5,021	48,340	47,512	0,828	0,164907389	16,49	
	IV	43,397	5,006	48,403	47,365	1,038	0,207351179	20,74	
SAMALONA	I	27,172	5,053	32,225	31,978	0,247	0,048881852	4,89	<b>3,79</b>
	II	27,822	5,098	32,920	32,780	0,140	0,02746175	2,75	
	III	26,566	5,053	31,619	31,443	0,176	0,034830794	3,48	
	IV	30,944	5,012	35,956	35,753	0,203	0,040502793	4,05	

**Lampiran 9. Data Hasil Analisis Ukuran Butir Sedimen**

Stasiun	Ulangan	Berat Awal (gr)	Berat Hasil Ayakan (gr)							Berat Akhir (gr)
			2 mm	1 mm	0,5 mm	0,25 mm	0,125 mm	0,063 mm	<0,063 mm	
CPI	I	100,038	0	15,799	17,256	12,847	18,796	21,175	9,248	95,121
				Pasir kasar (16%)		Pasir sedang (30%)		Pasir halus (49%)		
	II	100,009	0	13,635	18,189	15,775	20,276	19,496	8,275	95,646
				Pasir kasar (14%)		Pasir sedang (34%)		Pasir halus (48%)		
PAOTERE	III	100,043	0	5,321	6,770	7,468	31,486	38,614	10,190	99,849
				Pasir kasar (5%)		Pasir sedang (14%)		Pasir halus (80%)		
	IV	100,019	0	16,744	17,513	13,771	18,242	17,057	10,311	93,638
				Pasir kasar (17%)		Pasir sedang (31%)		Pasir halus (46%)		
SAMALONA	I	100,064	0	5,443	19,356	18,543	24,963	22,966	8,52	99,791
				Pasir kasar (5%)		Pasir sedang (38%)		Pasir halus (56%)		
	II	100,086	0	14,400	20,324	17,560	21,026	18,667	7,926	99,903
				Pasir kasar (14%)		Pasir sedang (38%)		Pasir halus (48%)		
SAMALONA	III	100,065	0	14,348	20,390	19,071	24,242	14,895	4,893	97,839
				Pasir kasar (14%)		Pasir sedang (39%)		Pasir halus (44%)		
	IV	100,011	0	14,377	19,926	15,859	18,511	22,971	7,382	99,026
				Pasir kasar (14%)		Pasir sedang (36%)		Pasir halus (49%)		
SAMALONA	I	100,090	0,927	8,322	18,360	37,815	31,883	1,664	0,886	99,857
				Pasir kasar (9%)		Pasir sedang (56%)		Pasir halus (34%)		
	II	100,035	0,342	13,099	22,446	29,958	29,471	2,825	1,480	99,621
				Pasir kasar (13%)		Pasir sedang (52%)		Pasir halus (34%)		
SAMALONA	III	100,080	0,765	9,868	17,699	36,439	33,616	1,009	0,440	99,836
				Pasir kasar (11%)		Pasir sedang (54%)		Pasir halus (35%)		
SAMALONA	IV	100,050	0,937	9,793	16,773	37,741	33,443	0,470	0,579	99,736
				Pasir kasar (11%)		Pasir sedang (55%)		Pasir halus (34%)		

## Lampiran 10. Hasil Pengolahan Data GRADISTAT

Stasiun	Ulangan	Geometric (mm)	Description
CPI	1	0,23	Pasir Halus
	2	0,21	Pasir Halus
	3	0,14	Pasir Halus
	4	0,26	Pasir Sedang
PAOTERE	1	0,19	Pasir Halus
	2	0,24	Pasir Halus
	3	0,25	Pasir Halus
	4	0,23	Pasir Halus
SAMALONA	1	0,30	Pasir Sedang
	2	0,31	Pasir Sedang
	3	0,30	Pasir Sedang
	4	0,30	Pasir Sedang

SAMPLE STATISTICS										
SAMPLE IDENTITY: S1 U1					ANALYST & DATE: .					
SAMPLE TYPE: Polymodal, Poorly Sorted					TEXTURAL GROUP: Sand					
SEDIMENT NAME: Poorly Sorted Very Fine Sand										
GRAIN SIZE DISTRIBUTION										
	$\mu\text{m}$	$\phi$								
MODE 1:	76.50	3.731	GRAVEL: 0.0%		COARSE SAND: 18.1%					
MODE 2:	152.5	2.737	SAND: 90.3%		MEDIUM SAND: 13.5%					
MODE 3:	605.0	0.747	MUD: 9.7%		FINE SAND: 19.8%					
$D_{10}$ :	63.28	-0.193			V FINE SAND: 22.3%					
MEDIAN or $D_{50}$ :	174.3	2.520	V COARSE GRAVEL: 0.0%		V COARSE SILT: 1.6%					
$D_{60}$ :	1143.3	3.982	COARSE GRAVEL: 0.0%		COARSE SILT: 1.6%					
$(D_{60} / D_{10})$ :	18.07	-20.615	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 1.6%					
$(D_{30} - D_{10})$ :	1080.0	4.175	FINE GRAVEL: 0.0%		FINE SILT: 1.6%					
$(D_{75} / D_{25})$ :	7.502	4.993	V FINE GRAVEL: 0.0%		V FINE SILT: 1.6%					
$(D_{75} - D_{25})$ :	523.2	2.907	V COARSE SAND: 16.6%		CLAY: 1.6%					
METHOD OF MOMENTS					FOLK & WARD METHOD					
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description				
	$\mu\text{m}$	$\mu\text{m}$	$\phi$	$\mu\text{m}$	$\phi$					
MEAN ( $\bar{X}$ ):	400.2	191.8	2.383	230.8	2.115	Fine Sand	Setelah dibagi 1000			
SORTING ( $\sigma_1$ ):	404.7	4.127	2.045	3.774	1.916	Poorly Sorted	0.230796			
SKEWNESS ( $S_k$ ):	1.071	-0.732	0.732	0.113	-0.113	Coarse Skewed				
KURTOSIS ( $K$ ):	2.732	3.083	3.083	0.885	0.885	Platykurtic				

SAMPLE STATISTICS										
SAMPLE IDENTITY: S1 U2					ANALYST & DATE: .					
SAMPLE TYPE: Polymodal, Poorly Sorted					TEXTURAL GROUP: Sand					
SEDIMENT NAME: Poorly Sorted Fine Sand										
GRAIN SIZE DISTRIBUTION										
	$\mu\text{m}$	$\phi$								
MODE 1:	152.5	2.737	GRAVEL: 0.0%		COARSE SAND: 19.0%					
MODE 2:	76.50	3.731	SAND: 91.4%		MEDIUM SAND: 16.5%					
MODE 3:	605.0	0.747	MUD: 8.6%		FINE SAND: 21.2%					
$D_{10}$ :	64.50	-0.145			V FINE SAND: 20.4%					
MEDIAN or $D_{50}$ :	179.3	2.460	V COARSE GRAVEL: 0.0%		V COARSE SILT: 1.4%					
$D_{60}$ :	1105.7	3.954	COARSE GRAVEL: 0.0%		COARSE SILT: 1.4%					
$(D_{60} / D_{10})$ :	17.14	-27.289	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 1.4%					
$(D_{30} - D_{10})$ :	1041.2	4.099	FINE GRAVEL: 0.0%		FINE SILT: 1.4%					
$(D_{75} / D_{25})$ :	6.944	4.885	V FINE GRAVEL: 0.0%		V FINE SILT: 1.4%					
$(D_{75} - D_{25})$ :	498.5	2.796	V COARSE SAND: 14.3%		CLAY: 1.4%					
METHOD OF MOMENTS					FOLK & WARD METHOD					
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description				
	$\mu\text{m}$	$\mu\text{m}$	$\phi$	$\mu\text{m}$	$\phi$					
MEAN ( $\bar{X}$ ):	386.7	197.3	2.341	206.7	2.274	Fine Sand	Setelah dibagi 1000			
SORTING ( $\sigma_1$ ):	383.0	3.858	1.948	3.304	1.724	Poorly Sorted	0.206696			
SKEWNESS ( $S_k$ ):	1.173	-0.813	0.813	0.060	-0.060	Symmetrical				
KURTOSIS ( $K$ ):	3.102	3.399	3.399	0.879	0.879	Platykurtic				

## Lampiran 10. Lanjutan

SAMPLE STATISTICS						
SAMPLE IDENTITY: S1 U3			ANALYST & DATE: .			
SAMPLE TYPE: Polymodal, Poorly Sorted			TEXTURAL GROUP: Muddy Sand			
SEDIMENT NAME: Very Coarse Silty Very Fine Sand						
			GRAIN SIZE DISTRIBUTION			
	$\mu\text{m}$	$\phi$				
MODE 1:	76.50	3.731	GRAVEL: 0.0%	COARSE SAND: 6.8%		
MODE 2:	152.5	2.737	SAND: 89.8%	MEDIUM SAND: 7.5%		
MODE 3:	302.5	1.747	MUD: 10.2%	FINE SAND: 31.5%		
$D_{10}$ :	59.57	0.843	V FINE SAND: 38.7%			
MEDIAN or $D_{50}$ :	126.6	2.981	V COARSE GRAVEL: 0.0%	V COARSE SILT: 1.7%		
$D_{90}$ :	557.6	4.069	COARSE GRAVEL: 0.0%	COARSE SILT: 1.7%		
$(D_{90} / D_{10})$ :	9.361	4.829	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 1.7%		
$(D_{90} - D_{10})$ :	498.1	3.227	FINE GRAVEL: 0.0%	FINE SILT: 1.7%		
$(D_{75} / D_{25})$ :	2.342	1.479	V FINE GRAVEL: 0.0%	V FINE SILT: 1.7%		
$(D_{75} - D_{25})$ :	96.87	1.227	V COARSE SAND: 5.3%	CLAY: 1.7%		
			FOLK & WARD METHOD			
METHOD OF MOMENTS			Folk & Ward Method			
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	$\mu\text{m}$	$\mu\text{m}$	$\phi$	$\mu\text{m}$	$\phi$	
MEAN ( $\bar{x}$ ):	208.5	109.7	3.188	135.5	2.883	Fine Sand
SORTING ( $\sigma$ ):	273.2	3.218	1.686	2.746	1.457	Poorly Sorted
SKEWNESS ( $sk$ ):	2.685	-0.479	0.479	0.065	-0.065	Symmetrical
KURTOSIS ( $K$ ):	9.591	3.906	3.906	2.025	2.025	Very Leptokurtic
Setelah dibagi 1000						
0.13553						

SAMPLE STATISTICS						
SAMPLE IDENTITY: S1 U4			ANALYST & DATE: .			
SAMPLE TYPE: Polymodal, Poorly Sorted			TEXTURAL GROUP: Muddy Sand			
SEDIMENT NAME: Medium Silty Fine Sand						
			GRAIN SIZE DISTRIBUTION			
	$\mu\text{m}$	$\phi$				
MODE 1:	152.5	2.737	GRAVEL: 0.0%	COARSE SAND: 18.7%		
MODE 2:	605.0	0.747	SAND: 89.0%	MEDIUM SAND: 14.7%		
MODE 3:	1200.0	-0.243	MUD: 11.0%	FINE SAND: 19.5%		
$D_{10}$ :	48.80	-0.214	V FINE SAND: 18.2%			
MEDIAN or $D_{50}$ :	257.8	1.956	V COARSE GRAVEL: 0.0%	V COARSE SILT: 1.8%		
$D_{90}$ :	1159.9	4.357	COARSE GRAVEL: 0.0%	COARSE SILT: 1.8%		
$(D_{90} / D_{10})$ :	23.77	-20.364	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 1.8%		
$(D_{90} - D_{10})$ :	1111.1	4.571	FINE GRAVEL: 0.0%	FINE SILT: 1.8%		
$(D_{75} / D_{25})$ :	7.499	5.233	V FINE GRAVEL: 0.0%	V FINE SILT: 1.8%		
$(D_{75} - D_{25})$ :	538.4	2.907	V COARSE SAND: 17.9%	CLAY: 1.8%		
			FOLK & WARD METHOD			
METHOD OF MOMENTS			Folk & Ward Method			
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	$\mu\text{m}$	$\mu\text{m}$	$\phi$	$\mu\text{m}$	$\phi$	
MEAN ( $\bar{x}$ ):	419.4	198.0	2.336	264.7	1.917	Medium Sand
SORTING ( $\sigma$ ):	411.4	4.342	2.118	3.901	1.964	Poorly Sorted
SKEWNESS ( $sk$ ):	0.985	-0.819	0.819	-0.132	0.132	Fine Skewed
KURTOSIS ( $K$ ):	2.536	3.061	3.061	0.920	0.920	Mesokurtic
Setelah dibagi 1000						
0.264738						

SAMPLE STATISTICS						
SAMPLE IDENTITY: S2 U1			ANALYST & DATE: .			
SAMPLE TYPE: Polymodal, Poorly Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Poorly Sorted Fine Sand						
			GRAIN SIZE DISTRIBUTION			
	$\mu\text{m}$	$\phi$				
MODE 1:	152.5	2.737	GRAVEL: 0.0%	COARSE SAND: 19.4%		
MODE 2:	76.50	3.731	SAND: 91.5%	MEDIUM SAND: 18.6%		
MODE 3:	605.0	0.747	MUD: 8.5%	FINE SAND: 25.0%		
$D_{10}$ :	64.44	0.613	V FINE SAND: 23.0%			
MEDIAN or $D_{50}$ :	163.6	2.612	V COARSE GRAVEL: 0.0%	V COARSE SILT: 1.4%		
$D_{90}$ :	654.0	3.956	COARSE GRAVEL: 0.0%	COARSE SILT: 1.4%		
$(D_{90} / D_{10})$ :	10.15	6.457	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 1.4%		
$(D_{90} - D_{10})$ :	589.5	3.343	FINE GRAVEL: 0.0%	FINE SILT: 1.4%		
$(D_{75} / D_{25})$ :	4.354	2.417	V FINE GRAVEL: 0.0%	V FINE SILT: 1.4%		
$(D_{75} - D_{25})$ :	272.7	2.122	V COARSE SAND: 5.5%	CLAY: 1.4%		
			FOLK & WARD METHOD			
METHOD OF MOMENTS			Folk & Ward Method			
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	$\mu\text{m}$	$\mu\text{m}$	$\phi$	$\mu\text{m}$	$\phi$	
MEAN ( $\bar{x}$ ):	297.5	165.3	2.597	189.3	2.401	Fine Sand
SORTING ( $\sigma$ ):	292.0	3.449	1.786	3.085	1.625	Poorly Sorted
SKEWNESS ( $sk$ ):	1.642	-0.879	0.879	0.070	-0.070	Symmetrical
KURTOSIS ( $K$ ):	5.362	3.757	3.757	1.099	1.099	Mesokurtic
Setelah dibagi 1000						
0.18934						

SAMPLE STATISTICS						
SAMPLE IDENTITY: S2 U2			ANALYST & DATE: .			
SAMPLE TYPE: Polymodal, Poorly Sorted			TEXTURAL GROUP: Sand			
SEDIMENT NAME: Poorly Sorted Fine Sand						
			GRAIN SIZE DISTRIBUTION			
	$\mu\text{m}$	$\phi$				
MODE 1:	605.0	0.747	GRAVEL: 0.0%	COARSE SAND: 20.3%		
MODE 2:	152.5	2.737	SAND: 92.1%	MEDIUM SAND: 17.6%		
MODE 3:	76.50	3.731	MUD: 7.9%	FINE SAND: 21.0%		
$D_{10}$ :	65.53	-0.149	V FINE SAND: 18.7%			
MEDIAN or $D_{50}$ :	261.9	1.933	V COARSE GRAVEL: 0.0%	V COARSE SILT: 1.3%		
$D_{90}$ :	1108.5	3.932	COARSE GRAVEL: 0.0%	COARSE SILT: 1.3%		
$(D_{90} / D_{10})$ :	16.92	-26.448	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 1.3%		
$(D_{90} - D_{10})$ :	1043.0	4.080	FINE GRAVEL: 0.0%	FINE SILT: 1.3%		
$(D_{75} / D_{25})$ :	6.779	4.646	V FINE GRAVEL: 0.0%	V FINE SILT: 1.3%		
$(D_{75} - D_{25})$ :	604.3	2.761	V COARSE SAND: 14.4%	CLAY: 1.3%		
			FOLK & WARD METHOD			
METHOD OF MOMENTS			Folk & Ward Method			
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	$\mu\text{m}$	$\mu\text{m}$	$\phi$	$\mu\text{m}$	$\phi$	
MEAN ( $\bar{x}$ ):	389.1	209.9	2.252	236.9	2.078	Fine Sand
SORTING ( $\sigma$ ):	381.7	3.756	1.909	3.216	1.685	Poorly Sorted
SKEWNESS ( $sk$ ):	1.128	-0.881	0.881	-0.179	0.179	Fine Skewed
KURTOSIS ( $K$ ):	3.025	3.587	3.587	0.859	0.859	Platykurtic
Setelah dibagi 1000						
0.236913						

## Lampiran 10. Lanjutan

SAMPLE STATISTICS						
SAMPLE IDENTITY: S2 U3		ANALYST & DATE: .				
SAMPLE TYPE: Polymodal, Poorly Sorted		TEXTURAL GROUP: Sand				
SEDIMENT NAME: Poorly Sorted Fine Sand						
GRAIN SIZE DISTRIBUTION						
	$\mu\text{m}$	$\phi$				
MODE 1:	152.5	2.737	GRAVEL: 0.0%		COARSE SAND: 20.8%	
MODE 2:	605.0	0.747	SAND: 95.0%		MEDIUM SAND: 19.5%	
MODE 3:	302.5	1.747	MUD: 5.0%		FINE SAND: 24.8%	
$D_{10}$ :	70.83	-0.154	V COARSE GRAVEL: 0.0%		V FINE SAND: 15.2%	
MEDIAN or $D_{50}$ :	273.5	1.870	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.8%	
$D_{90}$ :	1113.0	3.820	COARSE GRAVEL: 0.0%		COARSE SILT: 0.8%	
$(D_{90} / D_{10})$ :	15.71	-24.736	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.8%	
$(D_{90} - D_{10})$ :	1042.1	3.974	FINE GRAVEL: 0.0%		FINE SILT: 0.8%	
$(D_{75} / D_{25})$ :	4.449	3.891	V FINE GRAVEL: 0.0%		V FINE SILT: 0.8%	
$(D_{75} - D_{25})$ :	462.6	2.154	V COARSE SAND: 14.7%		CLAY: 0.8%	
METHOD OF MOMENTS						
	Arithmetic	Geometric	Logarithmic	Geometric	FOLK & WARD METHOD	Description
	$\mu\text{m}$	$\mu\text{m}$	$\phi$	$\mu\text{m}$	$\phi$	
MEAN ( $\bar{x}$ ):	412.1	240.4	2.057	249.2	2.005	Fine Sand
SORTING ( $\sigma_1$ ):	377.1	3.264	1.707	2.696	1.425	Poorly Sorted
SKEWNESS ( $\delta_k$ ):	1.122	-0.917	0.917	-0.057	0.057	Symmetrical
KURTOSIS ( $k$ ):	3.014	4.208	4.208	0.820	0.820	Platykurtic
						Setelah dibagi 1000
						0.249218
... Single Sample Data Input <b>Single Sample Statistics</b> Multiple Sample Data Input Multiple Sample Statistics Gravel Sand Mud Diagram Sand Silt Cl. ...						

SAMPLE STATISTICS						
SAMPLE IDENTITY: S2 U4		ANALYST & DATE: .				
SAMPLE TYPE: Polymodal, Poorly Sorted		TEXTURAL GROUP: Sand				
SEDIMENT NAME: Poorly Sorted Very Fine Sand						
GRAIN SIZE DISTRIBUTION						
	$\mu\text{m}$	$\phi$				
MODE 1:	76.50	3.731	GRAVEL: 0.0%		COARSE SAND: 20.1%	
MODE 2:	605.0	0.747	SAND: 92.6%		MEDIUM SAND: 16.0%	
MODE 3:	152.5	2.737	MUD: 7.4%		FINE SAND: 18.7%	
$D_{10}$ :	65.51	-0.151	V COARSE GRAVEL: 0.0%		V FINE SAND: 23.2%	
MEDIAN or $D_{50}$ :	253.6	1.979	V COARSE GRAVEL: 0.0%		V COARSE SILT: 1.2%	
$D_{90}$ :	1110.4	3.932	COARSE GRAVEL: 0.0%		COARSE SILT: 1.2%	
$(D_{90} / D_{10})$ :	16.95	-26.027	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 1.2%	
$(D_{90} - D_{10})$ :	1044.9	4.083	FINE GRAVEL: 0.0%		FINE SILT: 1.2%	
$(D_{75} / D_{25})$ :	7.168	4.751	V FINE GRAVEL: 0.0%		V FINE SILT: 1.2%	
$(D_{75} - D_{25})$ :	509.0	2.842	V COARSE SAND: 14.5%		CLAY: 1.2%	
METHOD OF MOMENTS						
	Arithmetic	Geometric	Logarithmic	Geometric	FOLK & WARD METHOD	Description
	$\mu\text{m}$	$\mu\text{m}$	$\phi$	$\mu\text{m}$	$\phi$	
MEAN ( $\bar{x}$ ):	393.0	204.0	2.293	232.7	2.103	Fine Sand
SORTING ( $\sigma_1$ ):	385.6	3.743	1.904	3.181	1.670	Poorly Sorted
SKEWNESS ( $\delta_k$ ):	1.127	-0.769	0.769	-0.149	0.149	Fine Skewed
KURTOSIS ( $k$ ):	2.995	3.389	3.389	0.812	0.812	Platykurtic
						Setelah dibagi 1000
						0.232741
... Single Sample Data Input <b>Single Sample Statistics</b> Multiple Sample Data Input Multiple Sample Statistics Gravel Sand Mud Diagram Sand Silt Cl. ...						

SAMPLE STATISTICS						
SAMPLE IDENTITY: S3 U1		ANALYST & DATE: .				
SAMPLE TYPE: Polymodal, Poorly Sorted		TEXTURAL GROUP: Slightly Gravelly Sand				
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
GRAIN SIZE DISTRIBUTION						
	$\mu\text{m}$	$\phi$				
MODE 1:	302.5	1.747	GRAVEL: 0.9%		COARSE SAND: 18.4%	
MODE 2:	152.5	2.737	SAND: 98.2%		MEDIUM SAND: 37.9%	
MODE 3:	605.0	0.747	MUD: 0.9%		FINE SAND: 31.9%	
$D_{10}$ :	136.1	0.514	V COARSE GRAVEL: 0.0%		V FINE SAND: 1.7%	
MEDIAN or $D_{50}$ :	288.6	1.793	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.1%	
$D_{90}$ :	700.1	2.877	COARSE GRAVEL: 0.0%		COARSE SILT: 0.1%	
$(D_{90} / D_{10})$ :	5.144	5.593	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.1%	
$(D_{90} - D_{10})$ :	564.0	2.363	FINE GRAVEL: 0.0%		FINE SILT: 0.1%	
$(D_{75} / D_{25})$ :	3.256	2.837	V FINE GRAVEL: 0.9%		V FINE SILT: 0.1%	
$(D_{75} - D_{25})$ :	364.4	1.703	V COARSE SAND: 8.3%		CLAY: 0.1%	
METHOD OF MOMENTS						
	Arithmetic	Geometric	Logarithmic	Geometric	FOLK & WARD METHOD	Description
	$\mu\text{m}$	$\mu\text{m}$	$\phi$	$\mu\text{m}$	$\phi$	
MEAN ( $\bar{x}$ ):	398.3	294.2	1.765	297.3	1.750	Medium Sand
SORTING ( $\sigma_1$ ):	352.6	2.150	1.104	2.015	1.011	Poorly Sorted
SKEWNESS ( $\delta_k$ ):	2.577	-0.421	0.421	0.167	-0.167	Coarse Skewed
KURTOSIS ( $k$ ):	12.00	6.377	6.377	0.772	0.772	Platykurtic
						Setelah dibagi 1000
						0.297257
... Single Sample Data Input <b>Single Sample Statistics</b> Multiple Sample Data Input Multiple Sample Statistics Gravel Sand Mud Diagram Sand Silt Cl. ...						

SAMPLE STATISTICS						
SAMPLE IDENTITY: S3 U2		ANALYST & DATE: .				
SAMPLE TYPE: Polymodal, Poorly Sorted		TEXTURAL GROUP: Slightly Gravelly Sand				
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand						
GRAIN SIZE DISTRIBUTION						
	$\mu\text{m}$	$\phi$				
MODE 1:	302.5	1.747	GRAVEL: 0.3%		COARSE SAND: 22.5%	
MODE 2:	152.5	2.737	SAND: 98.2%		MEDIUM SAND: 30.1%	
MODE 3:	605.0	0.747	MUD: 1.5%		FINE SAND: 29.6%	
$D_{10}$ :	134.1	-0.129	V COARSE GRAVEL: 0.0%		V FINE SAND: 2.8%	
MEDIAN or $D_{50}$ :	301.6	1.729	V COARSE GRAVEL: 0.0%		V COARSE SILT: 0.2%	
$D_{90}$ :	1093.5	2.899	COARSE GRAVEL: 0.0%		COARSE SILT: 0.2%	
$(D_{90} / D_{10})$ :	8.156	-22.487	MEDIUM GRAVEL: 0.0%		MEDIUM SILT: 0.2%	
$(D_{90} - D_{10})$ :	959.4	3.028	FINE GRAVEL: 0.0%		FINE SILT: 0.2%	
$(D_{75} / D_{25})$ :	3.680	3.498	V FINE GRAVEL: 0.3%		V FINE SILT: 0.2%	
$(D_{75} - D_{25})$ :	432.3	1.880	V COARSE SAND: 13.1%		CLAY: 0.2%	
METHOD OF MOMENTS						
	Arithmetic	Geometric	Logarithmic	Geometric	FOLK & WARD METHOD	Description
	$\mu\text{m}$	$\mu\text{m}$	$\phi$	$\mu\text{m}$	$\phi$	
MEAN ( $\bar{x}$ ):	441.1	312.8	1.677	309.8	1.691	Medium Sand
SORTING ( $\sigma_1$ ):	362.8	2.391	1.258	2.086	1.061	Poorly Sorted
SKEWNESS ( $\delta_k$ ):	1.549	-0.822	0.822	0.145	-0.145	Coarse Skewed
KURTOSIS ( $k$ ):	5.623	5.975	5.975	0.720	0.720	Platykurtic
						Setelah dibagi 1000
						0.309786
... Single Sample Data Input <b>Single Sample Statistics</b> Multiple Sample Data Input Multiple Sample Statistics Gravel Sand Mud Diagram Sand Silt Cl. ...						

## Lampiran 10. Lanjutan

SAMPLE STATISTICS									
SAMPLE IDENTITY: <b>S3 U3</b>					ANALYST & DATE: .				
SAMPLE TYPE: Polymodal, Poorly Sorted					TEXTURAL GROUP: Slightly Gravelly Sand				
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand									
GRAIN SIZE DISTRIBUTION									
	$\mu m$	$\phi$			GRAVEL: 0.8%	COARSE SAND: 17.7%			
MODE 1:	302.5	1.747			SAND: 98.8%	MEDIUM SAND: 36.5%			
MODE 2:	152.5	2.737			MUD: 0.4%	FINE SAND: 33.7%			
MODE 3:	605.0	0.747			V FINE SAND: 1.0%				
$D_{10}$ :	137.1	-0.032			V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.1%			
MEDIAN or $D_{50}$ :	288.4	1.794			COARSE GRAVEL: 0.0%	COARSE SILT: 0.1%			
$D_{90}$ :	1022.4	2.866			MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.1%			
$(D_{90} / D_{10})$ :	7.456	-89.730			FINE GRAVEL: 0.0%	FINE SILT: 0.1%			
$(D_{60} - D_{10})$ :	885.3	2.898			V FINE GRAVEL: 0.8%	V FINE SILT: 0.1%			
$(D_{75} / D_{25})$ :	3.314	2.913			V COARSE SAND: 9.9%	CLAY: 0.1%			
$(D_{75} - D_{25})$ :	373.2	1.728							
METHOD OF MOMENTS					FOLK & WARD METHOD				
	Arithmetic	Geometric	Logarithmic		Geometric	Logarithmic	Description		
	$\mu m$	$\mu m$	$\phi$		$\mu m$	$\phi$			
MEAN ( $\bar{x}$ ):	406.9	302.1	1.727		299.8	1.738	Medium Sand	Setelah dibagi 1000	
SORTING ( $\sigma$ ):	356.5	2.088	1.062		2.027	1.020	Poorly Sorted	0.299837	
SKEWNESS ( $S_k$ ):	2.314	0.041	-0.041		0.182	-0.182	Coarse Skewed		
KURTOSIS ( $K_k$ ):	10.03	4.838	4.838		0.764	0.764	Platykurtic		
<p>... Single Sample Data Input <b>Single Sample Statistics</b> Multiple Sample Data Input Multiple Sample Statistics Gravel Sand Mud Diagram Sand Silt Cl: ...</p>									

SAMPLE STATISTICS									
SAMPLE IDENTITY: <b>S3 U4</b>					ANALYST & DATE: .				
SAMPLE TYPE: Polymodal, Poorly Sorted					TEXTURAL GROUP: Slightly Gravelly Sand				
SEDIMENT NAME: Slightly Very Fine Gravelly Medium Sand									
GRAIN SIZE DISTRIBUTION									
	$\mu m$	$\phi$			GRAVEL: 0.9%	COARSE SAND: 16.8%			
MODE 1:	302.5	1.747			SAND: 98.5%	MEDIUM SAND: 37.8%			
MODE 2:	152.5	2.737			MUD: 0.6%	FINE SAND: 33.5%			
MODE 3:	605.0	0.747			V FINE SAND: 0.5%				
$D_{10}$ :	137.8	-0.037			V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.1%			
MEDIAN or $D_{50}$ :	288.4	1.794			COARSE GRAVEL: 0.0%	COARSE SILT: 0.1%			
$D_{90}$ :	1026.3	2.860			MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.1%			
$(D_{90} / D_{10})$ :	7.449	-76.269			FINE GRAVEL: 0.0%	FINE SILT: 0.1%			
$(D_{60} - D_{10})$ :	888.6	2.897			V FINE GRAVEL: 0.9%	V FINE SILT: 0.1%			
$(D_{75} / D_{25})$ :	3.253	2.845			V COARSE SAND: 9.8%	CLAY: 0.1%			
$(D_{75} - D_{25})$ :	365.4	1.702							
METHOD OF MOMENTS					FOLK & WARD METHOD				
	Arithmetic	Geometric	Logarithmic		Geometric	Logarithmic	Description		
	$\mu m$	$\mu m$	$\phi$		$\mu m$	$\phi$			
MEAN ( $\bar{x}$ ):	406.3	302.0	1.727		300.0	1.737	Medium Sand	Setelah dibagi 1000	
SORTING ( $\sigma$ ):	364.5	2.101	1.071		2.023	1.017	Poorly Sorted	0.299982	
SKEWNESS ( $S_k$ ):	2.431	-0.062	0.062		0.185	-0.185	Coarse Skewed		
KURTOSIS ( $K_k$ ):	10.67	5.512	5.512		0.776	0.776	Platykurtic		
<p>... Single Sample Data Input <b>Single Sample Statistics</b> Multiple Sample Data Input Multiple Sample Statistics Gravel Sand Mud Diagram Sand Silt Cl: ...</p>									

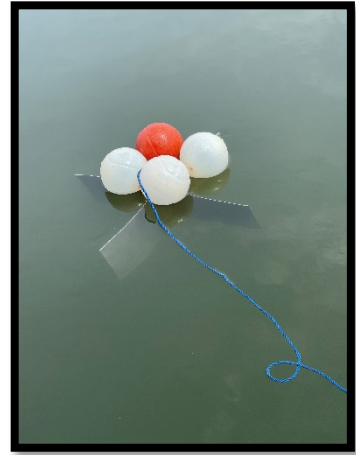
**Lampiran 11. Dokumentasi Pengambilan Data Lapangan**



a. Pengambilan data kedalaman perairan menggunakan tali ukur



b. Pengambilan data kecepatan arus menggunakan alat layang-layang arus



c. Alat layang-layang arus



d. Pengambilan sampel sedimen menggunakan Eijkman Grab



e. Pengambilan sampel sedimen menggunakan Eijkman Grab



## Lampiran 12. Dokumentasi Analisis Laboratorium



a. Mengeringkan sampel sedimen menggunakan Oven



b. Sampel sedimen yang telah dikeringkan



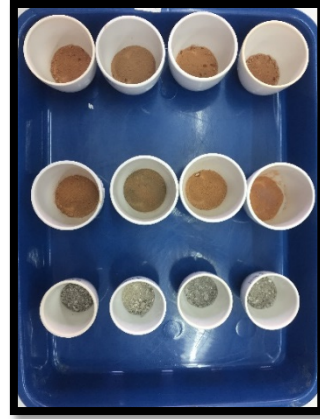
c. Sampel sedimen digerus menggunakan lumpang



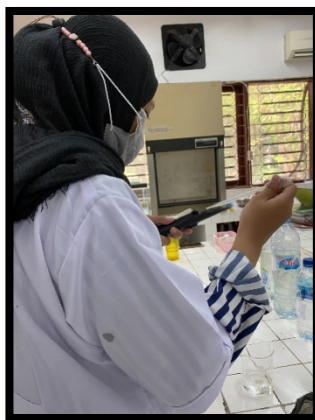
d. Sampel sedimen digerus menggunakan lumpang



e. Menimbang berat sampel sedimen menggunakan timbangan analitik



f. Sampel sedimen setelah pembakaran dalam tanur



g. Pengukuran data salinitas menggunakan handrefractometer



h. Pembacaan skala salinitas menggunakan handrefractometer



i. Sampel sedimen yang telah di ayak menggunakan ayakan sieve net



j. Sampel sedimen yang telah di ayak untuk diklasifikasi ukuran butirnya



k. Menimbang berat akhir sampel sedimen untuk analisis BOT



l. Berat akhir sampel sedimen untuk analisis BOT



m. Menimbang sampel sedimen untuk analisis kandungan logam berat



n. Sampel sedimen untuk analisis kandungan logam berat



o. Penambahan aquades pada sampel sedimen untuk analisis logam berat



p. Penambahan larutan  $\text{HNO}_3$  pada sampel sedimen untuk analisis logam berat



q. Destruksi sampel menggunakan  $\text{HNO}_3$  untuk analisis logam berat



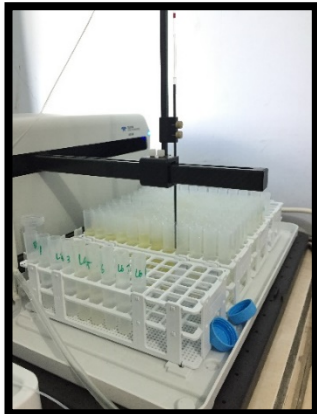
r. Sampel sedimen yang telah ditambahkan larutan asam nitrat dan asam perklorat



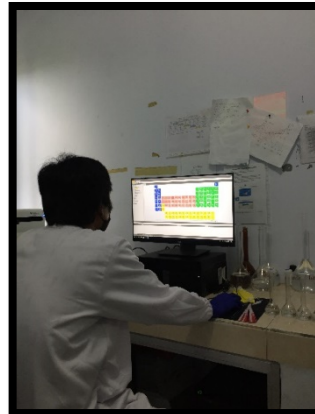
s. Sampel sedimen dipanaskan menggunakan hotplate



t. Alat ICP-OES untuk analisis kandungan logam berat pada sedimen



u. Analisis kandungan logam berat pada sedimen menggunakan ICP-OES



v. Monitor hasil analisis kandungan logam berat pada sedimen menggunakan ICP-OES