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# LAMPIRAN

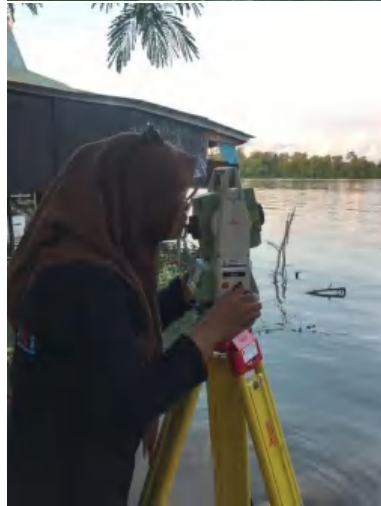


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### Lampiran 1 Pengamatan lapangan



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## Lampiran 2 Pasang surut

WAKTU	Tallo	Tallo MSL	Mike21
2-26-23 12:00 PM	1.27	0.30	0.145997
2-26-23 1:00 PM	1.1	0.13	-0.00958434
2-26-23 2:00 PM	0.99	0.02	-0.190137
2-26-23 3:00 PM	0.59	-0.38	-0.361109
2-26-23 4:00 PM	0.43	-0.54	-0.488228
2-26-23 5:00 PM	0.41	-0.56	-0.545561
2-26-23 6:00 PM	0.41	-0.56	-0.521609
2-26-23 7:00 PM	0.47	-0.50	-0.421925
2-26-23 8:00 PM	0.75	-0.22	-0.267616
2-26-23 9:00 PM	0.97	0.00	-0.0901323
2-26-23 10:00 PM	1.03	0.06	0.0763234
2-26-23 11:00 PM	1.31	0.34	0.202858
2-27-23 12:00 AM	1.37	0.40	0.272398
2-27-23 1:00 AM	1.35	0.38	0.283049
2-27-23 2:00 AM	1.33	0.36	0.247523
2-27-23 3:00 AM	1.19	0.22	0.18885
2-27-23 4:00 AM	1.09	0.12	0.133559
2-27-23 5:00 AM	1.09	0.12	0.104125
2-27-23 6:00 AM	1.1	0.13	0.112666
2-27-23 7:00 AM	1.16	0.19	0.157535
2-27-23 8:00 AM	1.25	0.28	0.223692
2-27-23 9:00 AM	1.27	0.30	0.286741
2-27-23 10:00 AM	1.35	0.38	0.319603
2-27-23 11:00 AM	1.29	0.32	0.300066
2-27-23 12:00 PM	1.19	0.22	0.217273
2-27-23 1:00 PM	0.99	0.02	0.0754203
2-27-23 2:00 PM	0.75	-0.22	-0.106296
2-27-23 3:00 PM	0.61	-0.36	-0.297539
2-27-23 4:00 PM	0.4	-0.57	-0.463555
2-27-23 5:00 PM	0.35	-0.62	-0.573102
2-27-23 6:00 PM	0.34	-0.63	-0.605629
2-27-23 7:00 PM	0.37	-0.60	-0.555926
2-27-23 8:00 PM	0.56	-0.41	-0.435117
2-27-23 9:00 PM	0.79	-0.18	-0.267791
2-27-23 10:00 PM	0.99	0.02	-0.086028
2-27-23 11:00 PM	1.17	0.20	0.078169
2-27-23 12:00 AM	1.21	0.24	0.200122



WAKTU	Tallo	Tallo MSL	Mike21
2-28-23 1:00 AM	1.25	0.28	0.267631
2-28-23 2:00 AM	1.15	0.18	0.282797
2-28-23 3:00 AM	1.11	0.14	0.26016
2-28-23 4:00 AM	1.09	0.12	0.221729
2-28-23 5:00 AM	1.02	0.05	0.190277
2-28-23 6:00 AM	1.11	0.14	0.182683
2-28-23 7:00 AM	1.18	0.21	0.205082
2-28-23 8:00 AM	1.19	0.22	0.251071
2-28-23 9:00 AM	1.25	0.28	0.30344
2-28-23 10:00 AM	1.27	0.30	0.33894
2-28-23 11:00 AM	1.25	0.28	0.334845
2-28-23 12:00 PM	1.03	0.06	0.275577
2-28-23 1:00 PM	0.95	-0.02	0.157667
2-28-23 2:00 PM	0.82	-0.15	-0.00828416
2-28-23 3:00 PM	0.52	-0.45	-0.199156
2-28-23 4:00 PM	0.43	-0.54	-0.384053
2-28-23 5:00 PM	0.25	-0.72	-0.531071
2-28-23 6:00 PM	0.33	-0.64	-0.614415
2-28-23 7:00 PM	0.42	-0.55	-0.620136
2-28-23 8:00 PM	0.47	-0.50	-0.549084
2-28-23 9:00 PM	0.65	-0.32	-0.416391
2-28-23 10:00 PM	0.95	-0.02	-0.247674
2-28-23 11:00 PM	1.06	0.09	-0.0729428
3-1-23 12:00 AM	1.23	0.26	0.0802422
3-1-23 1:00 AM	1.26	0.29	0.19321
3-1-23 2:00 AM	1.25	0.28	0.257746
3-1-23 3:00 AM	1.18	0.21	0.27898
3-1-23 4:00 AM	1.12	0.15	0.271362
3-1-23 5:00 AM	1.17	0.20	0.253834
3-1-23 6:00 AM	1.2	0.23	0.243882
3-1-23 7:00 AM	1.32	0.35	0.252271
3-1-23 8:00 AM	1.34	0.37	0.279847
3-1-23 9:00 AM	1.38	0.41	0.317242
3-1-23 10:00 AM	1.42	0.45	0.347506
3-1-23 11:00 AM	1.33	0.36	0.350974
3-1-23 12:00 PM	1.2	0.23	0.31105
3-1-23 1:00 PM	1.15	0.18	0.219399
3-1-23 2:00 PM	0.95	-0.02	0.0791547



WAKTU	Tallo	Tallo MSL	Mike21
3-1-23 3:00 PM	0.73	-0.24	-0.0947137
3-1-23 4:00 PM	0.59	-0.38	-0.278004
3-1-23 5:00 PM	0.43	-0.54	-0.442244
3-1-23 6:00 PM	0.41	-0.56	-0.560798
3-1-23 7:00 PM	0.41	-0.56	-0.614626
3-1-23 8:00 PM	0.51	-0.46	-0.596307
3-1-23 9:00 PM	0.61	-0.36	-0.511378
3-1-23 10:00 PM	0.81	-0.16	-0.376716
3-1-23 11:00 PM	0.95	-0.02	-0.216428
3-2-23 12:00 AM	1.05	0.08	-0.0563176
3-2-23 1:00 AM	1.15	0.18	0.0817001
3-2-23 2:00 AM	1.16	0.19	0.183873
3-2-23 3:00 AM	1.14	0.17	0.246596
3-2-23 4:00 AM	1.11	0.14	0.275737
3-2-23 5:00 AM	1.12	0.15	0.283611
3-2-23 6:00 AM	1.2	0.23	0.28451
3-2-23 7:00 AM	1.29	0.32	0.290022
3-2-23 8:00 AM	1.33	0.36	0.305404
3-2-23 9:00 AM	1.35	0.38	0.327946
3-2-23 10:00 AM	1.37	0.40	0.347736
3-2-23 11:00 AM	1.32	0.35	0.350577
3-2-23 12:00 PM	1.21	0.24	0.322268
3-2-23 1:00 PM	1.07	0.10	0.253087
3-2-23 2:00 PM	0.89	-0.08	0.141278
3-2-23 3:00 PM	0.73	-0.24	-0.00537628
3-2-23 4:00 PM	0.59	-0.38	-0.170355
3-2-23 5:00 PM	0.46	-0.51	-0.331394
3-2-23 6:00 PM	0.41	-0.56	-0.464954
3-2-23 7:00 PM	0.45	-0.52	-0.551095
3-2-23 8:00 PM	0.57	-0.40	-0.577571
3-2-23 9:00 PM	0.59	-0.38	-0.542197
3-2-23 10:00 PM	0.63	-0.34	-0.452961
11:00 PM	0.91	-0.06	-0.325925
12:00 AM	0.99	0.02	-0.181487
1:00 AM	1.01	0.04	-0.039961
2:00 AM	1.03	0.06	0.0824573
3:00 AM	1.05	0.08	0.176392
4:00 AM	1.09	0.12	0.166736111





WAKTU	Tallo	Tallo MSL	Mike21
3-3-23 5:00 AM	1.14	0.17	0.278334
3-3-23 6:00 AM	1.22	0.25	0.299678
3-3-23 7:00 AM	1.28	0.31	0.313159
3-3-23 8:00 AM	1.39	0.42	0.325085
3-3-23 9:00 AM	1.41	0.44	0.336943
3-3-23 10:00 AM	1.41	0.44	0.344904
3-3-23 11:00 AM	1.36	0.39	0.341017
3-3-23 12:00 PM	1.19	0.22	0.315743
3-3-23 1:00 PM	1.03	0.06	0.261112
3-3-23 2:00 PM	0.93	-0.04	0.173651
3-3-23 3:00 PM	0.78	-0.19	0.0562888
3-3-23 4:00 PM	0.66	-0.31	-0.0812857
3-3-23 5:00 PM	0.51	-0.46	-0.223933
3-3-23 6:00 PM	0.51	-0.46	-0.353741
3-3-23 7:00 PM	0.53	-0.44	-0.453444
3-3-23 8:00 PM	0.53	-0.44	-0.50976
3-3-23 9:00 PM	0.62	-0.35	-0.515903
3-3-23 10:00 PM	0.65	-0.32	-0.472679
3-3-23 11:00 PM	0.73	-0.24	-0.388007
3-4-23 12:00 AM	0.78	-0.19	-0.275006
3-4-23 1:00 AM	0.85	-0.12	-0.149181
3-4-23 2:00 AM	0.91	-0.06	-0.0253975
3-4-23 3:00 AM	0.95	-0.02	0.084669
3-4-23 4:00 AM	1.01	0.04	0.174053
3-4-23 5:00 AM	1.13	0.16	0.240746
3-4-23 6:00 AM	1.17	0.20	0.286739
3-4-23 7:00 AM	1.29	0.32	0.316247
3-4-23 8:00 AM	1.39	0.42	0.333642
3-4-23 9:00 AM	1.43	0.46	0.341693
3-4-23 10:00 AM	1.47	0.50	0.340572
3-4-23 11:00 AM	1.35	0.38	0.327853
3-4-23 12:00 PM	1.23	0.26	0.299462
1:00 PM	1.11	0.14	0.251283
2:00 PM	0.95	-0.02	0.180952
3:00 PM	0.82	-0.15	0.0893373
4:00 PM	0.7	-0.27	-0.0187003
5:00 PM	0.59	-0.38	-0.134491
6:00 PM	0.53	-0.44	-0.246668



WAKTU	Tallo	Tallo MSL	Mike21
3-4-23 7:00 PM	0.55	-0.42	-0.34296
3-4-23 8:00 PM	0.58	-0.39	-0.412265
3-4-23 9:00 PM	0.65	-0.32	-0.446542
3-4-23 10:00 PM	0.65	-0.32	-0.442135
3-4-23 11:00 PM	0.71	-0.26	-0.400258
3-5-23 12:00 AM	0.79	-0.18	-0.326592
3-5-23 1:00 AM	0.78	-0.19	-0.230131
3-5-23 2:00 AM	0.84	-0.13	-0.121576
3-5-23 3:00 AM	0.87	-0.10	-0.0116138
3-5-23 4:00 AM	1.01	0.04	0.0905423
3-5-23 5:00 AM	1.11	0.14	0.178117
3-5-23 6:00 AM	1.21	0.24	0.247121
3-5-23 7:00 AM	1.36	0.39	0.296109
3-5-23 8:00 AM	1.4	0.43	0.325529
3-5-23 9:00 AM	1.48	0.51	0.336868
3-5-23 10:00 AM	1.425	0.46	0.331856
3-5-23 11:00 AM	1.4	0.43	0.31192
3-5-23 12:00 PM	1.19	0.22	0.277977
3-5-23 1:00 PM	1.09	0.12	0.230596
3-5-23 2:00 PM	0.99	0.02	0.170422
3-5-23 3:00 PM	0.83	-0.14	0.0987221
3-5-23 4:00 PM	0.8	-0.17	0.0178804
3-5-23 5:00 PM	0.69	-0.28	-0.0683013
3-5-23 6:00 PM	0.67	-0.30	-0.154601
3-5-23 7:00 PM	0.69	-0.28	-0.234703
3-5-23 8:00 PM	0.69	-0.28	-0.301813
3-5-23 9:00 PM	0.7	-0.27	-0.349472
3-5-23 10:00 PM	0.76	-0.21	-0.372433
3-5-23 11:00 PM	0.725	-0.24	-0.367459
3-6-23 12:00 AM	0.67	-0.30	-0.333907
3-6-23 1:00 AM	0.71	-0.26	-0.273995
3-6-23 2:00 AM	0.72	-0.25	-0.192685
3:00 AM	0.73	-0.24	-0.0972009
4:00 AM	0.87	-0.10	0.00379414
5:00 AM	0.99	0.02	0.101224
6:00 AM	1.13	0.16	0.186699
7:00 AM	1.29	0.32	0.253516
8:00 AM	1.44	0.47	0.297394



WAKTU	Tallo	Tallo MSL	Mike21
3-6-23 9:00 AM	1.47	0.50	0.316829
3-6-23 10:00 AM	1.43	0.46	0.312995
3-6-23 11:00 AM	1.37	0.40	0.289241
3-6-23 12:00 PM	1.19	0.22	0.250249
3-6-23 1:00 PM	1.08	0.11	0.201075
3-6-23 2:00 PM	0.96	-0.01	0.146239
3-6-23 3:00 PM	0.89	-0.08	0.0890968
3-6-23 4:00 PM	0.83	-0.14	0.031607
3-6-23 5:00 PM	0.81	-0.16	-0.0254441
3-6-23 6:00 PM	0.79	-0.18	-0.0818437
3-6-23 7:00 PM	0.77	-0.20	-0.13715
3-6-23 8:00 PM	0.79	-0.18	-0.189928
3-6-23 9:00 PM	0.87	-0.10	-0.237273
3-6-23 10:00 PM	0.83	-0.14	-0.274805
3-6-23 11:00 PM	0.8	-0.17	-0.297222
3-7-23 12:00 AM	0.78	-0.19	-0.299324
3-7-23 1:00 AM	0.67	-0.30	-0.277298
3-7-23 2:00 AM	0.67	-0.30	-0.229955
3-7-23 3:00 AM	0.69	-0.28	-0.159595
3-7-23 4:00 AM	0.79	-0.18	-0.0721959
3-7-23 5:00 AM	0.9	-0.07	0.0231677
3-7-23 6:00 AM	1.05	0.08	0.11565
3-7-23 7:00 AM	1.23	0.26	0.194449
3-7-23 8:00 AM	1.34	0.37	0.250735
3-7-23 9:00 AM	1.45	0.48	0.27925
3-7-23 10:00 AM	1.41	0.44	0.279204
3-7-23 11:00 AM	1.37	0.40	0.254232
3-7-23 12:00 PM	1.23	0.26	0.211413
3-7-23 1:00 PM	1.11	0.14	0.159555
3-7-23 2:00 PM	0.99	0.02	0.107172
3-7-23 3:00 PM	0.91	-0.06	0.0606344
3-7-23 4:00 PM	0.87	-0.10	0.022963
3-7-23 5:00 PM	0.85	-0.12	-0.00644121
3-7-23 6:00 PM	0.71	-0.26	-0.0310567
3-7-23 7:00 PM	0.75	-0.22	-0.0556973
3-7-23 8:00 PM	0.82	-0.15	-0.0845813
3-7-23 9:00 PM	0.89	-0.08	-0.11955
3-7-23 10:00 PM	0.91	-0.06	-0.15895



WAKTU	Tallo	Tallo MSL	Mike21
3-7-23 11:00 PM	0.93	-0.04	-0.197525
3-8-23 12:00 AM	0.77	-0.20	-0.227416
3-8-23 1:00 AM	0.71	-0.26	-0.240049
3-8-23 2:00 AM	0.66	-0.31	-0.228459
3-8-23 3:00 AM	0.71	-0.26	-0.189438
3-8-23 4:00 AM	0.75	-0.22	-0.124917
3-8-23 5:00 AM	0.85	-0.12	-0.0421725
3-8-23 6:00 AM	0.99	0.02	0.0472997
3-8-23 7:00 AM	1.11	0.14	0.130005
3-8-23 8:00 AM	1.27	0.30	0.193287
3-8-23 9:00 AM	1.39	0.42	0.22808
3-8-23 10:00 AM	1.37	0.40	0.230911
3-8-23 11:00 AM	1.35	0.38	0.204604
3-8-23 12:00 PM	1.21	0.24	0.157512
3-8-23 1:00 PM	1.03	0.06	0.101423
3-8-23 2:00 PM	0.93	-0.04	0.0486593
3-8-23 3:00 PM	0.85	-0.12	0.00909431
3-8-23 4:00 PM	0.83	-0.14	-0.0121553
3-8-23 5:00 PM	0.81	-0.16	-0.0157624
3-8-23 6:00 PM	0.85	-0.12	-0.00767646
3-8-23 7:00 PM	0.89	-0.08	0.002807
3-8-23 8:00 PM	0.83	-0.14	0.00589067
3-8-23 9:00 PM	0.97	0.00	-0.00572355
3-8-23 10:00 PM	1.01	0.04	-0.0344884
3-8-23 11:00 PM	0.97	0.00	-0.0769752
3-9-23 12:00 AM	0.91	-0.06	-0.124466
3-9-23 1:00 AM	0.77	-0.20	-0.165066
3-9-23 2:00 AM	0.75	-0.22	-0.186814
3-9-23 3:00 AM	0.71	-0.26	-0.18099
3-9-23 4:00 AM	0.79	-0.18	-0.144733
3-9-23 5:00 AM	0.85	-0.12	-0.0822507
3-9-23 6:00 AM	0.91	-0.06	-0.00423531
7:00 AM	0.99	0.02	0.0744213
8:00 AM	1.17	0.20	0.138085
9:00 AM	1.31	0.34	0.174145
10:00 AM	1.29	0.32	0.176137
11:00 AM	1.25	0.28	0.145383
12:00 PM	1.15	0.18	0.0907216



WAKTU	Tallo	Tallo MSL	Mike21
3-9-23 1:00 PM	1.11	0.14	0.0263329
3-9-23 2:00 PM	0.85	-0.12	-0.0317923
3-9-23 3:00 PM	0.79	-0.18	-0.0698661
3-9-23 4:00 PM	0.73	-0.24	-0.0797636
3-9-23 5:00 PM	0.81	-0.16	-0.0610292
3-9-23 6:00 PM	0.93	-0.04	-0.0208967
3-9-23 7:00 PM	1.04	0.07	0.0277031
3-9-23 8:00 PM	1.17	0.20	0.0696413
3-9-23 9:00 PM	1.21	0.24	0.0916907
3-9-23 10:00 PM	1.13	0.16	0.0861488
3-9-23 11:00 PM	1.05	0.08	0.0530157
3-10-23 12:00 AM	1.04	0.07	0.000128485
3-10-23 1:00 AM	0.87	-0.10	-0.0588186
3-10-23 2:00 AM	0.77	-0.20	-0.107875
3-10-23 3:00 AM	0.74	-0.23	-0.133124
3-10-23 4:00 AM	0.73	-0.24	-0.12654
3-10-23 5:00 AM	0.75	-0.22	-0.088354
3-10-23 6:00 AM	0.9	-0.07	-0.027291
3-10-23 7:00 AM	1	0.03	0.0414627
3-10-23 8:00 AM	1.09	0.12	0.100061
3-10-23 9:00 AM	1.21	0.24	0.132617
3-10-23 10:00 AM	1.21	0.24	0.129434
3-10-23 11:00 AM	1.16	0.19	0.0897396
3-10-23 12:00 PM	1.14	0.17	0.0221621
3-10-23 1:00 PM	0.91	-0.06	-0.0572234
3-10-23 2:00 PM	0.76	-0.21	-0.128816
3-10-23 3:00 PM	0.66	-0.31	-0.1744
3-10-23 4:00 PM	0.69	-0.28	-0.181795
3-10-23 5:00 PM	0.83	-0.14	-0.148024
3-10-23 6:00 PM	0.97	0.00	-0.0801708
3-10-23 7:00 PM	1.13	0.16	0.00632493
3-10-23 8:00 PM	1.21	0.24	0.091532
3-10-23 9:00 PM	1.21	0.24	0.156058
3-10-23 10:00 PM	1.24	0.27	0.185954
3-10-23 11:00 PM	1.2	0.23	0.176221
3-10-23 12:00 AM	1.15	0.18	0.131981
3-10-23 1:00 AM	1	0.03	0.0670097
3-10-23 2:00 AM	0.91	-0.06	-0.221729



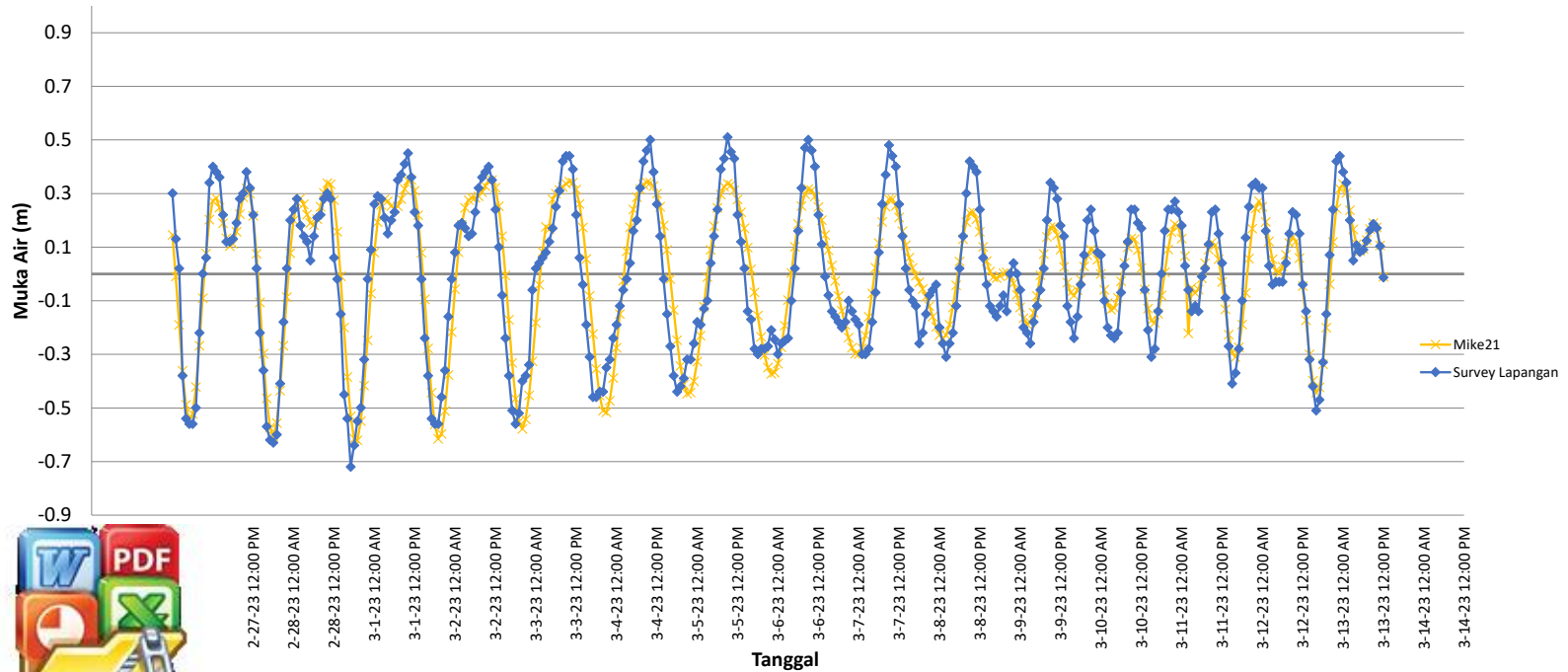
WAKTU	Tallo	Tallo MSL	Mike21
3-11-23 3:00 AM	0.83	-0.14	-0.0505998
3-11-23 4:00 AM	0.85	-0.12	-0.0713977
3-11-23 5:00 AM	0.83	-0.14	-0.0579462
3-11-23 6:00 AM	0.96	-0.01	-0.0159406
3-11-23 7:00 AM	0.99	0.02	0.0401925
3-11-23 8:00 AM	1.08	0.11	0.0911326
3-11-23 9:00 AM	1.2	0.23	0.117927
3-11-23 10:00 AM	1.21	0.24	0.107303
3-11-23 11:00 AM	1.12	0.15	0.0556107
3-11-23 12:00 PM	1.01	0.04	-0.0296645
3-11-23 1:00 PM	0.88	-0.09	-0.131302
3-11-23 2:00 PM	0.7	-0.27	-0.22634
3-11-23 3:00 PM	0.56	-0.41	-0.29169
3-11-23 4:00 PM	0.6	-0.37	-0.309955
3-11-23 5:00 PM	0.69	-0.28	-0.27393
3-11-23 6:00 PM	0.87	-0.10	-0.188635
3-11-23 7:00 PM	1.105	0.14	-0.0702929
3-11-23 8:00 PM	1.22	0.25	0.0575006
3-11-23 9:00 PM	1.3	0.33	0.169467
3-11-23 10:00 PM	1.31	0.34	0.244754
3-11-23 11:00 PM	1.29	0.32	0.271884
3-12-23 12:00 AM	1.29	0.32	0.251296
3-12-23 1:00 AM	1.13	0.16	0.194787
3-12-23 2:00 AM	1	0.03	0.122046
3-12-23 3:00 AM	0.93	-0.04	0.0551599
3-12-23 4:00 AM	0.94	-0.03	0.0125532
3-12-23 5:00 AM	0.94	-0.03	0.00396589
3-12-23 6:00 AM	0.94	-0.03	0.02781
3-12-23 7:00 AM	1.01	0.04	0.0716295
3-12-23 8:00 AM	1.12	0.15	0.115572
3-12-23 9:00 AM	1.2	0.23	0.137985
3-12-23 10:00 AM	1.19	0.22	0.121659
3-12-23 11:00 AM	1.12	0.15	0.0590707
3-12-23 12:00 PM	0.93	-0.04	-0.0448089
3-12-23 1:00 PM	0.83	-0.14	-0.172949
3-12-23 2:00 PM	0.65	-0.32	-0.299896
3-12-23 3:00 PM	0.55	-0.42	-0.397757
3-12-23 4:00 PM	0.46	-0.51	-0.443018



WAKTU	Tallo	Tallo MSL	Mike21
3-12-23 5:00 PM	0.5	-0.47	-0.422472
3-12-23 6:00 PM	0.64	-0.33	-0.336717
3-12-23 7:00 PM	0.82	-0.15	-0.200294
3-12-23 8:00 PM	1.04	0.07	-0.0384075
3-12-23 9:00 PM	1.21	0.24	0.118992
3-12-23 10:00 PM	1.39	0.42	0.244247
3-12-23 11:00 PM	1.41	0.44	0.318393
3-13-23 12:00 AM	1.35	0.38	0.335282
3-13-23 1:00 AM	1.31	0.34	0.302408
3-13-23 2:00 AM	1.17	0.20	0.238227
3-13-23 3:00 AM	1.02	0.05	0.166722
3-13-23 4:00 AM	1.08	0.11	0.110635
3-13-23 5:00 AM	1.05	0.08	0.0851773
3-13-23 6:00 AM	1.06	0.09	0.0938756
3-13-23 7:00 AM	1.09	0.12	0.12768
3-13-23 8:00 AM	1.13	0.16	0.16758
3-13-23 9:00 AM	1.16	0.19	0.190062
3-13-23 10:00 AM	1.14	0.17	0.173979
3-13-23 11:00 AM	1.07	0.10	0.106999
3-13-23 12:00 PM	0.96	-0.01	-0.0100991



### Grafik Perbandingan Hasil Pengamatan Langsung dan Peramalan Menggunakan Mike 21 26 Feb-13 Maret 2023



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WAKTU	Kera-Kera	Kera-Kera MSL	Mike21
2-26-23 12:00 PM	1.86	0.03	0.0129963
2-26-23 1:00 PM	1.92	0.09	0.0109302
2-26-23 2:00 PM	1.88	0.05	0.0547329
2-26-23 3:00 PM	1.88	0.05	0.131502
2-26-23 4:00 PM	1.91	0.08	0.216889
2-26-23 5:00 PM	2	0.17	0.281522
2-26-23 6:00 PM	2.12	0.29	0.298886
2-26-23 7:00 PM	2.17	0.34	0.252647
2-26-23 8:00 PM	2.16	0.33	0.145997
2-26-23 9:00 PM	2.06	0.23	-0.00958434
2-26-23 10:00 PM	1.96	0.13	-0.190137
2-26-23 11:00 PM	1.84	0.01	-0.361109
2-27-23 12:00 AM	1.67	-0.16	-0.488228
2-27-23 1:00 AM	1.53	-0.30	-0.545561
2-27-23 2:00 AM	1.41	-0.42	-0.521609
2-27-23 3:00 AM	1.34	-0.49	-0.421925
2-27-23 4:00 AM	1.38	-0.45	-0.267616
2-27-23 5:00 AM	1.45	-0.38	-0.0901323
2-27-23 6:00 AM	1.73	-0.10	0.0763234
2-27-23 7:00 AM	1.91	0.08	0.202858
2-27-23 8:00 AM	2.07	0.24	0.272398
2-27-23 9:00 AM	2.18	0.35	0.283049
2-27-23 10:00 AM	2.18	0.35	0.247523
2-27-23 11:00 AM	2.12	0.29	0.18885
2-27-23 12:00 PM	2.09	0.26	0.133559
2-27-23 1:00 PM	1.98	0.15	0.104125
2-27-23 2:00 PM	1.95	0.12	0.112666
2-27-23 3:00 PM	1.93	0.10	0.157535
2-27-23 4:00 PM	1.94	0.11	0.223692
2-27-23 5:00 PM	2	0.17	0.286741
2-27-23 6:00 PM	2.03	0.20	0.319603
2-27-23 7:00 PM	2.11	0.28	0.300066
00 PM	2.13	0.30	0.217273
00 PM	2.07	0.24	0.0754203
:00 PM	1.98	0.15	-0.106296
:00 PM	1.83	0.00	-0.297539
:00 AM	1.66	-0.17	-0.463555
00 AM	1.5	-0.33	-0.573102



WAKTU	Kera-Kera	Kera-Kera MSL	Mike21
2-28-23 2:00 AM	1.36	-0.47	-0.605629
2-28-23 3:00 AM	1.28	-0.55	-0.555926
2-28-23 4:00 AM	1.26	-0.57	-0.435117
2-28-23 5:00 AM	1.28	-0.55	-0.267791
2-28-23 6:00 AM	1.55	-0.28	-0.086028
2-28-23 7:00 AM	1.75	-0.08	0.078169
2-28-23 8:00 AM	1.8	-0.03	0.200122
2-28-23 9:00 AM	2.05	0.22	0.267631
2-28-23 10:00 AM	2.11	0.28	0.282797
2-28-23 11:00 AM	2.09	0.26	0.26016
2-28-23 12:00 PM	2.02	0.19	0.221729
2-28-23 1:00 PM	1.98	0.15	0.190277
2-28-23 2:00 PM	1.92	0.09	0.182683
2-28-23 3:00 PM	1.89	0.06	0.205082
2-28-23 4:00 PM	1.94	0.11	0.251071
2-28-23 5:00 PM	1.97	0.14	0.30344
2-28-23 6:00 PM	2.04	0.21	0.33894
2-28-23 7:00 PM	2.07	0.24	0.334845
2-28-23 8:00 PM	2	0.17	0.275577
2-28-23 9:00 PM	2.06	0.23	0.157667
2-28-23 10:00 PM	1.9	0.07	-0.00828416
2-28-23 11:00 PM	1.81	-0.02	-0.199156
3-1-23 12:00 AM	1.59	-0.24	-0.384053
3-1-23 1:00 AM	1.42	-0.41	-0.531071
3-1-23 2:00 AM	1.3	-0.53	-0.614415
3-1-23 3:00 AM	1.17	-0.66	-0.620136
3-1-23 4:00 AM	1.25	-0.58	-0.549084
3-1-23 5:00 AM	1.29	-0.54	-0.416391
3-1-23 6:00 AM	1.32	-0.51	-0.247674
3-1-23 7:00 AM	1.64	-0.19	-0.0729428
3-1-23 8:00 AM	1.77	-0.06	0.0802422
3-1-23 9:00 AM	1.96	0.13	0.19321
00 AM	2.02	0.19	0.257746
00 AM	2.05	0.22	0.27898
00 PM	2.09	0.26	0.271362
00 PM	2	0.17	0.253834
00 PM	1.99	0.16	0.243882
00 PM	1.99	0.16	0.252271



WAKTU	Kera-Kera	Kera-Kera MSL	Mike21
3-1-23 4:00 PM	2.01	0.18	0.279847
3-1-23 5:00 PM	2.13	0.30	0.317242
3-1-23 6:00 PM	2.15	0.32	0.347506
3-1-23 7:00 PM	2.19	0.36	0.350974
3-1-23 8:00 PM	2.24	0.41	0.311105
3-1-23 9:00 PM	2.16	0.33	0.219399
3-1-23 10:00 PM	2.08	0.25	0.0791547
3-1-23 11:00 PM	1.98	0.15	-0.0947137
3-2-23 12:00 AM	1.82	-0.01	-0.278004
3-2-23 1:00 AM	1.7	-0.13	-0.442244
3-2-23 2:00 AM	1.56	-0.27	-0.560798
3-2-23 3:00 AM	1.46	-0.37	-0.614626
3-2-23 4:00 AM	1.42	-0.41	-0.596307
3-2-23 5:00 AM	1.4	-0.43	-0.511378
3-2-23 6:00 AM	1.43	-0.40	-0.376716
3-2-23 7:00 AM	1.59	-0.24	-0.216428
3-2-23 8:00 AM	1.75	-0.08	-0.0563176
3-2-23 9:00 AM	1.87	0.04	0.0817001
3-2-23 10:00 AM	1.93	0.10	0.183873
3-2-23 11:00 AM	1.97	0.14	0.246596
3-2-23 12:00 PM	2	0.17	0.275737
3-2-23 1:00 PM	1.99	0.16	0.283611
3-2-23 2:00 PM	1.98	0.15	0.28451
3-2-23 3:00 PM	2	0.17	0.290022
3-2-23 4:00 PM	2.08	0.25	0.305404
3-2-23 5:00 PM	2.12	0.29	0.327946
3-2-23 6:00 PM	2.18	0.35	0.347736
3-2-23 7:00 PM	2.19	0.36	0.350577
3-2-23 8:00 PM	2.2	0.37	0.322268
3-2-23 9:00 PM	2.15	0.32	0.253087
3-2-23 10:00 PM	2.1	0.27	0.141278
3-2-23 11:00 PM	1.99	0.16	-0.00537628
00 AM	1.85	0.02	-0.170355
00 AM	1.75	-0.08	-0.331394
00 AM	1.66	-0.17	-0.464954
00 AM	1.55	-0.28	-0.551095
00 AM	1.47	-0.36	-0.577571
00 AM	1.49	-0.34	-0.542197



WAKTU	Kera-Kera	Kera-Kera MSL	Mike21
3-3-23 6:00 AM	1.53	-0.30	-0.452961
3-3-23 7:00 AM	1.55	-0.28	-0.325925
3-3-23 8:00 AM	1.65	-0.18	-0.181487
3-3-23 9:00 AM	1.75	-0.08	-0.039961
3-3-23 10:00 AM	1.82	-0.01	0.0824573
3-3-23 11:00 AM	1.89	0.06	0.176392
3-3-23 12:00 PM	1.89	0.06	0.166736111
3-3-23 1:00 PM	1.94	0.11	0.278334
3-3-23 2:00 PM	1.96	0.13	0.299678
3-3-23 3:00 PM	2.02	0.19	0.313159
3-3-23 4:00 PM	2.11	0.28	0.325085
3-3-23 5:00 PM	2.2	0.37	0.336943
3-3-23 6:00 PM	2.22	0.39	0.344904
3-3-23 7:00 PM	2.2	0.37	0.341017
3-3-23 8:00 PM	2.22	0.39	0.315743
3-3-23 9:00 PM	2.17	0.34	0.261112
3-3-23 10:00 PM	2.11	0.28	0.173651
3-3-23 11:00 PM	2	0.17	0.0562888
3-4-23 12:00 AM	1.89	0.06	-0.0812857
3-4-23 1:00 AM	1.76	-0.07	-0.223933
3-4-23 2:00 AM	1.66	-0.17	-0.353741
3-4-23 3:00 AM	1.57	-0.26	-0.453444
3-4-23 4:00 AM	1.48	-0.35	-0.50976
3-4-23 5:00 AM	1.45	-0.38	-0.515903
3-4-23 6:00 AM	1.47	-0.36	-0.472679
3-4-23 7:00 AM	1.53	-0.30	-0.388007
3-4-23 8:00 AM	1.55	-0.28	-0.275006
3-4-23 9:00 AM	1.61	-0.22	-0.149181
3-4-23 10:00 AM	1.68	-0.15	-0.0253975
3-4-23 11:00 AM	1.72	-0.11	0.084669
3-4-23 12:00 PM	1.78	-0.05	0.174053
3-4-23 1:00 PM	1.8	-0.03	0.240746
3-4-23 2:00 PM	1.89	0.06	0.286739
3-4-23 3:00 PM	1.97	0.14	0.316247
3-4-23 4:00 PM	2.06	0.23	0.333642
3-4-23 5:00 PM	2.1	0.27	0.341693
3-4-23 6:00 PM	2.22	0.39	0.340572
3-4-23 7:00 PM	2.22	0.39	0.327853



WAKTU	Kera-Kera	Kera-Kera MSL	Mike21
3-4-23 8:00 PM	2.19	0.36	0.299462
3-4-23 9:00 PM	2.13	0.30	0.251283
3-4-23 10:00 PM	2.05	0.22	0.180952
3-4-23 11:00 PM	1.9	0.07	0.0893373
3-5-23 12:00 AM	1.82	-0.01	-0.0187003
3-5-23 1:00 AM	1.68	-0.15	-0.134491
3-5-23 2:00 AM	1.76	-0.07	-0.246668
3-5-23 3:00 AM	1.5	-0.33	-0.34296
3-5-23 4:00 AM	1.45	-0.38	-0.412265
3-5-23 5:00 AM	1.41	-0.42	-0.446542
3-5-23 6:00 AM	1.46	-0.37	-0.442135
3-5-23 7:00 AM	1.52	-0.31	-0.400258
3-5-23 8:00 AM	1.64	-0.19	-0.326592
3-5-23 9:00 AM	1.56	-0.27	-0.230131
3-5-23 10:00 AM	1.58	-0.25	-0.121576
3-5-23 11:00 AM	1.63	-0.20	-0.0116138
3-5-23 12:00 PM	1.66	-0.17	0.0905423
3-5-23 1:00 PM	1.76	-0.07	0.178117
3-5-23 2:00 PM	1.89	0.06	0.247121
3-5-23 3:00 PM	1.97	0.14	0.296109
3-5-23 4:00 PM	2.08	0.25	0.325529
3-5-23 5:00 PM	2.21	0.38	0.336868
3-5-23 6:00 PM	2.21	0.38	0.331856
3-5-23 7:00 PM	2.26	0.43	0.31192
3-5-23 8:00 PM	2.21	0.38	0.277977
3-5-23 9:00 PM	2.11	0.28	0.230596
3-5-23 10:00 PM	2.03	0.20	0.170422
3-5-23 11:00 PM	1.93	0.10	0.0987221
3-6-23 12:00 AM	1.83	0.00	0.0178804
3-6-23 1:00 AM	1.72	-0.11	-0.0683013
3-6-23 2:00 AM	1.66	-0.17	-0.154601
3-6-23 3:00 AM	1.59	-0.24	-0.234703
3-6-23 4:00 AM	1.56	-0.27	-0.301813
3-6-23 5:00 AM	1.56	-0.27	-0.349472
3-6-23 6:00 AM	1.57	-0.26	-0.372433
3-6-23 7:00 AM	1.59	-0.24	-0.367459
3-6-23 8:00 AM	1.63	-0.20	-0.333907
3-6-23 9:00 AM	1.59	-0.24	-0.273995



WAKTU	Kera-Kera	Kera-Kera MSL	Mike21
3-6-23 10:00 AM	1.63	-0.20	-0.192685
3-6-23 11:00 AM	1.64	-0.19	-0.0972009
3-6-23 12:00 PM	1.61	-0.22	0.00379414
3-6-23 1:00 PM	1.67	-0.16	0.101224
3-6-23 2:00 PM	1.81	-0.02	0.186699
3-6-23 3:00 PM	1.91	0.08	0.253516
3-6-23 4:00 PM	2.06	0.23	0.297394
3-6-23 5:00 PM	2.12	0.29	0.316829
3-6-23 6:00 PM	2.27	0.44	0.312995
3-6-23 7:00 PM	2.26	0.43	0.289241
3-6-23 8:00 PM	2.24	0.41	0.250249
3-6-23 9:00 PM	2.16	0.33	0.201075
3-6-23 10:00 PM	2.08	0.25	0.146239
3-6-23 11:00 PM	2	0.17	0.0890968
3-7-23 12:00 AM	1.92	0.09	0.031607
3-7-23 1:00 AM	1.85	0.02	-0.0254441
3-7-23 2:00 AM	1.8	-0.03	-0.0818437
3-7-23 3:00 AM	1.74	-0.09	-0.13715
3-7-23 4:00 AM	1.72	-0.11	-0.189928
3-7-23 5:00 AM	1.72	-0.11	-0.237273
3-7-23 6:00 AM	1.73	-0.10	-0.274805
3-7-23 7:00 AM	1.71	-0.12	-0.297222
3-7-23 8:00 AM	1.72	-0.11	-0.299324
3-7-23 9:00 AM	1.74	-0.09	-0.277298
3-7-23 10:00 AM	1.67	-0.16	-0.229955
3-7-23 11:00 AM	1.65	-0.18	-0.159595
3-7-23 12:00 PM	1.63	-0.20	-0.0721959
3-7-23 1:00 PM	1.66	-0.17	0.0231677
3-7-23 2:00 PM	1.74	-0.09	0.11565
3-7-23 3:00 PM	1.8	-0.03	0.194449
3-7-23 4:00 PM	1.96	0.13	0.250735
3-7-23 5:00 PM	2	0.17	0.27925
00 PM	2.1	0.27	0.279204
00 PM	2.26	0.43	0.254232
00 PM	2.21	0.38	0.211413
00 PM	2.17	0.34	0.159555
00 PM	2.08	0.25	0.107172
00 PM	1.98	0.15	0.0606344



WAKTU	Kera-Kera	Kera-Kera MSL	Mike21
3-8-23 12:00 AM	1.93	0.10	0.022963
3-8-23 1:00 AM	1.84	0.01	-0.00644121
3-8-23 2:00 AM	1.8	-0.03	-0.0310567
3-8-23 3:00 AM	1.76	-0.07	-0.0556973
3-8-23 4:00 AM	1.73	-0.10	-0.0845813
3-8-23 5:00 AM	1.76	-0.07	-0.11955
3-8-23 6:00 AM	1.77	-0.06	-0.15895
3-8-23 7:00 AM	1.79	-0.04	-0.197525
3-8-23 8:00 AM	1.77	-0.06	-0.227416
3-8-23 9:00 AM	1.76	-0.07	-0.240049
3-8-23 10:00 AM	1.66	-0.17	-0.228459
3-8-23 11:00 AM	1.61	-0.22	-0.189438
3-8-23 12:00 PM	1.58	-0.25	-0.124917
3-8-23 1:00 PM	1.58	-0.25	-0.0421725
3-8-23 2:00 PM	1.67	-0.16	0.0472997
3-8-23 3:00 PM	1.72	-0.11	0.130005
3-8-23 4:00 PM	1.89	0.06	0.193287
3-8-23 5:00 PM	2.02	0.19	0.22808
3-8-23 6:00 PM	2.17	0.34	0.230911
3-8-23 7:00 PM	2.16	0.33	0.204604
3-8-23 8:00 PM	2.17	0.34	0.157512
3-8-23 9:00 PM	2.09	0.26	0.101423
3-8-23 10:00 PM	2	0.17	0.0486593
3-8-23 11:00 PM	1.87	0.04	0.00909431
3-9-23 12:00 AM	1.8	-0.03	-0.0121553
3-9-23 1:00 AM	1.73	-0.10	-0.0157624
3-9-23 2:00 AM	1.68	-0.15	-0.00767646
3-9-23 3:00 AM	1.68	-0.15	0.002807
3-9-23 4:00 AM	1.69	-0.14	0.00589067
3-9-23 5:00 AM	1.77	-0.06	-0.00572355
3-9-23 6:00 AM	1.8	-0.03	-0.0344884
3-9-23 7:00 AM	1.82	-0.01	-0.0769752
00 AM	1.81	-0.02	-0.124466
00 AM	1.81	-0.02	-0.165066
00 AM	1.7	-0.13	-0.186814
00 AM	1.61	-0.22	-0.18099
00 PM	1.55	-0.28	-0.144733
00 PM	1.54	-0.29	-0.0822507



WAKTU	Kera-Kera	Kera-Kera MSL	Mike21
3-9-23 2:00 PM	1.6	-0.23	-0.00423531
3-9-23 3:00 PM	1.67	-0.16	0.0744213
3-9-23 4:00 PM	1.8	-0.03	0.138085
3-9-23 5:00 PM	1.93	0.10	0.174145
3-9-23 6:00 PM	2.06	0.23	0.176137
3-9-23 7:00 PM	2.09	0.26	0.145383
3-9-23 8:00 PM	2	0.17	0.0907216
3-9-23 9:00 PM	2.03	0.20	0.0263329
3-9-23 10:00 PM	1.93	0.10	-0.0317923
3-9-23 11:00 PM	1.76	-0.07	-0.0698661
3-10-23 12:00 AM	1.66	-0.17	-0.0797636
3-10-23 1:00 AM	1.58	-0.25	-0.0610292
3-10-23 2:00 AM	1.62	-0.21	-0.0208967
3-10-23 3:00 AM	1.57	-0.26	0.0277031
3-10-23 4:00 AM	1.68	-0.15	0.0696413
3-10-23 5:00 AM	1.77	-0.06	0.0916907
3-10-23 6:00 AM	1.86	0.03	0.0861488
3-10-23 7:00 AM	1.95	0.12	0.0530157
3-10-23 8:00 AM	1.92	0.09	0.000128485
3-10-23 9:00 AM	1.88	0.05	-0.0588186
3-10-23 10:00 AM	1.84	0.01	-0.107875
3-10-23 11:00 AM	1.65	-0.18	-0.133124
3-10-23 12:00 PM	1.6	-0.23	-0.12654
3-10-23 1:00 PM	1.55	-0.28	-0.088354
3-10-23 2:00 PM	1.57	-0.26	-0.027291
3-10-23 3:00 PM	1.64	-0.19	0.0414627
3-10-23 4:00 PM	1.8	-0.03	0.100061
3-10-23 5:00 PM	1.86	0.03	0.132617
3-10-23 6:00 PM	1.96	0.13	0.129434
3-10-23 7:00 PM	2.07	0.24	0.0897396
3-10-23 8:00 PM	2.03	0.20	0.0221621
3-10-23 9:00 PM	1.95	0.12	-0.0572234
:00 PM	1.79	-0.04	-0.128816
:00 PM	1.69	-0.14	-0.1744
:00 AM	1.57	-0.26	-0.181795
00 AM	1.4	-0.43	-0.148024
00 AM	1.47	-0.36	-0.0801708
00 AM	1.59	-0.24	0.00632493





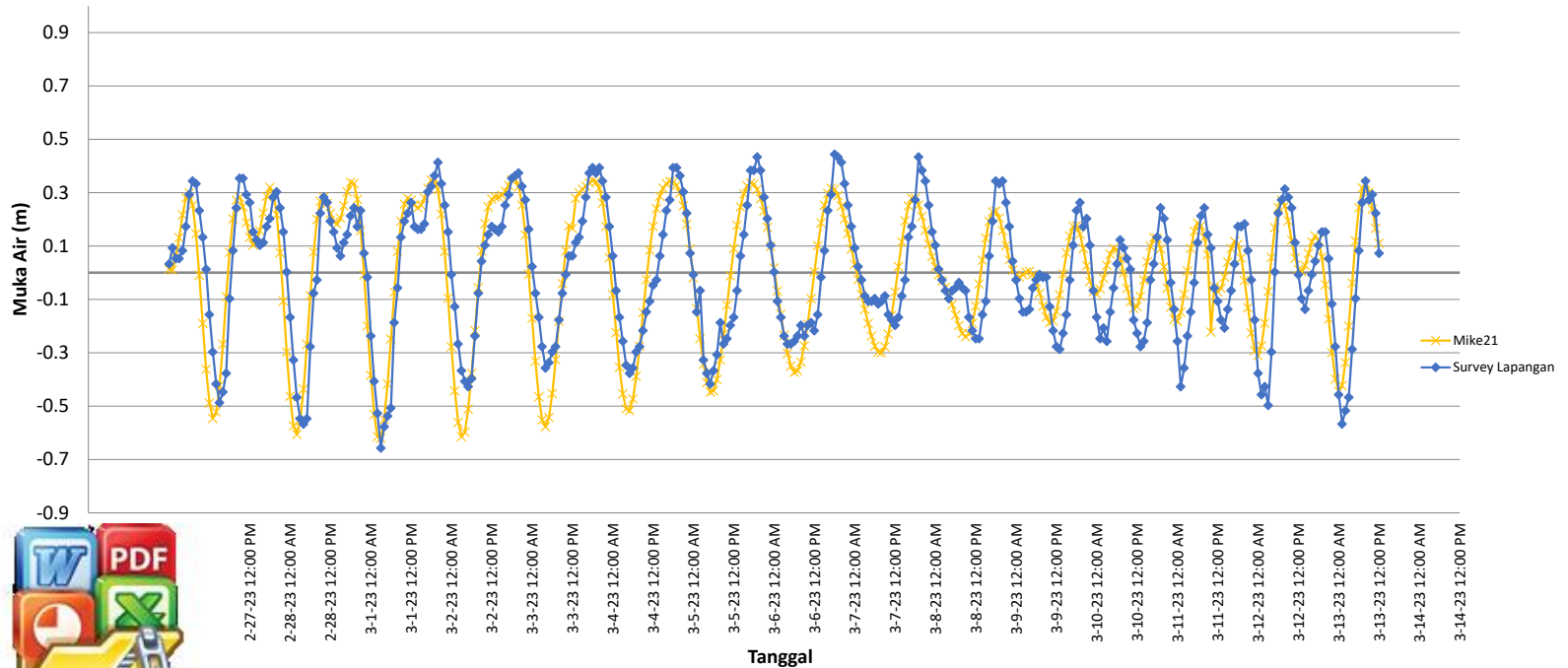
WAKTU	Kera-Kera	Kera-Kera MSL	Mike21
3-11-23 4:00 AM	1.68	-0.15	0.091532
3-11-23 5:00 AM	1.79	-0.04	0.156058
3-11-23 6:00 AM	1.94	0.11	0.185954
3-11-23 7:00 AM	2.04	0.21	0.176221
3-11-23 8:00 AM	2.07	0.24	0.131981
3-11-23 9:00 AM	1.97	0.14	0.0670097
3-11-23 10:00 AM	1.92	0.09	-0.221729
3-11-23 11:00 AM	1.77	-0.06	-0.0505998
3-11-23 12:00 PM	1.72	-0.11	-0.0713977
3-11-23 1:00 PM	1.65	-0.18	-0.0579462
3-11-23 2:00 PM	1.62	-0.21	-0.0159406
3-11-23 3:00 PM	1.69	-0.14	0.0401925
3-11-23 4:00 PM	1.76	-0.07	0.0911326
3-11-23 5:00 PM	1.86	0.03	0.117927
3-11-23 6:00 PM	2	0.17	0.107303
3-11-23 7:00 PM	2	0.17	0.0556107
3-11-23 8:00 PM	2.01	0.18	-0.0296645
3-11-23 9:00 PM	1.91	0.08	-0.131302
3-11-23 10:00 PM	1.8	-0.03	-0.22634
3-11-23 11:00 PM	1.65	-0.18	-0.29169
3-12-23 12:00 AM	1.45	-0.38	-0.309955
3-12-23 1:00 AM	1.37	-0.46	-0.27393
3-12-23 2:00 AM	1.4	-0.43	-0.188635
3-12-23 3:00 AM	1.33	-0.50	-0.0702929
3-12-23 4:00 AM	1.53	-0.30	0.0575006
3-12-23 5:00 AM	1.83	0.00	0.169467
3-12-23 6:00 AM	2.05	0.22	0.244754
3-12-23 7:00 AM	2.1	0.27	0.271884
3-12-23 8:00 AM	2.14	0.31	0.251296
3-12-23 9:00 AM	2.11	0.28	0.194787
3-12-23 10:00 AM	2.07	0.24	0.122046
3-12-23 11:00 AM	1.94	0.11	0.0551599
:00 PM	1.82	-0.01	0.0125532
00 PM	1.73	-0.10	0.00396589
00 PM	1.69	-0.14	0.02781
00 PM	1.76	-0.07	0.0716295
00 PM	1.82	-0.01	0.115572
00 PM	1.87	0.04	0.137985



WAKTU	Kera-Kera	Kera-Kera MSL	Mike21
3-12-23 6:00 PM	1.93	0.10	0.121659
3-12-23 7:00 PM	1.98	0.15	0.0590707
3-12-23 8:00 PM	1.98	0.15	-0.0448089
3-12-23 9:00 PM	1.88	0.05	-0.172949
3-12-23 10:00 PM	1.71	-0.12	-0.299896
3-12-23 11:00 PM	1.55	-0.28	-0.397757
3-13-23 12:00 AM	1.37	-0.46	-0.443018
3-13-23 1:00 AM	1.26	-0.57	-0.422472
3-13-23 2:00 AM	1.31	-0.52	-0.336717
3-13-23 3:00 AM	1.36	-0.47	-0.200294
3-13-23 4:00 AM	1.54	-0.29	-0.0384075
3-13-23 5:00 AM	1.73	-0.10	0.118992
3-13-23 6:00 AM	1.91	0.08	0.244247
3-13-23 7:00 AM	2.09	0.26	0.318393
3-13-23 8:00 AM	2.17	0.34	0.335282
3-13-23 9:00 AM	2.10	0.27	0.302408
3-13-23 10:00 AM	2.12	0.29	0.238227
3-13-23 11:00 AM	2.05	0.22	0.166722
3-13-23 12:00 PM	1.90	0.07	0.110635

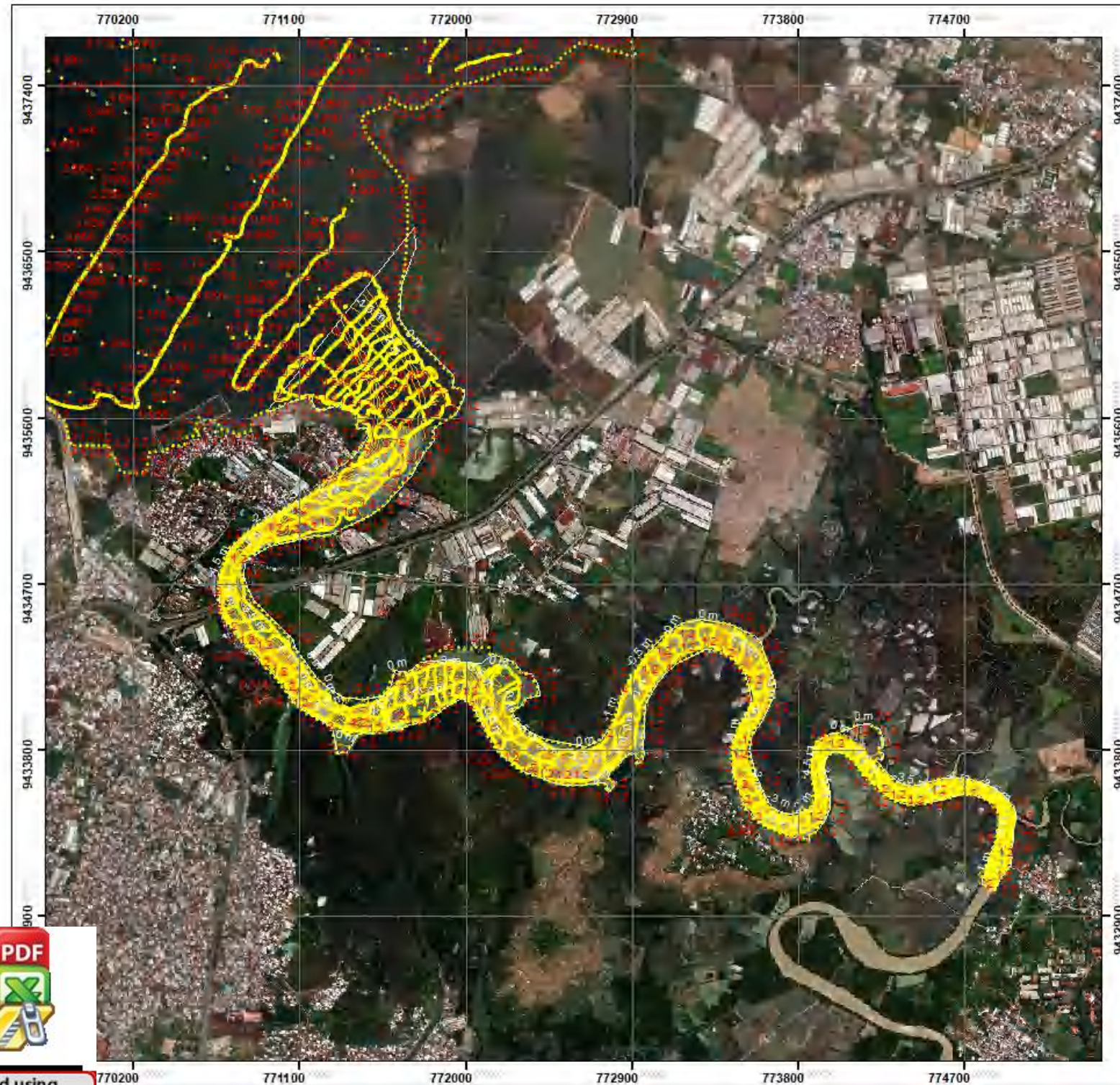


**Grafik Perbandingan Hasil Pengamatan Langsung dan Peramalan Menggunakan Mike  
21  
26 Feb-13 Maret 2023**

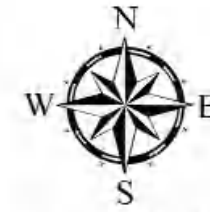


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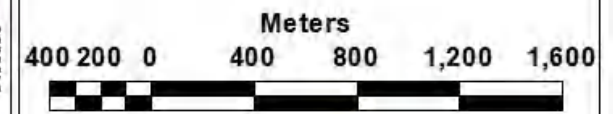
Lampiran 3 Batimetri



**PETA BATIMETRI  
SUNGAI TALLO  
KOTA MAKASSAR  
SULAWESI SELATAN**



**1:24,000**



**Legend**

— Contour MSL



DWI AG U SDIANSYAH  
D081191040

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**PETA BATIMETRI  
SUNGAI TALLO  
KOTA MAKASSAR  
SULAWESI SELATAN**



**1:20,000**

Meters

330 165 0 330 660 990 1,320



**Legend**

— Contour MSL



DWI AGU SDIANSYAH  
D081191040

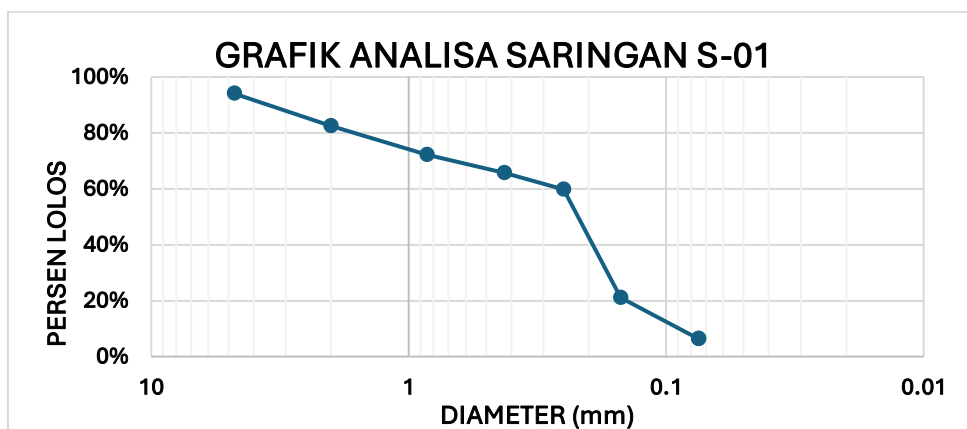
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2024



## Lampiran 4 Sedimen

Tabel Gradasi Butiran Titik Sampel 1

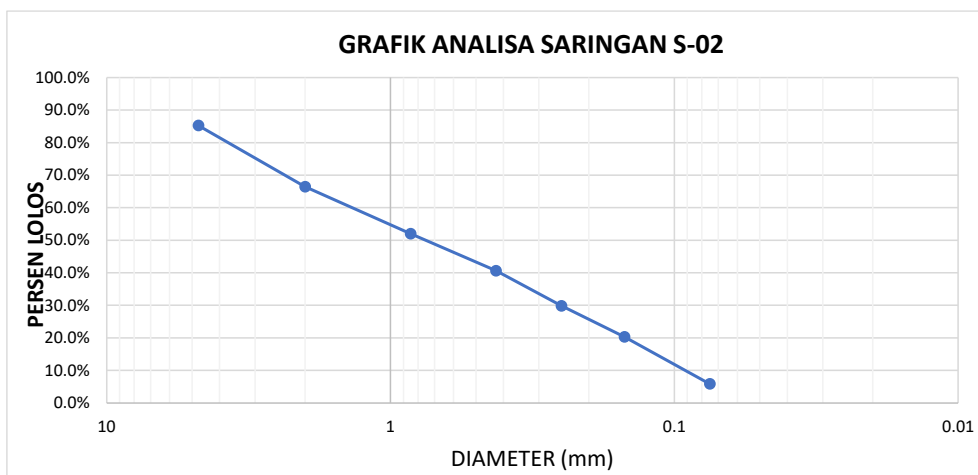
Sieve No.	Bukaan (mm)	Berat tertahan, gram	Kumulatif tertahan, gram	% Tertahan	% Lolos
4	4.75	15	15.00	6.0%	94.0%
10	2.000	29	44.00	17.5%	82.5%
20	0.850	26	70.00	27.9%	72.1%
40	0.425	16	86.00	34.3%	65.7%
60	0.250	15	101.00	40.2%	59.8%
100	0.150	97	198.00	78.9%	21.1%
200	0.075	37	235.00	93.6%	6.375%
Pan	0	16	251.00	100.0%	0.0%



Tabel Gradasi Butiran Titik Sampel 2

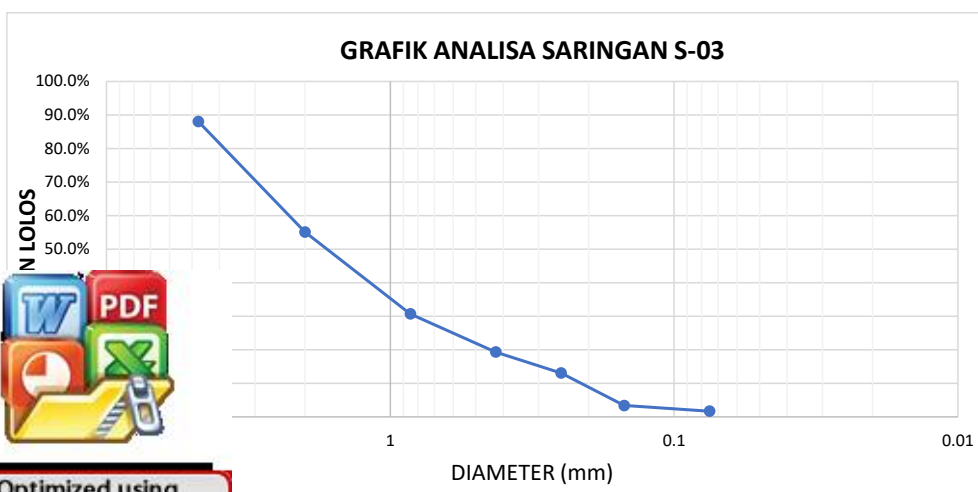
Sieve No.	Diameter (mm)	Berat tertahan, gram	Berat Tertahan Kumulatif	% Tertahan	% Lolos (N)
2	9.5	0	0	0.0%	100.0%
4	4.75	48	48.00	14.8%	85.2%
10	2.000	61	109.00	33.5%	66.5%
20	0.850	47	156.00	48.0%	52.0%
40	0.425	37	193.00	59.4%	40.6%
60	0.250	35	228.00	70.2%	29.8%
100	0.150	31	259.00	79.7%	20.3%
200	0.075	47	306.00	94.2%	5.8%
Pan	0	19	325.00	100.0%	0.0%





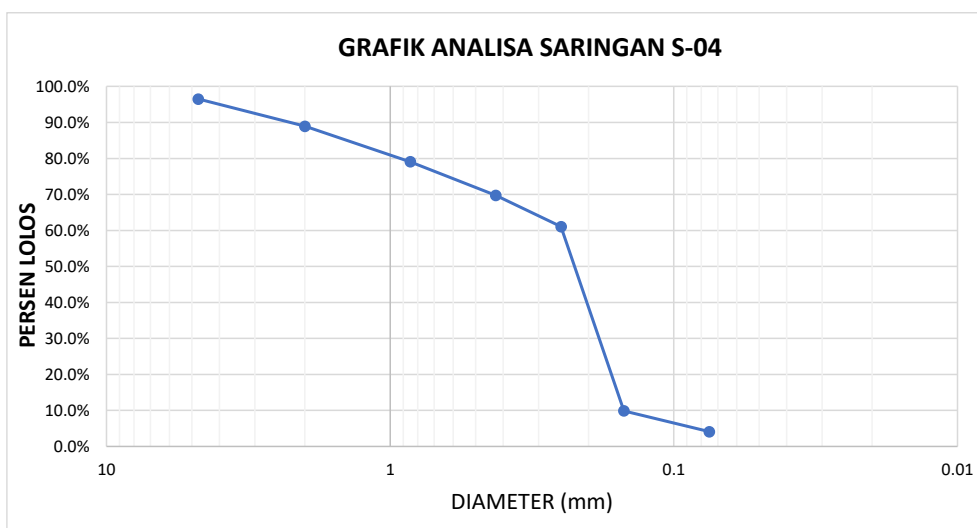
**Tabel Gradasi Butiran Titik Sampel 3**

Sieve No.	Diameter (mm)	Berat tertahan, gram	Berat Tertahan Kumulatif	% Tertahan	% Lolos (N)
2	9.5	0	0	0.0%	100.0%
4	4.75	21	21.00	11.9%	88.1%
10	2.000	58	79.00	44.9%	55.1%
20	0.850	43	122.00	69.3%	30.7%
40	0.425	20	142.00	80.7%	19.3%
60	0.250	11	153.00	86.9%	13.1%
100	0.150	17	170.00	96.6%	3.4%
200	0.075	3	173.00	98.3%	1.7%
Pan	0	3	176.00	100.0%	0.0%



Tabel Gradasi Butiran Titik Sampel 4

Sieve No.	Diameter (mm)	Berat tertahan, gram	Berat Tertahan Kumulatif	% Tertahan	% Lolos (N)
2	9.5	0	0	0.0%	100.0%
4	4.75	6	6.00	3.5%	96.5%
10	2.000	13	19.00	11.0%	89.0%
20	0.850	17	36.00	20.9%	79.1%
40	0.425	16	52.00	30.2%	69.8%
60	0.250	15	67.00	39.0%	61.0%
100	0.150	88	155.00	90.1%	9.9%
200	0.075	10	165.00	95.9%	4.1%
Pan	0	7	172.00	100.0%	0.0%

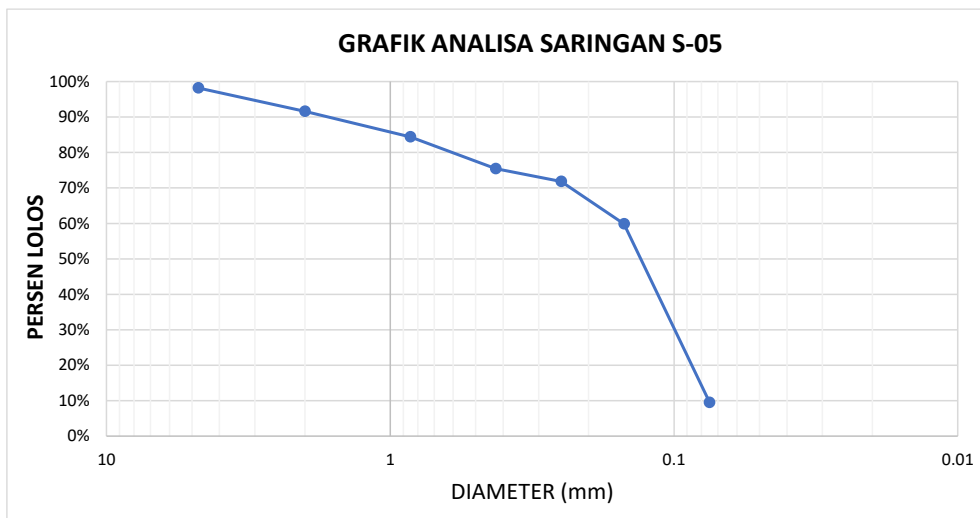


Tabel Gradasi Butiran Titik Sampel 5

Sieve No.	Bukaan (mm)	Berat tertahan, gram	Kumulatif tertahan, gram	% Tertahan	% Lolos (N)
4	4.75	3	3.00	2%	98%
10	2.000	11	14.00	8%	92%
20	0.850	12	26.00	16%	84%
40	0.425	15	41.00	25%	75%
60	0.250	6	47.00	28%	72%
100	0.150	20	67.00	40%	60%
200	0.075	84	151.00	90%	10%
Pan	0	16	167.00	100%	0%

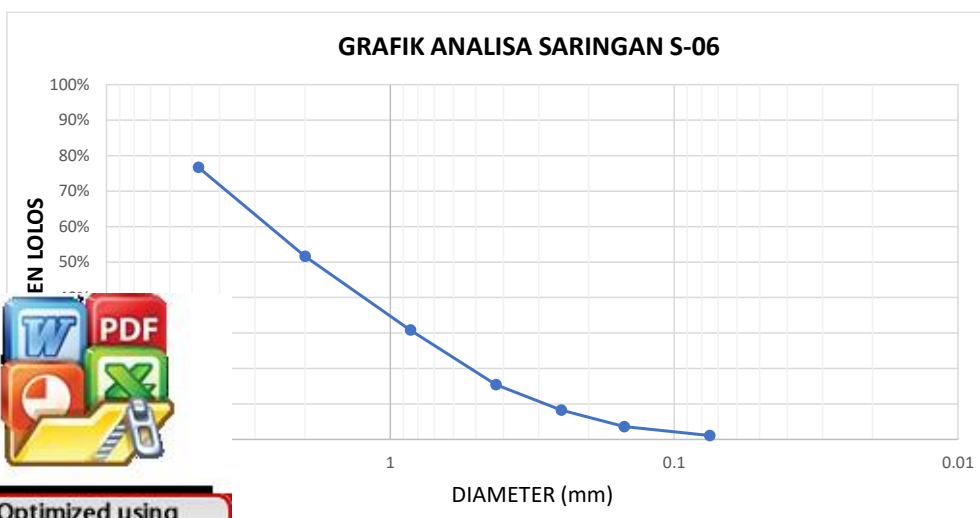






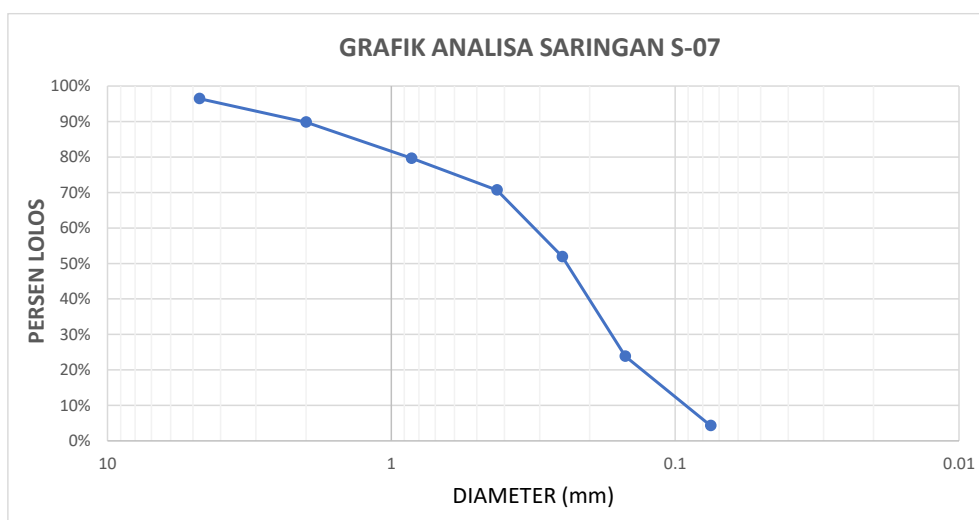
**Tabel Gradasi Butiran Titik Sampel 6**

Sieve No.	Bukaan (mm)	Berat tertahan, gram	Kumulatif tertahan, gram	% Tertahan	% Lolos (N)
4	4.75	65	65.00	23%	77%
10	2.000	70	135.00	48%	52%
20	0.850	58	193.00	69%	31%
40	0.425	43	236.00	85%	15%
60	0.250	20	256.00	92%	8%
100	0.150	13	269.00	96%	4%
200	0.075	7	276.00	99%	1%
Pan	0	3	279.00	100%	0%



Tabel Gradasi Butiran Titik Sampel 7

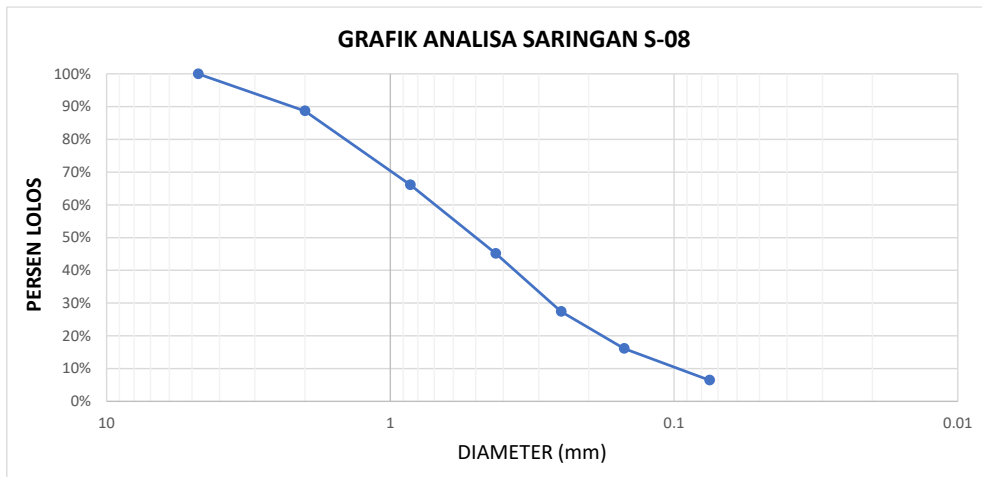
Sieve No.	Bukaan (mm)	Berat tertahan, gram	Kumulatif tertahan, gram	% Tertahan	% Lolos (N)
4	4.75	9	9.00	4%	96%
10	2.000	17	26.00	10%	90%
20	0.850	26	52.00	20%	80%
40	0.425	23	75.00	29%	71%
60	0.250	48	123.00	48%	52%
100	0.150	72	195.00	76%	24%
200	0.075	50	245.00	96%	4%
Pan	0	11	256.00	100%	0%



Tabel Gradasi Butiran Titik Sampel 8

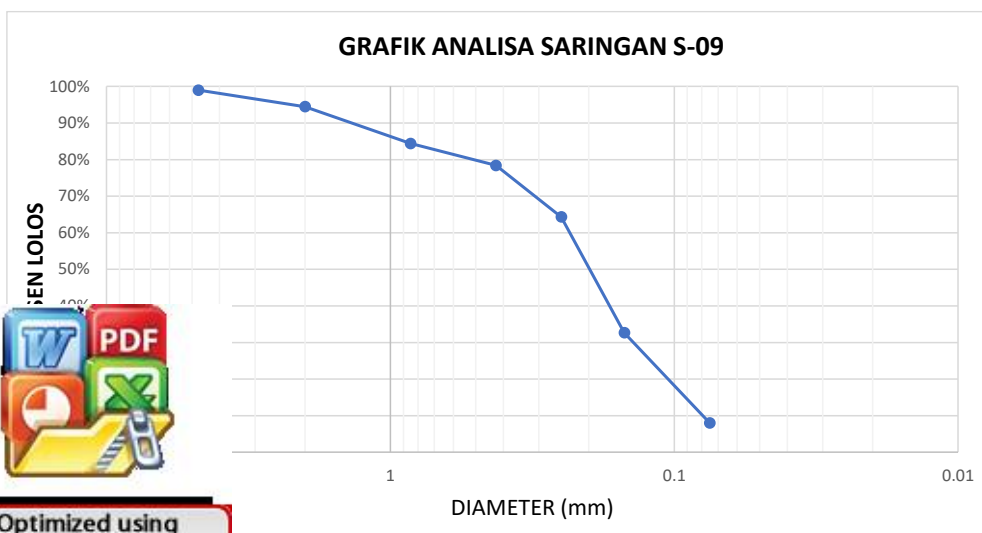
Sieve No.	Bukaan (mm)	Berat tertahan, gram	Kumulatif tertahan, gram	% Tertahan	% Lolos (N)
4	4.75	0	0.00	0%	100%
10	2.000	7	7.00	11%	89%
20	0.850	14	21.00	34%	66%
		13	34.00	55%	45%
		11	45.00	73%	27%
		7	52.00	84%	16%
		6	58.00	94%	6%
		4	62.00	100%	0%





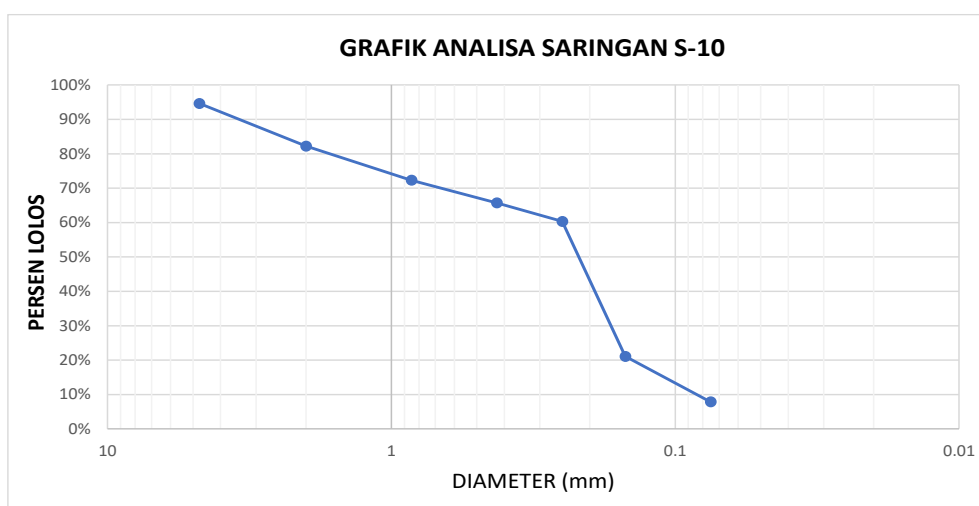
**Tabel Gradasi Butiran Titik Sampel 9**

Sieve No.	Bukaan (mm)	Berat tertahan, gram	Kumulatif tertahan, gram	% Tertahan	% Lolos (N)
4	4.75	2	2.00	1%	99%
10	2.000	9	11.00	6%	94%
20	0.850	20	31.00	16%	84%
40	0.425	12	43.00	22%	78%
60	0.250	28	71.00	36%	64%
100	0.150	63	134.00	67%	33%
200	0.075	49	183.00	92%	8%
Pan	0	16	199.00	100%	0%



Tabel Gradasi Butiran Titik Sampel 10

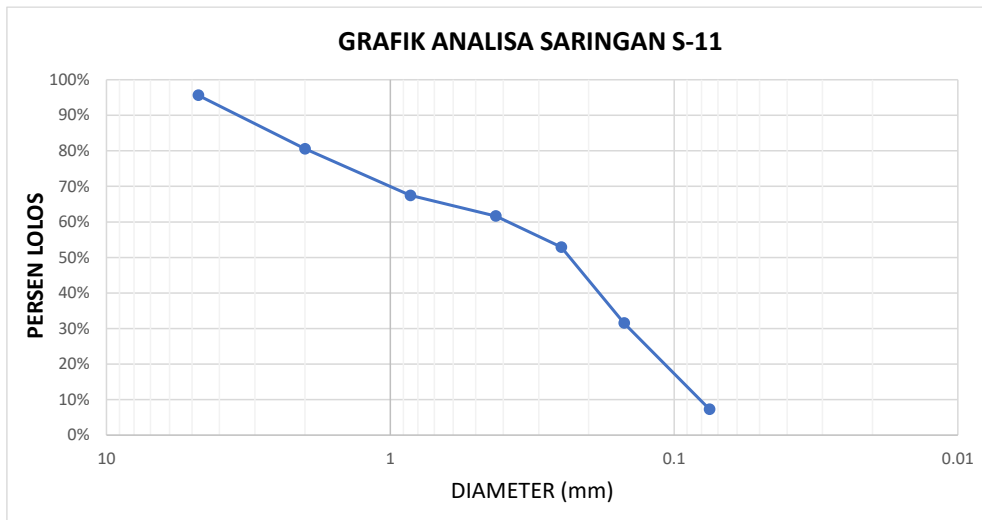
Sieve No.	Bukaan (mm)	Berat tertahan, gram	Kumulatif tertahan, gram	% Tertahan	% Lolos (N)
4	4.75	13	13.00	5%	95%
10	2.000	30	43.00	18%	82%
20	0.850	24	67.00	28%	72%
40	0.425	16	83.00	34%	66%
60	0.250	13	96.00	40%	60%
100	0.150	95	191.00	79%	21%
200	0.075	32	223.00	92%	8%
Pan	0	19	242.00	100%	0%



Tabel Gradasi Butiran Titik Sampel 11

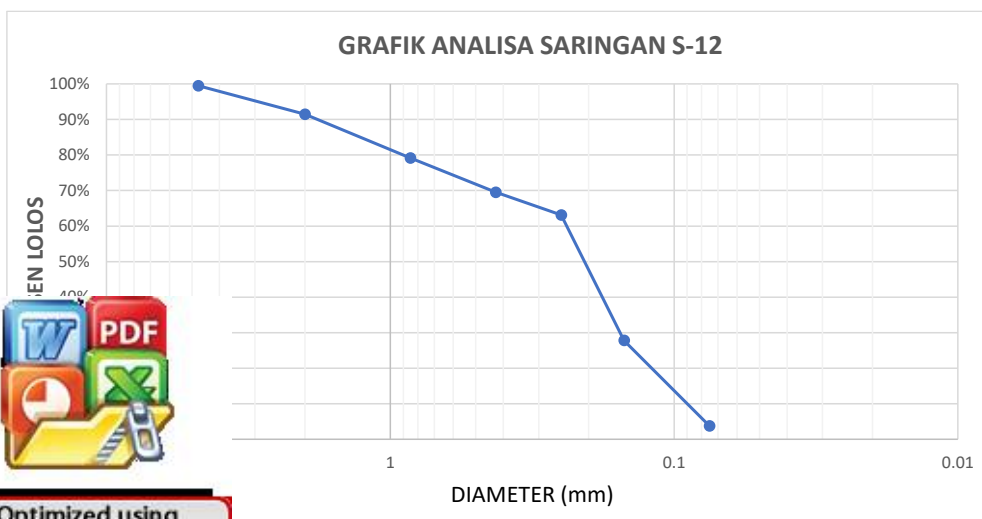
Sieve No.	Bukaan (mm)	Berat tertahan, gram	Kumulatif tertahan, gram	% Tertahan	% Lolos (N)
4	4.75	9	9.00	4%	96%
10	2.000	31	40.00	19%	81%
20	0.850	27	67.00	33%	67%
40	0.425	12	79.00	38%	62%
60	0.250	18	97.00	47%	53%
100	0.150	44	141.00	68%	32%
200	0.075	50	191.00	93%	7%
Pan	0	15	206.00	100%	0%





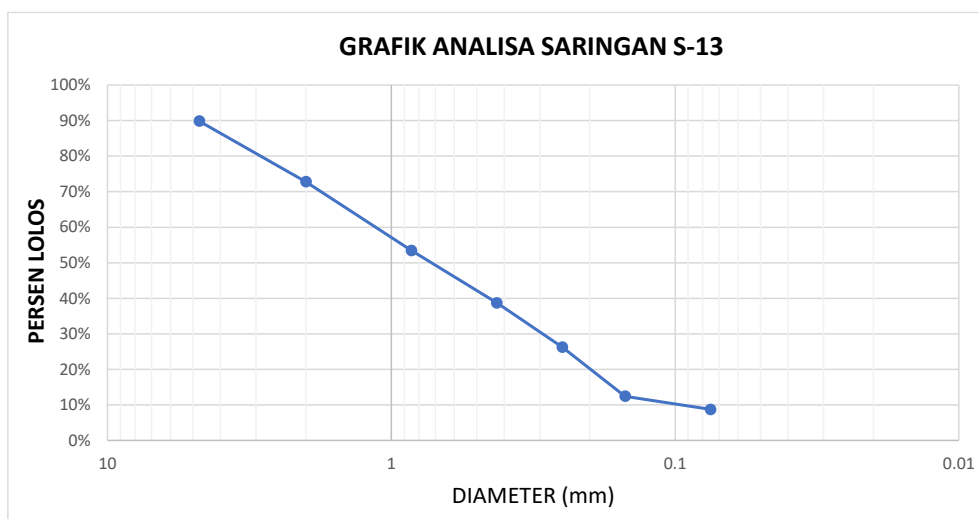
**Tabel Gradasi Butiran Titik Sampel 12**

Sieve No.	Bukaan (mm)	Berat tertahan, gram	Kumulatif tertahan, gram	% Tertahan	% Lolos (N)
4	4.75	1	1.00	1%	99%
10	2.000	15	16.00	9%	91%
20	0.850	23	39.00	21%	79%
40	0.425	18	57.00	30%	70%
60	0.250	12	69.00	37%	63%
100	0.150	66	135.00	72%	28%
200	0.075	45	180.00	96%	4%
Pan	0	7	187.00	100%	0%



Tabel Gradasi Butiran Titik Sampel 13

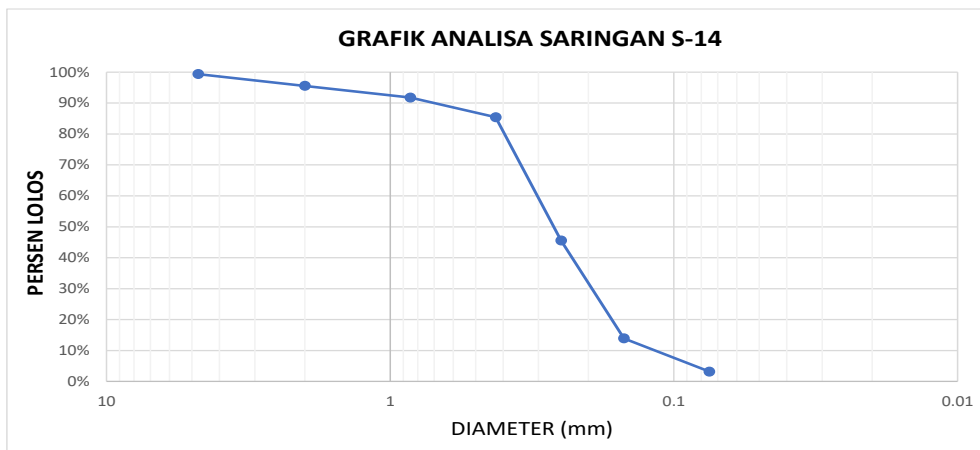
Sieve No.	Bukaan (mm)	Berat tertahan, gram	Kumulatif tertahan, gram	% Tertahan	% Lolos (N)
4	4.75	22	22.00	10%	90%
10	2.000	37	59.00	27%	73%
20	0.850	42	101.00	47%	53%
40	0.425	32	133.00	61%	39%
60	0.250	27	160.00	74%	26%
100	0.150	30	190.00	88%	12%
200	0.075	8	198.00	91%	9%
Pan	0	19	217.00	100%	0%



Tabel Gradasi Butiran Titik Sampel 14

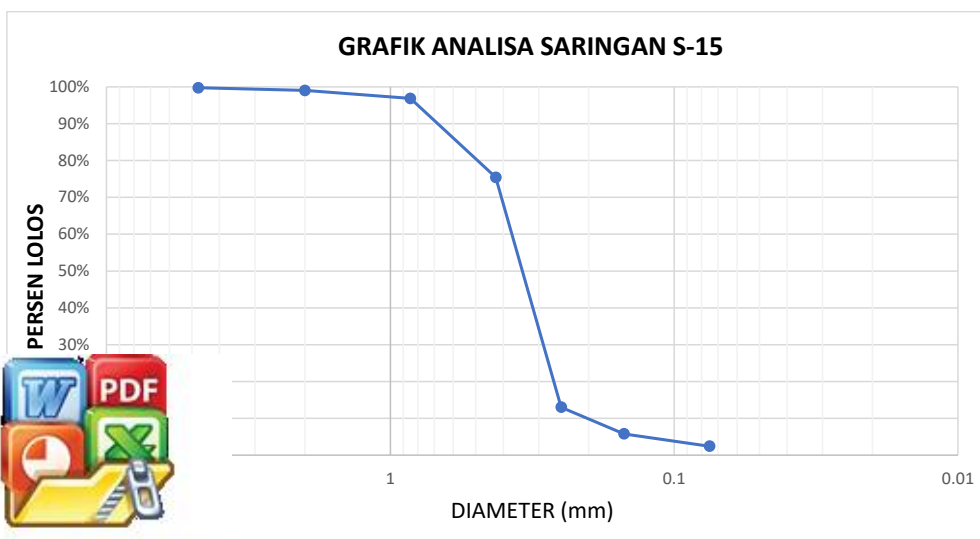
Sieve No.	Bukaan (mm)	Berat tertahan, gram	Kumulatif tertahan, gram	% Tertahan	% Lolos (N)
4	4.75	1	1.00	1%	99%
10	2.000	6	7.00	4%	96%
		6	13.00	8%	92%
		10	23.00	15%	85%
		63	86.00	54%	46%
		50	136.00	86%	14%
		17	153.00	97%	3%
		5	158.00	100%	0%





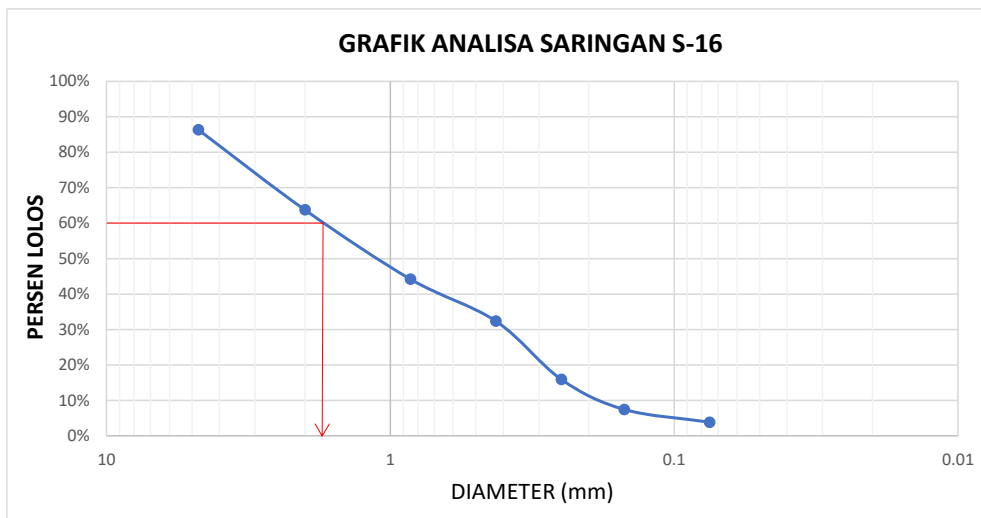
**Tabel Gradasi Butiran Titik Sampel 15**

Sieve No.	Bukaan (mm)	Berat tertahan, gram	Kumulatif tertahan, gram	% Tertahan	% Lolos (N)
4	4.75	1	1.00	0%	100%
10	2.000	3	4.00	1%	99%
20	0.850	9	13.00	3%	97%
40	0.425	89	102.00	25%	75%
60	0.250	259	361.00	87%	13%
100	0.150	30	391.00	94%	6%
200	0.075	14	405.00	98%	2%
Pan	0	10	415.00	100%	0%



Tabel Gradasi Butiran Titik Sampel 16

Sieve No.	Bukaan (mm)	Berat tertahan, gram	Kumulatif tertahan, gram	% Tertahan	% Lolos (N)
4	4.75	53	53.00	14%	86%
10	2.000	88	141.00	36%	64%
20	0.850	76	217.00	56%	44%
40	0.425	46	263.00	68%	32%
60	0.250	64	327.00	84%	16%
100	0.150	33	360.00	93%	7%
200	0.075	14	374.00	96%	4%
Pan	0	15	389.00	100%	0%

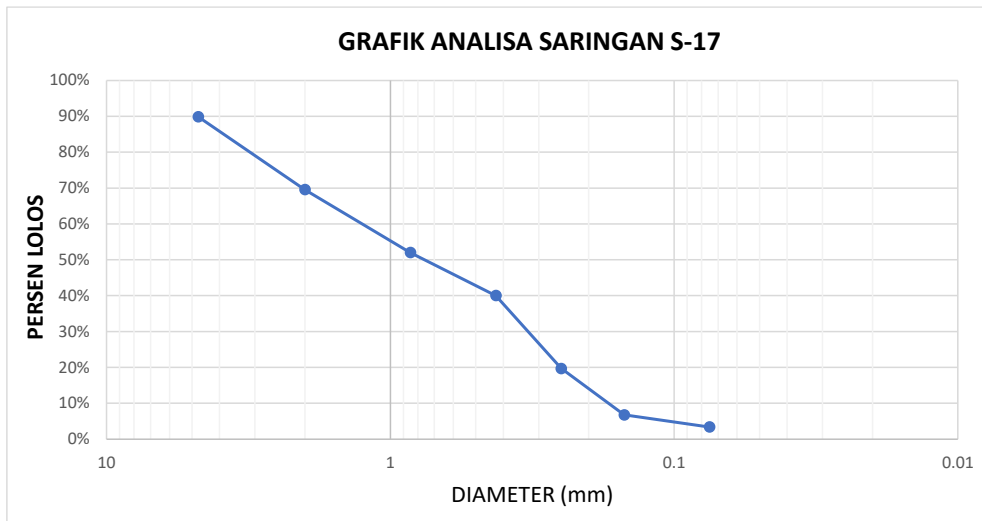


Tabel Gradasi Butiran Titik Sampel 17

Sieve No.	Bukaan (mm)	Berat tertahan, gram	Kumulatif tertahan, gram	% Tertahan	% Lolos (N)
4	4.75	33	33.00	10%	90%
10	2.000	66	99.00	30%	70%
20	0.850	57	156.00	48%	52%
40	0.425	39	195.00	60%	40%
60	0.250	66	261.00	80%	20%
100	0.150	42	303.00	93%	7%
200	0.075	11	314.00	97%	3%
Pan	0	11	325.00	100%	0%

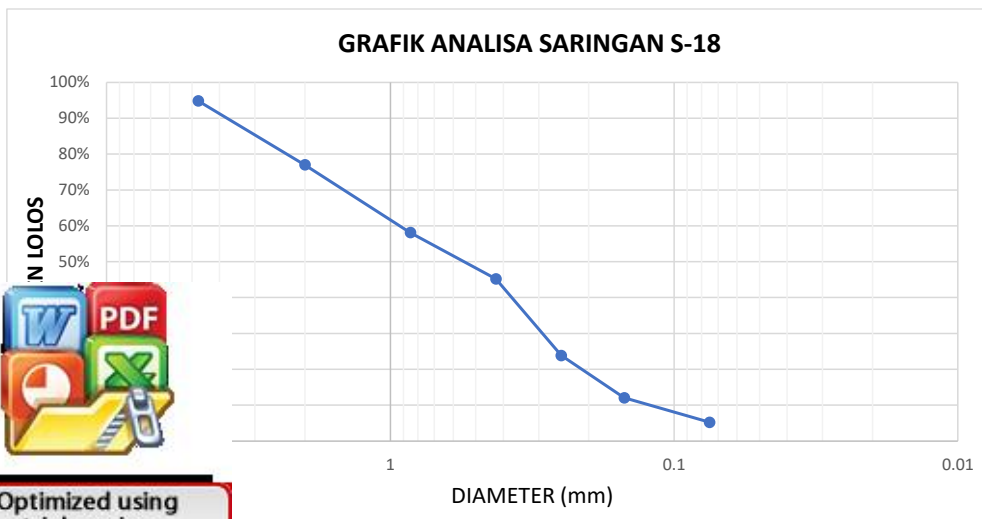






**Tabel Gradasi Butiran Titik Sampel 18**

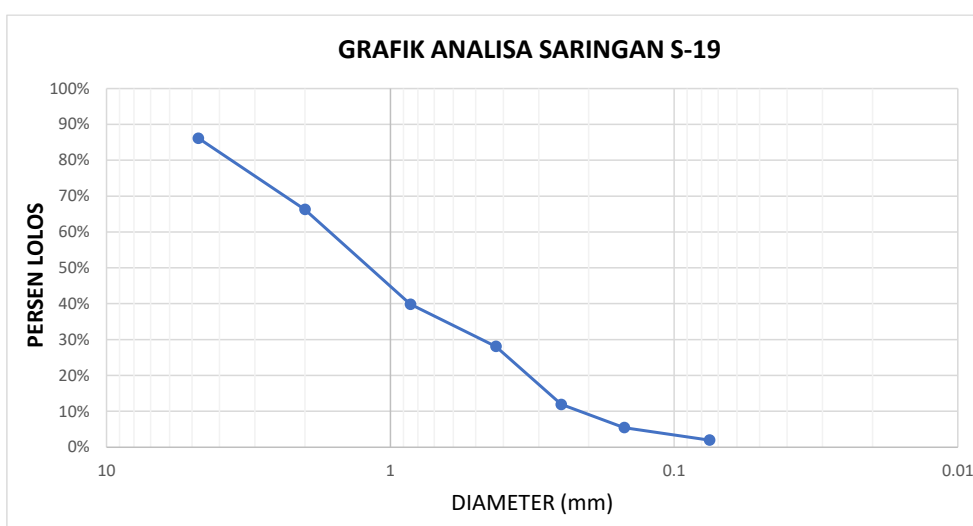
Sieve No.	Bukaan (mm)	Berat tertahan, gram	Kumulatif tertahan, gram	% Tertahan	% Lolos (N)
4	4.75	19	19.00	5%	95%
10	2.000	65	84.00	23%	77%
20	0.850	69	153.00	42%	58%
40	0.425	47	200.00	55%	45%
60	0.250	78	278.00	76%	24%
100	0.150	43	321.00	88%	12%
200	0.075	25	346.00	95%	5%
Pan	0	19	365.00	100%	0%



Tabel Gradasi Butiran Titik Sampel 19

Sieve No.	Bukaan (mm)	Berat tertahan, gram	Kumulatif tertahan, gram	% Tertahan	% Lolos (N)
4	4.75	84	84.00	14%	86%
10	2.000	120	204.00	34%	66%
20	0.850	160	364.00	60%	40%
40	0.425	71	435.00	72%	28%
60	0.250	98	533.00	88%	12%
100	0.150	39	572.00	95%	5%
200	0.075	21	593.00	98%	2%
Pan	0	12	605.00	100%	0%

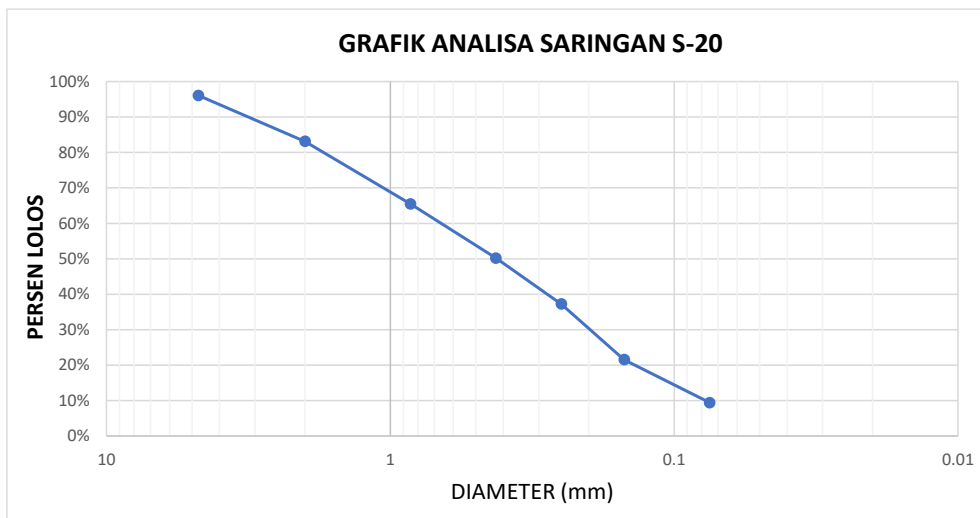
GRAFIK ANALISA SARINGAN S-19



Tabel Gradasi Butiran Titik Sampel 20

Sieve No.	Bukaan (mm)	Berat tertahan, gram	Kumulatif tertahan, gram	% Tertahan	% Lolos (N)
4	4.75	10	10.00	4%	96%
10	2.000	33	43.00	17%	83%
20	0.850	45	88.00	35%	65%
40	0.425	39	127.00	50%	50%
60	0.250	33	160.00	63%	37%
100	0.150	40	200.00	78%	22%
200	0.075	31	231.00	91%	9%
Pan	0	24	255.00	100%	0%

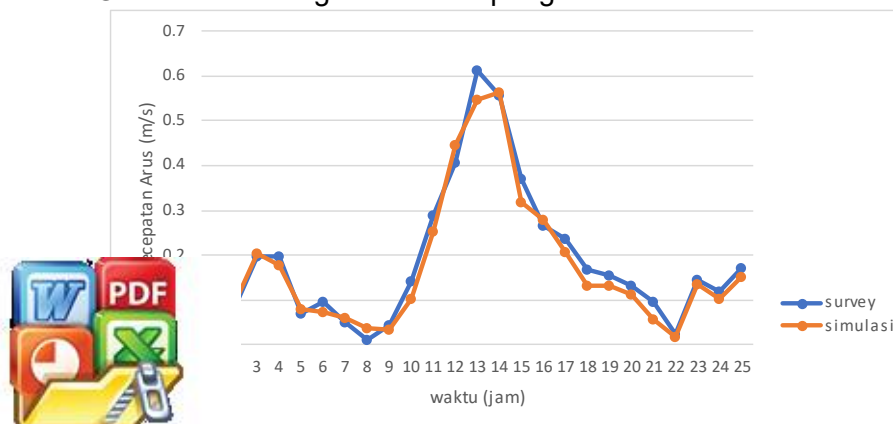




## Lampiran 5 Data Arus

Tahun	Bulan	Tanggal	Jam	Arah	Kecepatan	MIKE 21
2023	3	2	1	261.6	0.0447	0.0465761
2023	3	2	2	18.7	0.0852	0.0958732
2023	3	2	3	36.9	0.1963	0.203288
2023	3	2	4	36.4	0.1961	0.176134
2023	3	2	5	184.1	0.0712	0.080844
2023	3	2	6	236	0.0951	0.0742256
2023	3	2	7	23.1	0.0497	0.0611773
2023	3	2	8	68.4	0.0121	0.0353254
2023	3	2	9	221.1	0.0442	0.0329188
2023	3	2	10	17.8	0.1418	0.101406
2023	3	2	11	30.3	0.2901	0.2531705
2023	3	2	12	32.4	0.4077	0.446229
2023	3	2	13	37.6	0.6139	0.5470085
2023	3	3	14	39.2	0.5575	0.5624694
2023	3	3	15	38.7	0.3708	0.3192893
2023	3	3	16	46.1	0.2666	0.2783391
2023	3	3	17	41.8	0.237	0.20666
2023	3	3	18	38.9	0.1683	0.13290763
2023	3	3	19	43.4	0.1536	0.1311286
2023	3	3	20	33	0.1306	0.1135842
2023	3	3	21	35.3	0.0963	0.0553852
2023	3	3	22	227.9	0.0243	0.0186299
2023	3	3	23	38.1	0.1463	0.13647335
2023	3	3	24	22.2	0.1187	0.1036126
2023	3	3	25	31.6	0.1712	0.1500459

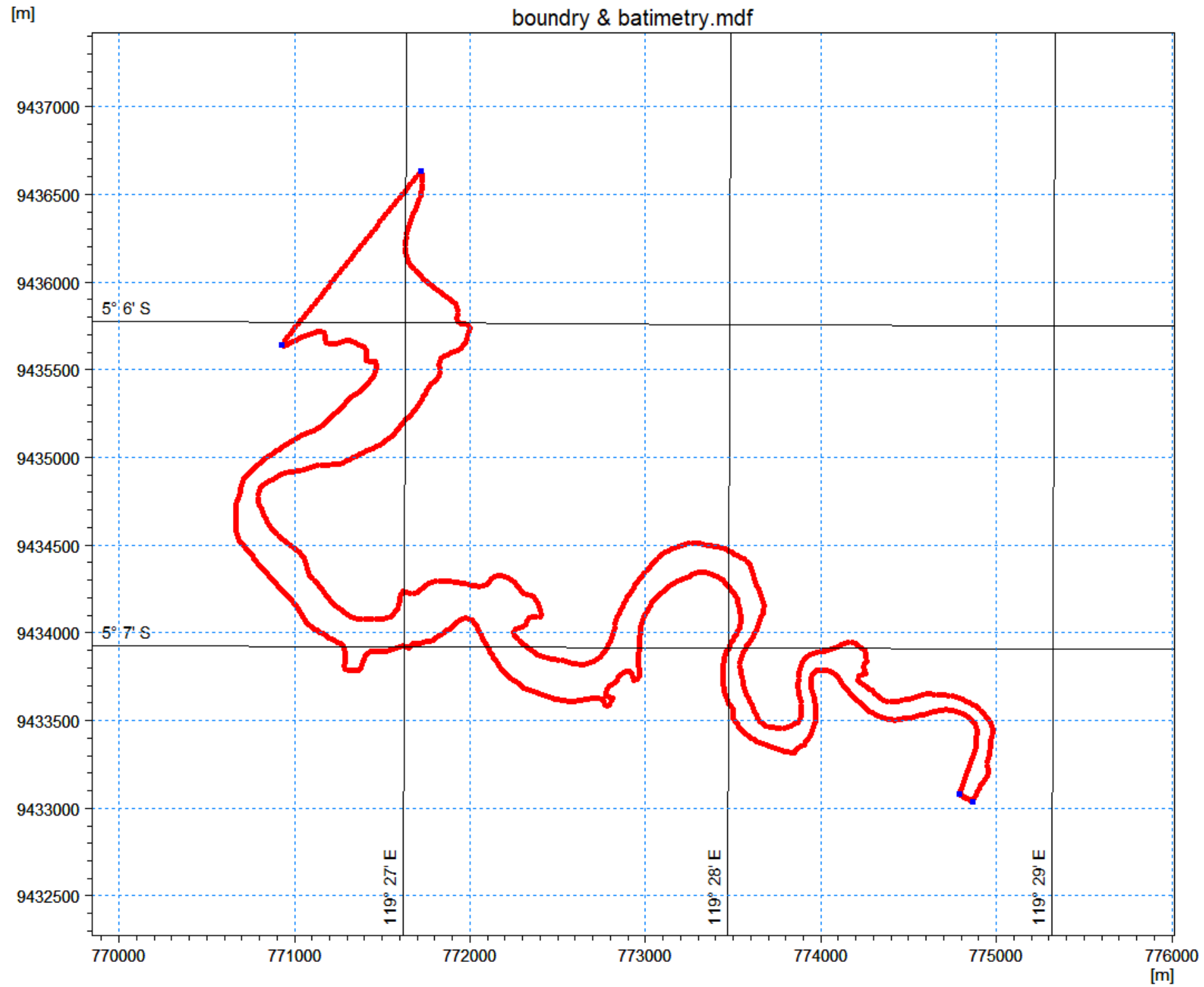
Grafik Perbandingan arus di lapangan dan di Software MIKE 21



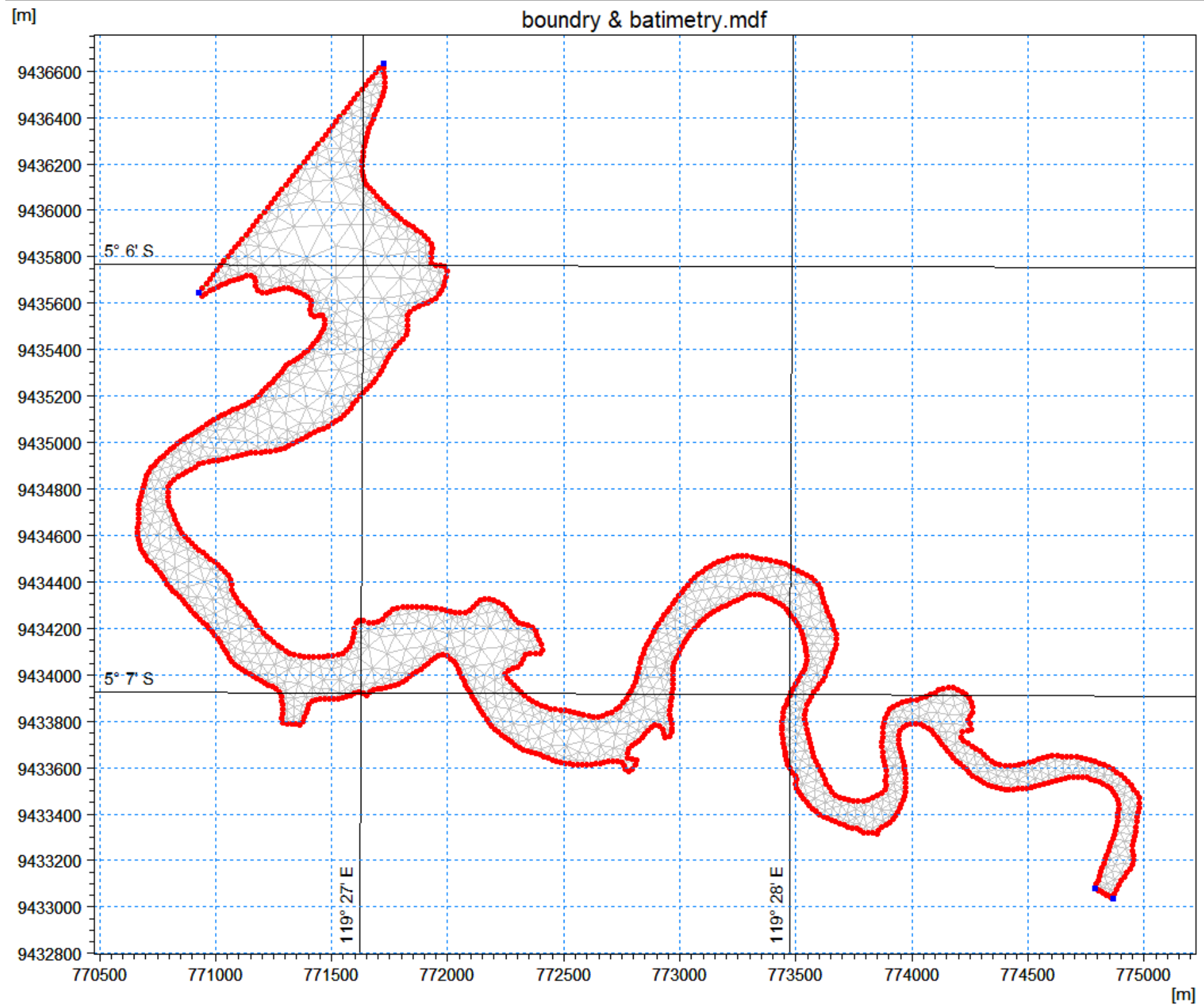
Lampiran 6 Pemodelan MIKE 21

Land Boundary pemodelan

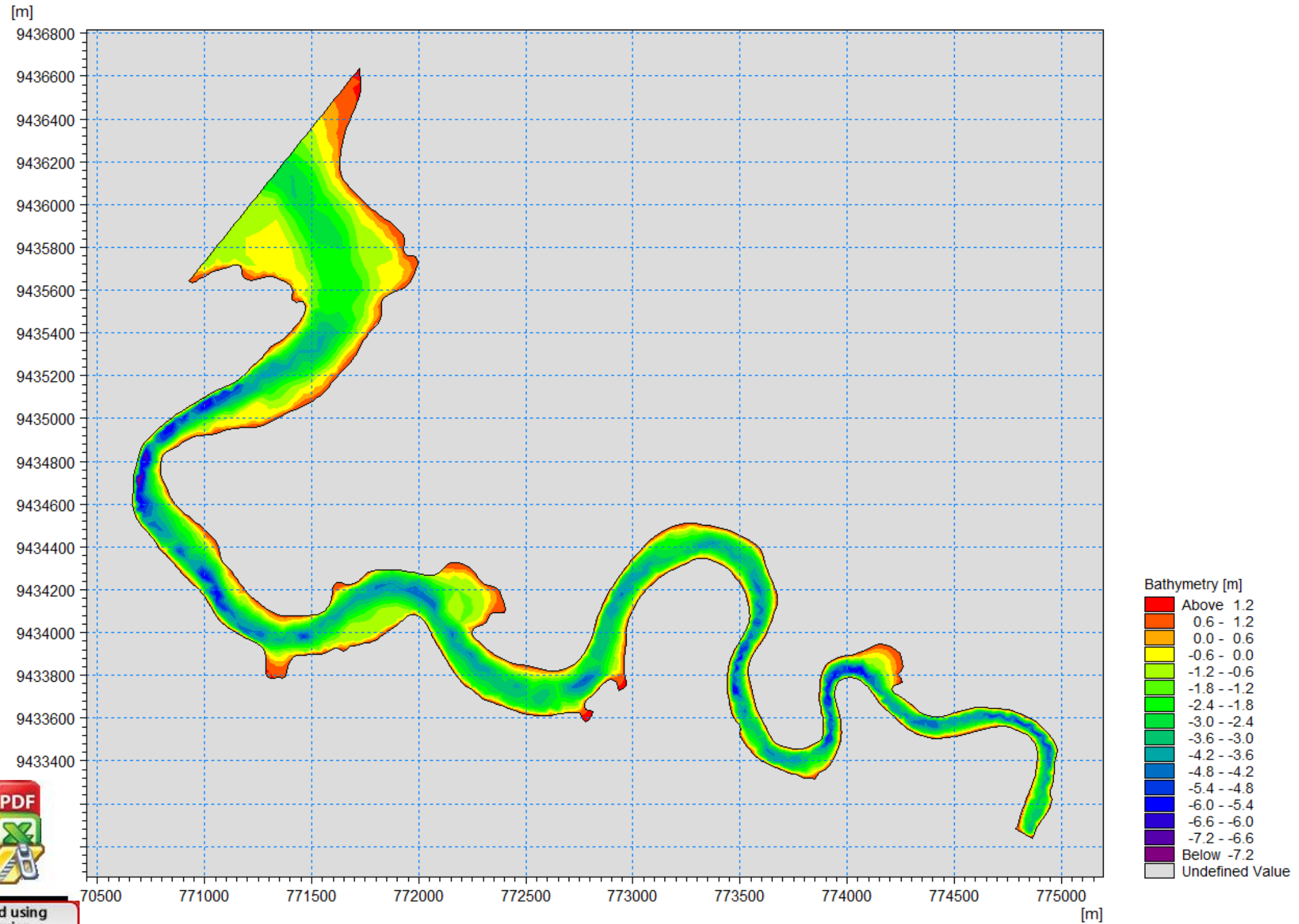
boundry & batimetry.mdf



### Meshing Grid

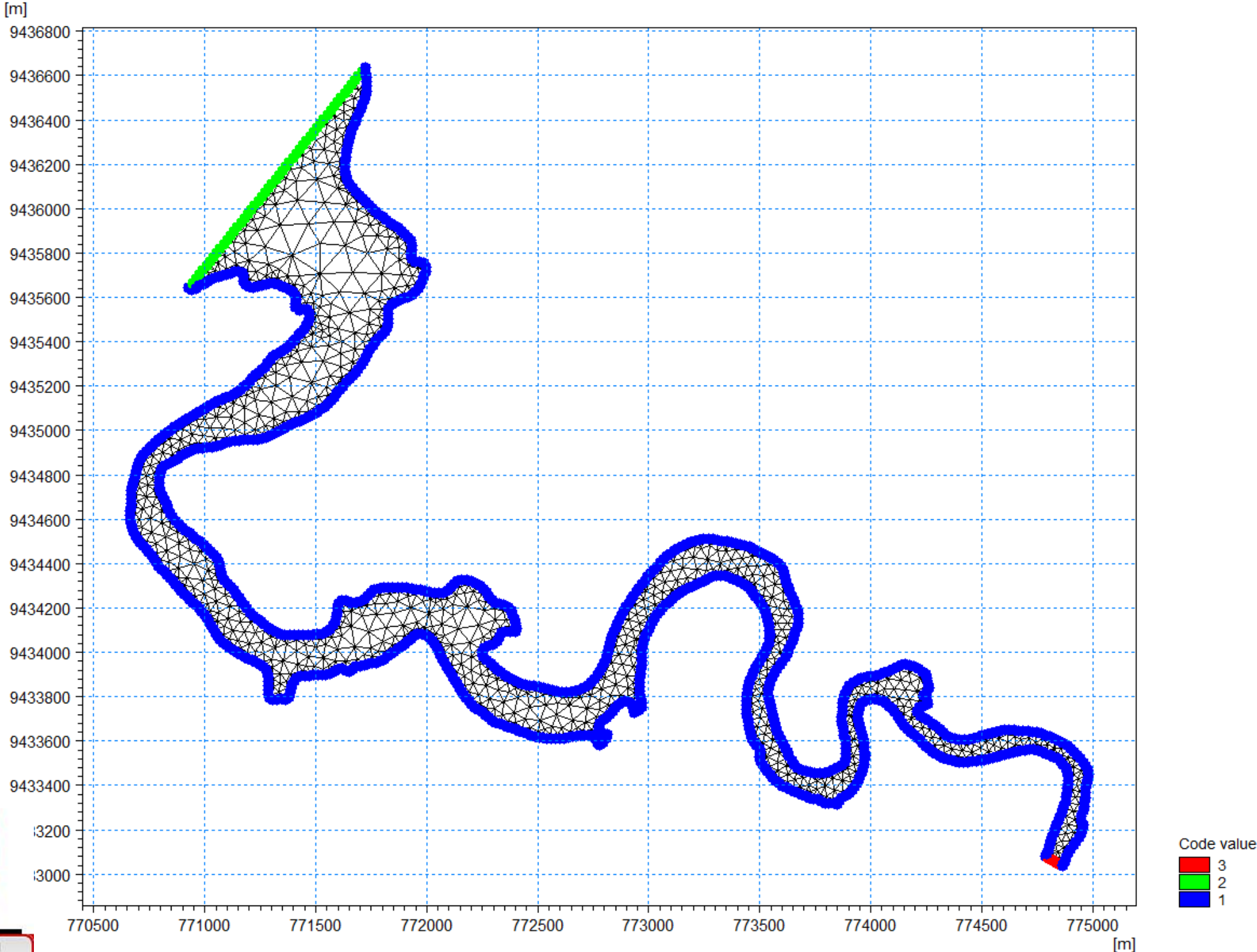


### Kontur kedalaman



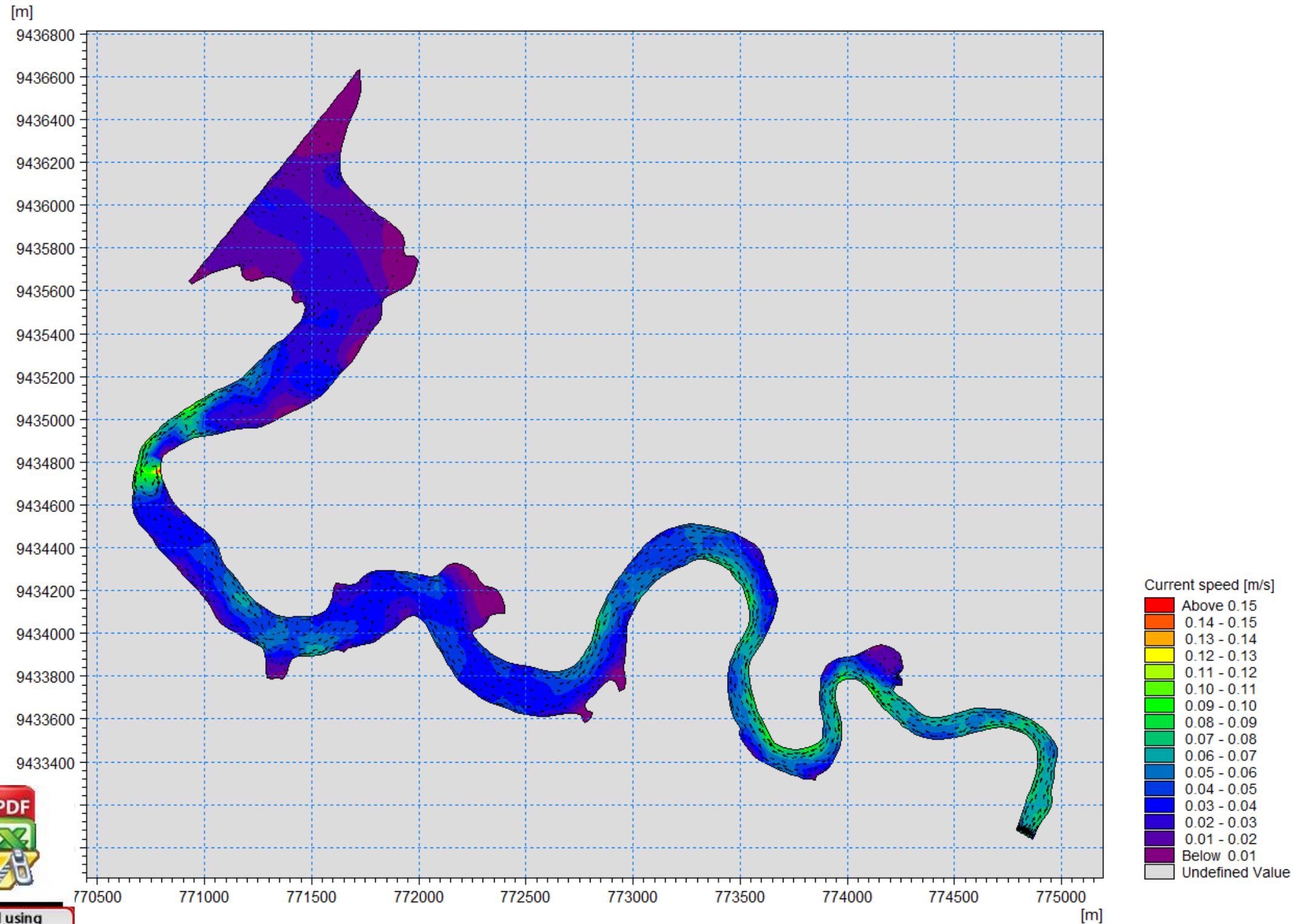
Optimized using  
trial version  
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Kondisi batas pemodelan *Hydrodynamic Module*



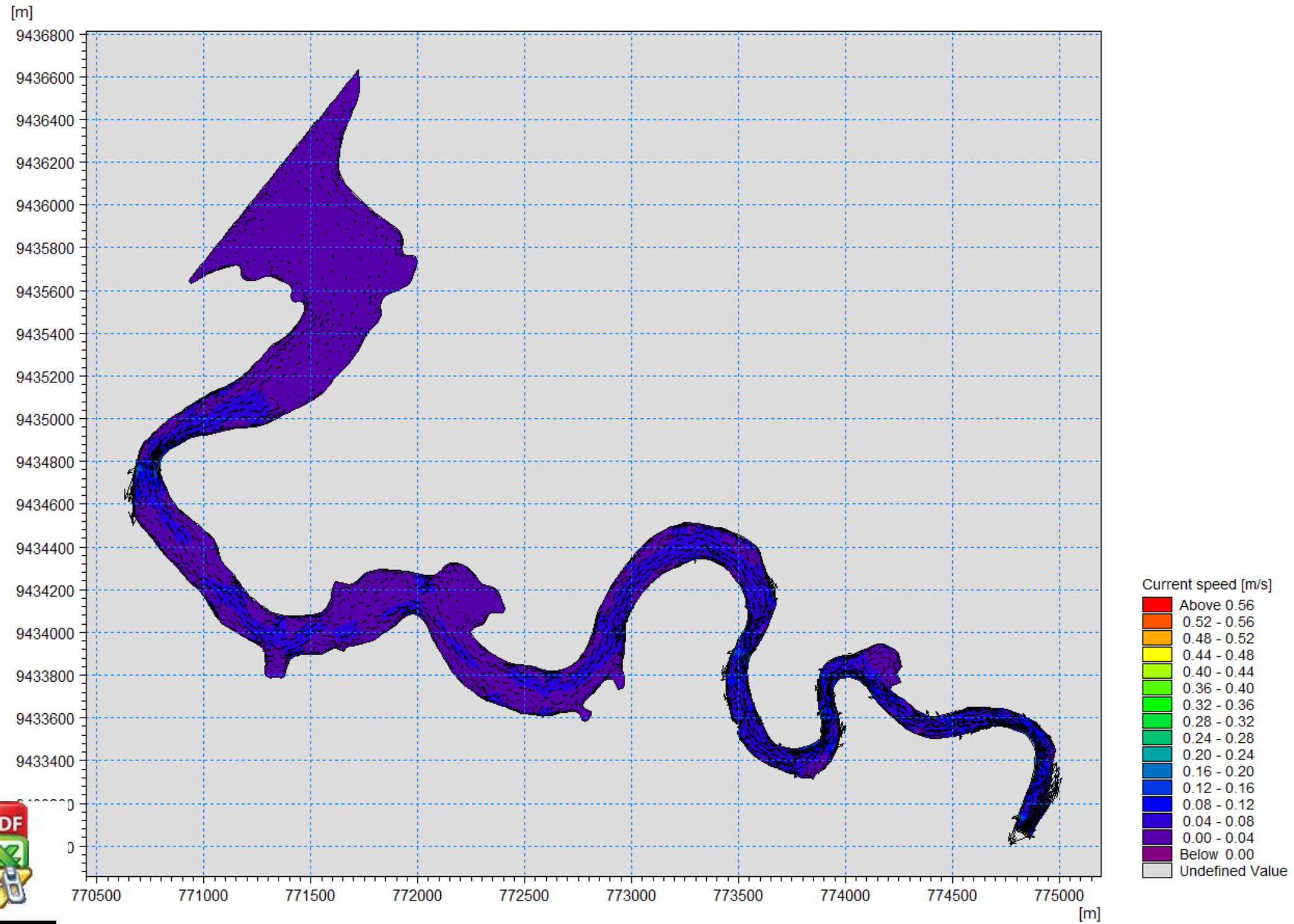


simulasi pola dalam bentuk vektor



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trial version  
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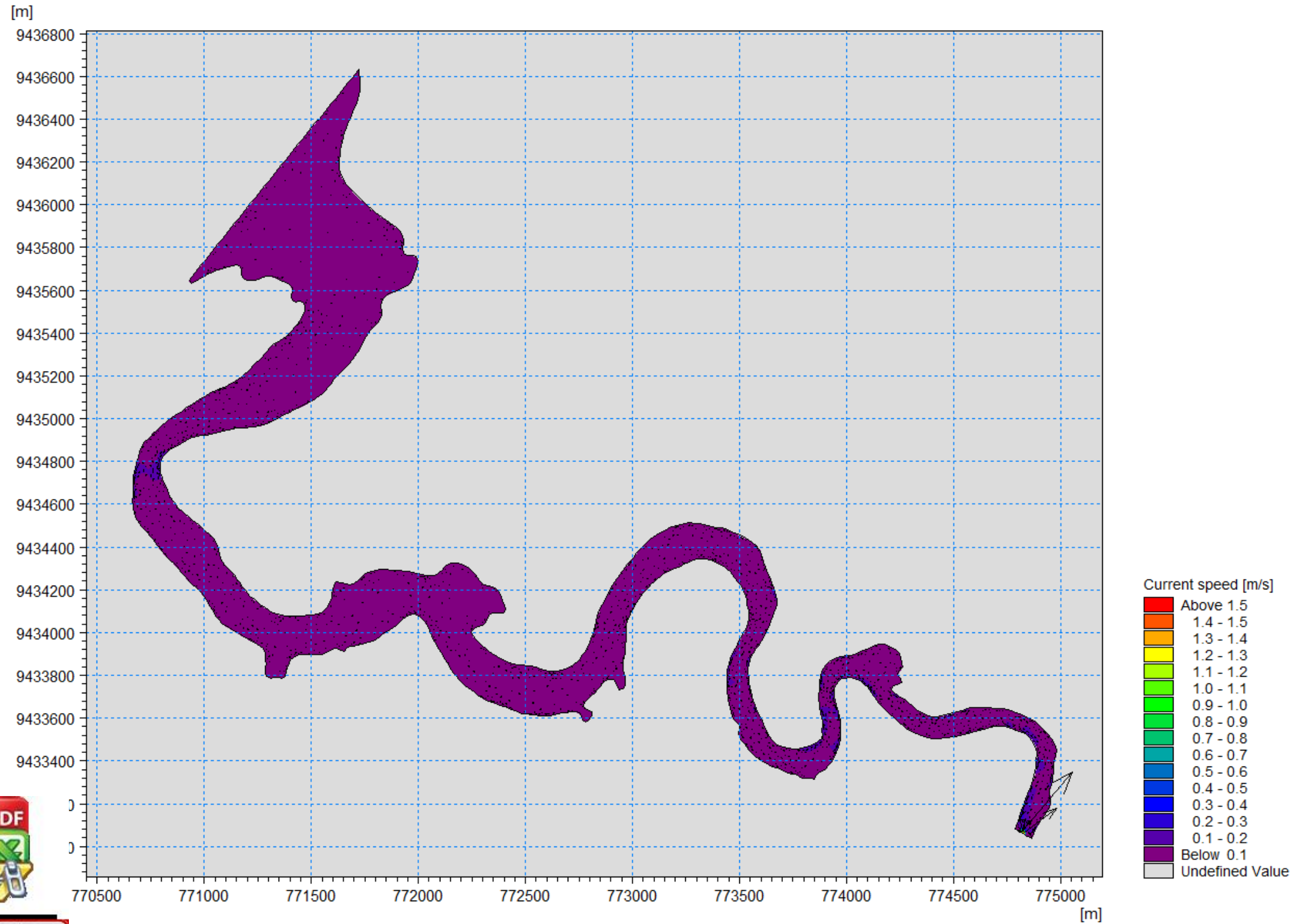
Simulasi pada kondisi surut terendah



Optimized using trial version  
www.balesio.com

28-Feb-23 5:00:00 Time Step 41 of 360.

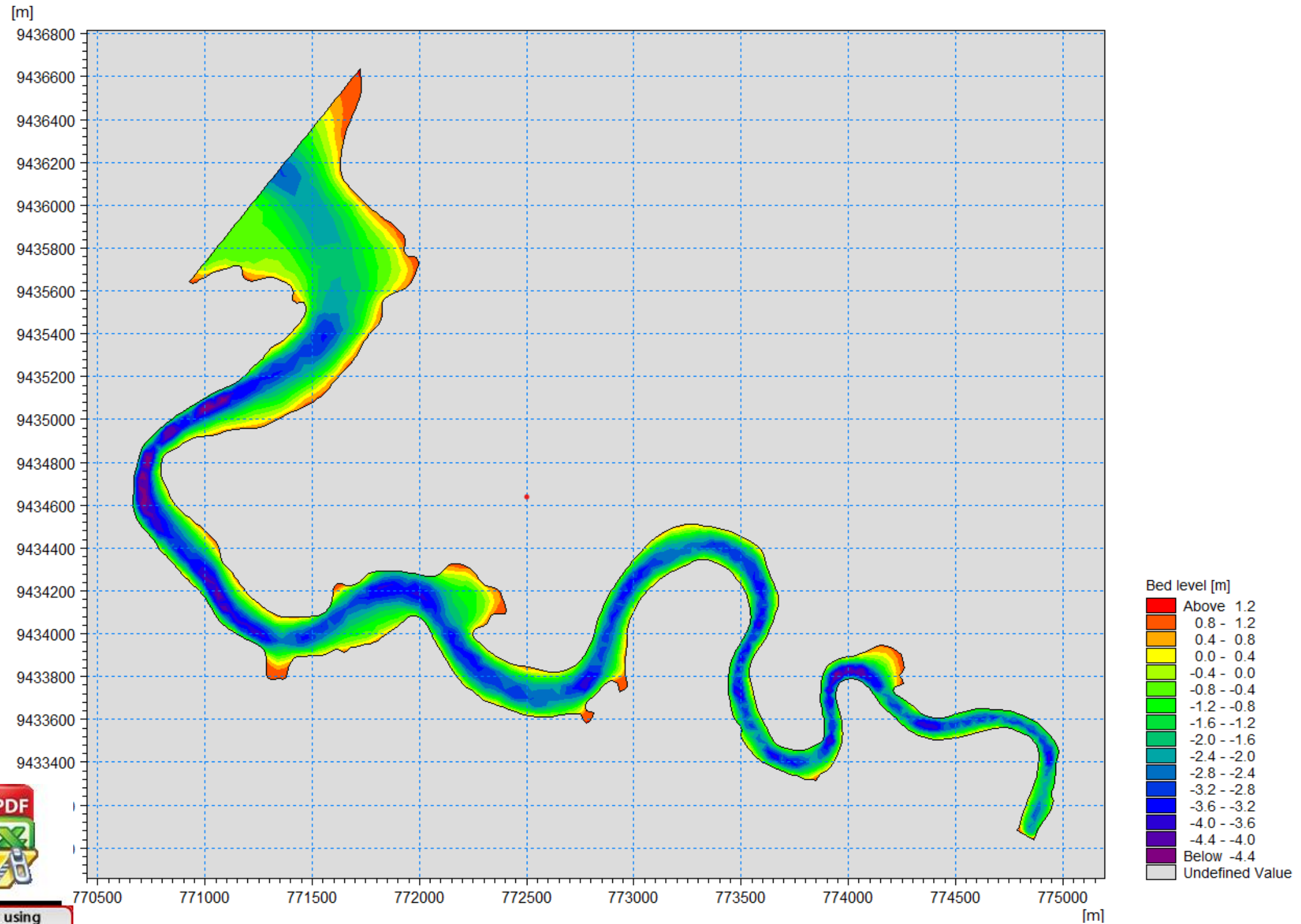
### Pengamatan hasil simulasi pada kondisi Pasang Tertinggi



Optimized using trial version  
www.balesio.com

05-Mar-23 9:00:00 Time Step 165 of 360.

### Sebaran Sedimen



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Lampiran 7 Perencanaan Alur Pelayaran



**PERENCANAAN AREA Pengerukan  
ALUR PELAYARAN SUNGAI TALLO  
KOTA MAKASSAR  
SULAWESI SELATAN**



**1:6,000**

Meters

0 440 880 1,760



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Lampiran 8 Titik pengerukan

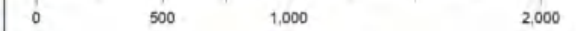


**PERENCANAAN AREA Pengerukan  
ALUR PELAYARAN SUNGAI TALLO  
KOTA MAKASSAR  
SULAWESI SELATAN**



**1:7,220**

Meters



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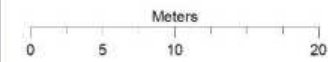
Segmen A1





**PERENCANAAN AREA Pengerukan  
ALUR PELAYARAN SUNGAI TALLO  
KOTA MAKASSAR  
SULAWESI SELATAN**



**1:125**



**Legend**

-  Kontur Sungai
-  Titik Pengerukan

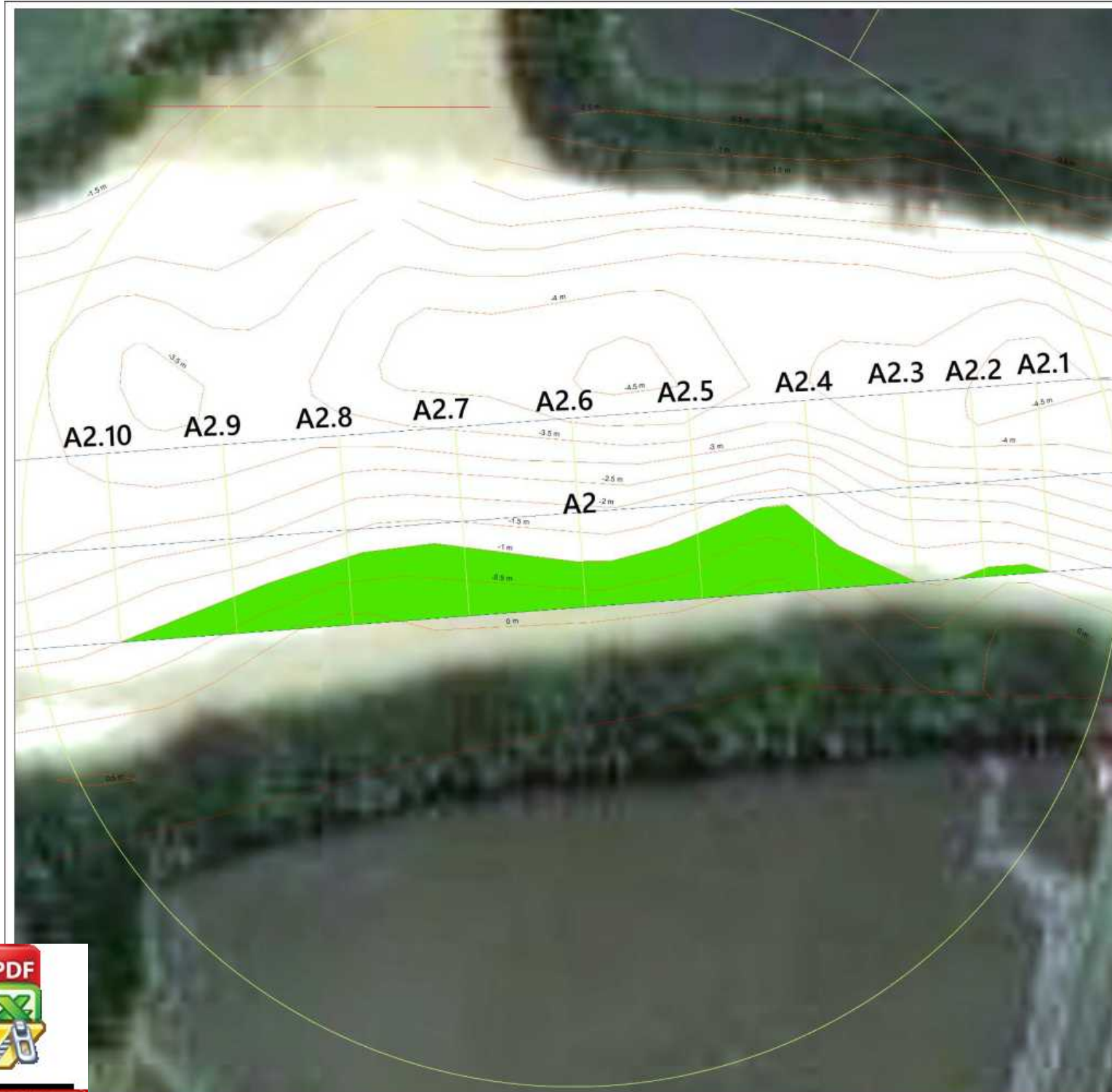


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Segmen A2



**PERENCANAAN AREA Pengerukan  
ALUR PELAYARAN SUNGAI TALLO  
KOTA MAKASSAR  
SULAWESI SELATAN**



**1:200**

Meters



**Legend**

- Kontur Sungai
- Titik Pengerukan



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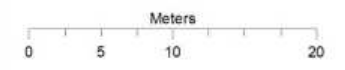
Segmen A3



**PERENCANAAN AREA Pengerukan  
ALUR PELAYARAN SUNGAI TALLO  
KOTA MAKASSAR  
SULAWESI SELATAN**



**1:125**



**Legend**

- Kontur Sungai
- Titik Pengerukan



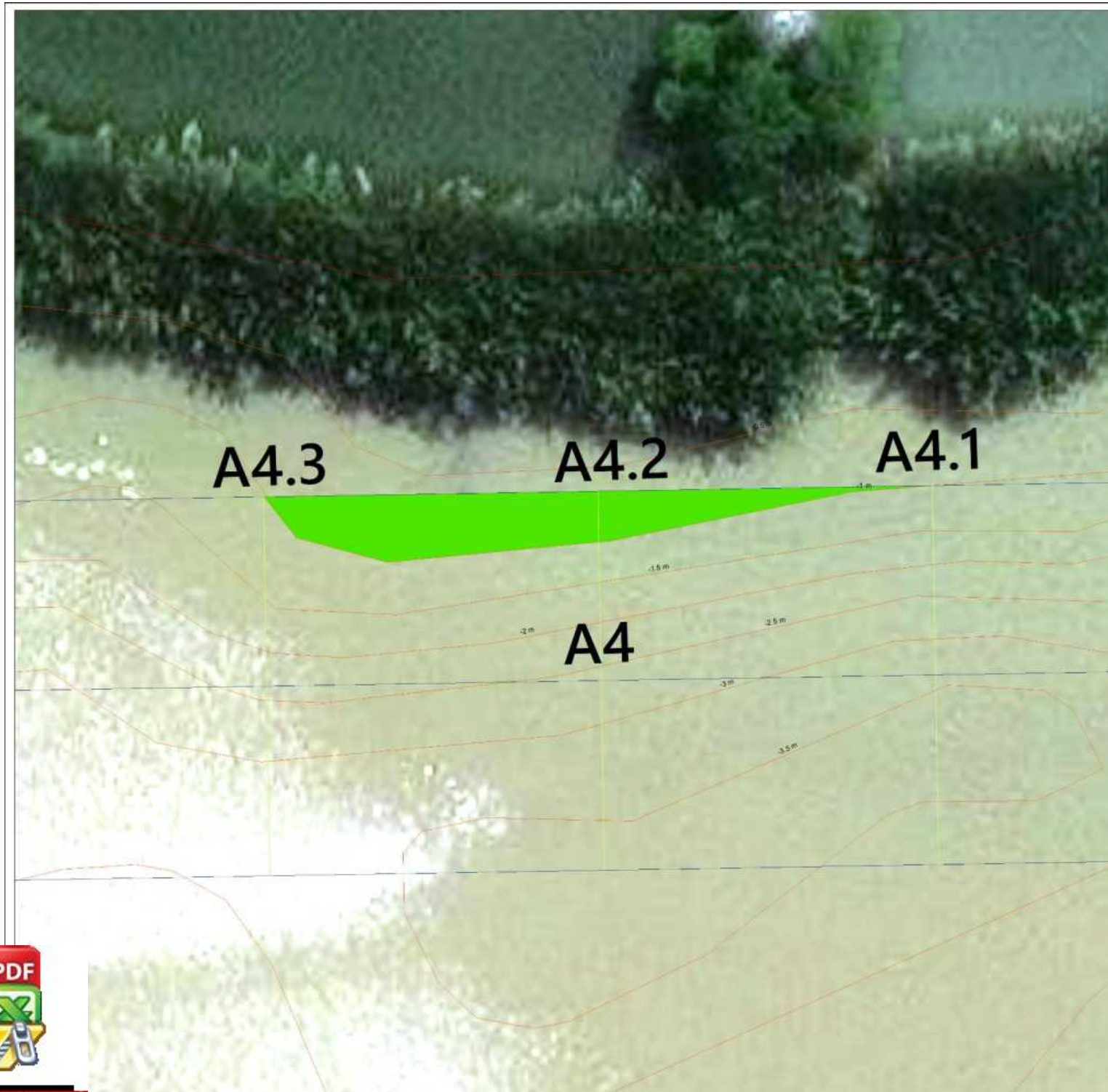
**DWI AGUSDIANSYAH  
D081191040**

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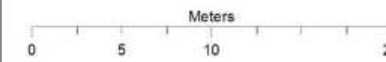
Segmen A4



**PERENCANAAN AREA Pengerukan  
ALUR PELAYARAN SUNGAI TALLO  
KOTA MAKASSAR  
SULAWESI SELATAN**



**1:100**



**Legend**

- Kontur Sungai
- Titik Pengerukan



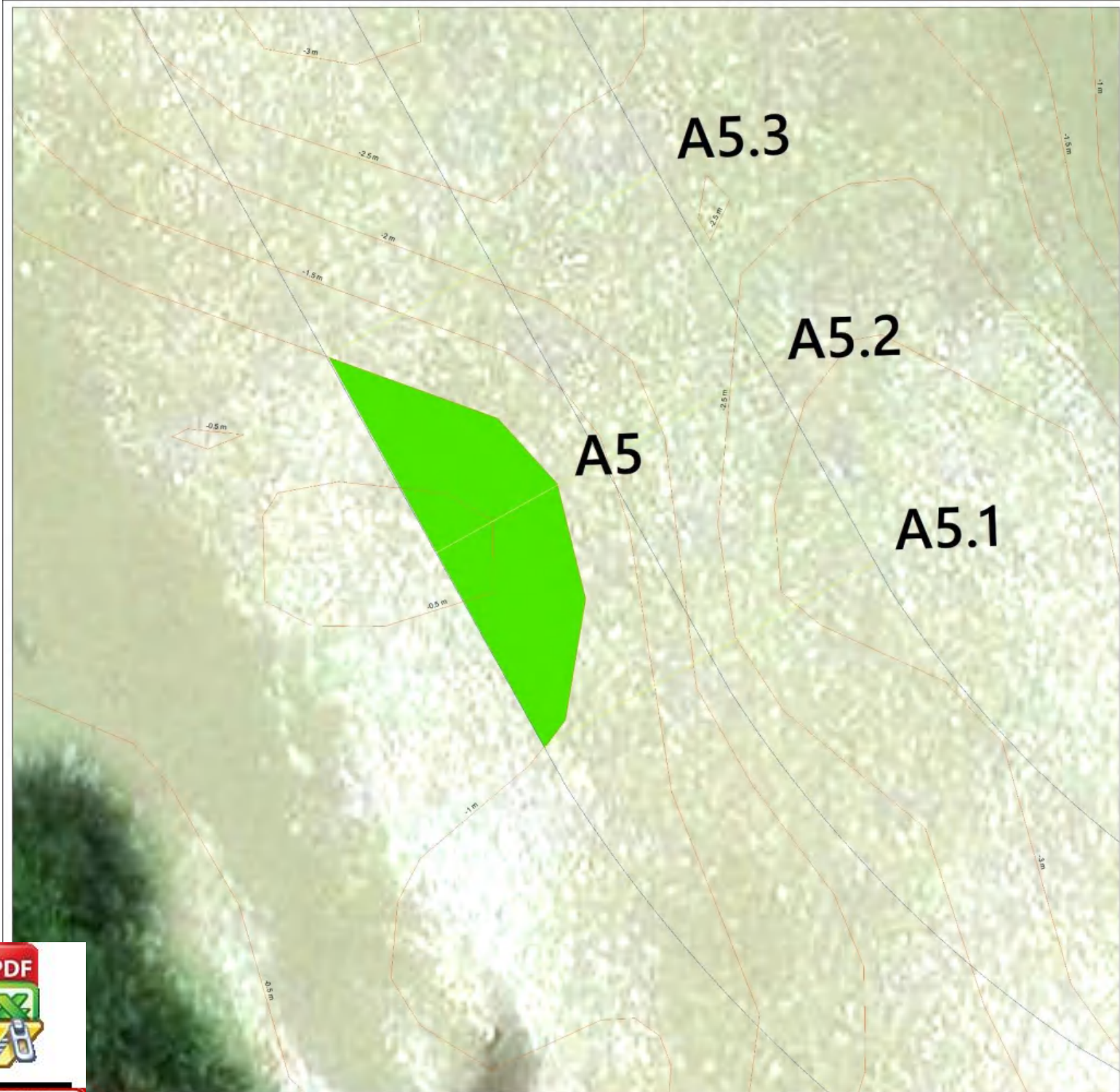
**DWI AGUSDIANSYAH  
D081191040**

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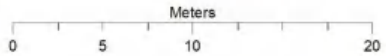
Segmen A5



**PERENCANAAN AREA Pengerukan  
ALUR PELAYARAN SUNGAI TALLO  
KOTA MAKASSAR  
SULAWESI SELATAN**



**1:100**



**Legend**

- Kontur Sungai
- Titik Pengerukan



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2024**



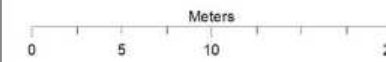
Segmen A6



**PERENCANAAN AREA Pengerukan  
ALUR PELAYARAN SUNGAI TALLO  
KOTA MAKASSAR  
SULAWESI SELATAN**



**1:100**



**Legend**

- Kontur Sungai
- Titik Pengerukan



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Segmen A7



**PERENCANAAN AREA Pengerukan  
ALUR PELAYARAN SUNGAI TALLO  
KOTA MAKASSAR  
SULAWESI SELATAN**



**1:150**

Meters



**Legend**

- Kontur Sungai
- Titik Pengerukan

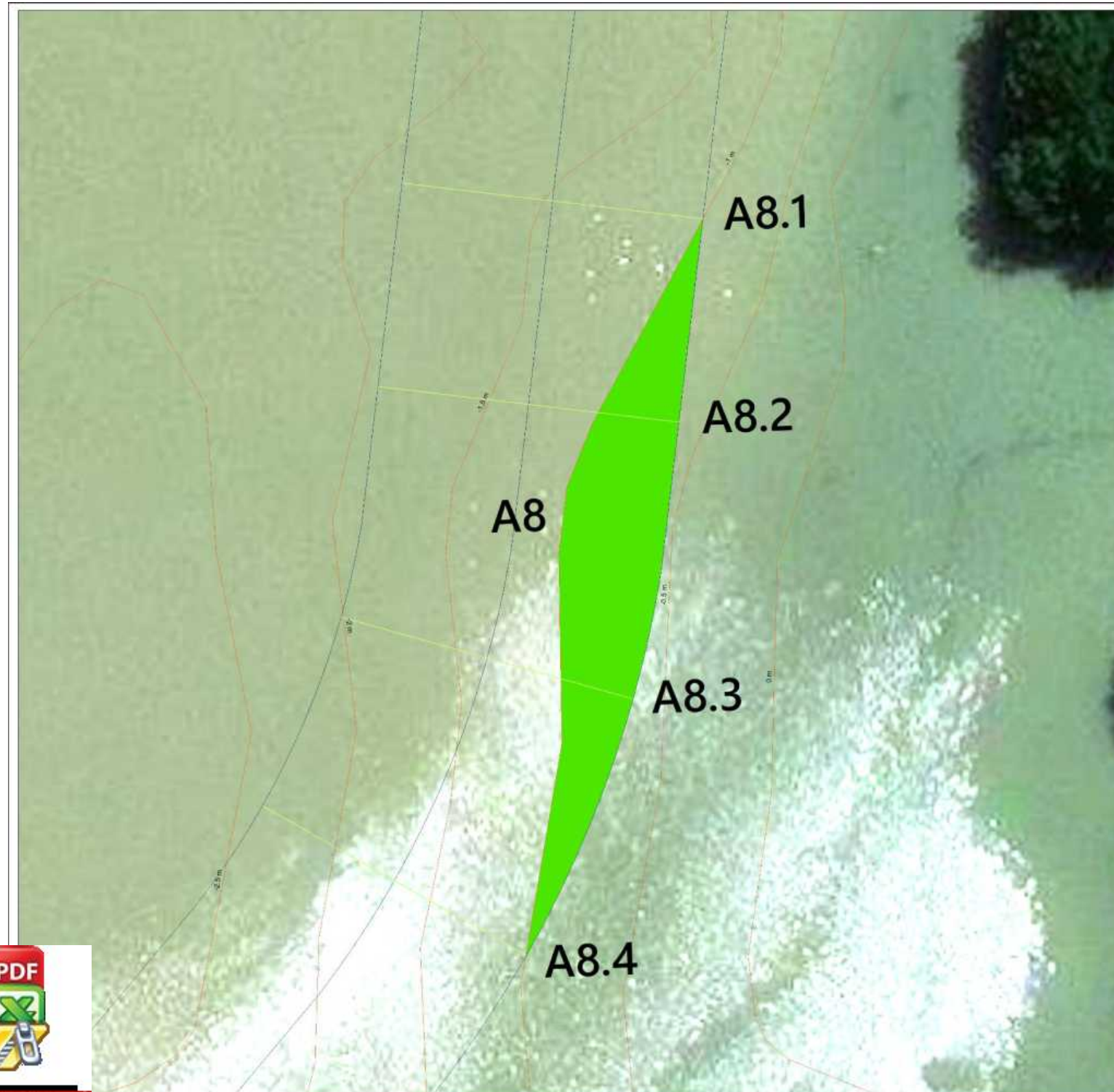


**DWI AGUSDIANSYAH  
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UNIVERSITAS HASANUDDIN  
GOWA  
2024**



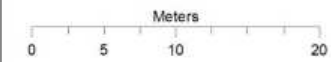
Segmen A8



**PERENCANAAN AREA Pengerukan  
ALUR PELAYARAN SUNGAI TALLO  
KOTA MAKASSAR  
SULAWESI SELATAN**



**1:125**



**Legend**

- Kontur Sungai
- Titik Pengerukan



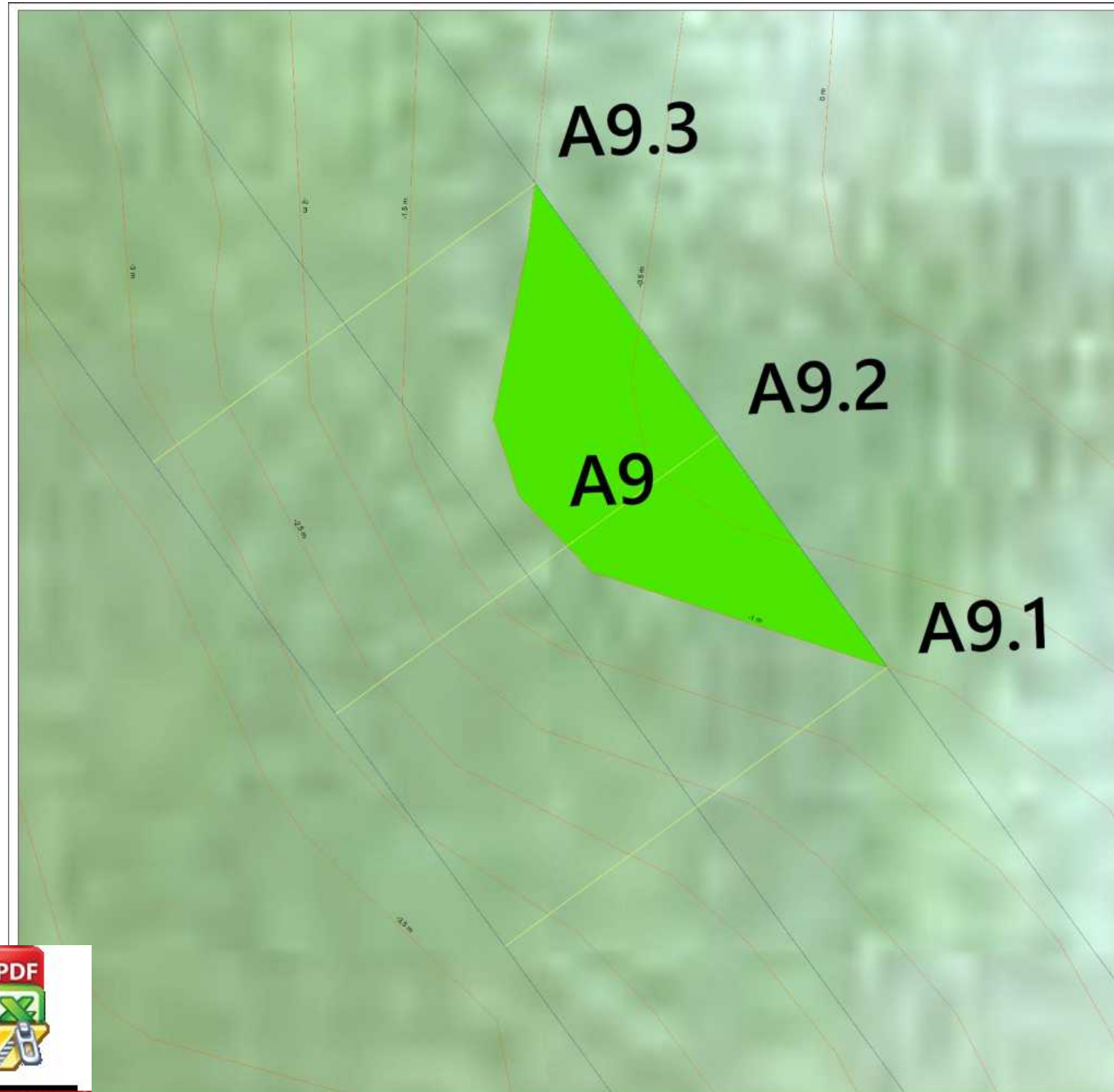
**DWI AGUSDIANSYAH  
D081191040**

**DEPARTEMEN TEKNIK KELAUTAN  
FAKULTAS TEKNIK  
UNIVERSITAS HASANUDDIN  
GOWA  
2024**



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trial version  
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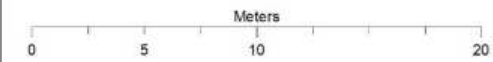
Segmen A9



**PERENCANAAN AREA Pengerukan  
ALUR PELAYARAN SUNGAI TALLO  
KOTA MAKASSAR  
SULAWESI SELATAN**



**1:80**



**Legend**

- Kontur Sungai
- Titik Pengerukan

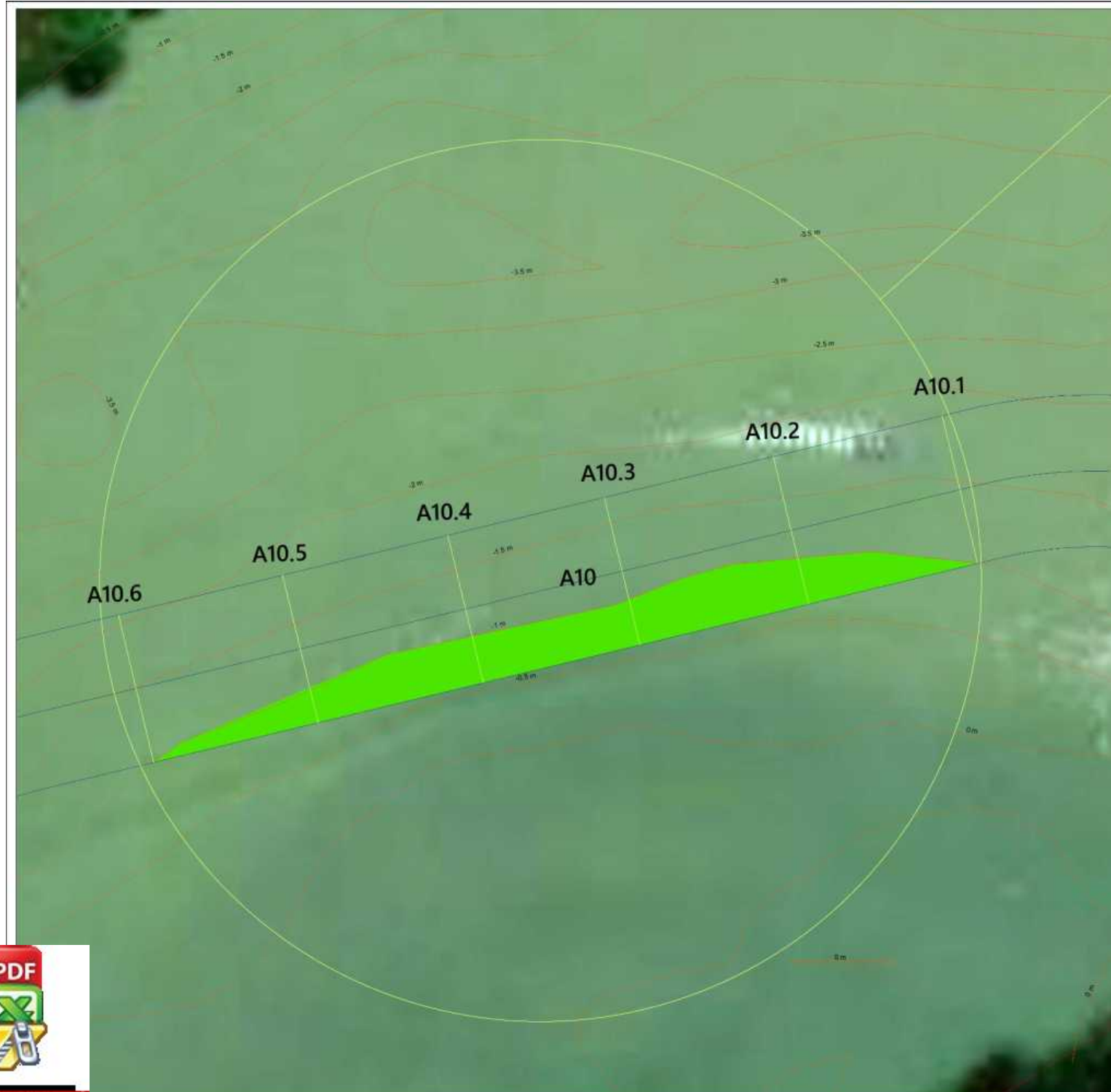


**DWI AGUSDIANSYAH  
D081191040**

**DEPARTEMEN TEKNIK KELAUTAN  
FAKULTAS TEKNIK  
UNIVERSITAS HASANUDDIN  
GOWA  
2024**



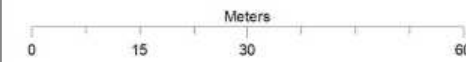
Segmen A10



**PERENCANAAN AREA Pengerukan  
ALUR PELAYARAN SUNGAI TALLO  
KOTA MAKASSAR  
SULAWESI SELATAN**



**1:250**



**Legend**

- Kontur Sungai
- Titik Pengerukan



**DWI AGUSDIANSYAH  
D081191040**

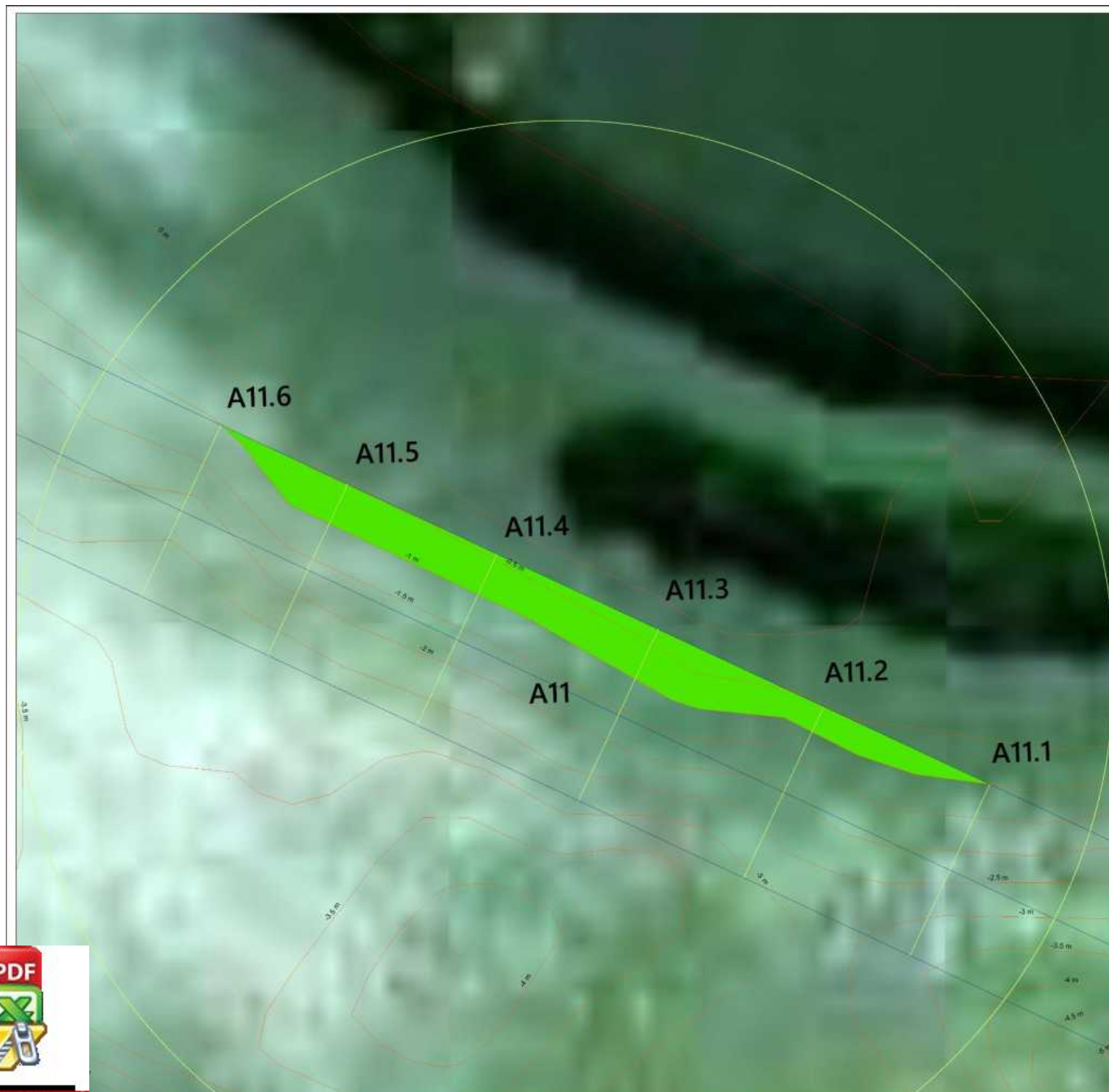
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GOWA  
2024**



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Segmen A11

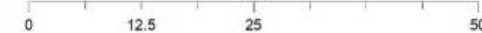


**PERENCANAAN AREA Pengerukan  
ALUR PELAYARAN SUNGAI TALLO  
KOTA MAKASSAR  
SULAWESI SELATAN**



**1:200**

Meters



**Legend**

- Kontur Sungai
- Titik Pengerukan



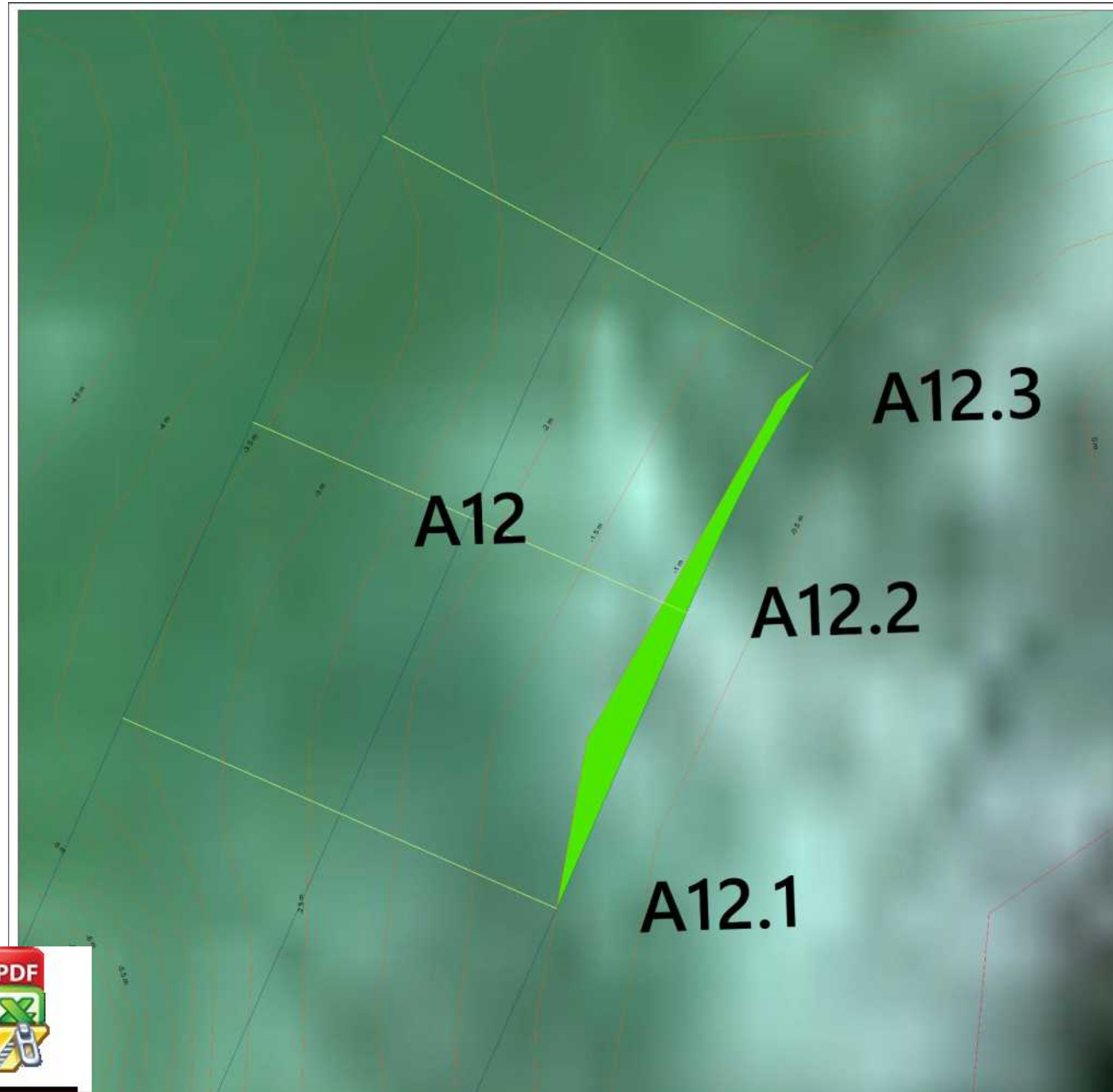
**DWI AGUSDIANSYAH  
D081191040**

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GOWA  
2024**



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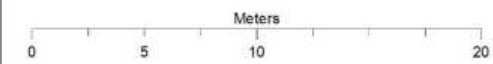
Segmen A12



**PERENCANAAN AREA Pengerukan  
ALUR PELAYARAN SUNGAI TALLO  
KOTA MAKASSAR  
SULAWESI SELATAN**



**1:80**



**Legend**

- Kontur Sungai
- Titik Pengerukan

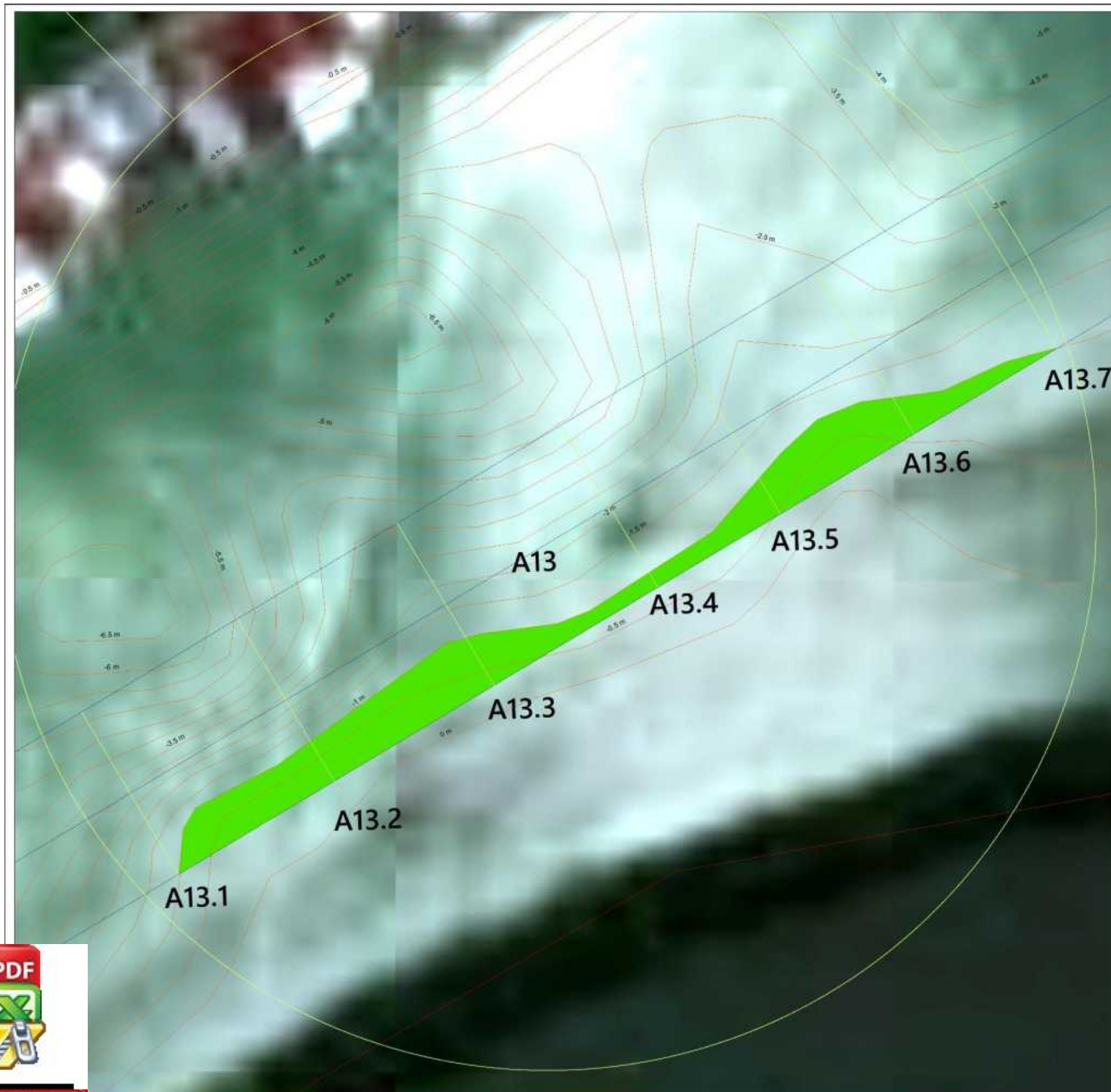


**DWI AGUSDIANSYAH  
D081191040**

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Segmen A13

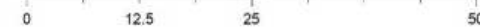


**PERENCANAAN AREA Pengerukan  
ALUR PELAYARAN SUNGAI TALLO  
KOTA MAKASSAR  
SULAWESI SELATAN**



**1:200**

Meters



**Legend**

- Kontur Sungai
- Titik Pengerukan



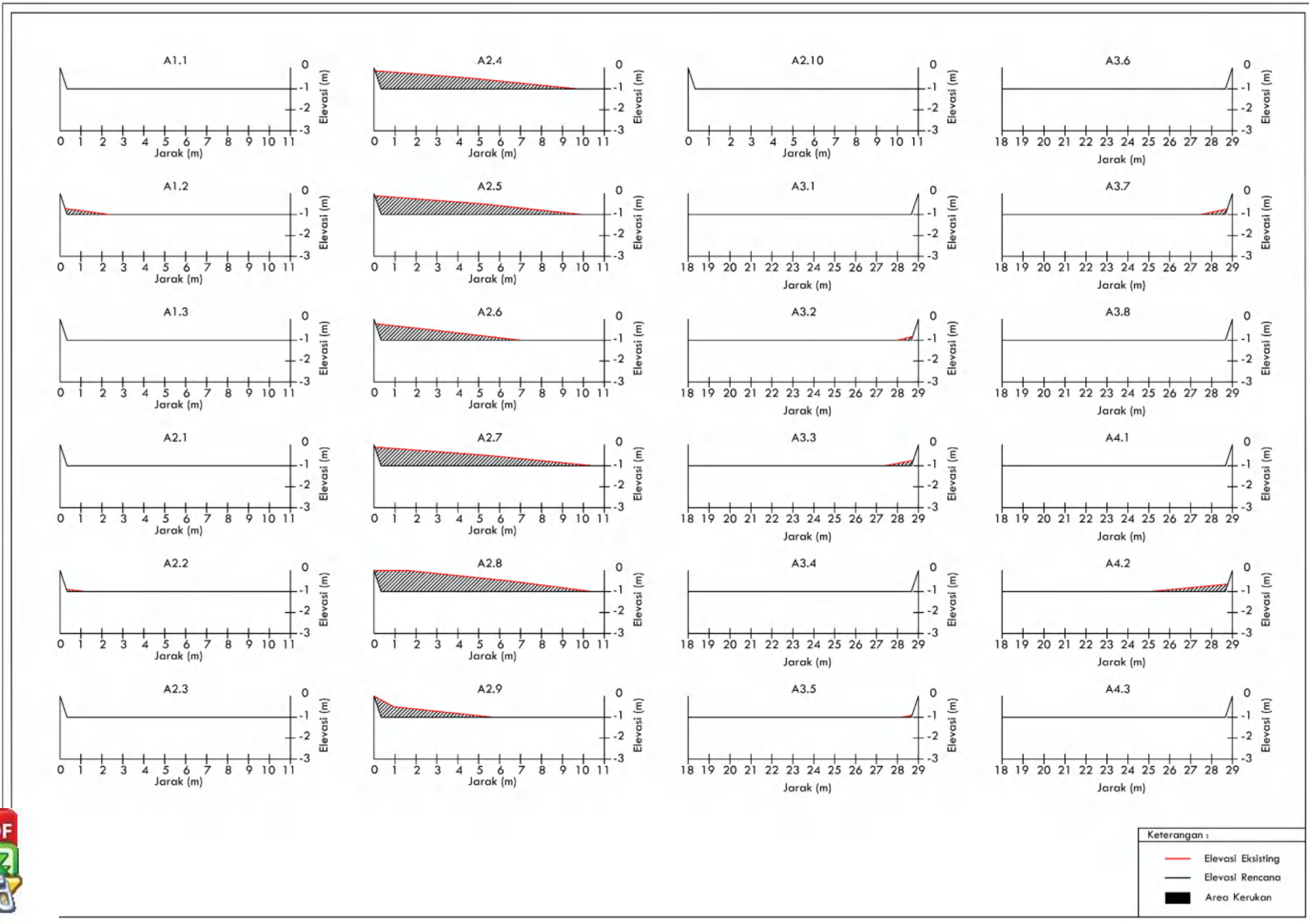
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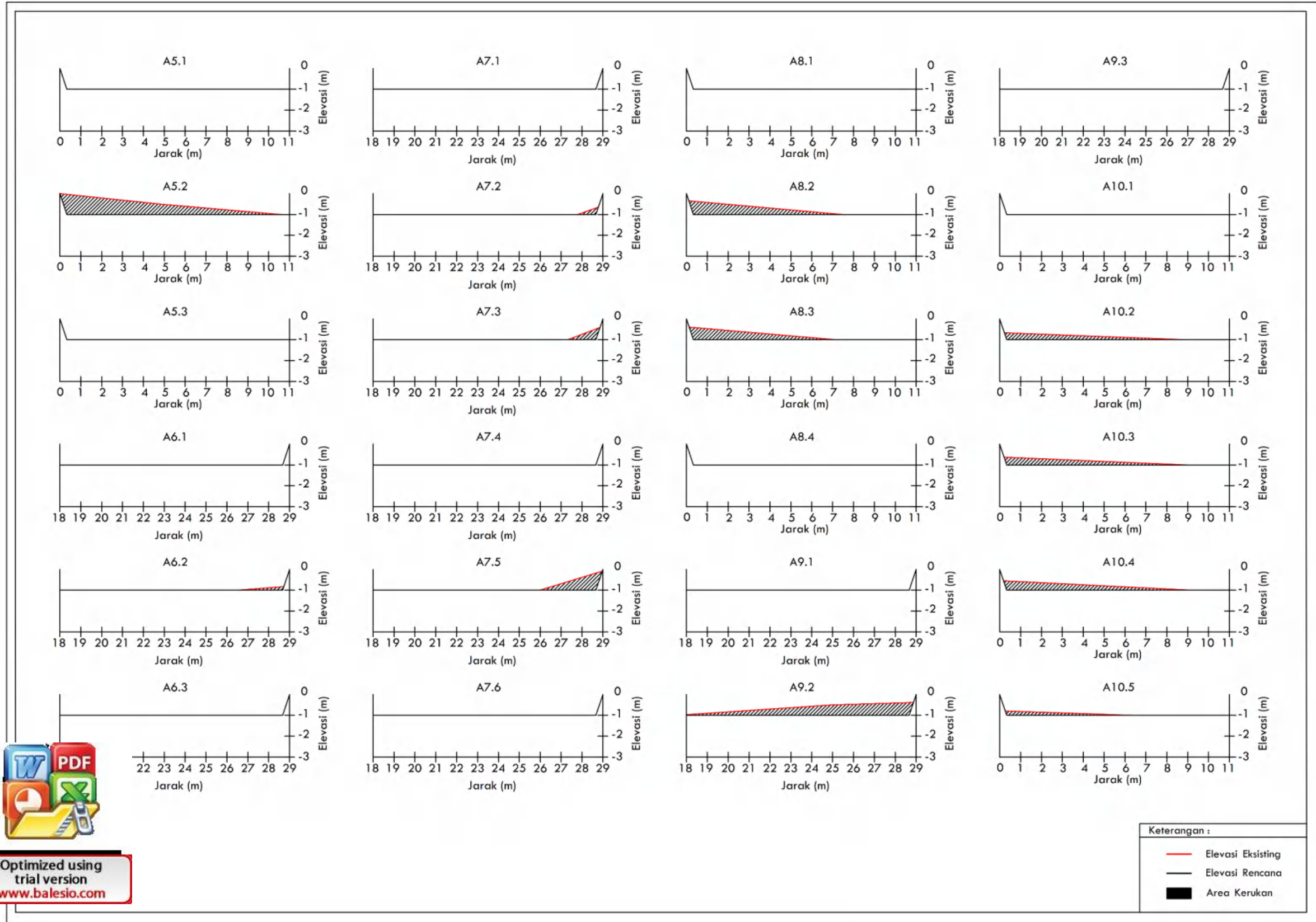
**DEPARTEMEN TEKNIK KELAUTAN  
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GOWA  
2024**



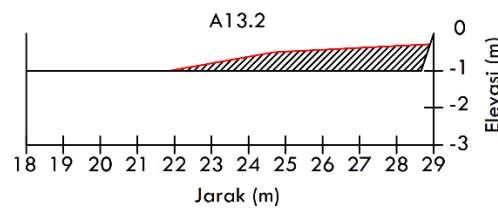
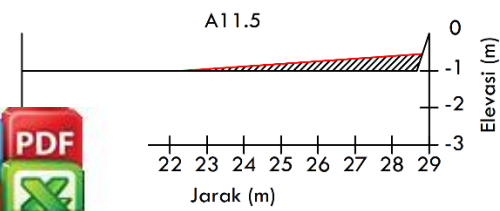
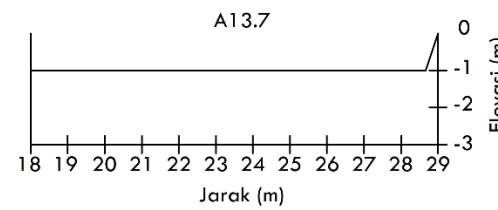
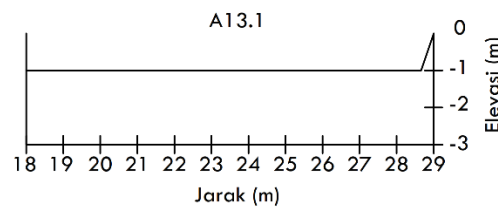
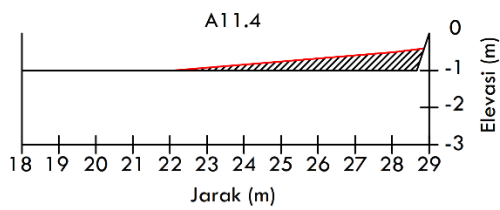
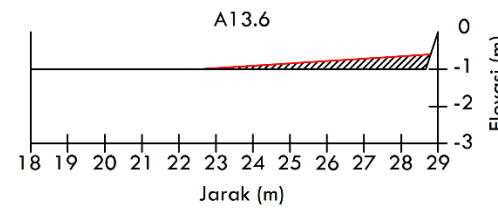
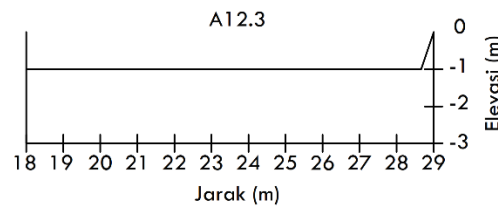
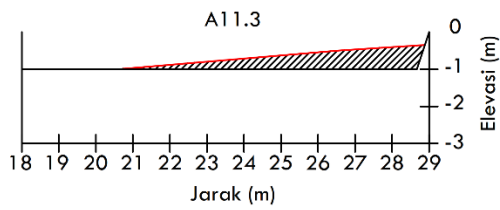
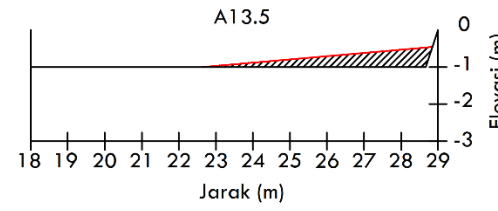
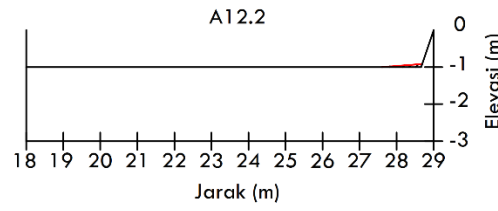
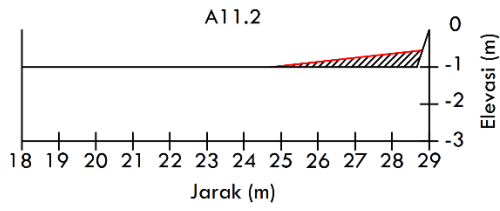
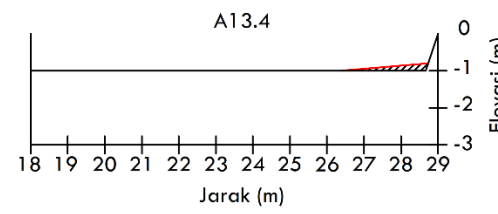
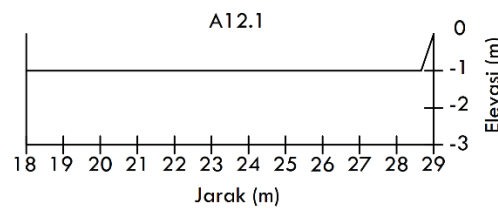
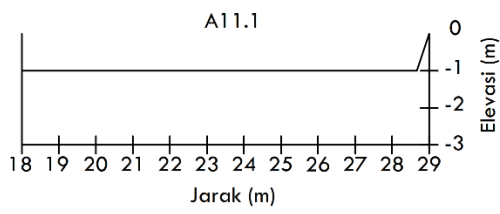
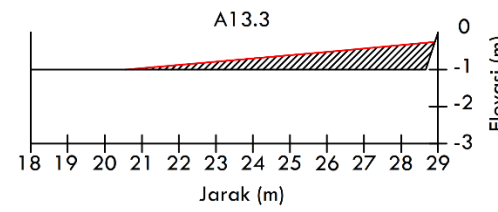
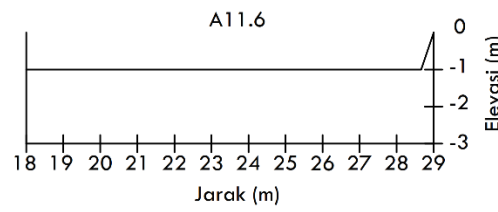
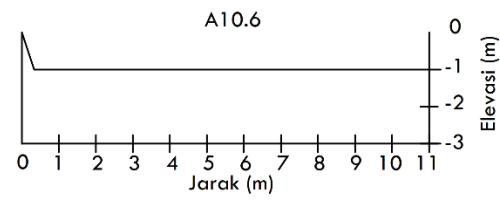
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Lampiran 9 Cross Section





Keterangan :  
 — Elevasi Eksisting  
 — Elevasi Rencana  
 ■ Area Kerukan



Keterangan :	
	Elevasi Eksisting
	Elevasi Rencana
	Area Kerukan

## Lampiran 10 Volume Area Pengerukan

A1						
No.	Potongan	Area (m2)	No	Potongan	L (m)	Volume (m3)
1	A1.1	0	1	A1.1- A1.2	18.35	2.60
2	A1.2	0.28	2	A1.2.A1.3	18.79	2.66
3	A1.3	0	<b>V TOTAL =</b>			<b>5.25</b>

A2						
No.	Potongan	Area (m2)	No	Potongan	L (m)	Volume (m3)
1	A2.1	0	1	A2.1- A2.2	10.13	0.20
2	A2.2	0.04	2	A2.2- A2.3	10.48	0.21
3	A2.3	0	3	A2.3- A2.4	14.95	30.20
4	A2.4	4.04	4	A2.4- A2.5	17.91	77.83
5	A2.5	4.65	5	A2.5- A2.6	17.91	65.11
6	A2.6	2.62	6	A2.6- A2.7	17.85	67.01
7	A2.7	4.89	7	A2.7- A2.8	17.95	98.53
8	A2.8	6.09	8	A2.8- A2.9	17.85	69.60
9	A2.9	1.71	9	A2.9- A2.10	17.85	15.26
10	A2.10	0	<b>V TOTAL =</b>			<b>423.95</b>

A3						
No.	Potongan	Area (m2)	No	Potongan	L (m)	Volume (m3)
1	A3.1	0	1	A3.1- A3.2	17.85	0.54
2	A3.2	0.06	2	A3.2- A3.3	13.23	1.52
3	A3.3	0.17	3	A3.3- A3.4	16.47	1.40
4	A3.4	0	4	A3.4- A3.5	11.40	0.11
5	A3.5	0.02	5	A3.5- A3.6	10.10	0.10
6	A3.6	0	6	A3.6- A3.7	12.61	0.95
7	A3.7	0.15	7	A3.7- A3.8	14.34	1.08
8	A3.8	0	<b>V TOTAL =</b>			<b>5.69</b>

A4						
No.	Potongan	Area (m2)	No	Potongan	L (m)	Volume (m3)
1	A4.1	0	1	A4.1- A4.2	25.60	7.94
2	A4.2	0.62	2	A4.2- A4.3	25.60	7.94
3	A4.3	0	<b>V TOTAL =</b>			<b>15.87</b>

A5						
No.	Potongan	Area (m2)	No	Potongan	L (m)	Volume (m3)
1	A5.1	0	1	A5.1- A5.2	17.00	43.59
2	A5.2	5.13	2	A5.2- A5.3	17.22	44.18



3	A5.3	0	<b>V TOTAL =</b>	<b>87.77</b>
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A6						
No.	Potongan	Area (m2)	No	Potongan	L (m)	Volume (m3)
1	A6.1	0	1	A6.1-A6.2	26.43	2.38
2	A6.2	0.18	2	A6.2-A6.3	22.54	2.03
3	A6.3	0	<b>V TOTAL =</b>			<b>4.41</b>

A7						
No.	Potongan	Area (m2)	No	Potongan	L (m)	Volume (m3)
1	A7.1	0	1	A7.1-A7.2	21.22	1.59
2	A7.2	0.15	2	A7.2-A7.3	21.75	5.87
3	A7.3	0.39	3	A7.3-A7.4	21.10	4.11
4	A7.4	0	4	A7.4-A7.5	20.12	12.17
5	A7.5	1.21	5	A7.5-A7.6	15.09	9.13
6	A7.6	0	<b>V TOTAL =</b>			<b>32.88</b>

A8						
No.	Potongan	Area (m2)	No	Potongan	L (m)	Volume (m3)
1	A8.1	0	1	A8.1-A8.2	19.59	22.92
2	A8.2	2.34	2	A8.2-A8.3	24.58	54.08
3	A8.3	2.06	3	A8.3-A8.4	23.08	23.77
5	A8.4	0	<b>V TOTAL =</b>			<b>100.77</b>

A9						
No.	Potongan	Area (m2)	No	Potongan	L (m)	Volume (m3)
1	A9.1	0	1	A9.1-A9.2	17.57	35.22
2	A9.2	4.01	2	A9.2-A9.3	19.07	38.24
3	A9.3	0	<b>V TOTAL =</b>			<b>73.46</b>

A10						
No.	Potongan	Area (m2)	No	Potongan	L (m)	Volume (m3)
1	A10.1	0	1	A10.1-A10.2	21.22	14.43
2	A10.2	1.36	2	A10.2-A10.3	21.75	32.41
3	A10.3	1.62	3	A10.3-A10.4	21.10	37.98
4	A10.4	1.98	4	A10.4-A10.5	20.12	26.35
5	A10.5	0.64	5	A10.5-A10.6	15.09	4.83
6	A10.6	0	<b>V TOTAL =</b>			<b>116.00</b>

A11						
No.	Potongan	Area (m2)	No	Potongan	L (m)	Volume (m3)
1	A11.1	0	1	A11.1-A11.2	28.15	12.53
2	A11.2	0.89	2	A11.2-A11.3	28.00	49.57
3	A11.3	2.65	3	A11.3-A11.4	27.33	61.63
4	A11.4	1.86	4	A11.4-A11.5	25.32	41.66
5	A11.5	1.43	5	A11.5-A11.6	21.40	15.30
6	A11.6	0	<b>V TOTAL =</b>			<b>180.68</b>





A12						
No.	Potongan	Area (m2)	No	Potongan	L (m)	Volume (m3)
1	A12.1	0	1	A12.1-A12.2	19.75	1.38
2	A12.2	0.14	2	A12.2-A12.3	18.04	1.26
3	A12.3	0	<b>V TOTAL =</b>			<b>2.65</b>

A13						
No.	Potongan	Area (m2)	No	Potongan	L (m)	Volume (m3)
1	A13.1	0	1	A13.1-A13.2	27.86	44.30
2	A13.2	3.18	2	A13.2-A13.3	28.59	88.06
3	A13.3	2.98	3	A13.3-A13.4	29.31	47.05
4	A13.4	0.23	4	A13.4-A13.5	21.91	20.49
5	A13.5	1.64	5	A13.5-A13.6	23.92	34.21
6	A13.7	1.22	7	A13.6-A13.7	25.61	15.62
7	A13.8	0	<b>V TOTAL =</b>			<b>234.10</b>

Segmen	Volume (m3)	Vtotal (m3)
A1	5.25	
A2	423.95	
A3	5.69	
A4	15.87	
A5	87.77	
A6	4.41	
A7	32.88	1283.49
A8	100.77	
A9	73.46	
A10	116.00	
A11	180.68	
A12	2.65	
A13	234.10	

