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LAMPIRAN

Lampiran 1. Hasil pengukuran morfologi Ikan Swanggi dan Meristik di Perairan barat Sulawesi Selatan

Kab. Takalar

Kode	Ukuran (mm)										Ukuran (mm)										Ukuran (mm)										Nilai Min	Nilai Max	Rata-Rata	SD
	titik 1 (15 Juli 2023) Jam 02.00 WITA										titik 2 (16 Juli 2023) Jam 01.00 WITA										titik 3 (17 Juli 2023) Jam 02.00 WITA													
	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10				
A1	42.9	42.9	41.3	41.8	43.7	47.2	37.8	46.9	43.3	40.3	35.6	39.9	42.2	40.2	40.1	39.4	41.1	37.4	36.6	46.4	40.4	41.3	37.3	37.4	38.4	40.9	43.4	39.6	43.6	45.4	35.6	47.2	41.2	3.04
A2	41.9	41.3	44.1	46.9	43.3	41.8	36.1	44.1	40.8	38.0	37.2	37.6	37.4	40.7	39.3	38.7	40.1	37.2	36.1	43.9	39.0	38.4	34.3	32.0	33.5	40.6	37.8	38.8	41.3	42.8	32.0	46.9	39.5	3.39
A3	43.6	39.9	45.6	41.9	40.0	41.4	35.3	44.3	39.1	38.6	37.5	36.6	40.1	39.2	38.7	40.5	40.2	37.5	37.9	43.0	38.2	37.9	33.4	35.6	36.6	36.7	39.8	41.2	39.2	49.2	33.4	49.2	39.6	3.26
B1	43.4	39.3	43	40.8	44.7	42.5	32.7	44.9	41	37.2	40.7	40.5	38.1	37	34.8	39.9	41.7	39.5	33.9	40.9	32.9	42.8	41	35.3	37.9	39.4	45	42	48	43.3	32.7	48.0	40.1	3.75
B3	53.8	46.8	42.7	47.4	51	49	40.5	48.3	46.2	45	44.8	41.8	39.2	42.9	42.4	37.7	46.2	44.6	41.1	50.3	41.4	45.5	45.7	42.3	40.6	40.9	46.9	45.9	47.4	56.7	37.7	56.7	45.2	4.29
B4	44.6	43	42.9	43.8	46.1	44.5	37.2	44.7	43.2	39.7	39.1	40.9	38.5	38.4	35.7	37.8	41	42.4	37.7	46.9	37.8	41.9	42.1	38.5	37.3	39.6	41.4	41.6	42.5	46.2	35.7	46.9	41.2	3.03
B5	54.9	55.2	52.9	49.5	55.4	57.3	45.8	45.7	49.8	49.7	50.5	52.1	47.8	47.3	55.3	46.7	51.3	49.7	46.7	55.6	44	54.4	51.2	46.1	47.3	50.4	51.2	52.5	53.3	56.2	44.0	57.3	50.9	3.68
B6	69.3	67.5	68.8	63.6	72.4	68.7	59.9	56.1	65.5	58.2	63.4	61.6	59.1	62.4	43.5	57.7	68.3	63.6	59.8	68	57.3	65	61.4	60.6	61.5	68	63.2	68.4	68.7	74.7	43.5	74.7	63.5	6.03
C1	43.9	40.9	38.8	41.2	44.5	46	36.6	44.5	44.7	38	38.1	41.4	37.7	36.3	36.2	35.8	38.3	40.1	35.8	46.6	33.8	38.1	43.1	38.4	36.3	39.9	42.2	39.3	40	45.0	33.8	46.6	40.1	3.48
C3	30	33.1	33.5	32.2	33.3	40.5	28.8	36.1	32.8	25.5	31.9	27.6	28.1	24.4	23.1	24.5	31.3	26.6	29.7	36.9	26.7	28.9	30.2	29.8	26.2	29.9	32.8	38	28.2	31.7	23.1	40.5	30.4	4.14
C4	13.4	13	14.3	14.2	15.5	14.2	9.8	16.1	41.1	12.4	11.7	11.4	11.1	12.5	10	11.6	11.5	14.1	10.8	15.3	11.6	14.5	13.4	40.2	11.9	12.4	12.2	14.2	13.1	13.1	9.8	41.1	14.7	7.23
C5	36.9	42.3	41.1	36.8	44.1	43.7	32.9	43	47.3	35.3	39.7	43.5	36.2	30.2	35.4	33.1	35.7	40.4	34.3	42.7	32.4	38.9	42.9	44.1	33.1	39.5	38.6	36.8	40.9	50.6	30.2	50.6	39.1	4.82
C6	48.2	47.6	46.6	47.6	47.5	49.8	39.3	52.3	48.5	43.6	44.6	46.2	44.8	42.4	40.6	41.6	45.7	47.9	41.9	55.6	44.2	47.6	48.8	37.7	42.4	45.6	47.8	46.7	50.3	41.5	37.7	55.6	45.8	3.89
D1	24.6	24.3	26.4	22.9	25.1	26	19.3	27.1	24.7	21.5	21.4	23.1	19.4	21.6	22.6	19.9	22.6	22.6	20.7	26.8	20.9	23.5	23.9	20.3	22.5	22.9	25.6	27.2	22.9	26.4	19.3	27.2	23.3	2.34
D3	26.8	23.9	25.4	25.3	27.9	26.7	22.3	28.4	26.1	21.3	25.8	24.3	24.1	24.1	22.1	21.9	20.3	23.7	23	28.2	20.2	24.8	23.1	21.7	22.8	24.5	24.7	26.1	28.1	27.2	20.2	28.4	24.5	2.34
D4	14.5	14.7	13.1	14.4	15.3	14	10.5	14.6	13.2	13.1	12.5	14.1	13.5	12.7	12.7	11.6	13.3	12.1	12.5	15.6	13.4	14.9	12.6	14.1	13.2	15.7	14	14.7	14.5	15.1	10.5	15.7	13.7	1.22
D5	26.8	27.5	28.7	23.8	29.2	28.4	22.3	28.1	25.4	26.1	25.1	25.7	24.3	22.8	23.1	21.3	22.9	26.1	23	27.7	22.2	25.6	26.5	24.1	23.9	25.9	25.9	28	28.6	26.6	21.3	29.2	25.5	2.22
D6	26.2	29.9	28.9	26.5	28.2	28.1	23.4	27.9	26.1	22.9	22.6	25.5	24.6	22.7	22	21.6	23.8	25.3	23.9	27.7	23.6	26.4	25.8	23.6	23	24.6	26.1	27.6	25.5	29.6	21.6	29.9	25.5	2.31

Lampiran 1. Lanjutan

Kota Makassar

Bagian Tubuh	Kode	Ukuran (mm) titik 1 (22 Juli 2023) Jam 00.00 WITA										Ukuran (mm) titik 2 (23 Juli 2023) Jam 01.00 WITA										Ukuran (mm) titik 3 (24 Juli 2023) Jam 02.00 WITA									Nilai Min	Nilai Max	Rata-Rata	SD
		1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9				
Kepala	A1	56.8	53.3	53.9	53.9	51.9	56.3	57.2	59.9	55.8	54.6	60.6	61.4	58.2	57.6	58.3	59.4	60.5	56.8	56.3	58.0	57.1	61.1	59.5	55.0	51.8	55.7	59.8	60.8	51.9	51.8	61.4	57.1	2.86
	A2	51.8	51.4	52.2	51.7	44.8	52.4	51.9	54.0	50.9	51.4	55.9	54.8	50.2	53.5	53.0	53.0	59.5	51.9	50.2	51.3	55.8	57.4	58.8	53.3	51.3	51.9	56.3	55.2	51.1	44.8	59.5	53.0	2.89
	A3	57.5	52.0	53.5	52.6	47.7	53.6	51.4	57.7	57.5	53.1	55.3	60.5	53.3	56.9	58.5	56.1	56.5	52.3	52.0	50.9	54.9	59.3	60.4	54.3	52.3	51.6	60.4	59.5	51.4	47.7	60.5	55.1	3.47
Tubuh bagian anterior	B1	54.2	48.8	56.0	51.3	53.6	45.4	57.4	51.1	54.7	52.1	50.4	60.2	53.7	51.5	53.6	50.5	56.1	56.2	51.2	44.6	47.9	50.3	46.5	53.2	59.4	56.9	51.9	55.8	57.5	44.6	60.2	52.9	3.91
	B3	50.2	46.1	48.8	46.9	48.6	42.4	56.4	47.7	54.5	48.1	48.7	55.2	58.5	56.7	59.7	56.4	66.3	62.2	58.8	56.1	53.8	55.0	60.8	66.2	63.0	64.3	59.8	60.7	63.9	42.4	66.3	55.8	6.48
	B4	54.6	54.5	55.9	53.0	56.6	49.7	57.2	55.3	55.4	54.5	53.5	55.9	56.8	55.3	58.8	53.5	60.4	59.1	55.6	52.7	50.5	52.1	55.4	57.7	58.0	60.7	57.4	54.6	58.8	49.7	60.7	55.6	2.68
	B5	70.8	67.9	72.2	68.9	69.2	61.6	72.3	67.9	68.4	67.2	65.4	72.4	71.9	66.5	68.5	66.2	72.5	70.2	87.1	62.2	62.5	63.6	63.1	71.6	72.6	73.6	66.8	67.8	72.1	53.7	87.1	68.6	5.61
	B6	82.9	77.4	83.8	79.2	82.1	71.1	87.4	80.5	84.9	79.8	75.7	88.4	84.7	84.3	91.2	80.9	93.8	94.7	64.8	78.7	79.9	83.2	78.8	87.4	88.6	94.4	86.2	84.3	90.6	64.8	94.7	83.6	6.63
Tubuh bagian posterior	C1	63.2	58.8	56.1	56.0	57.0	51.1	56.6	56.1	56.3	55.4	52.8	57.1	55.3	53.7	57.8	51.3	59.8	58.0	54.8	52.6	47.7	52.2	53.1	61.0	59.2	59.2	58.9	57.0	58.8	47.7	63.2	56.0	3.31
	C3	53.8	50.7	50.7	46.8	49.3	45.6	46.3	52.1	47.7	50.4	41.9	46.5	40.2	37.7	42.4	36.3	40.1	40.4	39.9	36.2	33.5	34.8	35.9	40.5	47.3	44.9	41.9	43.6	43.3	33.5	53.8	43.5	5.47
	C4	21.4	20.8	23.8	20.0	22.5	16.7	20.2	18.9	20.2	21.8	19.6	20.3	20.8	19.6	20.0	21.4	21.6	20.1	19.8	18.6	18.0	19.9	18.7	20.4	20.8	22.2	19.5	19.7	21.1	16.7	23.8	20.2	1.46
	C5	61.8	62.8	62.4	59.5	63.3	54.3	59.1	64.5	57.8	62.2	53.8	60.8	53.8	50.2	55.1	51.7	54.3	54.2	50.1	48.1	44.3	48.4	47.4	56.3	67.0	60.0	47.9	54.3	53.1	44.3	67.0	55.8	5.82
	C6	68.2	70.2	67.8	63.3	66.2	58.9	65.2	65.8	66.7	61.5	63.3	66.8	65.2	63.3	66.6	60.6	68.4	69.0	67.8	61.2	55.3	61.1	69.6	69.7	59.3	68.6	66.5	64.6	69.5	55.3	70.2	65.1	3.74
Ekor	D1	26.0	24.3	24.9	23.8	24.5	21.7	26.6	27.0	25.7	23.4	22.0	22.5	25.4	26.3	33.5	30.2	33.4	33.5	31.3	30.2	28.7	29.1	31.9	36.3	34.4	33.5	33.9	34.5	34.8	21.7	36.3	28.9	4.53
	D3	26.6	26.4	26.3	26.2	28.2	24.5	28.6	27.1	28.2	27.9	24.4	26.2	26.2	27.5	27.7	33.9	38.0	37.8	32.7	30.1	28.0	31.2	29.8	35.3	33.9	35.9	35.6	33.5	39.4	24.4	39.4	30.3	4.32
	D4	20.0	18.3	20.1	19.3	19.5	17.1	21.1	20.0	20.4	18.5	18.5	19.9	18.8	18.6	20.4	19.1	19.8	20.6	20.0	18.0	17.6	18.4	17.6	21.2	20.2	23.0	19.6	20.0	20.0	17.1	23.0	19.5	1.26
	D5	34.6	34.4	36.0	32.7	34.7	25.3	33.4	34.3	29.7	34.4	32.4	33.5	30.5	34.9	32.8	35.3	38.1	38.4	36.5	33.3	30.8	33.1	33.6	37.4	37.1	34.9	33.9	37.4	40.2	25.3	40.2	34.2	2.91
	D6	34.6	34.4	35.8	31.9	34.4	29.7	35.3	34.3	31.7	31.6	28.9	31.2	32.7	32.5	31.4	33.6	37.8	34.4	36.1	33.1	27.9	31.5	34.0	37.2	36.6	34.6	36.6	37.4	40.6	27.9	40.6	33.9	2.82

Lampiran 1. Lanjutan

Kab. Pangkep

Bagian Tubuh	Kode	Ukuran (mm) titik 1 (25 Juli 2023) Jam 00.00 WITA										Ukuran (mm) titik 2 (26 Juli 2023) Jam 01.00 WITA										Ukuran (mm) titik 3 (27' Juli 2023) Jam 02.00 WITA									Nilai Min	Nilai Max	Rata-Rata	SD
		1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9				
Kepala	A1	46.0	52.9	62.7	52.0	45.4	48.9	43.5	48.1	53.6	53.1	62.8	45.2	47.9	44.0	37.9	42.0	46.5	47.7	42.9	47.7	45.5	47.1	58.4	37.5	44.8	41.1	42.8	48.7	43.4	37.5	62.8	47.6	6.11
	A2	40.8	50.5	57.2	46.8	40.5	46.4	40.9	47.4	49.6	47.8	53.9	42.4	46.0	43.3	37.8	38.9	43.8	47.2	40.1	48.2	44.3	43.1	50.9	36.6	44.3	40.7	39.8	46.9	41.2	36.6	57.2	44.7	4.80
	A3	44.5	56.0	62.0	50.5	46.3	47.0	45.8	49.2	55.3	51.7	61.8	43.4	49.3	44.6	38.5	38.5	45.9	47.1	44.2	47.9	46.7	48.0	58.4	38.0	46.3	42.3	43.9	48.8	43.2	38.0	62.0	47.8	6.07
Tubuh bagian anterior	B1	48.6	52.9	53.3	42.7	40.6	52.6	41.9	44.2	47.7	51.2	59.7	47.6	35.6	38.7	40.4	45.3	42.9	45.5	42.2	48.8	46.8	49.9	53.9	41.6	39.9	43.3	34.9	49.7	37.5	34.9	59.7	45.4	5.89
	B3	52.4	53.3	62.2	49.9	45.9	52.4	52.6	54.3	59.9	63.8	66.5	48.6	42.9	44.3	46.9	40.6	49.7	52.4	40.5	50.2	52.7	50.0	63.8	45.9	49.6	47.3	42.3	52.7	49.9	40.5	66.5	51.3	6.78
	B4	49.4	52.2	58.8	47.6	44.0	54.9	45.1	46.5	49.1	52.5	60.5	49.9	38.6	44.3	46.3	66.2	47.1	46.7	47.9	46.6	46.3	47.2	57.3	44.4	42.2	43.1	37.3	48.5	44.1	37.3	66.2	48.4	6.22
	B5	55.7	62.8	71.8	54.5	70.7	65.1	53.7	55.8	59.9	65.4	72.9	57.3	42.0	49.8	55.4	48.6	56.1	59.2	53.8	58.4	55.2	59.9	71.9	52.4	50.5	50.4	45.2	58.7	70.0	42.0	72.9	58.0	7.99
	B6	79.2	81.5	89.7	75.3	53.4	82.6	72.5	73.2	80.9	83.0	98.8	78.2	63.5	63.5	70.4	59.8	72.9	73.6	71.1	75.2	73.8	75.5	90.0	65.9	65.1	66.7	59.9	78.6	51.7	51.7	98.8	73.3	10.51
Tubuh bagian posterior	C1	49.5	49.5	53.9	47.3	41.9	50.0	42.7	45.6	51.5	53.6	56.4	44.9	38.3	39.1	43.4	42.5	43.2	46.3	41.2	46.4	44.8	43.4	53.8	39.2	43.2	41.7	35.2	45.8	42.4	35.2	56.4	45.4	5.08
	C3	35.9	39.5	39.6	37.3	29.9	37.4	29.9	32.3	43.8	39.6	31.8	32.8	25.2	27.5	29.8	31.6	31.3	34.8	51.4	32.3	34.5	29.0	36.1	29.3	36.3	27.3	22.5	32.9	28.8	22.5	51.4	33.4	5.79
	C4	14.7	16.8	21.2	41.7	13.8	16.8	14.1	18.2	15.7	18.2	20.7	16.5	11.6	13.2	14.0	14.0	14.5	14.5	14.4	16.4	16.7	13.7	18.9	15.0	13.1	12.4	12.2	39.7	14.6	11.6	41.7	17.0	6.86
	C5	44.7	45.4	46.9	45.9	37.8	47.7	43.5	41.4	47.8	49.4	63.9	43.9	34.4	35.9	40.1	40.7	39.5	41.3	44.6	41.4	48.8	39.5	51.9	41.8	38.4	37.5	30.1	54.5	12.7	12.7	63.9	42.7	8.70
	C6	56.3	55.7	64.6	53.9	39.8	60.6	51.0	52.9	58.3	59.7	47.8	50.8	42.8	47.6	49.6	45.4	52.6	54.7	49.9	52.5	43.0	51.3	63.2	47.3	49.1	45.9	41.2	54.3	38.6	38.6	64.6	50.7	6.80
Ekor	D1	27.1	27.2	34.6	27.0	26.0	28.9	27.1	22.1	27.8	30.6	33.6	26.0	22.0	25.2	25.2	22.7	27.4	26.1	22.2	26.0	26.5	25.8	32.9	25.1	23.1	23.7	20.9	27.6	21.7	20.9	34.6	26.3	3.41
	D3	26.7	27.4	36.3	25.7	23.7	27.3	26.9	27.7	28.6	33.7	33.4	25.7	21.1	23.2	24.4	23.4	27.3	26.6	26.1	27.4	26.3	25.6	34.1	25.0	23.5	23.3	23.7	28.3	25.3	21.1	36.3	26.8	3.51
	D4	17.1	18.8	21.3	15.9	13.4	17.8	14.5	15.2	16.1	17.8	19.0	15.6	12.1	16.5	16.0	14.1	15.1	16.1	14.9	16.1	15.1	16.3	19.1	14.5	15.3	13.4	11.9	15.7	14.4	11.9	21.3	15.8	2.06
	D5	29.7	27.4	34.9	27.7	26.1	28.8	26.8	27.6	29.7	34.2	35.3	28.4	23.2	26.8	26.5	25.3	29.6	27.5	25.6	29.4	28.4	27.5	35.4	24.3	26.2	24.6	23.6	27.9	27.9	23.2	35.4	28.1	3.22
	D6	28.9	26.5	34.8	27.3	26.5	30.9	28.5	26.0	30.3	32.1	35.2	27.5	22.5	26.7	26.2	25.6	29.3	27.1	25.1	28.6	27.1	27.2	34.4	26,8	25.7	26.2	23.4	27.7	25.6	22.5	35.2	28.0	3.11

Lampiran 2. Hasil pengukuran bobot Ikan, Panjang Total dan Panjang Baku Ikan Swanggi di Perairan barat Sulawesi Selatan

Kab. Takalar

Parameter pengukuran	titik 1 (15 Juli 2023) Jam 02.00 WITA										titik 2 (16 Juli 2023) Jam 01.00 WITA										titik 3 (17 Juli 2023) Jam 02.00 WITA										Rata Rata	SE
	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10		
Panjang Total	18.9	17.5	18.5	17.2	20.8	19	15.5	19.5	17.8	16.3	16.3	17.3	16.8	17.2	15.8	15.4	16.4	16.4	15.9	20.5	15.4	16.9	17.9	15.9	15	16.2	16.5	17.4	17.8	19.8	17.3	10.0
Panjang Baku	14.8	14.4	14.8	14	15.5	15.3	12.4	15.4	14.3	13.3	13.4	14.1	13	12.9	12.6	12.5	13.4	13.4	13	15	12.2	13.8	14.4	12.7	12.4	13.4	13.6	14.1	14.1	15	13.8	8.0
Bobot ikan Per ekor	78.90	68.88	78.96	66.94	84.48	70.43	46.36	79.99	55.25	55.75	59.87	67.02	54.03	56	44.21	50.37	60.61	64.25	50.51	85.42	43.2	65.18	66.9	46.65	46.82	55.97	50.14	61.34	63.66	83.87	62.1	35.8
Lebar Diameter Ikan (mm)	21	21.5	24.3	20.3	19.6	21.6	19.9	21.2	21.5	20.4	19.8	21.1	19.9	20.1	18	19.8	20.5	20.9	19.8	21.3	17.6	21.1	24	17.9	18.8	21	19.6	19.9	19.9	21.5	20.5	11.8

Kota Makassar

Parameter pengukuran	titik 1 (22 Juli 2023) Jam 00.00 WITA										titik 2 (23 Juli 2023) Jam 01.00 WITA										titik 3 (24 Juli 2023) Jam 02.00 WITA										Rata Rata	SE
	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10		
Panjang Total (cm)	26.4	26.8	27	25.5	24.4	23.5	28	26.3	25.4	26	26.3	27.6	25	24.1	27.5	25	28.5	26.9	25.6	23.3	20.5	23.8	25.5	27.3	27.5	27.8	24.8	23.1	27.6	24.5	25.72	14.85
Panjang Baku	19.4	19	19.5	19	19.1	17	20.1	18.9	19.3	18.8	18.1	19.5	19	18.5	19.1	18.4	20.1	20	19	17.1	17.1	17.8	17.4	21.4	19.9	20.1	19	18.5	20.8	18.5	18.98	10.96
Bobot ikan Per ekor (gram)	159.42	140.57	171.00	131.62	158.08	110.78	185.3	150.22	159.59	146.08	136.14	159.2	133.3	131.08	158.21	141.15	181.47	153.19	152.82	116.32	118.88	130.88	128.33	182.72	175.32	189.81	153.08	145.83	184.44	142.18	150.90	87.12
Lebar Diameter mata Ikan (mm)	26.35	27.3	26.0	25.9	25.7	23.6	27.6	24.8	26.5	25.2	23.9	24.1	23.2	22.1	24.5	24.2	26.4	26.2	25.1	21.6	24.9	23.9	22.6	27.1	25.2	28.2	24.7	25	27.4	26.2	25.18	14.54

Kab. Pangkep

Parameter pengukuran	titik 1 (25 Juli 2023) Jam 00.00 WITA										titik 2 (26 Juli 2023) Jam 01.00 WITA										titik 3 (27` Juli 2023) Jam 02.00 WITA										Rata Rata	SE
	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10		
Panjang Total	19.5	20.8	25.9	20.1	17.6	20.3	18.3	18.2	20.8	24.5	23	18.5	15.2	16.5	17.1	16.9	18.4	19.5	19.4	18.9	18.2	18	23.9	16.1	18.2	16.2	14.9	19.4	19.5	19.8	19.12	11.04
Panjang Baku	16	17.1	19.4	15.4	14.8	16.8	14.5	14.4	16.6	17.3	19.3	15.5	12.5	13.2	14.3	13.8	14.8	16.1	14.7	15.8	14.9	15.3	18.9	13.4	14.2	13.4	11.8	15.8	14.8	15	15.33	8.85
Bobot ikan Per ekor (gram)	111.46	139.39	178.28	97.70	79.9	144.3	78.4	88.81	109.95	131.7	196.87	103.59	52.35	65.28	82.54	53.97	85.62	96.78	72.6	100.21	94.75	104.45	156.19	70.43	58.61	69.5	45.38	104.75	75.56	83.87	97.77	56.45
Lebar Diameter mata Ikan (mm)	23.3	23.8	25.7	24.5	18.8	23.5	21.1	22.5	23.8	24.8	29.3	24.7	19.8	20.4	19.2	20.2	21.2	23.1	20.1	24.7	24.4	24.7	26.8	20.9	21.3	21.4	17.8	24.9	20.6	21.5	22.63	13.06

Lampiran 3. Hasil Uji Diksriminan dan Uji Anova Karaktersitik Ikan Swanggi

Tests of Equality of Group Means

	Wilks' Lambda	F	df1	df2	Sig.
Ujung depan mulut atas pangkal dasar sirip perut	.293	105.196	2	87	.000
Ujung depan mulut atas – pangkal depan dasar sirip punggung	.309	97.355	2	87	.000
Pangkal depan dasar sirip punggung – pangkal dasar sirip perut	.324	90.760	2	87	.000
Jarak awal sirip perut – awal sirip anal	.429	57.853	2	87	.000
Jarak awal sirip punggung keras– awal sirip punggung lunak	.644	24.085	2	87	.000
Jarak awal sirip punggung lunak – awal sirip anal	.342	83.777	2	87	.000
Jarak awal sirip punggung keras – awal sirip anal	.390	68.077	2	87	.000
Jarak awal sirip punggung lunak – awal sirip perut	.479	47.302	2	87	.000
Jarak awal sirip anal – akhir sirip anal	.263	121.912	2	87	.000
Jarak awal sirip punggung lunak– akhir sirip punggung lunak	.452	52.830	2	87	.000
Jarak akhir sirip punggung lunak – akhir sirip anal	.864	6.827	2	87	.002
Jarak awal sirip punggung lunak– akhir sirip anal	.453	52.520	2	87	.000
Jarak awal sirip punggung lunak– awal sirip anal	.266	120.065	2	87	.000
Jarak akhir anal-awal sirip sirip ekor bawah	.699	18.735	2	87	.000
Jarak akhir sirip punggung lunak-awal sirip ekor atas	.672	21.193	2	87	.000
Jarak awal sirip ekor atas – awal sirip ekor bawah	.286	108.795	2	87	.000
Jarak akhir sirip punggung lunak-awal sirip ekor bawah	.365	75.841	2	87	.000
Jarak awal sirip ekor atas-akhir sirip anal	.968	1.449	2	87	.240

Lampiran 3. Lanjutan

Log Determinants

Stasiun	Rank	Log Determinant
TAKALAR	5	7.752
KOTA MAKASSAR	5	10.188
PANGKEP	5	11.581
Pooled within-groups	5	11.714

The ranks and natural logarithms of determinants printed are those of the group covariance matrices.

Test Results

Box's M		163.060
F	Approx.	4.984
	df1	30
	df2	23983.922
	Sig.	.000

Tests null hypothesis of equal population covariance matrices.

Eigenvalues

Function	Eigenvalue	% of Variance	Cumulative %	Canonical Correlation
1	4.306[a]	89.9	89.9	.901
2	.484[a]	10.1	100.0	.571

a. First 2 canonical discriminant functions were used in the analysis.

Wilks' Lambda

Test of Function(s)	Wilks' Lambda	Chi-square	df	Sig.
1 through 2	.127	175.417	10	.000
2	.674	33.565	4	.000

Lampiran 3. Lanjutan

Structure Matrix

	Function	
	1	2
Jarak awal sirip anal – akhir sirip anal	.807*	-.009
Ujung depan mulut atas pangkal dasar sirip perut[b]	.724*	.314
Ujung depan mulut atas – pangkal depan dasar sirip punggung	.720*	.111
Pangkal depan dasar sirip punggung – pangkal dasar sirip perut	.679*	.451
Jarak awal sirip punggung lunak – awal sirip anal	.658*	.363
Jarak awal sirip punggung lunak–awal sirip anal[b]	.648*	-.076
Jarak awal sirip perut – awal sirip anal[b]	.642*	.224
Jarak awal sirip ekor atas – awal sirip ekor bawah[b]	.614*	.167
Jarak awal sirip punggung lunak–akhir sirip punggung lunak[b]	.614*	-.118
Jarak awal sirip punggung lunak–akhir sirip anal[b]	.594*	.049
Jarak awal sirip punggung lunak – awal sirip perut[b]	.565*	.232
Jarak akhir sirip punggung lunak-awal sirip ekor bawah[b]	.528*	.100
Jarak awal sirip punggung keras – awal sirip anal[b]	.461*	.092
Jarak akhir sirip punggung lunak-awal sirip ekor atas[b]	.369*	.194
Jarak awal sirip punggung keras–awal sirip punggung lunak	.345*	.295
Jarak akhir anal-awal sirip sirip ekor bawah[b]	.335*	.287
Jarak akhir sirip punggung lunak – akhir sirip anal[b]	.259*	-.060
Jarak awal sirip ekor atas-akhir sirip anal[b]	-.180*	-.009

Pooled within-groups correlations between discriminating variables and standardized canonical discriminant functions

Variables ordered by absolute size of correlation within function.

*. Largest absolute correlation between each variable and any discriminant function

b. This variable not used in the analysis.

Lampiran 3. Lanjutan

Prior Probabilities for Groups

Stasiun	Prior	Cases Used in Analysis	
		Unweighted	Weighted
TAKALAR	.333	30	30.000
KOTA MAKASSAR	.333	30	30.000
PANGKEP	.333	30	30.000
Total	1.000	90	90.000

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Ujung depan mulut atas pangkal dasar sirip perut	Between Groups	3839.932	2	1919.966	105.196	.000
	Within Groups	1587.865	87	18.251		
	Total	5427.797	89			
Ujung depan mulut atas – pangkal depan dasar sirip punggung	Between Groups	2780.768	2	1390.384	97.355	.000
	Within Groups	1242.502	87	14.282		
	Total	4023.270	89			
Pangkal depan dasar sirip punggung – pangkal dasar sirip perut	Between Groups	3596.928	2	1798.464	90.760	.000
	Within Groups	1723.961	87	19.816		
	Total	5320.889	89			
Jarak awal sirip perut – awal sirip anal	Between Groups	2468.145	2	1234.072	57.853	.000
	Within Groups	1855.811	87	21.331		
	Total	4323.956	89			
Jarak awal sirip punggung keras–awal sirip punggung lunak	Between Groups	1707.678	2	853.839	24.085	.000
	Within Groups	3084.246	87	35.451		
	Total	4791.923	89			
Jarak awal sirip punggung lunak – awal sirip anal	Between Groups	3075.958	2	1537.979	83.777	.000
	Within Groups	1597.153	87	18.358		
	Total	4673.112	89			
Jarak awal sirip punggung keras – awal sirip anal	Between Groups	4748.036	2	2374.018	68.077	.000
	Within Groups	3033.894	87	34.872		
	Total	7781.930	89			
Jarak awal sirip punggung lunak – awal sirip perut	Between Groups	6012.888	2	3006.444	47.302	.000
	Within Groups	5529.616	87	63.559		
	Total	11542.504	89			
Jarak awal sirip anal – akhir sirip anal	Between Groups	3972.631	2	1986.315	121.912	.000
	Within Groups	1417.489	87	16.293		
	Total	5390.120	89			
Jarak awal sirip punggung	Between Groups	2836.438	2	1418.219	52.830	.000

lunak–akhir sirip punggung lunak	Within Groups	2335.500	87	26.845		
	Total	5171.938	89			
Jarak akhir sirip punggung lunak – akhir sirip anal	Between Groups	461.974	2	230.987	6.827	.002
	Within Groups	2943.544	87	33.834		
	Total	3405.518	89			
Jarak awal sirip punggung lunak–akhir sirip anal	Between Groups	4650.342	2	2325.171	52.520	.000
	Within Groups	3851.708	87	44.273		
	Total	8502.050	89			
Jarak awal sirip punggung lunak–awal sirip anal	Between Groups	6031.862	2	3015.931	120.065	.000
	Within Groups	2185.374	87	25.119		
	Total	8217.236	89			
Jarak akhir anal-awal sirip sirip ekor bawah	Between Groups	470.054	2	235.027	18.735	.000
	Within Groups	1091.410	87	12.545		
	Total	1561.465	89			
Jarak akhir sirip punggung lunak-awal sirip ekor atas	Between Groups	515.902	2	257.951	21.193	.000
	Within Groups	1058.930	87	12.172		
	Total	1574.831	89			
Jarak awal sirip ekor atas – awal sirip ekor bawah	Between Groups	530.348	2	265.174	108.795	.000
	Within Groups	212.052	87	2.437		
	Total	742.400	89			
Jarak akhir sirip punggung lunak-awal sirip ekor bawah	Between Groups	1201.211	2	600.605	75.841	.000
	Within Groups	688.981	87	7.919		
	Total	1890.192	89			
Jarak awal sirip ekor atas-akhir sirip anal	Between Groups	1876.645	2	938.322	1.449	.240
	Within Groups	56328.824	87	647.458		
	Total	58205.469	89			

Ujung depan mulut atas - pangkal dasar sirip perut

			Subset for alpha = 0.05		
	Stasiun	N	1	2	3
Tukey HSD[a]	TAKALAR	30	41.1567		
	PANGKEP	30		47.6167	
	KOTA MAKASSAR	30			57.0633
	Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 30.000.

Ujung depan mulut atas – pangkal depan dasar sirip punggung

			Subset for alpha = 0.05		
	Stasiun	N	1	2	3
Tukey HSD[a]	TAKALAR	30	39.5000		
	PANGKEP	30		44.6700	
	KOTA MAKASSAR	30			52.9933
	Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 30.000.

Pangkal depan dasar sirip punggung – pangkal dasar sirip perut

			Subset for alpha = 0.05		
	Stasiun	N	1	2	3
Tukey HSD[a]	TAKALAR	30	39.6233		
	PANGKEP	30		47.8100	
	KOTA MAKASSAR	30			55.1000
	Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 30.000.

Lampiran 3. Lanjutan

Jarak awal sirip perut – awal sirip anal

			Subset for alpha = 0.05		
	Stasiun	N	1	2	3
Tukey HSD[a]	TAKALAR	30	40.1367		
	PANGKEP	30		45.4400	
	KOTA MAKASSAR	30			52.9033
	Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 30.000.

Jarak awal sirip punggung keras–awal sirip punggung lunak

			Subset for alpha = 0.05		
	Stasiun	N	1	2	3
Tukey HSD[a]	TAKALAR	30	45.1667		
	PANGKEP	30		51.3400	
	KOTA MAKASSAR	30			55.7900
	Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 30.000.

Jarak awal sirip punggung lunak – awal sirip anal

			Subset for alpha = 0.05		
	Stasiun	N	1	2	3
Tukey HSD[a]	TAKALAR	30	41.2333		
	PANGKEP	30		48.3600	
	KOTA MAKASSAR	30			55.5533
	Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 30.000.

Jarak awal sirip punggung keras – awal sirip anal

			Subset for alpha = 0.05		
	Stasiun	N	1	2	3
Tukey HSD[a]	TAKALAR	30	50.8600		
	PANGKEP	30		58.1200	
	KOTA MAKASSAR	30			68.5567
	Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 30.000.

Lampiran 3. Lanjutan

Jarak awal sirip punggung lunak – awal sirip perut

			Subset for alpha = 0.05		
	Stasiun	N	1	2	3
Tukey HSD[a]	TAKALAR	30	63.5400		
	PANGKEP	30		73.3400	
	KOTA MAKASSAR	30			83.5600
	Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 30.000.

Jarak awal sirip anal – akhir sirip anal

			Subset for alpha = 0.05		
	Stasiun	N	1	2	3
Tukey HSD[a]	TAKALAR	30	40.0500		
	PANGKEP	30		45.3900	
	KOTA MAKASSAR	30			56.0333
	Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 30.000.

Jarak akhir sirip punggung lunak – akhir sirip anal

			Subset for alpha = 0.05	
	Stasiun	N	1	2
Tukey HSD[a]	TAKALAR	30	14.6867	
	PANGKEP	30	17.0133	17.0133
	KOTA MAKASSAR	30		20.2133
	Sig.		.273	.090

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 30.000.

Jarak awal sirip punggung lunak–akhir sirip punggung lunak

			Subset for alpha = 0.05	
	Stasiun	N	1	2
Tukey HSD[a]	TAKALAR	30	30.4100	
	PANGKEP	30	33.4033	
	KOTA MAKASSAR	30		43.5300
	Sig.		.071	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 30.000.

Lampiran 3. Lanjutan

Jarak awal sirip punggung lunak–awal sirip anal

			Subset for alpha = 0.05		
	Stasiun	N	1	2	3
Tukey HSD[a]	TAKALAR	30	45.8300		
	PANGKEP	30		50.7300	
	KOTA MAKASSAR	30			65.1200
	Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 30.000.

Jarak awal sirip punggung lunak–awal sirip anal

			Subset for alpha = 0.05		
	Stasiun	N	1	2	3
Tukey HSD[a]	TAKALAR	30	45.8300		
	PANGKEP	30		50.7300	
	KOTA MAKASSAR	30			65.1200
	Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 30.000.

Jarak akhir anal-awal sirip sirip ekor bawah

			Subset for alpha = 0.05		
	Stasiun	N	1	2	3
Tukey HSD[a]	TAKALAR	30	23.2900		
	PANGKEP	30		26.2833	
	KOTA MAKASSAR	30			28.8833
	Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 30.000.

Jarak akhir sirip punggung lunak-awal sirip ekor atas

			Subset for alpha = 0.05		
	Stasiun	N	1	2	3
Tukey HSD[a]	TAKALAR	30	24.4933		
	PANGKEP	30		26.8300	
	KOTA MAKASSAR	30			30.3200
	Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 30.000.

Lampiran 3. Lanjutan

Jarak awal sirip ekor atas – awal sirip ekor bawah

			Subset for alpha = 0.05		
	Stasiun	N	1	2	3
Tukey HSD[a]	TAKALAR	30	13.6733		
	PANGKEP	30		15.8067	
	KOTA MAKASSAR	30			19.5467
	Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 30.000.

Jarak akhir sirip punggung lunak-awal sirip ekor bawah

			Subset for alpha = 0.05		
	Stasiun	N	1	2	3
Tukey HSD[a]	TAKALAR	30	25.5200		
	PANGKEP	30		28.0967	
	KOTA MAKASSAR	30			34.2300
	Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 30.000.

Jarak awal sirip ekor atas-akhir sirip anal

			Subset for alpha = 0.05
	Stasiun	N	1
Tukey HSD[a]	TAKALAR	30	25.4533
	KOTA MAKASSAR	30	33.9200
	PANGKEP	30	36.0167
	Sig.		.248

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 30.000.

Lampiran 4. Hasil analisis uji One Way Anova Parameter Lingkungan

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Stasiun	Statistic	df	Sig.	Statistic	df	Sig.
Suhu	Stasiun 1	.356	3	.	.818	3	.157
	Stasiun 2	.196	3	.	.996	3	.878
	Stasiun 3	.219	3	.	.987	3	.780
Salinitas	Stasiun 1	.253	3	.	.964	3	.637
	Stasiun 2	.253	3	.	.964	3	.637
	Stasiun 3	.200	3	.	.995	3	.862
pH	Stasiun 1	.198	3	.	.995	3	.870
	Stasiun 2	.219	3	.	.987	3	.780
	Stasiun 3	.224	3	.	.984	3	.762
DO	Stasiun 1	.292	3	.	.923	3	.463
	Stasiun 2	.253	3	.	.964	3	.637
	Stasiun 3	.269	3	.	.949	3	.567
Substrat	Stasiun 1	.319	3	.	.885	3	.341
	Stasiun 2	.303	3	.	.909	3	.414
	Stasiun 3	.361	3	.	.807	3	.131
Arus	Stasiun 1	.343	3	.	.842	3	.220
	Stasiun 2	.272	3	.	.947	3	.554
	Stasiun 3	.360	3	.	.808	3	.135
Kedalaman	Stasiun 1	.253	3	.	.964	3	.637
	Stasiun 2	.362	3	.	.803	3	.122
	Stasiun 3	.314	3	.	.893	3	.363

a. Lilliefors Significance Correction

Lampiran 4. Lanjutan

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Suhu	Based on Mean	.475	2	6	.643
	Based on Median	.281	2	6	.765
	Based on Median and with adjusted df	.281	2	5.112	.766
	Based on trimmed mean	.461	2	6	.651
Salinitas	Based on Mean	1.836	2	6	.239
	Based on Median	1.127	2	6	.384
	Based on Median and with adjusted df	1.127	2	4.094	.407
	Based on trimmed mean	1.789	2	6	.246
pH	Based on Mean	1.045	2	6	.408
	Based on Median	.732	2	6	.520
	Based on Median and with adjusted df	.732	2	4.488	.531
	Based on trimmed mean	1.025	2	6	.414
DO	Based on Mean	1.046	2	6	.408
	Based on Median	.261	2	6	.778
	Based on Median and with adjusted df	.261	2	4.379	.781
	Based on trimmed mean	.962	2	6	.434
Substrat	Based on Mean	5.126	2	6	.050
	Based on Median	.437	2	6	.665
	Based on Median and with adjusted df	.437	2	2.742	.685
	Based on trimmed mean	4.235	2	6	.071
Arus	Based on Mean	8.028	2	6	.020
	Based on Median	.705	2	6	.531
	Based on Median and with adjusted df	.705	2	2.302	.577
	Based on trimmed mean	6.640	2	6	.030
Kedalaman	Based on Mean	1.225	2	6	.358
	Based on Median	.199	2	6	.825
	Based on Median and with adjusted df	.199	2	4.566	.826
	Based on trimmed mean	1.082	2	6	.397

Lampiran 4. Lanjutan

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Suhu	Between Groups	2.104	2	1.052	8.787	.016
	Within Groups	.718	6	.120		
	Total	2.822	8			
Salinitas	Between Groups	1.820	2	.910	2.625	.152
	Within Groups	2.080	6	.347		
	Total	3.900	8			
pH	Between Groups	.735	2	.367	4.993	.053
	Within Groups	.442	6	.074		
	Total	1.176	8			
DO	Between Groups	.077	2	.039	6.017	.037
	Within Groups	.039	6	.006		
	Total	.116	8			
Substrat	Between Groups	15128.282	2	7564.141	33.550	.001
	Within Groups	1352.733	6	225.456		
	Total	16481.016	8			
Arus	Between Groups	24.247	2	12.123	4.043	.077
	Within Groups	17.993	6	2.999		
	Total	42.240	8			
Kedalaman	Between Groups	17.556	2	8.778	.089	.916
	Within Groups	588.667	6	98.111		
	Total	606.222	8			

Suhu

			Subset for alpha = 0.05	
	Stasiun	N	1	2
Tukey HSD[a]	Stasiun 1	3	28.3500	
	Stasiun 3	3	28.5667	
	Stasiun 2	3		29.4667
	Sig.		.735	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

Lampiran 4. Lanjutan

Salinitas

	Stasiun	N	Subset for alpha = 0.05 1
Tukey HSD[a]	Stasiun 2	3	21.5333
	Stasiun 3	3	21.6333
	Stasiun 1	3	22.5333
	Sig.		.174

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

pH

	Stasiun	N	Subset for alpha = 0.05 1
Tukey HSD[a]	Stasiun 2	3	6.9100
	Stasiun 1	3	6.9533
	Stasiun 3	3	7.5367
	Sig.		.067

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

DO

	Stasiun	N	Subset for alpha = 0.05 1	2
Tukey HSD[a]	Stasiun 2	3	4.6167	
	Stasiun 1	3	4.7167	4.7167
	Stasiun 3	3		4.8433
	Sig.		.344	.210

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

Substrat

	Stasiun	N	Subset for alpha = 0.05 1	2
Tukey HSD[a]	Stasiun 3	3	308.9000	
	Stasiun 2	3		387.3333
	Stasiun 1	3		402.4333
	Sig.		1.000	.479

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

Lampiran 4. Lanjutan

Arus

			Subset for alpha = 0.05
	Stasiun	N	1
Tukey HSD[a]	Stasiun 2	3	2.2333
	Stasiun 1	3	3.1000
	Stasiun 3	3	6.0667
	Sig.		.078

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

Kedalaman

			Subset for alpha = 0.05
	Stasiun	N	1
Tukey HSD[a]	Stasiun 3	3	45.0000
	Stasiun 2	3	46.0000
	Stasiun 1	3	48.3333
	Sig.		.912

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

Lampiran 5. Hasil Sofware Gradistat Sedimen

Stasiun 1

SIEVING ERROR: 0.0%

SAMPLE STATISTICS

SAMPLE IDENTITY: **STS 1 U1** ANALYST & DATE: , 8/30/2023

SAMPLE TYPE: Polymodal, Poorly Sorted TEXTURAL GROUP: Gravelly Sand

SEDIMENT NAME: Very Fine Gravelly Fine Sand

	µm	ϕ
MODE 1:	302.5	1.747
MODE 2:	152.5	2.737
MODE 3:	605.0	0.747
D_{10}:	138.5	-1.013
MEDIAN or D_{50}:	336.9	1.570
D_{90}:	2018.1	2.853
(D_{90} / D_{10}):	14.58	-2.816
(D_{90} - D_{10}):	1879.7	3.866
(D_{75} / D_{25}):	6.088	-41.857
(D_{75} - D_{25}):	871.7	2.606

GRAIN SIZE DISTRIBUTION

GRAVEL: 10.3% COARSE SAND: 19.1%

SAND: 89.2% MEDIUM SAND: 25.3%

MUD: 0.5% FINE SAND: 25.7%

V FINE SAND: 2.3%

V COARSE GRAVEL: 0.0% V COARSE SILT: 0.1%

COARSE GRAVEL: 0.0% COARSE SILT: 0.1%

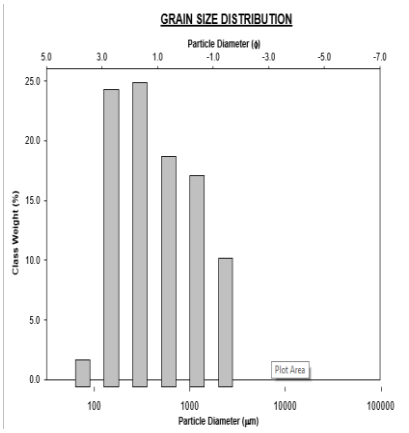
MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.1%

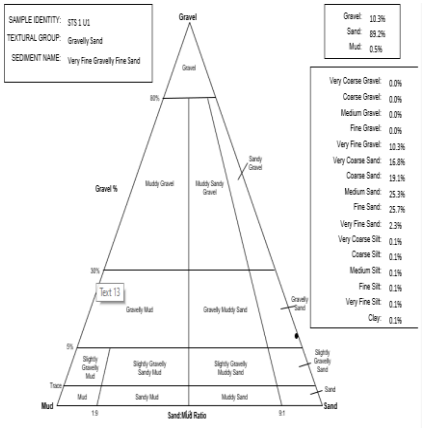
FINE GRAVEL: 0.0% FINE SILT: 0.1%

V FINE GRAVEL: 10.3% V FINE SILT: 0.1%

V COARSE SAND: 16.8% CLAY: 0.1%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	µm	µm	ϕ	µm	ϕ	
MEAN ($\bar{x}$):	681.9	423.0	1.241	398.8	1.326	Medium Sand
SORTING (σ):	684.5	2.673	1.418	2.638	1.399	Poorly Sorted
SKEWNESS (Sk):	1.515	-0.047	0.047	0.290	-0.290	Coarse Skewed
KURTOSIS (K):	4.267	3.189	3.189	0.661	0.661	Very Platykurtic





SIEVING ERROR: 0.0%

SAMPLE STATISTICS

SAMPLE IDENTITY: **STS 1 U2** ANALYST & DATE: , 8/31/2023

SAMPLE TYPE: Polymodal, Poorly Sorted TEXTURAL GROUP: Gravelly Sand

SEDIMENT NAME: Very Fine Gravelly Medium Sand

	µm	ϕ
MODE 1:	302.5	1.747
MODE 2:	605.0	0.747
MODE 3:	1200.0	-0.243
D_{10}:	149.6	-0.410
MEDIAN or D_{50}:	347.3	1.526
D_{90}:	1329.1	2.741
(D_{90} / D_{10}):	8.887	-6.679
(D_{90} - D_{10}):	1179.5	3.152
(D_{75} / D_{25}):	3.736	-1339.989
(D_{75} - D_{25}):	733.0	1.901

GRAIN SIZE DISTRIBUTION

GRAVEL: 7.3% COARSE SAND: 22.8%

SAND: 92.3% MEDIUM SAND: 33.8%

MUD: 0.5% FINE SAND: 16.4%

V FINE SAND: 1.4%

V COARSE GRAVEL: 0.0% V COARSE SILT: 0.1%

COARSE GRAVEL: 0.0% COARSE SILT: 0.1%

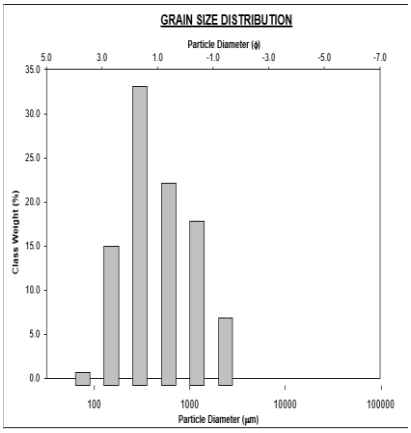
MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.1%

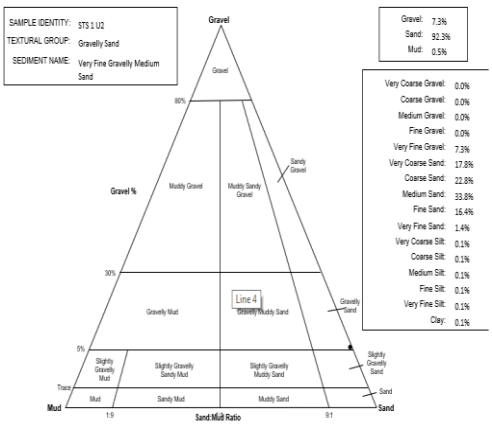
FINE GRAVEL: 0.0% FINE SILT: 0.1%

V FINE GRAVEL: 7.3% V FINE SILT: 0.1%

V COARSE SAND: 17.8% CLAY: 0.1%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	µm	µm	ϕ	µm	ϕ	
MEAN ($\bar{x}$):	654.3	446.1	1.165	413.0	1.276	Medium Sand
SORTING (σ):	603.6	2.401	1.264	2.484	1.313	Poorly Sorted
SKEWNESS (Sk):	1.706	-0.203	0.203	0.294	-0.294	Coarse Skewed
KURTOSIS (K):	5.327	4.142	4.142	0.873	0.873	Platykurtic





SIEVING ERROR: 0.0%

SAMPLE STATISTICS

SAMPLE IDENTITY: **STS 1 U3** ANALYST & DATE: , 8/31/2023

SAMPLE TYPE: Polymodal, Poorly Sorted TEXTURAL GROUP: Gravelly Sand

SEDIMENT NAME: Very Fine Gravelly Medium Sand

	µm	ϕ
MODE 1:	302.5	1.747
MODE 2:	152.5	2.737
MODE 3:	605.0	0.747
D_{10}:	137.4	-1.078
MEDIAN or D_{50}:	308.9	1.695
D_{90}:	2110.6	2.863
(D_{90} / D_{10}):	15.36	-2.657
(D_{90} - D_{10}):	1973.2	3.941
(D_{75} / D_{25}):	3.913	4.381
(D_{75} - D_{25}):	497.2	1.968

GRAIN SIZE DISTRIBUTION

GRAVEL: 11.9% COARSE SAND: 13.3%

SAND: 87.6% MEDIUM SAND: 35.4%

MUD: 0.5% FINE SAND: 25.2%

V FINE SAND: 3.0%

V COARSE GRAVEL: 0.0% V COARSE SILT: 0.1%

COARSE GRAVEL: 0.0% COARSE SILT: 0.1%

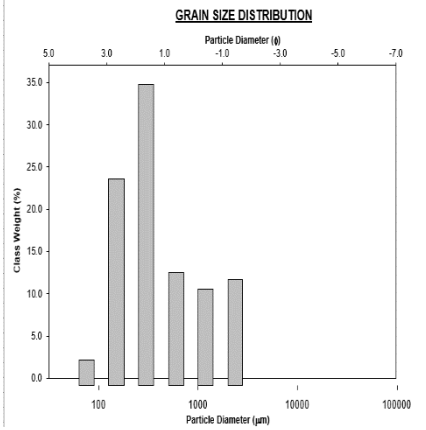
MEDIUM GRAVEL: 0.0% MEDIUM SILT: 0.1%

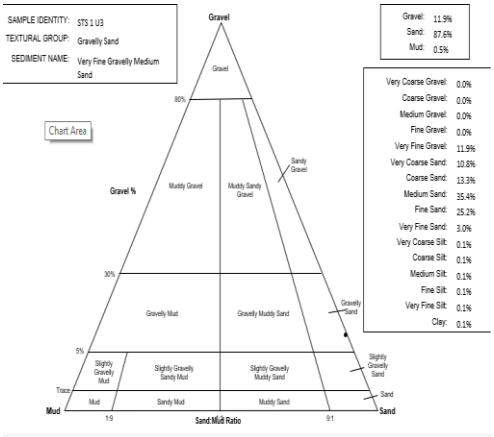
FINE GRAVEL: 0.0% FINE SILT: 0.1%

V FINE GRAVEL: 11.9% V FINE SILT: 0.1%

V COARSE SAND: 10.8% CLAY: 0.1%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	µm	µm	ϕ	µm	ϕ	
MEAN ($\bar{x}$):	643.3	385.0	1.377	384.9	1.377	Medium Sand
SORTING (σ):	717.1	2.650	1.406	2.646	1.404	Poorly Sorted
SKEWNESS (Sk):	1.664	0.281	-0.281	0.357	-0.357	Very Coarse Skewed
KURTOSIS (K):	4.415	3.246	3.246	0.885	0.885	Platykurtic





Lampiran 5. Lanjutan

STASIUN 2

SIEVING ERROR: -5.7%

SAMPLE STATISTICS

SAMPLE IDENTITY: **STS 2 U1** ANALYST & DATE: , 8/31/2023

SAMPLE TYPE: Polymodal, Poorly Sorted TEXTURAL GROUP: Gravelly Sand

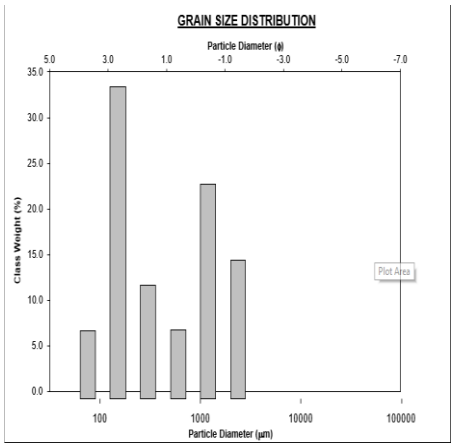
SEDIMENT NAME: Very Fine Gravelly Fine Sand

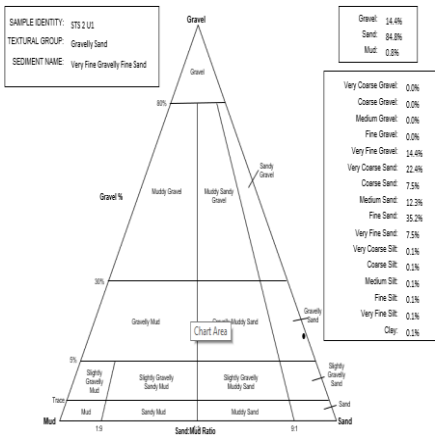
	µm	ϕ
MODE 1:	152.5	2.737
MODE 2:	1200.0	-0.243
MODE 3:	302.5	1.747
D_{10}:	127.2	-1.148
MEDIAN or D_{50}:	301.1	1.732
D_{90}:	2215.6	2.974
(D_{90} / D_{10}):	17.41	-2.592
(D_{90} - D_{10}):	2088.3	4.122
(D_{75} / D_{25}):	8.028	-10.791
(D_{75} - D_{25}):	1044.6	3.005

GRAIN SIZE DISTRIBUTION

GRAVEL: 14.4%	COARSE SAND: 7.5%
SAND: 84.8%	MEDIUM SAND: 12.3%
MUD: 0.8%	FINE SAND: 35.2%
	V FINE SAND: 7.5%
V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.1%
COARSE GRAVEL: 0.0%	COARSE SILT: 0.1%
MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.1%
FINE GRAVEL: 0.0%	FINE SILT: 0.1%
V FINE GRAVEL: 14.4%	V FINE SILT: 0.1%
V COARSE SAND: 22.4%	CLAY: 0.1%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	µm	µm	ϕ	µm	ϕ	
MEAN ($\bar{X}$):	755.5	395.8	1.337	381.9	1.389	Medium Sand
SORTING (σ):	791.5	3.285	1.716	3.019	1.594	Poorly Sorted
SKEWNESS (Sk):	1.096	-0.026	0.026	0.262	-0.262	Coarse Skewed
KURTOSIS (K):	2.878	2.315	2.315	0.684	0.684	Platykurtic





SIEVING ERROR: 0.0%

SAMPLE STATISTICS

SAMPLE IDENTITY: **STS 2 U2** ANALYST & DATE: , 8/31/2023

SAMPLE TYPE: Polymodal, Poorly Sorted TEXTURAL GROUP: Gravelly Sand

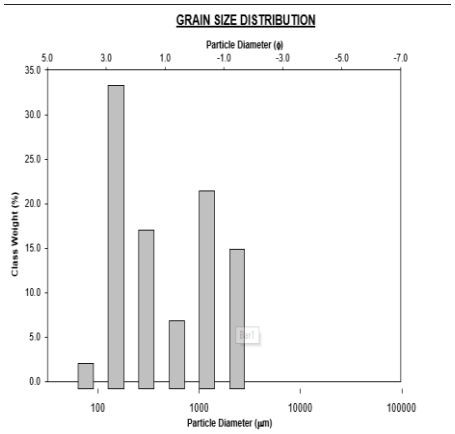
SEDIMENT NAME: Very Fine Gravelly Fine Sand

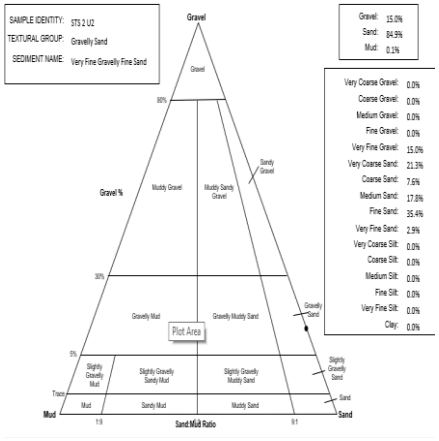
	µm	ϕ
MODE 1:	152.5	2.737
MODE 2:	1200.0	-0.243
MODE 3:	302.5	1.747
D_{10}:	134.3	-1.161
MEDIAN or D_{50}:	314.3	1.670
D_{90}:	2236.2	2.896
(D_{90} / D_{10}):	16.65	-2.495
(D_{90} - D_{10}):	2101.9	4.057
(D_{75} / D_{25}):	7.620	-10.416
(D_{75} - D_{25}):	1037.9	2.930

GRAIN SIZE DISTRIBUTION

GRAVEL: 15.0%	COARSE SAND: 7.6%
SAND: 84.9%	MEDIUM SAND: 17.8%
MUD: 0.1%	FINE SAND: 35.4%
	V FINE SAND: 2.9%
V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.0%
COARSE GRAVEL: 0.0%	COARSE SILT: 0.0%
MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.0%
FINE GRAVEL: 0.0%	FINE SILT: 0.0%
V FINE GRAVEL: 15.0%	V FINE SILT: 0.0%
V COARSE SAND: 21.3%	CLAY: 0.0%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	µm	µm	ϕ	µm	ϕ	
MEAN ($\bar{X}$):	770.4	430.8	1.215	395.5	1.338	Medium Sand
SORTING (σ):	792.1	2.973	1.572	2.766	1.468	Poorly Sorted
SKEWNESS (Sk):	1.111	0.230	-0.230	0.349	-0.349	Very Coarse Skewed
KURTOSIS (K):	2.870	1.801	1.801	0.601	0.601	Very Platykurtic





SIEVING ERROR: 0.0%

SAMPLE STATISTICS

SAMPLE IDENTITY: **STS 2 U3** ANALYST & DATE: , 8/31/2023

SAMPLE TYPE: Polymodal, Poorly Sorted TEXTURAL GROUP: Gravelly Sand

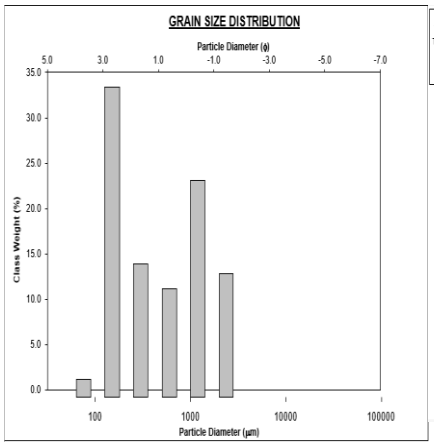
SEDIMENT NAME: Very Fine Gravelly Fine Sand

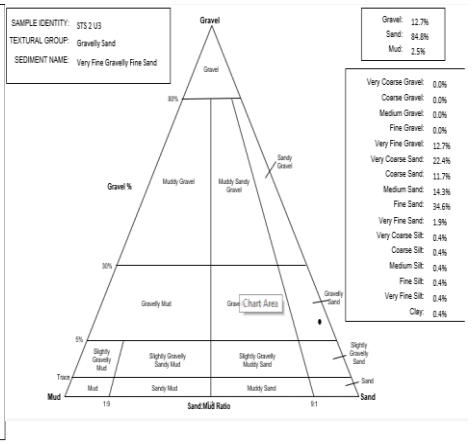
	µm	ϕ
MODE 1:	152.5	2.737
MODE 2:	1200.0	-0.243
MODE 3:	302.5	1.747
D_{10}:	132.7	-1.104
MEDIAN or D_{50}:	327.7	1.609
D_{90}:	2149.0	2.914
(D_{90} / D_{10}):	16.20	-2.640
(D_{90} - D_{10}):	2016.4	4.018
(D_{75} / D_{25}):	7.491	-12.279
(D_{75} - D_{25}):	1008.4	2.905

GRAIN SIZE DISTRIBUTION

GRAVEL: 12.7%	COARSE SAND: 11.7%
SAND: 84.8%	MEDIUM SAND: 14.3%
MUD: 2.5%	FINE SAND: 34.6%
	V FINE SAND: 1.9%
V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.4%
COARSE GRAVEL: 0.0%	COARSE SILT: 0.4%
MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.4%
FINE GRAVEL: 0.0%	FINE SILT: 0.4%
V FINE GRAVEL: 12.7%	V FINE SILT: 0.4%
V COARSE SAND: 22.4%	CLAY: 0.4%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	µm	µm	ϕ	µm	ϕ	
MEAN ($\bar{X}$):	742.3	401.7	1.316	395.2	1.339	Medium Sand
SORTING (σ):	753.2	3.356	1.747	2.748	1.459	Poorly Sorted
SKEWNESS (Sk):	1.176	-0.532	0.532	0.303	-0.303	Very Coarse Skewed
KURTOSIS (K):	3.191	3.731	3.731	0.604	0.604	Very Platykurtic





Lampiran 5. Lanjutan

STASIUN 3

SIEVING ERROR: 0.0%

SAMPLE STATISTICS

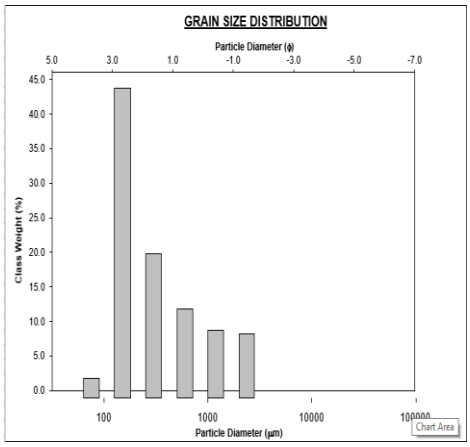
SAMPLE IDENTITY: **STS 3 U1** ANALYST & DATE: , 8/31/2023

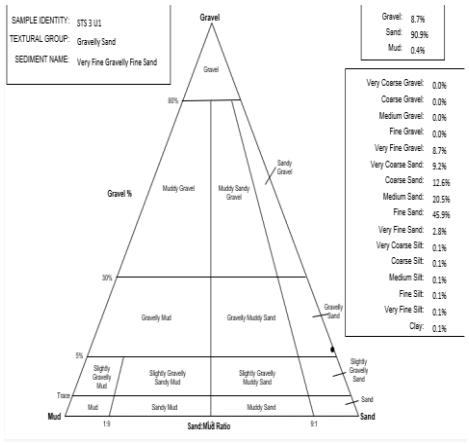
SAMPLE TYPE: Polymodal, Poorly Sorted TEXTURAL GROUP: Gravelly Sand

SEDIMENT NAME: Very Fine Gravelly Fine Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION	
MODE 1:	152.5	2.737	GRAVEL: 8.7%	COARSE SAND: 12.6%
MODE 2:	302.5	1.747	SAND: 90.9%	MEDIUM SAND: 20.5%
MODE 3:	605.0	0.747	MUD: 0.4%	FINE SAND: 45.9%
D_{10}:	132.0	-0.418		V FINE SAND: 2.8%
MEDIAN or D_{50}:	254.4	1.975	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.1%
D_{90}:	1336.1	2.921	COARSE GRAVEL: 0.0%	COARSE SILT: 0.1%
(D_{90} / D_{10}):	10.12	-6.988	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.1%
(D_{90} - D_{10}):	1204.1	3.339	FINE GRAVEL: 0.0%	FINE SILT: 0.1%
(D_{75} / D_{25}):	3.924	3.540	V FINE GRAVEL: 8.7%	V FINE SILT: 0.1%
(D_{75} - D_{25}):	435.0	1.972	V COARSE SAND: 9.2%	CLAY: 0.1%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN ($\bar{x}$):	530.4	306.9	1.704	335.7	1.575	Medium Sand
SORTING (σ):	655.4	2.617	1.388	2.590	1.373	Poorly Sorted
SKEWNESS (Sk):	2.015	0.657	-0.657	0.463	-0.463	Very Coarse Skewed
KURTOSIS (K):	5.934	3.182	3.182	0.870	0.870	Platykurtic





SIEVING ERROR: -0.1%

SAMPLE STATISTICS

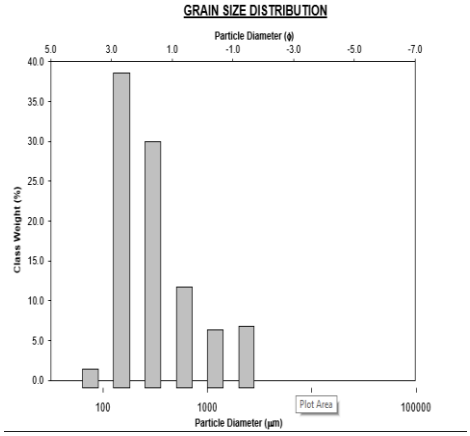
SAMPLE IDENTITY: **STS 3 U2** ANALYST & DATE: , 8/31/2023

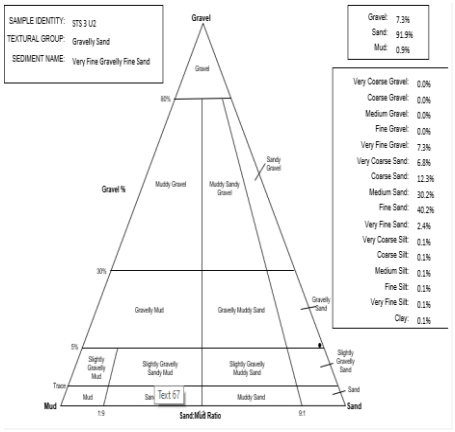
SAMPLE TYPE: Polymodal, Poorly Sorted TEXTURAL GROUP: Gravelly Sand

SEDIMENT NAME: Very Fine Gravelly Fine Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION	
MODE 1:	152.5	2.737	GRAVEL: 7.3%	COARSE SAND: 12.3%
MODE 2:	302.5	1.747	SAND: 91.9%	MEDIUM SAND: 30.2%
MODE 3:	605.0	0.747	MUD: 0.9%	FINE SAND: 40.2%
D_{10}:	132.9	-0.288		V FINE SAND: 2.4%
MEDIAN or D_{50}:	269.7	1.891	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.1%
D_{90}:	1221.0	2.911	COARSE GRAVEL: 0.0%	COARSE SILT: 0.1%
(D_{90} / D_{10}):	9.185	-10.108	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.1%
(D_{90} - D_{10}):	1088.0	3.199	FINE GRAVEL: 0.0%	FINE SILT: 0.1%
(D_{75} / D_{25}):	3.409	2.871	V FINE GRAVEL: 7.3%	V FINE SILT: 0.1%
(D_{75} - D_{25}):	366.9	1.769	V COARSE SAND: 6.8%	CLAY: 0.1%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN ($\bar{x}$):	484.5	294.7	1.763	293.9	1.766	Medium Sand
SORTING (σ):	602.1	2.509	1.327	2.281	1.190	Poorly Sorted
SKEWNESS (Sk):	2.363	0.369	-0.369	0.319	-0.319	Very Coarse Skewed
KURTOSIS (K):	7.612	4.600	4.600	0.956	0.956	Mesokurtic





SIEVING ERROR: 0.0%

SAMPLE STATISTICS

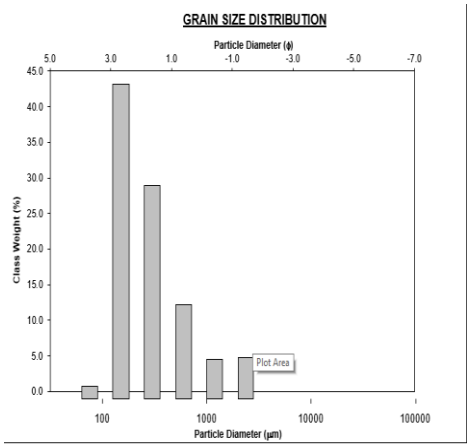
SAMPLE IDENTITY: **STS 3 U3** ANALYST & DATE: , 8/31/2023

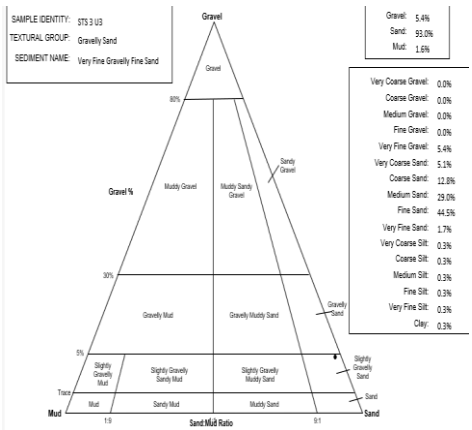
SAMPLE TYPE: Trimodal, Poorly Sorted TEXTURAL GROUP: Gravelly Sand

SEDIMENT NAME: Very Fine Gravelly Fine Sand

	μm	ϕ	GRAIN SIZE DISTRIBUTION	
MODE 1:	152.5	2.737	GRAVEL: 5.4%	COARSE SAND: 12.8%
MODE 2:	302.5	1.747	SAND: 93.0%	MEDIUM SAND: 29.0%
MODE 3:	605.0	0.747	MUD: 1.6%	FINE SAND: 44.5%
D_{10}:	132.1	-0.045		V FINE SAND: 1.7%
MEDIAN or D_{50}:	256.8	1.961	V COARSE GRAVEL: 0.0%	V COARSE SILT: 0.3%
D_{90}:	1031.5	2.921	COARSE GRAVEL: 0.0%	COARSE SILT: 0.3%
(D_{90} / D_{10}):	7.810	-65.341	MEDIUM GRAVEL: 0.0%	MEDIUM SILT: 0.3%
(D_{90} - D_{10}):	899.4	2.965	FINE GRAVEL: 0.0%	FINE SILT: 0.3%
(D_{75} / D_{25}):	2.327	1.799	V FINE GRAVEL: 5.4%	V FINE SILT: 0.3%
(D_{75} - D_{25}):	198.2	1.218	V COARSE SAND: 5.1%	CLAY: 0.3%

	METHOD OF MOMENTS			FOLK & WARD METHOD		
	Arithmetic	Geometric	Logarithmic	Geometric	Logarithmic	Description
	μm	μm	ϕ	μm	ϕ	
MEAN ($\bar{x}$):	424.5	264.9	1.916	279.1	1.841	Medium Sand
SORTING (σ):	534.5	2.489	1.315	2.207	1.142	Poorly Sorted
SKEWNESS (Sk):	2.792	-0.030	0.030	0.330	-0.330	Very Coarse Skewed
KURTOSIS (K):	10.26	5.978	5.978	1.349	1.349	Leptokurtic





Lampiran 6. Foto Kegiatan Penelitian

A

B

C

D

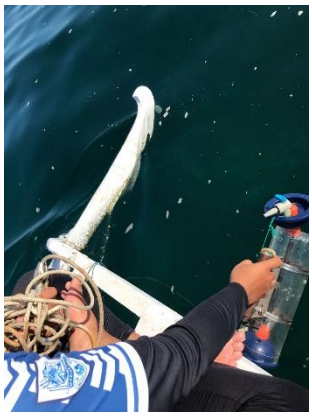
Keterangan :

A. Aplikasi *Navionics Booting* untuk titik penangkapan ikan

B. Kapal yang digunakan untuk alat tangkap cantrang di Kota Makassar dan Takalar

C. Hasil Tangkapan Ikan Swanggi

D. Kapal digunakan untuk alat tangkap cantrang di Pangkep



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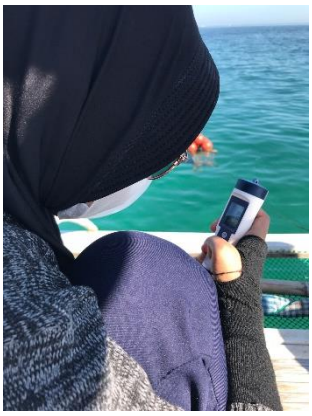

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H

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M

Keterangan :

E. Pengambilan sampel air di kolom air
F. Pengambilan Sedimen di dasar laut
G. Pengukuran kualitas air
H. Pengukuran arus
I. Mengoven sedimen
J. Hasil pengeringan sedimen
K. Menumbuk sedimen
L. Pengukuran morfometrik
M. Pengukuran meristik