

DAFTAR PUSTAKA

- Adibhusana, M.N., Hendrawan, I.G., & Karang, I.W.G.A., 2016. Model Hidrodinamika Pasang Surut di Perairan Pesisir Barat Kabupaten Badung, Bali. *J. Mar. Aquat. Sci.* 2, 54. <https://doi.org/10.24843/jmas.2016.v2.i02.54-59>
- Agustina, S., Nuraini, S.P., Purnawan, S., & Siregar, E.E.W., 2020. Identifikasi awal sampah apung anorganik di muara Sungai Krueng Aceh, Kota Banda Aceh. *DEPIK J. Ilmu-Ilmu Perairan, Pesisir dan Perikan.* 9, 131–140. <https://doi.org/10.13170/depik.9.1.15237>
- Ahmad, S., 2019. Sebaran Spasial Sampah Laut (Marine Debris) Permukaan di Perairan Kota Makassar. Skripsi. Ilmu Kelautan Fakultas Ilmu Kelautan dan Perikanan Universitas Hasanuddin. Kota Makassar.
- Andrady, A.L., 2011. Microplastics in the marine environment. *Mar. Pollut. Bull.* 62, 1596–1605. <https://doi.org/10.1016/j.marpolbul.2011.05.030>
- Anwar, B., Saharuna, & Mandra, M.A.S., 2018. Penerapan Teknologi Pengolahan Limbah Berbasis 3R pada Masyarakat Pulau Barrang Lompo. *Ecosystem* 18, 1163–1168.
- Awal, H., 2020. Kelimpahan dan Sebaran Sampah Laut Permukaan Pada Musim Timur di Perairan Kabupaten Barru. Skripsi. Ilmu Kelautan Fakultas Ilmu Kelautan dan Perikanan Universitas Hasanuddin, Kota Makassar.
- Aziz, M.F., 2006. Gerak Air Laut. *Chinese Sci. Bull.* 50, 205–207. <https://doi.org/10.1360/982004-132>
- Bangun, A.P., Wahyuningsih, H., & Muhtadi, A., 2018. Impacts of macro - And microplastic on macrozoobenthos abundance in intertidal zone. *IOP Conf. Ser. Earth Environ. Sci.* 122. <https://doi.org/10.1088/1755-1315/122/1/012102>
- Cheung, P.K., Cheung, L.T.O., & Fok, L., 2016. Seasonal variation in the abundance of marine plastic debris in the estuary of a subtropical macro-scale drainage basin in South China. *Sci. Total Environ.* 562, 658–665. <https://doi.org/10.1016/j.scitotenv.2016.04.048>
- Compa, M., March, D., & Deudero, S., 2019. Spatio-temporal monitoring of coastal floating marine debris in the Balearic Islands from sea-cleaning boats. *Mar. Pollut. Bull.* 141, 205–214. <https://doi.org/10.1016/j.marpolbul.2019.02.027>
- Cordova, M.R., Wahyudi, A.J., 2016. Microplastic in the Deep-Sea Sediment of Southwestern Sumatran Waters. *Mar. Res. Indones.* 41, 27–35. <https://doi.org/10.14203/mri.v41i1.99>
- Cózar, A., Echevarría, F., González-gordillo, J.I., Irigoien, X., & Úbeda, B., 2014. Plastic debris in the open ocean 17–19. <https://doi.org/10.1073/pnas.1314705111>
- Dalimunte, W.S., 2020. Identifikasi Sampah Laut (Marine Debris) di Pantai Punaga Desa Cikoang, Kabupaten Takalar. Skripsi. Ilmu Kelautan Fakultas Ilmu Kelautan dan Perikanan Universitas Hasanuddin. Kota Makassar.

- Derraik, J.G.B., 2002. The pollution of the marine environment by plastic debris: A review. *Mar. Pollut. Bull.* 44, 842–852. [https://doi.org/10.1016/S0025-326X\(02\)00220-5](https://doi.org/10.1016/S0025-326X(02)00220-5)
- Díaz-torres, E.R., Ortega-ortiz, C.D., Silva-iñiguez, L., Nene-preciado, A., & Torres, E., 2016. Floating Marine Debris in waters of the Mexican Central Pacific. *MPB*. <https://doi.org/10.1016/j.marpolbul.2016.11.065>
- Fridayani, N.M.S., Kencana, I.P.E.N., & Sukarsa, K.G., 2012. Perbandingan Interpolasi Spasial dengan Metode Ordinary dan Robust Kriging pada Data Spasial Berpencilan (Studi Kasus: Curah Hujan di Kabupaten Karangasem). *E-Jurnal Mat.* 1, 68–74. <https://doi.org/10.24843/mtk.2012.v01.i01.p012>
- Galgani, F., Fleet, D., Franeker, J. Van, Katsanevakis, S., Maes, T., Oosterbaan, L., Poitou, I., Hanke, G., Thompson, R., Amato, E., & Janssen, C., 2010. Task Group 10 Report Marine litter DIRECTIVE. <https://doi.org/10.2788/86941>
- Harding, S., 2016. Marine Debris: Understanding, Preventing and Mitigating the Significant Adverse Impacts on Marine and Coastal Biodiversity, CBD Technical Series. <https://doi.org/10.1080/14888386.2007.9712830>
- Hasanudin, M., 1998. Arus Lintas Indonesia (Arlindo). *Oseana* 23, 1–9.
- Hiwari, H., Purba, N.P., Ihsan, Y.N., Yuliadi, L.P.S., & Mulyani, P.G., 2019. Kondisi sampah mikroplastik di permukaan air laut sekitar Kupang dan Rote, Provinsi Nusa Tenggara Timur Condition of microplastic garbage in sea surface water at around Kupang and Rote, East Nusa Tenggara Province 5, 165–171. <https://doi.org/10.13057/psnmbi/m050204>
- Husrin, S., Wisna, U.J., Prasetyo, R., Putra, A., & Attamimi, A., 2017. Characteristics of Marine Litters in the West Coast of Bali. <https://doi.org/10.15578/segara.v13i2.6449.g5423>
- Hutabarat, S., Evans, S.M., 1985. Pengantar Oseanografi. UI-Press, Jakarta.
- Ilyas, M.I., 2019. Kelimpahan Sampah Laut Permukaan di Perairan Kota Makassar. Skripsi. Ilmu Kelautan Fakultas Ilmu Kelautan dan Perikanan Universitas Hasanuddin. Kota Makassar.
- Inniss, L., Simcock, A., 2016. The First Global Integrated Marine Assessment World Ocean Assessment I.
- Jalil, A.R., 2013. Distribusi kecepatan arus pasang surut pada muson peralihan barat-timur terkait hasil tangkapan ikan pelagis kecil di perairan Spermonde Distribution of tidal current velocities transition monsoon east-west related to small pelagic fish catches in Spermonde, 26–32.
- Jambeck, J.R., Geyer, R., Wilcox, C., Siegler, T.R., Perryman, M., Andrady, A., Narayan, R., & Law, K.L., 2015. Plastic Waste Inputs From Land Into the Ocean.
- Jang, M., Shim, W.J., Han, G.M., Rani, M., Song, Y.K., & Hong, S.H., 2016. Styrofoam Debris as a Source of Hazardous Additives for Marine Organisms. *Environ. Sci. Technol.* 50, 4951–4960. <https://doi.org/10.1021/acs.est.5b05485>
- Kamaruddin, R., Yusuf, M.M., 2012. Selangor Government's "No plastic Bag Day" Campaign: Motivation and Acceptance Level. *Procedia - Soc. Behav. Sci.* 42, 205–211. <https://doi.org/10.1016/j.sbspro.2012.04.183>

- Law, K.L., Morét-Ferguson, S.E., Goodwin, D.S., Zettler, E.R., Deforce, E., Kukulka, T., & Proskurowski, G., 2014. Distribution of surface plastic debris in the eastern pacific ocean from an 11-year data set. *Environ. Sci. Technol.* 48, 4732–4738. <https://doi.org/10.1021/es4053076>
- Lippiatt, S., Opfer, S., & Arthur, C., 2013. Marine Debris Monitoring and Assessment. NOAA Tech. Memo. 88.
- Manalu, A.A., Hariyadi, S., & Wardiatno, Y., 2017. Microplastics abundance in coastal sediments of Jakarta Bay, Indonesia. *AACL Bioflux* 10, 1164–1173.
- Mason C. F. 1981. *Biology of Freshwater Pollution* Longman. New York.
- Muharris.Maulana, D.J., Khomsin, 2013. Studi Analisa Pergerakan Arus Laut Permukaan dengan Menggunakan Data Satelit Altimetri Jason-2 Periode 2009-2012 (Studi Kasus : Perairan Indonesia). *J. Tek. POMITS* 10, 6–11.
- NOAA, 2016. Report on Marine Debris Impacts on Coastal and Benthic Habitats 26.
- NOAA, 2015. Turning the Tide on Trash: A Learning Guide on Marine Debris.
- Nontji, A., 1987. *Laut Nusantara*. Djambatan, Jakarta.
- Oktaviana, M., Jompa, J., & Amiruddin, 2014. Kendala dan Strategi Pengelolaan Sampah Pulau Barrang Lompo.
- Purba, N.P., 2017. Status Sampah Laut Indonesia. <http://indosmarin.com>.
- Purba, N.P., Handyman, D.I.W., Pribadi, T.D., Syakti, A.D., Pranowo, W.S., Harvey, A., & Ihsan, Y.N., 2019. Marine debris in Indonesia: A review of research and status. *Mar. Pollut. Bull.* 146, 134–144. <https://doi.org/10.1016/j.marpolbul.2019.05.057>
- Purba, N.P., Syamsuddin, M.L., Sandro, R., Pangestu, I.F., & Prasetyo, M.R., 2017. Distribution of Marine Debris in Biawak Island, West Java, Indonesia.
- Rasyid, A.J., 2011. Pemetaan Pola Pergerakan Arus Permukaan pada Musim Peralihan Timur-Barat di Perairan Spermonde. *Global* 13, 8–14.
- Renwarin, A., Rogi, O.A.H., & Sela, R.L.E., 2015. Studi Identifikasi Sistem Pengelolaan Sampah Permukiman di Wilayah Pesisir Kota Manado. *Spasial* 2, 79–89.
- Singh, B., Sharma, N., 2008. Mechanistic implications of plastic degradation. *Polym. Degrad. Stab.* 93, 561–584. <https://doi.org/10.1016/j.polyimdegradstab.2007.11.008>
- Sur, C., Abbott, J.M., Ambo-rape, R., Asriani, N., Hameed, S.O., Jellison, B.M., Lestari, H.A., Limbong, S.R., Mandasari, M., Ng, G., Satterthwaite, E. V., & Syahid, S., 2018. Marine Debris on Small Islands: Insights from an Educational Outreach Program in the Spermonde Archipelago, Indonesia 5, 1–5. <https://doi.org/10.3389/fmars.2018.00035>
- Syakti, A.D., Bouhroum, R., Hidayati, N.V., Koenawan, C.J., Boulkamh, A., Sulistyono, I., Lebarillier, S., Akhlus, S., Doumenq, P., & Wong-Wah-Chung, P., 2017. Beach macro-litter monitoring and floating microplastic in a coastal area of Indonesia. *Mar. Pollut. Bull.* 122, 217–225. <https://doi.org/10.1016/j.marpolbul.2017.06.046>
- Tahir, A., Samawi, M.F., Sari, K., Hidayat, R., Nimzet, R., Wicaksono, E.A., Asrul, L., & Werorilangi, S., 2019. Studies on microplastic contamination in seagrass beds at

- Spermonde Archipelago of Makassar Strait, Indonesia. J. Phys. Conf. Ser. 1341. <https://doi.org/10.1088/1742-6596/1341/2/022008>
- Tahir, A., Soeprapto, D.A., Sari, K., Wicaksono, E.A., & Werorilangi, S., 2020. Microplastic assessment in Seagrass ecosystem at Kodingareng Lompo Island of Makassar City. IOP Conf. Ser. Earth Environ. Sci. 564. <https://doi.org/10.1088/1755-1315/564/1/012032>
- Tangdesu, T.R.C., 2018. Identifikasi Sampah Laut di Muara Sungai Biringkassi dan Wilayah Sekitarnya di Kabupaten Takalar. Skripsi. Ilmu Kelautan Fakultas Ilmu Kelautan dan Perikanan Universitas Hasanuddin. Kota Makassar.
- Thompson, R.C., Olson, Y., Mitchell, R.P., Davis, A., Rowland, S.J., John, A.W.G., McGonigle, D., & Russell, A.E., 2004. Lost at Sea: Where Is All the Plastic? Science (80-). 304, 838. <https://doi.org/10.1126/science.1094559>
- Wang, J., Peng, J., 2016. The behaviors of microplastics in the marine environment 2016.
- Wyrski, K., 1961. Physical Oceanography of the Southeast Asian Waters. Naga Report Volume 2. Scientific Results of Marine Investigation of the South China Sea and the Gulf of Thailand 1959-1961. Sci. Results Mar. Investig. South China Sea Gulf Thail. 1959-1961 2, 195.
- Yahya, A., 2020. Observasi dan Identifikasi Sampah Laut (Marine Debris) di Pantai Teluk Laikang Kabupaten Takalar. Skripsi. Ilmu Kelautan Fakultas Ilmu Kelautan dan Perikanan Universitas Hasanuddin. Kota Makassar.
- Yananto, A., Sibarani, R.M., 2016. Analisis Kejadian El Nino dan Pengaruhnya Terhadap Intensitas Curah Hujan di Wilayah Jabodetabek (Studi Kasus : Periode Puncak Musim Hujan Tahun 2015/2016). J. Sains Teknol. Modif. Cuaca 17, 65. <https://doi.org/10.29122/jstmc.v17i2.541>

LAMPIRAN

Lampiran 1. Klasifikasi sampah laut berdasarkan jenis

No.	Jenis	Kode	Klasifikasi
1	Plastik	PL01	tutup botol
2	Plastik	PL02	botol < 2L
3	Plastik	PL03	botol, drum, jerigen dan ember > 2L
4	Plastik	PL04	pisau, garpu, sendok, sedotan, pengaduk dan peralatan masak
5	Plastik	PL05	paket peralatan minuman wadah makanan (makanan cepat saji, cangkir, kotak makan siang dan sejenisnya)
6	Plastik	PL06	wadah makanan (makanan cepat saji, cangkir, kotak makan siang dan sejenisnya)
7	Plastik	PL07	kantong plastik (buram atau bening)
8	Plastik	PL08	mainan, perlengkapan pesta
9	Plastik	PL09	sarung tangan
10	Plastik	PL10	korek rokok
11	Plastik	PL11	rokok, puntung, dan filter
12	Plastik	PL12	jarum suntik
13	Plastik	PL13	keranjang, krat, dan nampan
14	Plastik	PL14	pelampung tambak plastik (<i>bouy</i>)
15	Plastik	PL15	tas jaring (sayuran, jaring, tiram dan tas kerang)
16	Plastik	PL16	terpal (terpal atau kantong plastik anyaman lainnya, bungkus palet)
17	Plastik	PL17	peralatan memancing (umpan, perangkap, dan pot)
18	Plastik	PL18	senar monofilamen
19	Plastik	PL19	tali tambang
20	Plastik	PL20	jaring ikan
21	Plastik	PL21	tali pita plastik
22	Plastik	PL22	serpihan fiberglas
23	Plastik	PL23	biji plastik
24	Plastik	PL24	bahan plastik lainnya
25	Busa plastik	FP01	busa spon
26	Busa plastik	FP02	gelas dan wadah paket makanan
27	Busa plastik	FP03	pelampung tambat gabus
28	Busa plastik	FP04	gabus (insulin pendingin dan pengepakan)
29	Busa plastik	FP05	bahan gabus lainnya
30	Kain	CL01	pakaian, sepatu, topi, handuk
31	Kain	CL02	tas dan ransel
32	Kain	CL03	kanvas
33	Kain	CL04	tali dan tambang kanvas
34	Kain	CL05	karpas dan perlengkapan <i>furnishing</i>
35	Kain	CL06	kategori kain lainnya (termasuk di dalamnya kain lap dan serbet)
36	Kaca dan Keramik	GC01	material bangunan (bata, semen, pipa)
37	Kaca dan Keramik	GC02	botol dan toples

38	Kaca dan Keramik	GC03	peralatan makan (piring dan gelas)
39	Kaca dan Keramik	GC04	bohlam
40	Kaca dan Keramik	GC05	lampu tl dan lampu hemat energi
41	Kaca dan Keramik	GC06	pelampung/ <i>buoy</i> kaca
42	Kaca dan Keramik	GC07	pecahan kaca dan keramik
43	Kaca dan Keramik	GC08	kategori kaca dan keramik lainnya
44	Logam	ME01	peralatan makan (piring dan gelas)
45	Logam	ME02	tutup botol
46	Logam	ME03	kaleng aluminium
47	Logam	ME04	kaleng lainnya (<4L)
48	Logam	ME05	tabung gas, drum, dan ember (>4L)
49	Logam	ME06	bungkus <i>foil</i>
50	Logam	ME07	bubu, rumpon
51	Logam	ME08	serpihan logam
52	Logam	ME09	kawat, jaring kawat, kawat berduri
53	Logam	ME10	kategori logam lainnya termasuk di dalamnya peralatan bekas
54	Kertas dan kardus	PC01	kertas (koran, majalah, buku)
55	Kertas dan kardus	PC02	kotak kardus berikut serpihannya
56	Kertas dan kardus	PC03	cangkir, nampan makanan, bungkus makanan, bungkus rokok, wadah minuman yang terbuat dari kertas
57	Kertas dan kardus	PC04	selongsong bekas kembang api
58	Kertas dan kardus	PC05	kategori kertas lainnya
59	Karet	RB01	balon, bola, dan mainan
60	Karet	RB02	sol sandal - sepatu
61	Karet	RB03	sarung tangan
62	Karet	RB04	ban
63	Karet	RB05	ban dalam dan lembaran karet
64	Karet	RB06	karet gelang
65	Karet	RB07	kondom
66	Karet	RB08	kategori karet lainnya
67	Kayu	WD01	gabus kayu
68	Kayu	WD02	rumpon dan pot kayu
69	Kayu	WD03	stik es krim, sendok, garpu kayu, sumpit, tusuk gigi, dan tusuk sate
70	Kayu	WD04	krat palet kayu dan perkakas kayu
71	Kayu	WD05	batang korek kayu dan lidi kembang api
72	Kayu	WD06	kategori lainnya
73	Bahan lainnya	OT01	lilin dan parafin
74	Bahan lainnya	OT02	alat kebersihan (popok, cotton buds, tampon dan pembalut, sikat gigi)
75	Bahan lainnya	OT03	peralatan dan elektronik
76	Bahan lainnya	OT04	batu baterai
77	Bahan lainnya	OT05	bahan-bahan lainnya

Lampiran 2. Data arah dan kecepatan angin (Agustus 2019 dan Maret 2020) dari Stasiun Meteorologi Maritim Kelas II Paotere Kota Makassar



BADAN METEOROLOGI, KLIMATOLOGI, DAN GEOFISIKA
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Data arah dan kecepatan angin permukaan Stasiun Meteorologi Maritim Paotere Makassar Agustus 2019

TGL	1		2		3		4		5		6		7		8		9		10		11		12		13		14		15		16	
JAM	Arah	Kec	Arah	Kec	Arah	Kec	Arah	Kec	Arah	Kec	Arah	Kec	Arah	Kec	Arah	Kec	Arah	Kec	Arah	Kec	Arah	Kec	Arah	Kec	Arah	Kec	Arah	Kec	Arah	Kec	Arah	Kec
00.00	T	3	T	2	TG	2	TG	3	TG	3	U	2	TG	2	TG	3	TG	2	TG	1	TG	2	T	3	S	3	T	7	TG	2	B	2
01.00	TG	3	TL	2	BL	2	TG	4	TG	3	B	4	B	3	BD	4	B	4	B	2	B	3	S	1	TG	2	TG	4	TG	2	BL	2
02.00	TG	3	BD	4	T	4	BL	4	BD	3	B	4	BD	5	BD	4	BD	5	BD	5	B	3	B	3	BD	7	TL	3	B	4	BD	7
03.00	BD	6	BD	9	BD	6	B	5	BD	7	B	5	BD	7	BD	6	BD	6	BD	5	B	6	BD	6	BD	8	BD	8	BD	7	BD	7
04.00	BD	8	BD	7	BD	6	B	6	B	5	BD	7	BD	7	B	4	BD	6	BD	7	BD	8	BD	8	BD	7	BD	8	B	6	BD	9
05.00	BD	8	B	6	B	6	B	8	B	5	BD	8	BD	7	BD	8	BD	7	BD	6	BD	9	B	5	BD	8	BD	6	B	6	BD	9
06.00	B	5	BD	4	B	7	BD	6	B	4	BD	8	BD	7	BD	7	BD	8	BD	9	BD	8	B	5	BD	8	BD	6	BD	8	BD	7
07.00	BD	6	B	5	B	4	BD	6	BD	4	BD	6	BD	6	BD	6	BD	6	B	5	BD	7	B	6	BD	7	BD	7	BD	7	BD	7
08.00	B	6	BD	7	B	5	BD	5	B	3	B	5	BD	7	BD	5	BD	4	B	4	BD	6	B	7	BD	7	B	4	BD	5	BD	7
09.00	BL	6	BD	6	B	2	BD	5	S	7	B	4	S	5	B	3	B	3	B	4	BD	6	B	6	B	6	B	4	BD	3	B	4
10.00	TL	7	BD	3	BL	4	BD	2	U	3	B	3	S	5	BD	3	B	1	BD	1	B	1	B	5	B	3	BL	4	BL	2	BD	2
11.00	TL	5	TL	5	U	6	TG	2	U	6	BL	2	S	4	CLM	0	B	2	B	1	B	2	BL	3	BL	3	TL	6	U	7	U	1
12.00	TG	4	TL	5	T	4	TL	7	U	7	CLM	0	S	3	U	4	TL	3	U	4	U	4	U	2	BL	4	TL	7	TL	5	BL	3
13.00	TL	3	T	4	TL	5	T	4	U	6	U	3	CLM	0	U	4	T	3	T	4	U	4	U	2	U	5	T	2	TL	4	TL	6
14.00	S	2	T	4	T	3	T	4	T	0	TL	4	CLM	0	TL	4	T	2	U	6	BL	3	U	1	U	7	T	3	T	4	CLM	0
15.00	BD	2	T	3	TG	2	T	3	TL	3	T	1	TG	2	T	2	CLM	0	U	7	U	4	T	4	U	8	T	3	CLM	0	TG	2
16.00	TG	2	T	4	TG	2	T	3	T	1	T	2	TG	1	T	3	CLM	0	TG	2	U	6	T	3	TL	8	T	3	TG	1	TG	3
17.00	S	0	T	4	CLM	0	T	2	T	1	T	2	T	1	CLM	0	CLM	0	TG	1	U	9	T	3	T	2	T	3	CLM	0	TG	1
18.00	BL	4	T	4	T	3	TG	3	CLM	0	T	3	CLM	0	TG	2	CLM	0	TG	1	U	5	CLM	0	TG	3	T	3	CLM	0	CLM	0
19.00	B	3	T	3	TG	2	TG	1	TG	1	T	3	CLM	0	TG	4	CLM	0	TG	2	T	3	TG	3	T	1	T	2	TG	2	T	1
20.00	TG	2	TG	4	TG	2	S	2	TG	2	T	4	CLM	0	TG	3	CLM	0	TG	1	TG	3	TG	2	T	1	T	3	TG	1	TG	1
21.00	TG	2	TG	3	TG	2	CLM	0	T	1	TG	3	TG	3	TG	3	TG	2	TG	2	T	2	TG	2	T	1	TG	2	TG	1	TG	3
22.00	S	1	TG	6	TG	3	T	1	TG	1	TG	2	TG	2	TG	2	CLM	0	TG	2	TG	2	TG	2	TG	1	T	2	T	2	S	2
23.00	T	2	T	2	TG	3	TG	2	S	1	S	3	TG	3	TG	2	TG	3	TG	4	TG	3	TG	3	TG	2	TG	3	CLM	0	TG	2
Rata-2	3.9		4.4		3.5		3.7		3.2		3.7		3.3		3.6		2.8		3.6		4.5		3.5		4.7		4.3		3.3		3.7	
Arah1/Arah2	TG	BD	T	BD	TG	B	T	T	TG	T	T	T	BD	TG	BD	TG	CLM	CLM	TG	BD	BD	BD	B	TG	BD	T	T	BD	TG	BD	BD	TG
Arah/Kec(max)	TL	14	BD	12	B	13	B	13	B	11	BD	13	BD	16	BL	13	BD	13	BD	15	BD	15	BD	13	BD	15	TL	16	BD	13	BD	15
t-max	09:10		03:00		05:30		04:30		04:10		05:30		06:50		05:00		06:20		05:50		06:10		04:10		06:30		11:30		05:30		04:00	



**BADAN METEOROLOGI, KLIMATOLOGI, DAN GEOFISIKA
STASIUN METEOROLOGI MARITIM PAOTERE MAKASSAR**

Jln. Sabutung 1 No. 30 Makassar 90163
Telp : (0411) 3619242 Fax : (0411) 3628235 Email : stamar.paotere@bmgk.go.id, meteo_marptr@yahoo.co.id

TGL	17		18		19		20		21		22		23		24		25		26		27		28		29		30		31	
JAM	Arah	Kec	Arah	Kec	Arah	Kec	Arah	Kec	Arah	Kec	Arah	Kec	Arah	Kec	Arah	Kec	Arah	Kec	Arah	Kec	Arah	Kec	Arah	Kec	Arah	Kec	Arah	Kec	Arah	Kec
00.00	TG	3	T	2	S	4	S	1	TL	4	T	3	T	4	TG	3	T	2	TG	2	T	5	T	4	CLM	0	B	3	S	2
01.00	U	3	U	2	S	4	BL	2	TL	6	T	4	T	5	BD	3	B	3	B	3	T	6	T	4	CLM	0	B	3	B	3
02.00	B	4	B	3	S	3	B	5	T	11	B	4	B	4	B	4	B	4	B	4	B	3	TG	5	B	4	B	3	B	4
03.00	BD	7	BD	7	BD	7	B	5	T	11	BD	7	B	6	B	3	B	6	BD	7	BD	7	S	4	B	6	BD	7	BD	6
04.00	BD	7	B	7	BD	8	BD	8	T	11	BD	9	BD	7	B	5	B	8	B	4	BD	8	BD	8	BD	8	BD	7	BD	7
05.00	BD	8	BD	8	BD	8	BD	5	S	5	BD	8	B	8	BD	10	B	8	BD	7	BD	8	B	4	BD	9	BD	8	BD	8
06.00	BD	6	BD	7	BD	7	B	4	BD	11	BD	9	BD	7	BD	7	B	7	BD	7	BD	9	B	5	BD	9	BD	9	BD	6
07.00	BD	7	BD	5	BD	6	B	3	BD	9	B	7	BD	7	BD	7	B	8	BD	7	BD	7	B	6	BD	9	BD	6	BD	5
08.00	BD	4	BD	6	BD	5	TL	6	B	5	B	4	B	5	BD	6	B	4	BD	7	B	6	TL	7	BD	8	BD	6	B	4
09.00	B	4	BD	6	S	5	TL	6	TL	6	BD	5	B	5	BD	4	BL	6	BD	7	BL	4	T	7	B	4	B	3	BL	1
10.00	BD	1	BD	6	U	7	TL	6	TL	11	B	3	B	5	BD	2	U	4	S	4	U	4	T	6	TL	4	T	6	TL	3
11.00	BD	2	S	5	T	2	TL	4	TL	8	BL	1	B	4	U	6	CLM	0	S	4	U	6	T	5	T	5	TG	7	TL	5
12.00	B	1	S	5	T	2	TL	8	TL	7	BL	2	B	1	U	6	U	6	T	3	U	10	T	5	T	5	TL	6	CLM	0
13.00	CLM	0	TG	1	T	2	TL	3	TL	5	TL	4	BD	2	U	2	CLM	0	T	5	TL	9	T	2	T	1	T	2	U	5
14.00	CLM	0	S	1	CLM	0	T	3	TL	7	T	2	BD	1	U	3	TL	3	T	5	TL	4	CLM	0	S	1	T	2	T	4
15.00	S	5	TG	3	BD	1	T	1	TL	7	T	4	TG	1	TG	2	T	3	T	3	T	4	T	1	S	1	TG	3	TG	3
16.00	S	3	TG	3	CLM	0	S	2	TG	1	TG	1	T	1	CLM	0	CLM	0	T	4	TG	1	T	2	BD	2	TG	2	TG	3
17.00	TG	1	S	3	BD	2	CLM	0	TL	2	S	1	TG	1	TG	2	CLM	0	T	5	T	2	T	2	BD	1	CLM	0	TG	1
18.00	CLM	0	S	3	S	1	CLM	0	T	4	TG	2	B	1	TG	3	CLM	0	T	4	T	3	T	1	BD	1	CLM	0	TL	1
19.00	T	1	CLM	0	TG	3	T	2	T	1	TG	2	TG	3	TG	3	CLM	0	TG	2	T	2	TG	2	T	2	TG	2	TL	2
20.00	CLM	0	CLM	0	TG	1	T	4	T	2	BD	1	TG	3	TG	2	TG	1	T	3	TG	1	S	1	T	4	TG	1	TG	3
21.00	CLM	0	CLM	0	T	1	T	4	T	3	T	2	TG	2	T	2	CLM	0	T	3	TG	3	BD	1	T	2	TG	2	TG	3
22.00	TG	2	TG	2	CLM	0	T	4	T	1	TG	2	TG	4	TG	3	TG	2	T	3	TG	2	TG	3	T	1	TG	3	TG	3
23.00	TG	3	S	3	T	1	TG	2	TG	3	T	2	TG	3	TG	2	TG	1	T	5	T	2	CLM	0	T	3	TG	3	TG	3
Rata-2	3.0		3.7		3.3		3.7		5.9		3.7		3.8		3.8		3.2		4.5		4.8		3.5		3.8		3.9		3.5	
Arah1/Arah2	BD	CLM	BD	S	BD	T	TL	TL	TL	T	T	T	B	TG	TG	BD	B	CLM	T	BD	T	BD	T	TG	T	T	TG	BD	TG	BD
Arah/Kec(max)	BD	14	BD	14	TL	19	TL	14	T	23	BD	15	B	12	BD	15	B	14	BD	15	BD	14	TL	17	TL	15	BD	16	CLM	SALAH
t-max	04:10		04:20		09:00		11:40		02:30		06:10		06:20		13:10		05:20		05:20		06:10		16:10		10:10		05:30		00.00.00	

Makassar, 12 Maret 2021

PRAKIRAWAN
STASIUN METEOROLOGI MARITIM
PAOTERE MAKASSAR



ANENDHA DESTANTYO NUGROHO, S.Tr
19961230 201601 1 001



**BADAN METEOROLOGI, KLIMATOLOGI, DAN GEOFISIKA
STASIUN METEOROLOGI MARITIM PAOTERE MAKASSAR**

Jln. Sabutung 1 No. 30 Makassar 90163

Telp : (0411) 3619242 Fax : (0411) 3628235 Email : stamar.paotere@bmkgo.id, meteo_marptr@yahoo.co.id

Data arah dan kecepatan angin permukaan Stasiun Meteorologi Maritim Paotere Makassar Maret 2020

TGL	1		2		3		4		5		6		7		8		9		10		11		12		13		14		15		16	
JAM	Arah	Kec	Arah	Kec	Arah	Kec	Arah	Kec	Arah	Kec	Arah	Kec	Arah	Kec	Arah	Kec	Arah	Kec	Arah	Kec	Arah	Kec	Arah	Kec	Arah	Kec	Arah	Kec	Arah	Kec	Arah	Kec
00.00	T	3	T	3	T	4	T	5	BL	8	CLM	0	T	2	T	2	TL	2	T	3	T	2	TG	3	T	3	BD	1	T	1	T	2
01.00	BL	2	TL	4	TL	5	T	8	T	3	TG	3	TL	3	TL	1	TL	2	U	9	TL	4	T	2	U	3	TG	2	BL	1	U	1
02.00	B	2	TL	3	TG	3	CLM	0	T	6	CLM	0	TL	4	U	2	CLM	0	U	8	TL	4	TG	5	BL	3	BL	1	BL	9	BL	4
03.00	BL	6	U	3	U	3	U	5	T	6	CLM	0	TL	1	T	3	BL	2	T	6	U	4	U	6	B	5	CLM	0	BL	5	BL	4
04.00	BL	4	BL	2	BL	6	BL	8	CLM	0	T	0	BL	4	B	2	T	3	U	6	BL	5	B	6	B	5	B	3	BL	6	B	5
05.00	BL	6	BL	9	BL	6	BL	9	U	5	U	3	U	6	B	6	U	4	U	8	BL	4	B	5	B	4	BL	5	BL	5	B	6
06.00	BL	4	BL	9	BL	6	T	2	BL	15	TL	2	BL	4	BL	5	BL	6	TL	5	BL	5	B	6	B	5	BL	5	BL	6	B	8
07.00	BL	2	B	9	BL	8	BD	3	TL	3	B	1	U	6	CLM	0	BL	5	TL	4	BL	5	BD	4	B	6	B	5	BL	7	B	7
08.00	BL	3	BL	6	B	7	BD	2	BL	11	BD	4	CLM	0	CLM	0	BL	4	BL	4	B	5	BD	3	B	6	BL	4	B	6	B	7
09.00	BL	5	B	5	B	3	T	4	BL	10	BD	8	TL	3	TL	1	BL	5	BL	3	B	5	BD	1	BD	4	BL	6	BL	6	BD	6
10.00	B	6	B	5	BL	2	TL	6	B	9	BD	3	T	3	T	4	BL	2	BL	3	B	7	TG	2	BD	3	BL	6	B	4	BD	5
11.00	BL	4	B	4	BL	2	TL	4	B	6	S	1	T	3	T	2	BL	1	U	3	B	3	BD	1	BD	3	BL	6	BL	4	BD	3
12.00	BL	5	BL	4	BL	6	T	3	BL	8	TG	2	TG	3	T	1	U	2	U	3	B	1	BD	3	S	2	BL	4	BL	3	TG	4
13.00	BL	3	B	9	BL	3	T	4	BL	11	T	2	B	19	T	1	U	1	B	2	CLM	0	S	1	BD	4	U	4	CLM	0	T	3
14.00	BL	3	BD	4	BL	4	TL	5	BL	9	T	2	BL	8	CLM	0	CLM	0	B	3	CLM	0	TG	2	B	10	TL	3	BL	2	TG	3
15.00	T	1	CLM	0	T	2	T	6	BL	11	TG	2	BL	3	TG	2	TG	1	T	3	T	1	T	2	B	6	T	4	T	2	TG	2
16.00	T	1	CLM	0	T	3	T	4	S	13	T	1	T	3	TG	2	BD	5	T	2	TG	2	S	1	B	4	T	4	T	2	T	1
17.00	TG	2	U	1	S	1	T	3	B	11	TG	2	T	2	TG	3	S	3	T	3	CLM	0	TG	2	S	1	U	6	T	3	CLM	0
18.00	TG	4	CLM	0	TG	1	TL	3	BL	12	TG	2	TG	2	T	3	TG	1	T	2	CLM	0	TG	1	T	1	U	7	S	1	CLM	0
19.00	CLM	0	TG	4	CLM	0	T	2	BL	5	TG	2	TG	2	T	3	T	3	T	1	TG	2	TG	3	T	4	T	3	TG	2	TG	3
20.00	S	11	U	6	TG	2	U	4	T	7	T	3	T	3	T	1	T	2	T	2	TG	3	T	1	T	2	T	4	T	1	TG	3
21.00	S	9	TL	5	CLM	0	T	2	T	6	T	2	T	3	T	1	T	1	TG	2	TG	3	TG	2	T	2	T	4	S	1	TG	2
22.00	TG	5	TL	4	U	4	T	2	T	7	T	1	T	1	T	1	T	2	T	2	TG	2	TG	1	B	1	TG	3	TG	3	T	3
23.00	T	1	T	4	TL	5	T	3	TG	1	T	2	T	4	T	2	T	4	TG	3	TG	2	T	1	T	0	TG	2	TG	2	TG	3
Rata-2	3.8		4.3		3.6		4.0		7.6		2.0		3.8		2.0		2.5		3.8		2.9		2.7		3.6		3.8		3.4		3.5	
Arah1/Arah2	BL	T	B	B	BL	T	T	TL	BL	T	T	TG	T	TL	T	CLM	BL	T	T	U	TG	B	TG	BD	B	T	BL	T	BL	T	TG	B
Arah/Kec(max)	S	11	BL	14	BL	8	TL	SALAH	BL	20	BD	8	B	19	B	24	BD	17	U	14	B	11	B	11	B	17	TL	10	BL	9	B	13
t-max	20:00		05:20		07:00		10:00		14:40		09:00		03:00		04:50		15:50		00:50		08:40		05:10		14:20		13:40		17:50		06:30	



**BADAN METEOROLOGI, KLIMATOLOGI, DAN GEOFISIKA
STASIUN METEOROLOGI MARITIM PAOTERE MAKASSAR**

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TGL	17		18		19		20		21		22		23		24		25		26		27		28		29		30		31		
JAM	Arah	Kec	Arah	Kec	Arah	Kec	Arah	Kec	Arah	Kec	Arah	Kec	Arah	Kec	Arah	Kec	Arah	Kec	Arah	Kec	Arah	Kec	Arah	Kec	Arah	Kec	Arah	Kec	Arah	Kec	
00.00	T	3	T	3	T	1	T	2	T	2	TL	2	TL	2	TL	4	TG	2	TL	2	TL	5	T	1	T	2	TL	2	T	2	
01.00	TG	1	T	3	U	2	TL	4	TL	3	TL	4	B	3	U	10	TL	3	TL	2	BL	8	TL	2	TL	3	U	4	U	2	
02.00	U	3	U	3	BL	4	TL	5	BL	5	T	3	B	3	BL	11	U	4	U	4	B	3	BL	3	TL	4	BL	5	BL	5	
03.00	BL	5	BL	5	BL	4	U	6	BL	6	BL	4	BL	5	U	7	B	4	B	4	BL	3	B	4	U	4	BL	6	BL	8	
04.00	B	4	BL	6	B	6	BL	10	BL	7	BL	6	B	5	U	10	B	7	BL	6	TL	4	B	6	TG	5	BL	6	BL	8	
05.00	BD	4	B	5	B	6	BL	9	BL	7	B	6	B	5	BL	7	B	5	U	7	U	3	B	7	BL	5	B	6	BL	8	
06.00	BD	6	B	4	TG	6	BL	13	BL	9	B	6	B	5	BL	10	B	6	B	5	BL	5	B	7	BL	4	B	6	BL	5	
07.00	BD	8	B	6	TL	6	BL	12	BL	7	B	5	B	4	BL	11	B	7	B	5	BL	8	B	7	BL	3	B	5	BL	7	
08.00	S	6	BD	4	TL	6	BL	7	BL	7	B	7	B	3	BL	8	B	6	B	6	BL	4	B	6	B	2	B	2	BL	6	
09.00	S	6	BD	3	U	4	T	3	BL	8	BD	3	BD	2	B	7	BD	6	B	3	BL	3	B	3	B	3	TG	5	BL	5	
10.00	S	5	T	2	U	3	T	4	B	3	BD	2	S	2	B	5	BD	3	BD	2	BD	3	BD	2	B	2	TL	6	BL	5	
11.00	S	4	TG	2	TL	4	T	1	B	2	S	1	TG	2	B	5	BD	2	BD	2	S	2	TG	2	B	3	T	4	BL	4	
12.00	S	2	TG	2	TL	3	TG	2	T	4	TG	1	TG	3	BL	3	BD	2	S	2	CLM	0	T	1	BD	1	T	2	CLM	0	
13.00	S	3	T	1	T	2	TL	2	T	5	T	2	TG	1	BL	3	CLM	0	S	1	CLM	0	B	12	CLM	0	T	2	BL	6	
14.00	TG	2	TG	1	S	3	TG	2	TG	3	T	1	TG	3	CLM	0	CLM	0	S	0	CLM	0	B	11	TG	1	T	5	TL	6	
15.00	TG	1	T	2	T	4	T	1	BL	10	T	3	TG	3	T	3	CLM	0	T	0	CLM	0	B	6	T	2	TG	2	T	3	
16.00	CLM	0	TG	2	TG	6	TL	5	BL	15	T	2	TG	2	TG	2	T	1	T	0	CLM	0	B	4	T	2	T	1	TG	3	
17.00	TG	1	T	2	TG	4	TL	8	BL	7	T	1	TG	3	TG	3	T	2	TG	0	TG	2	T	6	T	3	TG	3	TG	4	
18.00	TG	1	TG	3	T	4	U	6	BL	7	TG	1	TG	3	TG	3	T	2	TG	2	TG	2	TL	6	BD	2	TG	1	TG	1	
19.00	TG	2	TG	2	T	3	U	5	BL	5	TG	2	TG	3	TG	2	TG	2	TG	2	TG	2	T	4	BD	3	TG	2	TG	2	
20.00	T	2	T	4	T	2	U	6	TL	7	TG	1	T	1	TG	2	TG	2	TG	2	TG	2	T	3	T	3	TG	3	B	4	
21.00	TG	2	TG	3	T	3	U	8	T	4	TG	1	TL	2	TG	2	TG	2	TG	4	TG	3	T	2	T	3	TG	4	CLM	0	
22.00	TG	2	TG	1	T	2	TL	9	T	3	TG	1	T	2	T	2	TG	3	T	2	TG	2	T	3	T	2	TG	4	S	2	
23.00	T	2	T	2	TG	3	TL	4	T	2	TG	2	U	4	T	3	T	2	T	2	T	2	T	2	T	3	TG	3	S	2	
Rata-2	3.1	3.0	3.8	5.6	5.8	2.8	3.0	5.1	3.0	2.7	2.8	4.6	2.7	3.7	4.1																
Arah1/Arah2	TG	S	T	T	T	TL	TL	T	BL	T	TG	T	TG	B	BL	TG	B	TG	TG	TG	TG	TG	TG	B	T	T	B	TG	T	BL	TG
Arah/Kec(max)	BD	14	BD	11	TG	12	T	23	BL	19	B	11	B	11	BL	12	B	12	B	10	U	14	B	23	B	13	B	14	U	16	
t-max	06:40	08:00	06:00	08.20	16.10	06.00	05:20	01.50	06.40	06:10	06:10	00.10	13:30	19.30	04:20	20:10															

Makassar, 12 Maret 2021

PRAKIRAWAN
STASIUN METEOROLOGI MARITIM
PAOTERE MAKASSAR

ANENDHA DESTANTYO NUGROHO, S.Tr
 19961230 201601 1 001

Lampiran 3. Data arah dan kecepatan arus di perairan Pulau Barranglompo pada bulan Maret 2020

Stasiun 1

FID	X	Y	Arah [Derajat]	Kecepatan [m/s]
0	119.3085403	-5.0662988	247.72	0.32
1	119.3097118	-5.0662988	241.30	0.31
2	119.3108834	-5.0662988	242.43	0.31
3	119.3085403	-5.065335444	250.43	0.33
4	119.3097118	-5.065335444	241.76	0.32
5	119.3108834	-5.065335444	244.59	0.32
6	119.3085403	-5.064372089	240.81	0.30
7	119.3097118	-5.064372089	240.67	0.32
8	119.3108834	-5.064372089	246.44	0.31
9	119.3085403	-5.063408733	240.69	0.30
10	119.3097118	-5.063408733	239.94	0.32
11	119.3108834	-5.063408733	253.82	0.27
12	119.3085403	-5.062445378	240.32	0.29
13	119.3097118	-5.062445378	240.35	0.32
14	119.3108834	-5.062445378	252.70	0.32
15	119.3085403	-5.061482022	239.73	0.29
16	119.3097118	-5.061482022	239.68	0.34
17	119.3108834	-5.061482022	246.97	0.26
18	119.3085403	-5.060518667	238.98	0.28
19	119.3097118	-5.060518667	237.52	0.33
20	119.3108834	-5.060518667	248.50	0.25
21	119.3085403	-5.059555311	238.12	0.27
22	119.3097118	-5.059555311	247.49	0.28
23	119.3108834	-5.059555311	248.72	0.25
24	119.3085403	-5.058591956	237.18	0.27
25	119.3097118	-5.058591956	247.78	0.25
26	119.3108834	-5.058591956	242.42	0.22
27	119.3085403	-5.0576286	236.20	0.26
28	119.3097118	-5.0576286	240.70	0.27
29	119.3108834	-5.0576286	236.11	0.22
30	119.3085403	-5.056665245	235.24	0.25
31	119.3097118	-5.056665245	240.11	0.25
32	119.3108834	-5.056665245	244.79	0.32
33	119.3085403	-5.055701889	234.95	0.25
34	119.3097118	-5.055701889	221.33	0.25
35	119.3108834	-5.055701889	241.53	0.14
36	119.3085403	-5.054738534	258.82	0.23
37	119.3097118	-5.054738534	261.36	0.11
38	119.3108834	-5.054738534	210.84	0.15
39	119.3307997	-5.054738534	274.78	0.21
40	119.3319713	-5.054738534	268.15	0.21
41	119.3331428	-5.054738534	261.78	0.20
42	119.3343144	-5.054738534	263.42	0.11
43	119.3354859	-5.054738534	258.53	0.12

44	119.3366575	-5.054738534	247.42	0.11
45	119.337829	-5.054738534	242.00	0.15
46	119.3390006	-5.054738534	230.99	0.13
47	119.3401721	-5.054738534	219.04	0.12
48	119.3413437	-5.054738534	205.04	0.11
49	119.3085403	-5.053775178	263.34	0.22
50	119.3097118	-5.053775178	262.30	0.27
51	119.3108834	-5.053775178	225.43	0.39
52	119.3307997	-5.053775178	278.00	0.23
53	119.3319713	-5.053775178	273.00	0.22
54	119.3331428	-5.053775178	268.22	0.22
55	119.3343144	-5.053775178	271.39	0.11
56	119.3354859	-5.053775178	268.05	0.11
57	119.3366575	-5.053775178	258.83	0.11
58	119.337829	-5.053775178	250.73	0.14
59	119.3390006	-5.053775178	242.95	0.13
60	119.3401721	-5.053775178	230.54	0.12
61	119.3413437	-5.053775178	212.54	0.10
62	119.3085403	-5.052811823	243.30	0.24
63	119.3097118	-5.052811823	243.32	0.28
64	119.3108834	-5.052811823	227.27	0.37
65	119.3307997	-5.052811823	280.75	0.25
66	119.3319713	-5.052811823	277.29	0.24
67	119.3331428	-5.052811823	274.06	0.23
68	119.3343144	-5.052811823	282.11	0.10
69	119.3354859	-5.052811823	276.70	0.11
70	119.3366575	-5.052811823	271.77	0.10
71	119.337829	-5.052811823	258.46	0.15
72	119.3390006	-5.052811823	255.41	0.13
73	119.3401721	-5.052811823	247.18	0.12
74	119.3413437	-5.052811823	222.30	0.09
75	119.3085403	-5.051848467	248.70	0.28
76	119.3097118	-5.051848467	247.08	0.34
77	119.3108834	-5.051848467	228.22	0.36
78	119.3307997	-5.051848467	283.03	0.27
79	119.3319713	-5.051848467	280.99	0.26
80	119.3331428	-5.051848467	279.23	0.25
81	119.3343144	-5.051848467	288.50	0.10
82	119.3354859	-5.051848467	284.14	0.11
83	119.3366575	-5.051848467	273.87	0.06
84	119.337829	-5.051848467	268.11	0.15
85	119.3390006	-5.051848467	267.87	0.14
86	119.3401721	-5.051848467	270.31	0.12
87	119.3413437	-5.051848467	265.49	0.09
88	119.3085403	-5.050885112	246.79	0.31
89	119.3097118	-5.050885112	244.80	0.33
90	119.3108834	-5.050885112	228.94	0.34
91	119.3307997	-5.050885112	276.82	0.21
92	119.3319713	-5.050885112	275.60	0.19

93	119.3331428	-5.050885112	274.91	0.18
94	119.3343144	-5.050885112	290.31	0.10
95	119.3354859	-5.050885112	287.02	0.11
96	119.3366575	-5.050885112	277.19	0.06
97	119.337829	-5.050885112	275.53	0.16
98	119.3390006	-5.050885112	279.56	0.15
99	119.3401721	-5.050885112	289.67	0.13
100	119.3413437	-5.050885112	300.18	0.14
101	119.3085403	-5.049921756	244.32	0.30
102	119.3097118	-5.049921756	243.37	0.32
103	119.3108834	-5.049921756	229.66	0.33
104	119.3307997	-5.049921756	276.73	0.22
105	119.3319713	-5.049921756	276.44	0.20
106	119.3331428	-5.049921756	276.71	0.19
107	119.3343144	-5.049921756	293.69	0.11
108	119.3354859	-5.049921756	288.02	0.10
109	119.3366575	-5.049921756	282.59	0.19
110	119.337829	-5.049921756	278.36	0.17
111	119.3390006	-5.049921756	283.00	0.16
112	119.3401721	-5.049921756	291.20	0.14
113	119.3413437	-5.049921756	300.80	0.09
114	119.3085403	-5.048958401	242.22	0.28
115	119.3097118	-5.048958401	242.45	0.31
116	119.3108834	-5.048958401	230.49	0.31
117	119.3307997	-5.048958401	276.06	0.23
118	119.3319713	-5.048958401	276.51	0.21
119	119.3331428	-5.048958401	277.48	0.19
120	119.3343144	-5.048958401	295.52	0.11
121	119.3354859	-5.048958401	289.71	0.11
122	119.3366575	-5.048958401	279.24	0.20
123	119.337829	-5.048958401	274.80	0.19
124	119.3390006	-5.048958401	280.45	0.17
125	119.3401721	-5.048958401	285.91	0.15
126	119.3413437	-5.048958401	289.85	0.10
127	119.3085403	-5.047995045	241.63	0.28
128	119.3097118	-5.047995045	241.85	0.29
129	119.3108834	-5.047995045	231.01	0.30
130	119.3319713	-5.047995045	275.87	0.22
131	119.3331428	-5.047995045	277.29	0.20
132	119.3343144	-5.047995045	295.86	0.11
133	119.3354859	-5.047995045	285.34	0.10
134	119.3366575	-5.047995045	276.02	0.22
135	119.337829	-5.047995045	269.35	0.20
136	119.3390006	-5.047995045	272.32	0.17
137	119.3401721	-5.047995045	277.23	0.16
138	119.3413437	-5.047995045	272.50	0.08
139	119.3085403	-5.04703169	241.16	0.27
140	119.3097118	-5.04703169	241.40	0.28
141	119.3108834	-5.04703169	232.04	0.29

142	119.3319713	-5.04703169	274.62	0.23
143	119.3331428	-5.04703169	276.27	0.20
144	119.3343144	-5.04703169	294.84	0.11
145	119.3354859	-5.04703169	287.92	0.11
146	119.3366575	-5.04703169	264.37	0.22
147	119.337829	-5.04703169	262.01	0.21
148	119.3390006	-5.04703169	264.81	0.18
149	119.3401721	-5.04703169	258.36	0.18
150	119.3413437	-5.04703169	269.35	0.09
151	119.3085403	-5.046068334	240.61	0.26
152	119.3097118	-5.046068334	240.83	0.27
153	119.3108834	-5.046068334	232.79	0.26
154	119.3319713	-5.046068334	272.91	0.23
155	119.3331428	-5.046068334	274.59	0.21
156	119.3343144	-5.046068334	293.06	0.11
157	119.3354859	-5.046068334	272.18	0.12
158	119.3366575	-5.046068334	254.10	0.23
159	119.337829	-5.046068334	252.90	0.23
160	119.3390006	-5.046068334	248.69	0.19
161	119.3401721	-5.046068334	248.60	0.17
162	119.3413437	-5.046068334	279.77	0.12
163	119.3085403	-5.045104979	231.99	0.23
164	119.3097118	-5.045104979	237.40	0.22
165	119.3108834	-5.045104979	236.80	0.24
166	119.3307997	-5.045104979	247.56	0.30
167	119.3319713	-5.045104979	251.67	0.26
168	119.3331428	-5.045104979	255.82	0.23
169	119.3343144	-5.045104979	289.89	0.12
170	119.3354859	-5.045104979	277.98	0.13
171	119.3366575	-5.045104979	232.34	0.26
172	119.337829	-5.045104979	229.75	0.22
173	119.3390006	-5.045104979	237.55	0.20
174	119.3401721	-5.045104979	247.75	0.18
175	119.3413437	-5.045104979	293.04	0.12
176	119.3085403	-5.044141623	233.49	0.22
177	119.3097118	-5.044141623	238.07	0.19
178	119.3108834	-5.044141623	238.59	0.21
179	119.3085403	-5.043178268	232.86	0.27
180	119.3097118	-5.043178268	236.16	0.24
181	119.3108834	-5.043178268	235.85	0.21
182	119.3085403	-5.042214912	233.77	0.28
183	119.3097118	-5.042214912	241.80	0.26
184	119.3108834	-5.042214912	245.40	0.29
185	119.3085403	-5.041251557	238.85	0.23
186	119.3097118	-5.041251557	241.09	0.21
187	119.3108834	-5.041251557	245.65	0.27
188	119.3085403	-5.040288201	234.72	0.30
189	119.3097118	-5.040288201	241.44	0.25
190	119.3108834	-5.040288201	281.76	1.01

191	119.3085403	-5.039324846	238.84	0.28
192	119.3097118	-5.039324846	280.93	0.94
193	119.3108834	-5.039324846	283.18	1.01
194	119.3085403	-5.03836149	242.80	0.69
195	119.3097118	-5.03836149	279.20	1.13
196	119.3108834	-5.03836149	282.59	1.21

Stasiun 2

FID	X	Y	Arah [Derajat]	Kecepatan [m/s]
0	119.3085403	-5.0662988	247.715	0.320
1	119.3097118	-5.0662988	241.304	0.307
2	119.3108834	-5.0662988	242.425	0.309
3	119.3085403	-5.065335444	250.431	0.326
4	119.3097118	-5.065335444	241.757	0.323
5	119.3108834	-5.065335444	244.585	0.323
6	119.3085403	-5.064372089	240.806	0.303
7	119.3097118	-5.064372089	240.671	0.324
8	119.3108834	-5.064372089	246.443	0.308
9	119.3085403	-5.063408733	240.687	0.299
10	119.3097118	-5.063408733	239.939	0.325
11	119.3108834	-5.063408733	253.821	0.269
12	119.3085403	-5.062445378	240.316	0.295
13	119.3097118	-5.062445378	240.353	0.321
14	119.3108834	-5.062445378	252.704	0.316
15	119.3085403	-5.061482022	239.732	0.289
16	119.3097118	-5.061482022	239.677	0.336
17	119.3108834	-5.061482022	246.972	0.263
18	119.3085403	-5.060518667	238.985	0.282
19	119.3097118	-5.060518667	237.516	0.331
20	119.3108834	-5.060518667	248.502	0.253
21	119.3085403	-5.059555311	238.122	0.275
22	119.3097118	-5.059555311	247.494	0.279
23	119.3108834	-5.059555311	248.723	0.251
24	119.3085403	-5.058591956	237.183	0.267
25	119.3097118	-5.058591956	247.778	0.255
26	119.3108834	-5.058591956	242.423	0.222
27	119.3085403	-5.0576286	236.204	0.259
28	119.3097118	-5.0576286	240.701	0.274
29	119.3108834	-5.0576286	236.115	0.225
30	119.3085403	-5.056665245	235.237	0.251
31	119.3097118	-5.056665245	240.114	0.251
32	119.3108834	-5.056665245	244.794	0.324
33	119.3085403	-5.055701889	234.948	0.249
34	119.3097118	-5.055701889	221.333	0.251
35	119.3108834	-5.055701889	241.527	0.139

36	119.3085403	-5.054738534	258.816	0.232
37	119.3097118	-5.054738534	261.359	0.114
38	119.3108834	-5.054738534	210.843	0.150
39	119.3085403	-5.053775178	263.345	0.218
40	119.3097118	-5.053775178	262.300	0.270
41	119.3108834	-5.053775178	225.430	0.386
42	119.3085403	-5.052811823	243.296	0.239
43	119.3097118	-5.052811823	243.322	0.277
44	119.3108834	-5.052811823	227.274	0.371
45	119.3085403	-5.051848467	248.701	0.284
46	119.3097118	-5.051848467	247.080	0.339
47	119.3108834	-5.051848467	228.217	0.358
48	119.3085403	-5.050885112	246.794	0.308
49	119.3097118	-5.050885112	244.800	0.330
50	119.3108834	-5.050885112	228.944	0.345
51	119.3085403	-5.049921756	244.323	0.298
52	119.3097118	-5.049921756	243.368	0.319
53	119.3108834	-5.049921756	229.664	0.330
54	119.3085403	-5.048958401	242.221	0.285
55	119.3097118	-5.048958401	242.446	0.307
56	119.3108834	-5.048958401	230.493	0.315
57	119.3085403	-5.047995045	241.629	0.277
58	119.3097118	-5.047995045	241.847	0.295
59	119.3108834	-5.047995045	231.012	0.304
60	119.3085403	-5.04703169	241.156	0.267
61	119.3097118	-5.04703169	241.397	0.281
62	119.3108834	-5.04703169	232.042	0.288
63	119.3085403	-5.046068334	240.614	0.258
64	119.3097118	-5.046068334	240.835	0.268
65	119.3108834	-5.046068334	232.790	0.260
66	119.3085403	-5.045104979	231.989	0.234
67	119.3097118	-5.045104979	237.401	0.217
68	119.3108834	-5.045104979	236.799	0.237
69	119.3190842	-5.045104979	182.594	0.167
70	119.3202558	-5.045104979	243.495	0.221
71	119.3214273	-5.045104979	256.710	0.257
72	119.3225989	-5.045104979	245.459	0.205
73	119.3237704	-5.045104979	242.980	0.213
74	119.324942	-5.045104979	225.939	0.423
75	119.3261135	-5.045104979	230.184	0.413
76	119.3272851	-5.045104979	234.638	0.392
77	119.3284566	-5.045104979	239.075	0.364
78	119.3296282	-5.045104979	243.387	0.331
79	119.3307997	-5.045104979	247.564	0.296
80	119.3319713	-5.045104979	251.667	0.261
81	119.3331428	-5.045104979	255.818	0.229

82	119.3343144	-5.045104979	289.892	0.117
83	119.3413437	-5.045104979	293.036	0.119
84	119.3085403	-5.044141623	233.494	0.217
85	119.3097118	-5.044141623	238.074	0.189
86	119.3108834	-5.044141623	238.589	0.207
87	119.3190842	-5.044141623	191.487	0.232
88	119.3202558	-5.044141623	235.909	0.198
89	119.3214273	-5.044141623	244.612	0.244
90	119.3225989	-5.044141623	248.916	0.232
91	119.3237704	-5.044141623	254.318	0.319
92	119.324942	-5.044141623	229.514	0.426
93	119.3261135	-5.044141623	233.869	0.418
94	119.3272851	-5.044141623	238.290	0.396
95	119.3284566	-5.044141623	242.506	0.365
96	119.3296282	-5.044141623	246.409	0.328
97	119.3307997	-5.044141623	249.994	0.290
98	119.3319713	-5.044141623	253.335	0.253
99	119.3331428	-5.044141623	256.595	0.219
100	119.3343144	-5.044141623	268.580	0.135
101	119.3413437	-5.044141623	285.977	0.120
102	119.3085403	-5.043178268	232.862	0.272
103	119.3097118	-5.043178268	236.156	0.241
104	119.3108834	-5.043178268	235.854	0.210
105	119.3190842	-5.043178268	201.069	0.307
106	119.3202558	-5.043178268	203.344	0.196
107	119.3214273	-5.043178268	218.352	0.240
108	119.3225989	-5.043178268	223.439	0.183
109	119.3237704	-5.043178268	239.567	0.332
110	119.324942	-5.043178268	211.119	0.397
111	119.3261135	-5.043178268	218.278	0.373
112	119.3272851	-5.043178268	224.984	0.341
113	119.3284566	-5.043178268	231.047	0.303
114	119.3296282	-5.043178268	236.444	0.264
115	119.3307997	-5.043178268	241.215	0.226
116	119.3319713	-5.043178268	245.448	0.191
117	119.3331428	-5.043178268	249.356	0.162
118	119.3343144	-5.043178268	257.158	0.134
119	119.3413437	-5.043178268	281.805	0.154
120	119.3085403	-5.042214912	233.772	0.278
121	119.3097118	-5.042214912	241.800	0.262
122	119.3108834	-5.042214912	245.403	0.290
123	119.3190842	-5.042214912	210.505	0.366
124	119.3202558	-5.042214912	211.996	0.234
125	119.3214273	-5.042214912	219.333	0.235
126	119.3225989	-5.042214912	229.345	0.181
127	119.3237704	-5.042214912	208.847	0.470

128	119.324942	-5.042214912	216.490	0.454
129	119.3261135	-5.042214912	223.835	0.423
130	119.3272851	-5.042214912	230.328	0.382
131	119.3284566	-5.042214912	235.914	0.336
132	119.3296282	-5.042214912	240.663	0.288
133	119.3307997	-5.042214912	244.626	0.242
134	119.3319713	-5.042214912	247.826	0.200
135	119.3331428	-5.042214912	250.450	0.165
136	119.3343144	-5.042214912	257.982	0.137
137	119.3413437	-5.042214912	280.050	0.131
138	119.3085403	-5.041251557	238.850	0.229
139	119.3097118	-5.041251557	241.095	0.211
140	119.3108834	-5.041251557	245.647	0.270
141	119.3190842	-5.041251557	220.810	0.400
142	119.3202558	-5.041251557	224.423	0.212
143	119.3214273	-5.041251557	222.964	0.281
144	119.3225989	-5.041251557	228.485	0.226
145	119.3237704	-5.041251557	215.084	0.535
146	119.324942	-5.041251557	223.588	0.515
147	119.3261135	-5.041251557	230.911	0.474
148	119.3272851	-5.041251557	236.861	0.423
149	119.3284566	-5.041251557	241.701	0.368
150	119.3296282	-5.041251557	245.639	0.312
151	119.3307997	-5.041251557	248.724	0.257
152	119.3319713	-5.041251557	250.822	0.207
153	119.3331428	-5.041251557	251.848	0.166
154	119.3343144	-5.041251557	250.799	0.116
155	119.3413437	-5.041251557	260.548	0.094
156	119.3085403	-5.040288201	234.722	0.301
157	119.3097118	-5.040288201	241.442	0.248
158	119.3108834	-5.040288201	281.762	1.009
159	119.3190842	-5.040288201	231.344	0.408
160	119.3202558	-5.040288201	235.711	0.319
161	119.3214273	-5.040288201	234.414	0.251
162	119.3225989	-5.040288201	245.314	0.444
163	119.3237704	-5.040288201	224.021	0.610
164	119.324942	-5.040288201	233.262	0.579
165	119.3261135	-5.040288201	239.825	0.524
166	119.3272851	-5.040288201	244.644	0.462
167	119.3284566	-5.040288201	248.378	0.398
168	119.3296282	-5.040288201	251.336	0.334
169	119.3307997	-5.040288201	253.563	0.272
170	119.3319713	-5.040288201	254.742	0.213
171	119.3331428	-5.040288201	253.923	0.164
172	119.3343144	-5.040288201	249.595	0.135
173	119.3413437	-5.040288201	258.677	0.108

174	119.3085403	-5.039324846	238.840	0.277
175	119.3097118	-5.039324846	280.926	0.940
176	119.3108834	-5.039324846	283.178	1.009
177	119.3190842	-5.039324846	242.161	0.408
178	119.3202558	-5.039324846	242.650	0.137
179	119.3214273	-5.039324846	246.114	0.310
180	119.3225989	-5.039324846	221.183	0.669
181	119.3237704	-5.039324846	236.420	0.693
182	119.324942	-5.039324846	243.364	0.634
183	119.3261135	-5.039324846	247.047	0.562
184	119.3272851	-5.039324846	249.492	0.490
185	119.3284566	-5.039324846	251.388	0.419
186	119.3296282	-5.039324846	252.995	0.349
187	119.3307997	-5.039324846	254.380	0.281
188	119.3319713	-5.039324846	255.355	0.215
189	119.3331428	-5.039324846	254.051	0.155
190	119.3343144	-5.039324846	243.465	0.129
191	119.3413437	-5.039324846	283.511	0.159
192	119.3085403	-5.03836149	242.800	0.691
193	119.3097118	-5.03836149	279.196	1.128
194	119.3108834	-5.03836149	282.586	1.207
195	119.3190842	-5.03836149	259.415	0.472
196	119.3202558	-5.03836149	268.717	0.395
197	119.3214273	-5.03836149	268.663	0.360
198	119.3225989	-5.03836149	263.882	0.848
199	119.3237704	-5.03836149	263.919	0.773
200	119.324942	-5.03836149	264.031	0.698
201	119.3261135	-5.03836149	264.154	0.622
202	119.3272851	-5.03836149	264.282	0.546
203	119.3284566	-5.03836149	264.414	0.471
204	119.3296282	-5.03836149	264.550	0.395
205	119.3307997	-5.03836149	264.693	0.320
206	119.3319713	-5.03836149	264.846	0.244
207	119.3331428	-5.03836149	264.897	0.171
208	119.3343144	-5.03836149	285.960	0.168
209	119.3413437	-5.03836149	289.452	0.153

Stasiun 3

FID	X	Y	Arah [Derajat]	Kecepatan [m/s]
0	119.3085403	-5.0662988	247.715	0.320
1	119.3097118	-5.0662988	241.304	0.307
2	119.3108834	-5.0662988	242.425	0.309
3	119.3120549	-5.0662988	247.753	0.302
4	119.3132265	-5.0662988	245.561	0.300
5	119.314398	-5.0662988	240.011	0.291

6	119.3155696	-5.0662988	241.159	0.444
7	119.3167411	-5.0662988	248.286	0.262
8	119.3179127	-5.0662988	241.469	0.329
9	119.3190842	-5.0662988	233.394	0.493
10	119.3202558	-5.0662988	233.329	0.488
11	119.3214273	-5.0662988	233.520	0.445
12	119.3225989	-5.0662988	233.680	0.384
13	119.3237704	-5.0662988	233.781	0.314
14	119.324942	-5.0662988	233.822	0.239
15	119.3261135	-5.0662988	233.656	0.161
16	119.3085403	-5.065335444	250.431	0.326
17	119.3097118	-5.065335444	241.757	0.323
18	119.3108834	-5.065335444	244.585	0.323
19	119.3085403	-5.064372089	240.806	0.303
20	119.3097118	-5.064372089	240.671	0.324
21	119.3108834	-5.064372089	246.443	0.308
22	119.3085403	-5.063408733	240.687	0.299
23	119.3097118	-5.063408733	239.939	0.325
24	119.3108834	-5.063408733	253.821	0.269
25	119.3085403	-5.062445378	240.316	0.295
26	119.3097118	-5.062445378	240.353	0.321
27	119.3108834	-5.062445378	252.704	0.316
28	119.3085403	-5.061482022	239.732	0.289
29	119.3097118	-5.061482022	239.677	0.336
30	119.3108834	-5.061482022	246.972	0.263
31	119.3085403	-5.060518667	238.985	0.282
32	119.3097118	-5.060518667	237.516	0.331
33	119.3108834	-5.060518667	248.502	0.253
34	119.3085403	-5.059555311	238.122	0.275
35	119.3097118	-5.059555311	247.494	0.279
36	119.3108834	-5.059555311	248.723	0.251
37	119.3085403	-5.058591956	237.183	0.267
38	119.3097118	-5.058591956	247.778	0.255
39	119.3108834	-5.058591956	242.423	0.222
40	119.3085403	-5.0576286	236.204	0.259
41	119.3097118	-5.0576286	240.701	0.274
42	119.3108834	-5.0576286	236.115	0.225
43	119.3085403	-5.056665245	235.237	0.251
44	119.3097118	-5.056665245	240.114	0.251
45	119.3108834	-5.056665245	244.794	0.324
46	119.3085403	-5.055701889	234.948	0.249
47	119.3097118	-5.055701889	221.333	0.251
48	119.3108834	-5.055701889	241.527	0.139
49	119.3085403	-5.054738534	258.816	0.232
50	119.3097118	-5.054738534	261.359	0.114
51	119.3108834	-5.054738534	210.843	0.150

52	119.3120549	-5.054738534	193.396	0.285
53	119.3132265	-5.054738534	198.480	0.299
54	119.314398	-5.054738534	202.653	0.423
55	119.3155696	-5.054738534	206.515	0.485
56	119.3167411	-5.054738534	209.929	0.522
57	119.3179127	-5.054738534	208.244	0.266
58	119.3190842	-5.054738534	214.106	0.260
59	119.3202558	-5.054738534	241.478	0.193
60	119.3214273	-5.054738534	256.190	0.436
61	119.3225989	-5.054738534	283.930	0.399
62	119.3237704	-5.054738534	288.209	0.375
63	119.324942	-5.054738534	290.592	0.349
64	119.3261135	-5.054738534	291.101	0.323
65	119.3085403	-5.053775178	263.345	0.218
66	119.3097118	-5.053775178	262.300	0.270
67	119.3108834	-5.053775178	225.430	0.386
68	119.3120549	-5.053775178	202.683	0.368
69	119.3132265	-5.053775178	201.748	0.339
70	119.314398	-5.053775178	202.681	0.455
71	119.3155696	-5.053775178	205.124	0.486
72	119.3167411	-5.053775178	207.644	0.519
73	119.3179127	-5.053775178	207.021	0.281
74	119.3190842	-5.053775178	211.793	0.269
75	119.3202558	-5.053775178	237.249	0.213
76	119.3214273	-5.053775178	250.279	0.198
77	119.3225989	-5.053775178	252.412	0.372
78	119.3237704	-5.053775178	287.866	0.316
79	119.324942	-5.053775178	286.804	0.271
80	119.3261135	-5.053775178	267.296	0.232
81	119.3085403	-5.052811823	243.296	0.239
82	119.3097118	-5.052811823	243.322	0.277
83	119.3108834	-5.052811823	227.274	0.371
84	119.3120549	-5.052811823	211.921	0.385
85	119.3132265	-5.052811823	206.415	0.373
86	119.314398	-5.052811823	205.192	0.454
87	119.3155696	-5.052811823	206.489	0.479
88	119.3167411	-5.052811823	208.263	0.508
89	119.3179127	-5.052811823	209.326	0.291
90	119.3190842	-5.052811823	229.957	0.258
91	119.3202558	-5.052811823	242.488	0.206
92	119.3214273	-5.052811823	245.726	0.223
93	119.3225989	-5.052811823	252.852	0.160
94	119.3237704	-5.052811823	253.014	0.135
95	119.324942	-5.052811823	262.125	0.247
96	119.3261135	-5.052811823	267.672	0.300
97	119.3085403	-5.051848467	248.701	0.284

98	119.3097118	-5.051848467	247.080	0.339
99	119.3108834	-5.051848467	228.217	0.358
100	119.3120549	-5.051848467	217.998	0.365
101	119.3132265	-5.051848467	212.319	0.355
102	119.314398	-5.051848467	208.134	0.455
103	119.3155696	-5.051848467	208.553	0.470
104	119.3167411	-5.051848467	209.531	0.495
105	119.3179127	-5.051848467	222.176	0.276
106	119.3190842	-5.051848467	230.591	0.269
107	119.3202558	-5.051848467	240.685	0.197
108	119.3214273	-5.051848467	242.539	0.222
109	119.3225989	-5.051848467	248.148	0.144
110	119.3237704	-5.051848467	231.159	0.125
111	119.324942	-5.051848467	230.971	0.110
112	119.3261135	-5.051848467	274.029	0.361
113	119.3085403	-5.050885112	246.794	0.308
114	119.3097118	-5.050885112	244.800	0.330
115	119.3108834	-5.050885112	228.944	0.345
116	119.3120549	-5.050885112	220.886	0.355
117	119.3132265	-5.050885112	214.952	0.351
118	119.314398	-5.050885112	211.845	0.433
119	119.3155696	-5.050885112	210.809	0.456
120	119.3167411	-5.050885112	211.148	0.480
121	119.3179127	-5.050885112	225.491	0.288
122	119.3190842	-5.050885112	232.227	0.231
123	119.3202558	-5.050885112	236.011	0.209
124	119.3214273	-5.050885112	238.462	0.197
125	119.3225989	-5.050885112	223.124	0.128
126	119.3237704	-5.050885112	224.979	0.127
127	119.324942	-5.050885112	254.449	0.203
128	119.3261135	-5.050885112	257.387	0.235
129	119.3085403	-5.049921756	244.323	0.298
130	119.3097118	-5.049921756	243.368	0.319
131	119.3108834	-5.049921756	229.664	0.330
132	119.3120549	-5.049921756	223.037	0.351
133	119.3132265	-5.049921756	215.975	0.386
134	119.314398	-5.049921756	214.395	0.417
135	119.3155696	-5.049921756	212.943	0.441
136	119.3167411	-5.049921756	212.885	0.464
137	119.3179127	-5.049921756	223.410	0.230
138	119.3190842	-5.049921756	231.357	0.245
139	119.3202558	-5.049921756	233.107	0.177
140	119.3214273	-5.049921756	219.892	0.197
141	119.3225989	-5.049921756	218.042	0.147
142	119.3237704	-5.049921756	221.864	0.148
143	119.324942	-5.049921756	253.499	0.205

144	119.3261135	-5.049921756	256.517	0.248
145	119.3085403	-5.048958401	242.221	0.285
146	119.3097118	-5.048958401	242.446	0.307
147	119.3108834	-5.048958401	230.493	0.315
148	119.3120549	-5.048958401	224.746	0.330
149	119.3132265	-5.048958401	218.500	0.365
150	119.314398	-5.048958401	216.370	0.400
151	119.3155696	-5.048958401	214.812	0.424
152	119.3167411	-5.048958401	213.033	0.404
153	119.3179127	-5.048958401	228.780	0.243
154	119.3190842	-5.048958401	231.749	0.220
155	119.3202558	-5.048958401	212.069	0.164
156	119.3214273	-5.048958401	208.507	0.097
157	119.3225989	-5.048958401	215.287	0.174
158	119.3237704	-5.048958401	253.998	0.221
159	119.324942	-5.048958401	254.030	0.218
160	119.3261135	-5.048958401	232.487	0.307
161	119.3085403	-5.047995045	241.629	0.277
162	119.3097118	-5.047995045	241.847	0.295
163	119.3108834	-5.047995045	231.012	0.304
164	119.3120549	-5.047995045	225.860	0.319
165	119.3132265	-5.047995045	219.942	0.345
166	119.314398	-5.047995045	217.779	0.382
167	119.3155696	-5.047995045	213.653	0.367
168	119.3167411	-5.047995045	216.428	0.381
169	119.3179127	-5.047995045	228.746	0.224
170	119.3190842	-5.047995045	203.145	0.187
171	119.3202558	-5.047995045	201.261	0.068
172	119.3214273	-5.047995045	206.654	0.116
173	119.3225989	-5.047995045	213.281	0.207
174	119.3237704	-5.047995045	253.584	0.206
175	119.324942	-5.047995045	241.818	0.294
176	119.3261135	-5.047995045	221.829	0.367
177	119.3085403	-5.04703169	241.156	0.267
178	119.3097118	-5.04703169	241.397	0.281
179	119.3108834	-5.04703169	232.042	0.288
180	119.3120549	-5.04703169	227.237	0.301
181	119.3132265	-5.04703169	220.752	0.326
182	119.314398	-5.04703169	219.566	0.357
183	119.3155696	-5.04703169	215.152	0.281
184	119.3167411	-5.04703169	216.712	0.339
185	119.3179127	-5.04703169	194.780	0.175
186	119.3190842	-5.04703169	193.200	0.114
187	119.3202558	-5.04703169	200.267	0.093
188	119.3214273	-5.04703169	205.832	0.141
189	119.3225989	-5.04703169	253.391	0.257

190	119.3237704	-5.04703169	237.735	0.258
191	119.324942	-5.04703169	244.339	0.309
192	119.3261135	-5.04703169	223.418	0.386
193	119.3085403	-5.046068334	240.614	0.258
194	119.3097118	-5.046068334	240.835	0.268
195	119.3108834	-5.046068334	232.790	0.260
196	119.3120549	-5.046068334	229.188	0.279
197	119.3132265	-5.046068334	221.057	0.305
198	119.314398	-5.046068334	223.253	0.276
199	119.3155696	-5.046068334	218.013	0.312
200	119.3167411	-5.046068334	177.723	0.246
201	119.3179127	-5.046068334	187.225	0.157
202	119.3190842	-5.046068334	192.766	0.159
203	119.3202558	-5.046068334	200.586	0.126
204	119.3214273	-5.046068334	242.545	0.338
205	119.3225989	-5.046068334	242.777	0.265
206	119.3237704	-5.046068334	237.430	0.248
207	119.324942	-5.046068334	251.869	0.351
208	119.3261135	-5.046068334	225.049	0.407
209	119.3085403	-5.045104979	231.989	0.234
210	119.3097118	-5.045104979	237.401	0.217
211	119.3108834	-5.045104979	236.799	0.237
212	119.3120549	-5.045104979	232.801	0.234
213	119.3132265	-5.045104979	220.969	0.281
214	119.314398	-5.045104979	223.230	0.252
215	119.3155696	-5.045104979	171.698	0.208
216	119.3167411	-5.045104979	177.380	0.292
217	119.3179127	-5.045104979	177.703	0.197
218	119.3190842	-5.045104979	182.594	0.167
219	119.3202558	-5.045104979	243.495	0.221
220	119.3214273	-5.045104979	256.710	0.257
221	119.3225989	-5.045104979	245.459	0.205
222	119.3237704	-5.045104979	242.980	0.213
223	119.324942	-5.045104979	225.939	0.423
224	119.3261135	-5.045104979	230.184	0.413
225	119.3085403	-5.044141623	233.494	0.217
226	119.3097118	-5.044141623	238.074	0.189
227	119.3108834	-5.044141623	238.589	0.207
228	119.3085403	-5.043178268	232.862	0.272
229	119.3097118	-5.043178268	236.156	0.241
230	119.3108834	-5.043178268	235.854	0.210
231	119.3085403	-5.042214912	233.772	0.278
232	119.3097118	-5.042214912	241.800	0.262
233	119.3108834	-5.042214912	245.403	0.290
234	119.3085403	-5.041251557	238.850	0.229
235	119.3097118	-5.041251557	241.095	0.211

236	119.3108834	-5.041251557	245.647	0.270
237	119.3085403	-5.040288201	234.722	0.301
238	119.3097118	-5.040288201	241.442	0.248
239	119.3108834	-5.040288201	281.762	1.009
240	119.3085403	-5.039324846	238.840	0.277
241	119.3097118	-5.039324846	280.926	0.940
242	119.3108834	-5.039324846	283.178	1.009
243	119.3085403	-5.03836149	242.800	0.691
244	119.3097118	-5.03836149	279.196	1.128
245	119.3108834	-5.03836149	282.586	1.207

Stasiun 4

FID	X	Y	Arah [Derajat]	Kecepatan [m/s]
0	119.3085403	-5.0662988	247.715	0.320
1	119.3097118	-5.0662988	241.304	0.307
2	119.3108834	-5.0662988	242.425	0.309
3	119.3120549	-5.0662988	247.753	0.302
4	119.3132265	-5.0662988	245.561	0.300
5	119.314398	-5.0662988	240.011	0.291
6	119.3155696	-5.0662988	241.159	0.444
7	119.3167411	-5.0662988	248.286	0.262
8	119.3179127	-5.0662988	241.469	0.329
9	119.3190842	-5.0662988	233.394	0.493
10	119.3202558	-5.0662988	233.329	0.488
11	119.3214273	-5.0662988	233.520	0.445
12	119.3225989	-5.0662988	233.680	0.384
13	119.3237704	-5.0662988	233.781	0.314
14	119.324942	-5.0662988	233.822	0.239
15	119.3261135	-5.0662988	233.656	0.161
16	119.3272851	-5.0662988	223.277	0.167
17	119.3284566	-5.0662988	197.604	0.109
18	119.3296282	-5.0662988	90.997	0.307
19	119.3307997	-5.0662988	97.564	0.295
20	119.3319713	-5.0662988	101.833	0.285
21	119.3331428	-5.0662988	104.455	0.276
22	119.3343144	-5.0662988	106.058	0.269
23	119.3085403	-5.065335444	250.431	0.326
24	119.3097118	-5.065335444	241.757	0.323
25	119.3108834	-5.065335444	244.585	0.323
26	119.3202558	-5.065335444	234.416	0.570
27	119.3214273	-5.065335444	235.006	0.508
28	119.3225989	-5.065335444	235.594	0.435
29	119.3237704	-5.065335444	236.382	0.359
30	119.324942	-5.065335444	239.167	0.279
31	119.3261135	-5.065335444	256.538	0.209

32	119.3272851	-5.065335444	241.039	0.299
33	119.3284566	-5.065335444	124.796	0.276
34	119.3296282	-5.065335444	123.905	0.265
35	119.3307997	-5.065335444	124.063	0.252
36	119.3319713	-5.065335444	124.210	0.239
37	119.3331428	-5.065335444	124.230	0.227
38	119.3343144	-5.065335444	124.100	0.214
39	119.3085403	-5.064372089	240.806	0.303
40	119.3097118	-5.064372089	240.671	0.324
41	119.3108834	-5.064372089	246.443	0.308
42	119.3202558	-5.064372089	233.553	0.643
43	119.3214273	-5.064372089	232.908	0.555
44	119.3225989	-5.064372089	233.953	0.471
45	119.3237704	-5.064372089	237.661	0.392
46	119.324942	-5.064372089	239.092	0.316
47	119.3261135	-5.064372089	240.201	0.229
48	119.3272851	-5.064372089	330.154	0.044
49	119.3284566	-5.064372089	232.852	0.156
50	119.3296282	-5.064372089	173.251	0.220
51	119.3307997	-5.064372089	154.267	0.235
52	119.3319713	-5.064372089	145.155	0.239
53	119.3331428	-5.064372089	139.843	0.239
54	119.3343144	-5.064372089	136.161	0.237
55	119.3085403	-5.063408733	240.687	0.299
56	119.3097118	-5.063408733	239.939	0.325
57	119.3108834	-5.063408733	253.821	0.269
58	119.3202558	-5.063408733	232.602	0.675
59	119.3214273	-5.063408733	233.267	0.585
60	119.3225989	-5.063408733	234.061	0.513
61	119.3237704	-5.063408733	238.638	0.425
62	119.324942	-5.063408733	245.399	0.354
63	119.3261135	-5.063408733	249.100	0.283
64	119.3272851	-5.063408733	315.789	0.069
65	119.3284566	-5.063408733	262.438	0.124
66	119.3296282	-5.063408733	211.954	0.178
67	119.3307997	-5.063408733	184.121	0.204
68	119.3319713	-5.063408733	169.855	0.211
69	119.3331428	-5.063408733	159.543	0.217
70	119.3343144	-5.063408733	152.471	0.219
71	119.3085403	-5.062445378	240.316	0.295
72	119.3097118	-5.062445378	240.353	0.321
73	119.3108834	-5.062445378	252.704	0.316
74	119.3202558	-5.062445378	232.774	0.670
75	119.3214273	-5.062445378	233.130	0.611
76	119.3225989	-5.062445378	238.208	0.523
77	119.3237704	-5.062445378	239.153	0.448

78	119.324942	-5.062445378	241.892	0.399
79	119.3261135	-5.062445378	313.489	0.231
80	119.3272851	-5.062445378	307.343	0.082
81	119.3284566	-5.062445378	272.268	0.116
82	119.3296282	-5.062445378	235.142	0.155
83	119.3307997	-5.062445378	207.665	0.180
84	119.3319713	-5.062445378	193.280	0.185
85	119.3331428	-5.062445378	179.320	0.195
86	119.3343144	-5.062445378	169.318	0.200
87	119.3085403	-5.061482022	239.732	0.289
88	119.3097118	-5.061482022	239.677	0.336
89	119.3108834	-5.061482022	246.972	0.263
90	119.3202558	-5.061482022	231.993	0.666
91	119.3214273	-5.061482022	231.706	0.609
92	119.3225989	-5.061482022	238.388	0.530
93	119.3237704	-5.061482022	244.012	0.466
94	119.324942	-5.061482022	298.014	0.312
95	119.3261135	-5.061482022	310.641	0.264
96	119.3272851	-5.061482022	302.095	0.093
97	119.3284566	-5.061482022	276.643	0.115
98	119.3296282	-5.061482022	249.006	0.142
99	119.3307997	-5.061482022	225.117	0.164
100	119.3319713	-5.061482022	213.912	0.162
101	119.3331428	-5.061482022	197.986	0.174
102	119.3343144	-5.061482022	185.894	0.181
103	119.3085403	-5.060518667	238.985	0.282
104	119.3097118	-5.060518667	237.516	0.331
105	119.3108834	-5.060518667	248.502	0.253
106	119.3202558	-5.060518667	231.634	0.621
107	119.3214273	-5.060518667	229.848	0.599
108	119.3225989	-5.060518667	238.327	0.528
109	119.3237704	-5.060518667	240.574	0.459
110	119.324942	-5.060518667	304.052	0.333
111	119.3261135	-5.060518667	305.159	0.284
112	119.3272851	-5.060518667	298.535	0.102
113	119.3284566	-5.060518667	279.018	0.117
114	119.3296282	-5.060518667	257.923	0.137
115	119.3307997	-5.060518667	237.977	0.153
116	119.3319713	-5.060518667	221.509	0.165
117	119.3331428	-5.060518667	215.034	0.156
118	119.3343144	-5.060518667	199.577	0.167
119	119.3085403	-5.059555311	238.122	0.275
120	119.3097118	-5.059555311	247.494	0.279
121	119.3108834	-5.059555311	248.723	0.251
122	119.3202558	-5.059555311	229.610	0.590
123	119.3214273	-5.059555311	230.608	0.570

124	119.3225989	-5.059555311	239.141	0.504
125	119.3237704	-5.059555311	286.021	0.405
126	119.324942	-5.059555311	301.688	0.341
127	119.3261135	-5.059555311	300.461	0.300
128	119.3272851	-5.059555311	296.061	0.111
129	119.3284566	-5.059555311	280.588	0.121
130	119.3296282	-5.059555311	264.184	0.135
131	119.3307997	-5.059555311	247.750	0.147
132	119.3319713	-5.059555311	233.000	0.157
133	119.3331428	-5.059555311	230.431	0.140
134	119.3343144	-5.059555311	212.570	0.153
135	119.3085403	-5.058591956	237.183	0.267
136	119.3097118	-5.058591956	247.778	0.255
137	119.3108834	-5.058591956	242.423	0.222
138	119.3202558	-5.058591956	227.607	0.561
139	119.3214273	-5.058591956	233.053	0.553
140	119.3225989	-5.058591956	239.460	0.503
141	119.3237704	-5.058591956	295.747	0.392
142	119.324942	-5.058591956	298.459	0.352
143	119.3261135	-5.058591956	296.941	0.311
144	119.3272851	-5.058591956	294.389	0.119
145	119.3284566	-5.058591956	281.871	0.125
146	119.3296282	-5.058591956	268.984	0.135
147	119.3307997	-5.058591956	255.526	0.144
148	119.3319713	-5.058591956	242.774	0.151
149	119.3331428	-5.058591956	244.387	0.126
150	119.3343144	-5.058591956	224.461	0.141
151	119.3085403	-5.0576286	236.204	0.259
152	119.3097118	-5.0576286	240.701	0.274
153	119.3108834	-5.0576286	236.115	0.225
154	119.3202558	-5.0576286	225.802	0.534
155	119.3214273	-5.0576286	231.005	0.513
156	119.3225989	-5.0576286	278.217	0.430
157	119.3237704	-5.0576286	292.851	0.389
158	119.324942	-5.0576286	295.717	0.354
159	119.3261135	-5.0576286	294.387	0.318
160	119.3272851	-5.0576286	293.366	0.128
161	119.3284566	-5.0576286	283.119	0.131
162	119.3296282	-5.0576286	272.980	0.137
163	119.3307997	-5.0576286	262.032	0.143
164	119.3319713	-5.0576286	251.209	0.147
165	119.3331428	-5.0576286	257.181	0.114
166	119.3343144	-5.0576286	235.363	0.130
167	119.3085403	-5.056665245	235.237	0.251
168	119.3097118	-5.056665245	240.114	0.251
169	119.3108834	-5.056665245	244.794	0.324

170	119.3202558	-5.056665245	227.837	0.511
171	119.3214273	-5.056665245	247.198	0.462
172	119.3225989	-5.056665245	287.358	0.419
173	119.3237704	-5.056665245	290.954	0.386
174	119.324942	-5.056665245	293.339	0.354
175	119.3261135	-5.056665245	292.641	0.322
176	119.3272851	-5.056665245	292.895	0.136
177	119.3284566	-5.056665245	284.458	0.137
178	119.3296282	-5.056665245	276.543	0.140
179	119.3307997	-5.056665245	267.735	0.143
180	119.3319713	-5.056665245	256.596	0.188
181	119.3331428	-5.056665245	247.145	0.185
182	119.3343144	-5.056665245	245.419	0.122
183	119.3085403	-5.055701889	234.948	0.249
184	119.3097118	-5.055701889	221.333	0.251
185	119.3108834	-5.055701889	241.527	0.139
186	119.3202558	-5.055701889	225.040	0.476
187	119.3214273	-5.055701889	251.791	0.446
188	119.3225989	-5.055701889	284.717	0.407
189	119.3237704	-5.055701889	289.313	0.382
190	119.324942	-5.055701889	291.653	0.352
191	119.3261135	-5.055701889	291.579	0.324
192	119.3272851	-5.055701889	292.903	0.144
193	119.3284566	-5.055701889	285.948	0.143
194	119.3296282	-5.055701889	279.881	0.144
195	119.3307997	-5.055701889	271.051	0.199
196	119.3319713	-5.055701889	262.712	0.197
197	119.3331428	-5.055701889	254.779	0.193
198	119.3343144	-5.055701889	254.752	0.115

Lampiran 4. Dokumentasi kegiatan penelitian



Penggunaan *neustone net* dan penggunaan *Floater Current Meter*



Penggunaan *Electromagnetic Current Meter* dan penggunaan *Compact-TD*



Alat pengukur arah dan kecepatan arus (FCM)



Proses pengukuran pan penimbangan sampah laut