BULLETIN OF THE MARINE GEOLOGY

VOLUME 33 • NUMBER 2 • December 2018



Accredited : RISTEKDIKTI No. 21/E/KPT/2018



MARINE GEOLOGICAL INSTITUTE

RESEARCH AND DEVELOPMENT AGENCIES FOR ENERGY AND MINERAL RESOURCES MINISTRY OF ENERGY AND MINERAL RESOURCES

PUSAT PENELITIAN DAN PENGEMBANGAN GEOLOGI KELAUTAN BADAN PENELITIAN DAN PENGEMBANGAN ENERGI DAN SUMBER DAYA MINERAL KEMENTERIAN ENERGI DAN SUMBER DAYA MINERAL

BULLETIN OF THE MARINE GEOLOGY

Vol. 33, No. 2, December 2018

INSURED EDITOR

Director of Marine Geological Institute

VICE CHIEF OF INSURED EDITOR

Head of Affiliation and Information Division

CHIEF OF EDITORIAL BOARD

Dr. Rina Zuraida

VICE CHIEF OF EDITORIAL BOARD

Dr. Ir. Susilohadi

EDITORIAL BOARDS

Dr. Ir. Noor Cahyo Dwi Aryanto, M.T. (Marine Geological Insitute of Indonesia)
Dr. Ir. Hananto Kurnio, M.Sc. (Marine Geological Insitute of Indonesia)
Ir. Yudi Darlan (Marine Geological Insitute of Indonesia)
Dr. Luli Gustiantini, S.T., M.T. (Marine Geological Insitute of Indonesia)
Imam Setiadi, S.Si., M.T. (Marine Geological Insitute of Indonesia)
Dr. Eng. Ir. Agus Didit Haryanto, M.T. (Padjadjaran University)
Dr. Ir. Dicky Muslim, M.Sc. (Padjadjaran University)
Dr. Ir. Chalid Idham Abdullah (Institute Of Technology Bandung)

SCIENTIFIC REVIEWERS

Dr. Sigid Haryadi (Bogor Agricultural University) Dra. Kresna Tri Dewi, M.Sc. (Geological Agency of Indonesia) Dr. Fathan (Institute of Technology Bandung)

PUBLISHER BOARDS

Drs. Judy Muliawan Eddy *(Chief)* Pungky Sampurno, S.T. Bakti Natakusumah, S.Si.

GRAPHIC DESIGN

Sutisna Sumiyati

For communication of this publications, please contact : MARINE GEOLOGICAL INSTITUTE Dr. Junjunan 236, Bandung-40174, Indonesia Telephone : +62-22-6032020, 6032201, Fax : +62-22- 6017887 E-mail : ejournal.p3gl@gmail.com

PREFACE

When it was founded, Bulletin of the Marine Geology (BoMG) was intended to disseminate the results of marine geology and geophysical researches that were conducted by Marine Geological Institute of Indonesia (MGI). Following the addition of marine renewable energy as a research program in MGI, BoMG also expands the scope, areas and researches that are published by the Bulletin. The result of this expansion is wider scope of themes related to marine geoscience and its application that are conducted by researchers outside of MGI, either from Indonesia or abroad.

In this second edition of year 2018, various topic of articles conducted by various institution including: *Inhibition Effects of Jakarta Bay Sediments to the Growth of Marine Diatom (Chaetoceros Gracilis)* is written by researchers from Research Centre for Oceanography - Indonesian Institute of Sciences (LIPI). The second article was a collaborative project between MGI and Hasanuddin University, Makassar, discuss about *Spectral Decomposition with Continuous Wavelet Transform for Hydrocarbon Zone Detection of North Bali Waters*, the third article study about *Channel Controlled Foraminiferal Distribution off Bakkhali, West Bengal, India,* conducted by researchers from Marine and Coastal Survey Division, Geological Survey of India, from city of Kolkata and Vishakhapatnam, India, the fourth article, also study about foraminifera in marine sediment entitled *Foraminiferal Analysis Related to Paleoceanographic Changes of Arafura Sea and Surrounding during Holocene*, a collaborative project between MGI and Marine Geology & Geophysics Division, Korea Institute of Ocean Science & Technology (KIOST), Korea, and the last, again about Jakarta Bay, presented by scientists from MGI, Geological Survey Center, and from Research Centre for Geotechnology - LIPI, describing *Late Holocene Heavy Metals Records of Jakarta Bay Sediments.*

The editors appreciate the valuable contribution of the authors for this edition.

Chief Editor

BULLETIN OF THE MARINE GEOLOGY

Vol. 33, No. 2, December 2018

CONTENTS

Inhibition Effects of Jakarta Bay Sediments to the Growth of Marine Diatom (Chaetoceros Gracilis) Triyoni Purbonegoro, Muhammad Reza Cordova, Rachma Puspitasari, Dwi Hindarti	3
Spectral Decomposition with Continuous Wavelet Transform for Hydrocarbon Zone Detection of North Bali Waters Tumpal Bernhard Nainggolan, Muh. Nur Iqlal Manai, and Subarsyah	2
Channel Controlled Foraminiferal Distribution off Bakkhali, West Bengal, India Sachin Kumar Tripathi, Resmi S., Satyendra Baraik, Debasis Sengupta and Amitava Lahiri	4
Foraminiferal Analysis Related to Paleoceanographic Changes of Arafura Sea and Surrounding During Holocene Luli Gustiantini, Swasty Aninda Piranti, Rina Zuraida, Sangmin Hyun, Duddy A.S. Ranawijaya, F.X. Harkinz	8
Late Holocene Heavy Metals Record Of Jakarta Bay Sediments Rina Zuraida, Riza Rahardiawan, Yani Permanawati, Indra Adhirana, Andrian Ibrahim, Nazar Nurdin, Haryadi Permana119-12	.9