

GEOS 2016 submission 13

Dari: GEOS 2016 (geos2016@easychair.org)

Kepada: listyani_theo@yahoo.co.id

Tanggal: Senin, 25 April 2016 17.36 WIB

Dear authors,

We received your paper:

Authors : Theophila Listyani

Title : Hydrochemistry of Groundwater in Yogyakarta Graben, Area of Code Sub Drainage, Yogyakarta, Indonesia

Number : 13

The paper was submitted by Theophila Listyani <listyani_theo@yahoo.co.id>.

Thank you for submitting to GEOS 2016.

Best regards,
EasyChair for GEOS 2016.

RE: Paper submission

Dari: GEOS Conference Secretariat (secretariat@geoeearth.org)

Kepada: listyani_theo@yahoo.co.id

Cc: responses@globalstf.org

Tanggal: Rabu, 27 April 2016 17.40 WIB

Dear Dr. Lis, Sttnas Yogyakarta,

Thank you for your email and interest in GEOS conference

You may submit a paper in accordance to the attached required paper format through EasyChair: <https://easychair.org/conferences/?conf=geos2016>. If you encounter any problem please let me know. Once we confirm your submission, it will undergo blind review and we will notify you once your paper is accepted for oral presentation.

Should you need further information, please feel free to contact us.

Warm Regards,

Ana Martina Tubilleja

Programme Manager

Global Science and Technology Forum

10 Anson Road, International Plaza,

#13-12, Singapore- 079903

Phone: +65 6327 0165| Fax: +65 6327 0162 | www.geoeearth.org

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From: theo listyani [mailto:listyani_theo@yahoo.co.id]

Sent: Monday, April 25, 2016 6:13 PM

To: secretariat@geoeearth.org

Subject: Paper submission

Good afternoon committee.

Attached is my paper for participating on your seminar.

I hope that my paper will be received for presentation.

Thank you.

Best regards,

Lis, STTNAS Yogyakarta



paper_format.docx
31.1kB

Paper Title (use style: *paper title*)

Subtitle as needed (*paper subtitle*)

Authors Name/s per 1st Affiliation (Author)

line 1 (of Affiliation): dept. name of organization

line 2: name of organization, acronyms acceptable

line 3: City, Country

line 4: e-mail address if desired

Authors Name/s per 2nd Affiliation (Author)

line 1 (of Affiliation): dept. name of organization

line 2: name of organization, acronyms acceptable

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Abstract—This electronic document is a “live” template. The various components of your paper [title, text, heads, etc.] are already defined on the style sheet, as illustrated by the portions given in this document. (Abstract)

Keywords-component; formatting; style; styling; insert (key words)

I. INTRODUCTION (HEADING 1)

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II. EASE OF USE

A. *Selecting a Template (Heading 2)*

First, confirm that you have the correct template for your paper size. This template has been tailored for output on the A4 paper size. If you are using US letter-sized paper, please close this file and download the file for “MSW_USltr_format”.

B. *Maintaining the Integrity of the Specifications*

The template is used to format your paper and style the text. All margins, column widths, line spaces, and text fonts are prescribed; please do not alter them. You may note peculiarities. For example, the head margin in this template measures proportionately more than is customary. This measurement and others are deliberate, using specifications that anticipate your paper as one part of the entire proceedings, and not as an independent document. Please do not revise any of the current designations.

III. PREPARE YOUR PAPER BEFORE STYLING

Before you begin to format your paper, first write and save the content as a separate text file. Keep your text and graphic files separate until after the text has been formatted and styled. Do not use hard tabs, and limit use of hard returns to only one return at the end of a paragraph. Do not add any kind of pagination anywhere in the paper. Do not number text heads—the template will do that for you.

Finally, complete content and organizational editing before formatting. Please take note of the following items when proofreading spelling and grammar:

A. *Abbreviations and Acronyms*

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B. *Units*

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C. *Equations*

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Times New Roman or the Symbol font (please no other font). To create multileveled equations, it may be necessary to treat the equation as a graphic and insert it into the text after your paper is styled.

Number equations consecutively. Equation numbers, within parentheses, are to position flush right, as in (1), using a right tab stop. To make your equations more compact, you may use the solidus (/), the exp function, or appropriate exponents. Italicize Roman symbols for quantities and variables, but not Greek symbols. Use a long dash rather than a hyphen for a minus sign. Punctuate equations with commas or periods when they are part of a sentence, as in

$$\alpha + \beta = \chi. \quad (1)$$

Note that the equation is centered using a center tab stop. Be sure that the symbols in your equation have been defined before or immediately following the equation. Use “(1)”, not “Eq. (1)” or “equation (1)”, except at the beginning of a sentence: “Equation (1) is . . .”

D. Some Common Mistakes

- The word “data” is plural, not singular.
- The subscript for the permeability of vacuum μ_0 , and other common scientific constants, is zero with subscript formatting, not a lowercase letter “o”.
- In American English, commas, semi-/colons, periods, question and exclamation marks are located within quotation marks only when a complete thought or name is cited, such as a title or full quotation. When quotation marks are used, instead of a bold or italic typeface, to highlight a word or phrase, punctuation should appear outside of the quotation marks. A parenthetical phrase or statement at the end of a sentence is punctuated outside of the closing parenthesis (like this). (A parenthetical sentence is punctuated within the parentheses.)
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- The prefix “non” is not a word; it should be joined to the word it modifies, usually without a hyphen.

- There is no period after the “et” in the Latin abbreviation “et al.”.
- The abbreviation “i.e.” means “that is”, and the abbreviation “e.g.” means “for example”.

An excellent style manual for science writers is [7].

IV. USING THE TEMPLATE

After the text edit has been completed, the paper is ready for the template. Duplicate the template file by using the Save As command, and use the naming convention prescribed by your conference for the name of your paper. In this newly created file, highlight all of the contents and import your prepared text file. You are now ready to style your paper; use the scroll down window on the left of the MS Word Formatting toolbar.

A. Authors and Affiliations

The template is designed so that author affiliations are not repeated each time for multiple authors of the same affiliation. Please keep your affiliations as succinct as possible (for example, do not differentiate among departments of the same organization). This template was designed for two affiliations.

1) *For author/s of only one affiliation (Heading 3): To change the default, adjust the template as follows.*

a) *Selection (Heading 4): Highlight all author and affiliation lines.*

b) *Change number of columns:* Select the Columns icon from the MS Word Standard toolbar and then select “1 Column” from the selection palette.

c) *Deletion:* Delete the author and affiliation lines for the second affiliation.

d) *For author/s of more than two affiliations: To change the default, adjust the template as follows.*

e) *Selection:* Highlight all author and affiliation lines.

f) *Change number of columns:* Select the “Columns” icon from the MS Word Standard toolbar and then select “1 Column” from the selection palette.

g) *Highlight author and affiliation lines of affiliation 1 and copy this selection.*

h) *Formatting:* Insert one hard return immediately after the last character of the last affiliation line. Then paste down the copy of affiliation 1. Repeat as necessary for each additional affiliation.

i) *Reassign number of columns:* Place your cursor to the right of the last character of the last affiliation line of an even numbered affiliation (e.g., if there are five affiliations, place your cursor at end of fourth affiliation). Drag the cursor up to highlight all of the above author and affiliation lines. Go to Column icon and select “2 Columns”. If you have an odd number of affiliations, the final affiliation will be centered on the page; all previous will be in two columns.

B. Identify the Headings

Headings, or heads, are organizational devices that guide the reader through your paper. There are two types: component heads and text heads.

Component heads identify the different components of your paper and are not typically subordinate to each other. Examples include Acknowledgments and References and, for these, the correct style to use is “Heading 5”. Use “figure caption” for your Figure captions, and “table head” for your table title. Run-in heads, such as “Abstract”, will require you to apply a style (in this case, italic) in addition to the style provided by the drop down menu to differentiate the head from the text.

Text heads organize the topics on a relational, hierarchical basis. For example, the paper title is the primary text head because all subsequent material relates and elaborates on this one topic. If there are two or more sub-topics, the next level head (uppercase Roman numerals) should be used and, conversely, if there are not at least two sub-topics, then no subheads should be introduced. Styles named “Heading 1”, “Heading 2”, “Heading 3”, and “Heading 4” are prescribed.

C. Figures and Tables

1) *Positioning Figures and Tables*: Place figures and tables at the top and bottom of columns. Avoid placing them in the middle of columns. Large figures and tables may span across both columns. Figure captions should be below the figures; table heads should appear above the tables. Insert figures and tables after they are cited in the text. Use the abbreviation “Fig. 1”, even at the beginning of a sentence.

TABLE I. TABLE TYPE STYLES

Table Head	Table Column Head		
	<i>Table column subhead</i>	<i>Subhead</i>	<i>Subhead</i>
copy	More table copy ^a		

a. Sample of a Table footnote. (Table footnote)

We suggest that you use a text box to insert a graphic (which is ideally a 300 dpi TIFF or EPS file, with all fonts embedded) because, in an MSW document, this method is somewhat more stable than directly inserting a picture.

To have non-visible rules on your frame, use the MSWord “Format” pull-down menu, select Text Box > Colors and Lines to choose No Fill and No Line.

Figure 1. Example of a figure caption. (figure caption)

Figure Labels: Use 8 point Times New Roman for Figure labels. Use words rather than symbols or abbreviations when writing Figure axis labels to avoid confusing the reader. As an example, write the quantity “Magnetization”, or “Magnetization, M”, not just “M”. If including units in the label, present them within parentheses. Do not label axes only with units. In the example, write “Magnetization (A/m)” or

“Magnetization {A[m(1)]}”, not just “A/m”. Do not label axes with a ratio of quantities and units. For example, write “Temperature (K)”, not “Temperature/K”.

ACKNOWLEDGMENT (HEADING 5)

The preferred spelling of the word “acknowledgment” in America is without an “e” after the “g”. Avoid the stilted expression, “One of us (R. B. G.) thanks . . .” Instead, try “R. B. G. thanks”. Put sponsor acknowledgments in the unnumbered footnote on the first page.

REFERENCES

The template will number citations consecutively within brackets [1]. The sentence punctuation follows the bracket [2]. Refer simply to the reference number, as in [3]—do not use “Ref. [3]” or “reference [3]” except at the beginning of a sentence: “Reference [3] was the first . . .”

Number footnotes separately in superscripts. Place the actual footnote at the bottom of the column in which it was cited. Do not put footnotes in the reference list. Use letters for table footnotes.

Unless there are six authors or more give all authors’ names; do not use “et al.”. Papers that have not been published, even if they have been submitted for publication, should be cited as “unpublished” [4]. Papers that have been accepted for publication should be cited as “in press” [5]. Capitalize only the first word in a paper title, except for proper nouns and element symbols.

For papers published in translation journals, please give the English citation first, followed by the original foreign-language citation [6].

- [1] G. Eason, B. Noble, and I. N. Sneddon, “On certain integrals of Lipschitz-Hankel type involving products of Bessel functions,” *Phil. Trans. Roy. Soc. London*, vol. A247, pp. 529–551, April 1955. (references)
- [2] J. Clerk Maxwell, *A Treatise on Electricity and Magnetism*, 3rd ed., vol. 2. Oxford: Clarendon, 1892, pp.68–73.
- [3] I. S. Jacobs and C. P. Bean, “Fine particles, thin films and exchange anisotropy,” in *Magnetism*, vol. III, G. T. Rado and H. Suhl, Eds. New York: Academic, 1963, pp. 271–350.
- [4] K. Elissa, “Title of paper if known,” unpublished.
- [5] R. Nicole, “Title of paper with only first word capitalized,” *J. Name Stand. Abbrev.*, in press.
- [6] Y. Yorozu, M. Hirano, K. Oka, and Y. Tagawa, “Electron spectroscopy studies on magneto-optical media and plastic substrate interface,” *IEEE Transl. J. Magn. Japan*, vol. 2, pp. 740–741, August 1987 [Digests 9th Annual Conf. Magnetism Japan, p. 301, 1982].
- [7] M. Young, *The Technical Writer’s Handbook*. Mill Valley, CA: University Science, 1989.

GEOS 2016 submission 13 update

Dari: GEOS 2016 (geos2016@easychair.org)

Kepada: listyani_theo@yahoo.co.id

Tanggal: Jumat, 29 April 2016 22.15 WIB

Dear authors,

we acknowledge that we received new files for your GEOS 2016 submission. The information about this update is shown below.

Number: 13

Authors: Theophila Listyani

Title: Hydrochemistry of Groundwater in Yogyakarta Graben, Area of Code Sub Drainage, Yogyakarta, Indonesia

Uploaded by: Theophila Listyani <listyani_theo@yahoo.co.id>

Updates:

paper, version 2 (370810 bytes)

To access the new version of your submission you should log in to the GEOS 2016 EasyChair page.

GEOS 2016 submission 13 update

Dari: GEOS 2016 (geos2016@easychair.org)

Kepada: listyani_theo@yahoo.co.id

Tanggal: Jumat, 29 April 2016 22.18 WIB

Dear authors,

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Number: 13

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Title: Hydrochemistry of Groundwater in Yogyakarta Graben, Area of Code Sub Drainage, Yogyakarta, Indonesia

Uploaded by: Theophila Listyani <listyani_theo@yahoo.co.id>

Updates:

paper, version 3 (370810 bytes)

To access the new version of your submission you should log in to the GEOS 2016 EasyChair page.



PART A:

CONFIDENTIAL COMMENTS FOR AUTHORS ONLY

Paper ID: GEOS 13

Paper Title: Hydrochemistry of Groundwater in Yogyakarta Graben, Area of Code Sub Drainage, Yogyakarta, Indonesia

Recommendation: **Accepted without changes**

PART B: COMMENTS FOR THE ATTENTION OF THE AUTHOR

1. **Appropriateness of the Topic:** Suitable
2. **Conceptual Adequacy:** Good
3. **Technical Adequacy:** Good
4. **Clarity of Presentation:** Good
5. **Significance of Contribution to the Field:** Good

Additional Comment/s

GEOS 2016: Letter of Acceptance (13)

Dari: GEOS Conference Secretariat (secretariat@geoeearth.org)

Kepada: listyani_theo@yahoo.co.id

Cc: responses@globalstf.org

Tanggal: Jumat, 6 Mei 2016 08.54 WIB

Dear Dr. Theophila Listyani,

We are pleased to inform you that your full paper has been accepted for oral presentation GEOS 2016 in Singapore. Congratulations!

Please note that you are required to complete the registration where the instructions are available at conference website (visit <http://www.geoeearth.org/> and click on "Registration" on the top panel). Kindly note that the Early Registration Deadline is **15th July 2016**.

Kindly ensure that your final version is in accordance with the paper format attached and re-upload by **30th May 2016**

Please be informed that if the final version of your full paper exceeds the limit of 10 pages, charges will be incurred at SGD\$50 per page. Hence, it is recommended that your paper is kept brief and succinct as possible.

We would also like to extend an invitation for you to be a GSTF Member. As a member you will enjoy FREE unrestricted access to our Digital Library for a one-time fee. You may find and cite relevant research studies from our growing repository of publications that covers a wide spectrum of research areas. To register, please visit: <http://www.globalstf.org/joinrenew.php>.

Should you require any clarifications or assistance, please do not hesitate to contact us at secretariat@geoeearth.org

Briefly about the **GEOS 2016** Conference:

- **Keynote Address 1** will be delivered by **Assoc. Prof. Eswaran Padmanabhan**, Department of Geosciences, Faculty of Geosciences and Petroleum, Engineering, Universiti Teknologi Petronas, Malaysia
- **Keynote Address 2** will be delivered by **Assoc. Prof. Abdul Hadi Abd Rahman**, Department of Geosciences, Faculty of Geoscience and Petroleum Engineering, Universiti Teknologi Petronas, Malaysia
- **The Conference Proceedings** Print ISSN: 2251-3353, E-Periodical ISSN: 2251-3361 will be indexed by EBSCO, CrossRef, ProQuest and will be submitted to Scopus, ScienceDirect and Cabell's Directories amongst others, where applicable.
- **Journal:** All authors who present their papers at the conference will be invited to submit an extended version of their research paper for the **GSTF Journal of Geological Sciences (JGS)** (Print ISSN: 2335-6774, E-periodical: 2335-6782). All submitted papers will go through blind review process for acceptance. All accepted papers (after the review process) will be included in the JGS on a complimentary basis. GSTF JGS is hosted and published on Springer's Open Access publishing platform - **Global Science Journals (GSJ)**. In addition, it will be submitted to indexed by **CAS, EBSCO, CrossRef, ProQuest, Ulrichsweb, Cabell's Directories** and will be submitted to **Google Scholar, IndexCopernicus, ScienceDirect** amongst others.
- **Book:** Selected authors will be invited to contribute book chapters in "Recent Advances in Geosciences: Global Perspective" to be published by GSTF. The book will be co-edited by Dr. M. S. Pandian, GEOS Editor-In-Chief, from Pondicherry University, India and Prof. James P. Terry from Zayed University, Dubai, United Arab Emirates.
- **Best Paper Awards** and **Best Student Paper Awards** will be conferred at the conference (in order to qualify for the award, the paper must be presented at the conference).
- **GEOS 2016** will also constitute a Special Panel Session.
- **Panel Proposals** are invited for submission. A minimum of three papers centering on a specific topic will be accepted for submission under [Panel Category](#).

Should you have other questions, please feel free to contact us.

Warm Regards,

Ana Martina Tubilleja
Programme Manager

Global Science and Technology Forum
10 Anson Road, International Plaza,
#13-12, Singapore- 079903
Phone: +65 6327 0165 | Fax: +65 6327 0162 | www.geoeearth.org
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STEERING INNOVATION, SERVING SOCIETY

Global Science and Technology Forum

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by

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Name of Author(s) _____

Institution or Company _____

Seal/Date _____

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Subtitle as needed (*paper subtitle*)

Authors Name/s per 1st Affiliation (Author)

line 1 (of Affiliation): dept. name of organization

line 2: name of organization, acronyms acceptable

line 3: City, Country

line 4: e-mail address if desired

Authors Name/s per 2nd Affiliation (Author)

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$$\alpha + \beta = \chi. \quad (1)$$

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- In your paper title, if the words “that uses” can accurately replace the word “using”, capitalize the “u”; if not, keep using lower-cased.
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- The abbreviation “i.e.” means “that is”, and the abbreviation “e.g.” means “for example”.

An excellent style manual for science writers is [7].

IV. USING THE TEMPLATE

After the text edit has been completed, the paper is ready for the template. Duplicate the template file by using the Save As command, and use the naming convention prescribed by your conference for the name of your paper. In this newly created file, highlight all of the contents and import your prepared text file. You are now ready to style your paper; use the scroll down window on the left of the MS Word Formatting toolbar.

A. Authors and Affiliations

The template is designed so that author affiliations are not repeated each time for multiple authors of the same affiliation. Please keep your affiliations as succinct as possible (for example, do not differentiate among departments of the same organization). This template was designed for two affiliations.

1) *For author/s of only one affiliation (Heading 3): To change the default, adjust the template as follows.*

a) *Selection (Heading 4): Highlight all author and affiliation lines.*

b) *Change number of columns:* Select the Columns icon from the MS Word Standard toolbar and then select “1 Column” from the selection palette.

c) *Deletion:* Delete the author and affiliation lines for the second affiliation.

d) *For author/s of more than two affiliations: To change the default, adjust the template as follows.*

e) *Selection:* Highlight all author and affiliation lines.

f) *Change number of columns:* Select the “Columns” icon from the MS Word Standard toolbar and then select “1 Column” from the selection palette.

g) *Highlight author and affiliation lines of affiliation 1 and copy this selection.*

h) *Formatting:* Insert one hard return immediately after the last character of the last affiliation line. Then paste down the copy of affiliation 1. Repeat as necessary for each additional affiliation.

i) *Reassign number of columns:* Place your cursor to the right of the last character of the last affiliation line of an even numbered affiliation (e.g., if there are five affiliations, place your cursor at end of fourth affiliation). Drag the cursor up to highlight all of the above author and affiliation lines. Go to Column icon and select “2 Columns”. If you have an odd number of affiliations, the final affiliation will be centered on the page; all previous will be in two columns.

B. Identify the Headings

Headings, or heads, are organizational devices that guide the reader through your paper. There are two types: component heads and text heads.

Component heads identify the different components of your paper and are not typically subordinate to each other. Examples include Acknowledgments and References and, for these, the correct style to use is “Heading 5”. Use “figure caption” for your Figure captions, and “table head” for your table title. Run-in heads, such as “Abstract”, will require you to apply a style (in this case, italic) in addition to the style provided by the drop down menu to differentiate the head from the text.

Text heads organize the topics on a relational, hierarchical basis. For example, the paper title is the primary text head because all subsequent material relates and elaborates on this one topic. If there are two or more sub-topics, the next level head (uppercase Roman numerals) should be used and, conversely, if there are not at least two sub-topics, then no subheads should be introduced. Styles named “Heading 1”, “Heading 2”, “Heading 3”, and “Heading 4” are prescribed.

C. Figures and Tables

1) *Positioning Figures and Tables*: Place figures and tables at the top and bottom of columns. Avoid placing them in the middle of columns. Large figures and tables may span across both columns. Figure captions should be below the figures; table heads should appear above the tables. Insert figures and tables after they are cited in the text. Use the abbreviation “Fig. 1”, even at the beginning of a sentence.

TABLE I. TABLE TYPE STYLES

Table Head	Table Column Head		
	<i>Table column subhead</i>	<i>Subhead</i>	<i>Subhead</i>
copy	More table copy ^a		

a. Sample of a Table footnote. (Table footnote)

We suggest that you use a text box to insert a graphic (which is ideally a 300 dpi TIFF or EPS file, with all fonts embedded) because, in an MSW document, this method is somewhat more stable than directly inserting a picture.

To have non-visible rules on your frame, use the MSWord “Format” pull-down menu, select Text Box > Colors and Lines to choose No Fill and No Line.

Figure 1. Example of a figure caption. (figure caption)

Figure Labels: Use 8 point Times New Roman for Figure labels. Use words rather than symbols or abbreviations when writing Figure axis labels to avoid confusing the reader. As an example, write the quantity “Magnetization”, or “Magnetization, M”, not just “M”. If including units in the label, present them within parentheses. Do not label axes only with units. In the example, write “Magnetization (A/m)” or

“Magnetization {A[m(1)]}”, not just “A/m”. Do not label axes with a ratio of quantities and units. For example, write “Temperature (K)”, not “Temperature/K”.

ACKNOWLEDGMENT (HEADING 5)

The preferred spelling of the word “acknowledgment” in America is without an “e” after the “g”. Avoid the stilted expression, “One of us (R. B. G.) thanks . . .” Instead, try “R. B. G. thanks”. Put sponsor acknowledgments in the unnumbered footnote on the first page.

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The template will number citations consecutively within brackets [1]. The sentence punctuation follows the bracket [2]. Refer simply to the reference number, as in [3]—do not use “Ref. [3]” or “reference [3]” except at the beginning of a sentence: “Reference [3] was the first . . .”

Number footnotes separately in superscripts. Place the actual footnote at the bottom of the column in which it was cited. Do not put footnotes in the reference list. Use letters for table footnotes.

Unless there are six authors or more give all authors’ names; do not use “et al.”. Papers that have not been published, even if they have been submitted for publication, should be cited as “unpublished” [4]. Papers that have been accepted for publication should be cited as “in press” [5]. Capitalize only the first word in a paper title, except for proper nouns and element symbols.

For papers published in translation journals, please give the English citation first, followed by the original foreign-language citation [6].

- [1] G. Eason, B. Noble, and I. N. Sneddon, “On certain integrals of Lipschitz-Hankel type involving products of Bessel functions,” *Phil. Trans. Roy. Soc. London*, vol. A247, pp. 529–551, April 1955. (references)
- [2] J. Clerk Maxwell, *A Treatise on Electricity and Magnetism*, 3rd ed., vol. 2. Oxford: Clarendon, 1892, pp.68–73.
- [3] I. S. Jacobs and C. P. Bean, “Fine particles, thin films and exchange anisotropy,” in *Magnetism*, vol. III, G. T. Rado and H. Suhl, Eds. New York: Academic, 1963, pp. 271–350.
- [4] K. Elissa, “Title of paper if known,” unpublished.
- [5] R. Nicole, “Title of paper with only first word capitalized,” *J. Name Stand. Abbrev.*, in press.
- [6] Y. Yorozu, M. Hirano, K. Oka, and Y. Tagawa, “Electron spectroscopy studies on magneto-optical media and plastic substrate interface,” *IEEE Transl. J. Magn. Japan*, vol. 2, pp. 740–741, August 1987 [Digests 9th Annual Conf. Magnetism Japan, p. 301, 1982].
- [7] M. Young, *The Technical Writer’s Handbook*. Mill Valley, CA: University Science, 1989.



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Hydrochemistry of Groundwater in Yogyakarta Graben, Area of Code Sub Drainage, Yogyakarta, Indonesia

by

T. Listyani R.A.

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Signature  _____

Name of Author(s) _____ T. Listyani R.A. _____

Institution or Company _____ STTNAS Yogyakarta, Indonesia _____

Seal/Date _____ May 30, 2016 _____

RE: GEOS 2016: Letter of Acceptance (13)

Dari: GEOS Conference Secretariat (secretariat@geoeearth.org)

Kepada: listyani_theo@yahoo.co.id

Cc: responses@globalstf.org

Tanggal: Sabtu, 28 Mei 2016 12.48 WIB

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Programme Manager

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Attached is my final paper.

I would like to wait for your next announcement of shedule & so on.

Thank you

Best regards,

T. Listyani R.A.

Yogya, Indonesia

Pada Jumat, 6 Mei 2016 8:54, GEOS Conference Secretariat <secretariat@geoearth.org> menulis:

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Please note that you are required to complete the registration where the instructions are available at conference website (visit <http://www.geoearth.org/> and click on "Registration" on the top panel). Kindly note that the Early Registration Deadline is **15th July 2016**.

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Please be informed that if the final version of your full paper exceeds the limit of 10 pages, charges will be incurred at SGD\$50 per page. Hence, it is recommended that your paper is kept brief and succinct as possible.

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Should you have other questions, please feel free to contact us.

Warm Regards,

Ana Martina Tubilleja

Programme Manager

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Dari: GEOS 2016 (geos2016@easychair.org)

Kepada: listyani_theo@yahoo.co.id

Tanggal: Senin, 30 Mei 2016 18.18 WIB

Dear authors,

we acknowledge that we received new files for your GEOS 2016 submission. The information about this update is shown below.

Number: 13

Authors: Theophila Listyani

Title: Hydrochemistry of Groundwater in Yogyakarta Graben, Area of Code Sub Drainage, Yogyakarta, Indonesia

Uploaded by: Theophila Listyani <listyani_theo@yahoo.co.id>

Updates:

paper, version 4 (370938 bytes)

To access the new version of your submission you should log in to the GEOS 2016 EasyChair page.



363197231.txt
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Dari: GEOS Conference Secretariat (secretariat@geoeearth.org)
Kepada: listyani_theo@yahoo.co.id
Cc: responses@globalstf.org
Tanggal: Kamis, 2 Juni 2016 17.26 WIB

Dear Dr. T. Listyani,

Thank you for your email

We acknowledge the receipt of your copyright form. Please see attached file for letter of acceptance as requested.

Looking forward to your registration and participation in the conference.

Should you need further information, please feel free to contact us.

Warm Regards,

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Programme Manager
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To: GEOS Conference Secretariat <secretariat@geoeearth.org>
Subject: Bls: GEOS 2016: Letter of Acceptance (13)

Dear committee

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By the way, let me receive your Letter of Acceptance in one formal sheet for my name:

T. Listyani R.A., S.T., M.T.

Geological Engineering

STTNAS Yogyakarta

Thank you

Pada Sabtu, 28 Mei 2016 12:48, GEOS Conference Secretariat <secretariat@geoeearth.org> menulis:

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Kindly follow the steps below:

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Date: 1 June 2016

Dear Dr. Theophila Listyani,

We are pleased to inform you that the Organizing Committee of **GEOS 2016**, after review, has decided to invite your paper submission titled "*Hydrochemistry of Groundwater in Yogyakarta Graben, Area of Code Sub Drainage, Yogyakarta, Indonesia*" for oral presentation.

We are pleased to invite you to the **5th Annual International Conference on Geological and Earth Sciences (GEOS 2016)** to be held on 10th – 11th October 2016 in Singapore.

To keep you informed:

- **Keynote Address 1** will be delivered by **Assoc. Prof. Eswaran Padmanabhan**, Department of Geosciences, Faculty of Geosciences and Petroleum Engineering, Universiti Teknologi Petronas, Malaysia
- **Keynote Address 2** will be delivered by **Assoc. Prof. Abdul Hadi Abd Rahman**, Department of Geosciences, Faculty of Geoscience and Petroleum Engineering, Universiti Teknologi Petronas, Malaysia
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Sincerely,

Dr. Anton Ravindran CENG (UK), FBCS
President, Global Science and Technology Forum



Global Science and Technology Forum

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GEOS 2016: Registration Reminder

Dari: GEOS Conference Secretariat (secretariat@geoeearth.org)

Kepada: listyani_theo@yahoo.co.id

Cc: responses@globalstf.org

Tanggal: Rabu, 15 Juni 2016 12.31 WIB

Dear Dr. Theophila Listyani

Hope this email finds you well.

We have noted of your submission to **GEOS 2016** conference which was accepted for oral presentation at the forthcoming conference to be held at **Hotel Fort Canning, Singapore** on **10th – 11th October 2016**.

We would like to kindly inform you and co-authors (group or individually) to register before **29th July 2016** which is the early bird registration deadline. For more details please visit our website (<http://geoeearth.org/>) Kindly sign the attached Assignment of Copyright form by **29th July 2016**. We request the presenters of the paper to fill up the **online registration form**. Kindly send your copyright form and payment slip in a single email.

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- **GEOS 2016** will also constitute a Special Panel Session.
- **Panel Proposals** are invited for submission. A minimum of three papers centering on a specific topic will be accepted for submission under **Panel Category**.

Should you have other questions, please feel free to contact us.

Warm Regards,

Ana Martina Tubilleja

Programme Manager

Global Science and Technology Forum

10 Anson Road, International Plaza,

#13-12, Singapore- 079903

Phone: +65 6327 0165 | Fax: +65 6327 0162 | www.earth.org

Co. Reg. No. 200923362W



GEOS 2016

Geological & Earth Sciences

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Copyright form.doc

47.5kB

RE: GEOS 2016: Registration Reminder

Dari: GEOS Conference Secretariat (secretariat@geoeearth.org)
Kepada: listyani_theo@yahoo.co.id
Cc: responses@globalstf.org
Tanggal: Senin, 4 Juli 2016 10.34 WIB

Dear Dr. Theophila Listyani

Thank you for your email

We acknowledge the receipt of your copyright form.

Should you need further information, please feel free to contact us.

Warm Regards,

Ana Martina Tubilleja
Programme Manager
Global Science and Technology Forum
10 Anson Road, International Plaza,
#13-12, Singapore- 079903
Phone: +65 6327 0165 | Fax: +65 6327 0162 | www.geoeearth.org
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From: theo listyani [mailto:listyani_theo@yahoo.co.id]
Sent: Saturday, July 2, 2016 10:39 PM
To: GEOS Conference Secretariat <secretariat@geoeearth.org>
Subject: Bls: GEOS 2016: Registration Reminder

Dear committee..

I think that I've ever sent this copyright form..

but may be I should resent again to you...

Thank you

Pada Rabu, 15 Juni 2016 12:31, GEOS Conference Secretariat <secretariat@geoeearth.org> menulis:

Dear Dr. Theophila Listyani

Hope this email finds you well.

We have noted of your submission to **GEOS 2016** conference which was accepted for oral presentation at the forthcoming conference to be held at **Hotel Fort Canning, Singapore** on **10th – 11th October 2016**.

We would like to kindly inform you and co-authors (group or individually) to register before **29th July 2016** which is the early bird registration deadline. For more details please visit our website (<http://geoearth.org/>) Kindly sign the attached Assignment of Copyright form by **29th July 2016**. We request the presenters of the paper to fill up the **online registration form**. Kindly send your copyright form and payment slip in a single email.

If you are having difficulties, GSTF extends concession (financial assistance) on a case by case basis for doctoral candidates and for delegates from developing countries based on merit (of the research paper submitted and accepted) and need.

Briefly about the **GEOS 2016** Conference:

- **Keynote Address 1** will be delivered by **Assoc. Prof. Eswaran Padmanabhan**, Department of Geosciences, Faculty of Geosciences and Petroleum, Engineering, Universiti Teknologi Petronas, Malaysia
- **Keynote Address 2** will be delivered by **Assoc. Prof. Abdul Hadi Abd Rahman**, Department of Geosciences, Faculty of Geoscience and Petroleum Engineering, Universiti Teknologi Petronas, Malaysia
- **The Conference Proceedings** Print ISSN: 2251-3353, E-Periodical ISSN: 2251-3361 will be indexed by EBSCO, CrossRef, ProQuest and will be submitted to Scopus, ScienceDirect and Cabell's Directories amongst others, where applicable.
- **Journal:** All authors who present their papers at the conference will be invited to submit an extended version of their research paper for the **GSTF Journal of Geological Sciences (JGS)** (Print ISSN: 2335-6774, E-periodical: 2335-6782). All submitted papers will go through blind review process for acceptance. All accepted papers (after the review process) will be included in the JGS on a complimentary basis. GSTF JGS is hosted and published on Springer's Open Access publishing platform - **Global Science Journals (GSJ)**. In addition, it will be submitted to indexed by **CAS, EBSCO, CrossRef, ProQuest, Ulrichsweb, Cabell's Directories** and will be submitted to **Google Scholar, IndexCopernicus, ScienceDirect** amongst others.
- **Book:** Selected authors will be invited to contribute book chapters in "Recent Advances in Geosciences: Global Perspective" to be published by GSTF. The book will be co-edited by Dr. M. S. Pandian, GEOS Editor-In-Chief, from Pondicherry University, India and Prof. James P. Terry from Zayed University, Dubai, United Arab Emirates.
- **Best Paper Awards** and **Best Student Paper Awards** will be conferred at the conference (in order to qualify for the award, the paper must be presented at the conference).
- **GEOS 2016** will also constitute a Special Panel Session.
- **Panel Proposals** are invited for submission. A minimum of three papers centering on a specific topic will be accepted for submission under **Panel Category**.

Should you have other questions, please feel free to contact us.

Warm Regards,

Ana Martina Tubilleja

Programme Manager

Global Science and Technology Forum

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#13-12, Singapore- 079903

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Co. Reg. No. 200923362W



GEOS 2016

Geological & Earth Sciences

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RE: GEOS 2016: Registration Reminder

Dari: GEOS Conference Secretariat (secretariat@geoeearth.org)

Kepada: listyani_theo@yahoo.co.id

Cc: responses@globalstf.org

Tanggal: Sabtu, 16 Juli 2016 14.59 WIB

Dear Dr. Theophila Listyani

Thank you for your email

Kindly note that we are unable to provide the conference program as the paper submission is still ongoing. We will be happy to provide by Mid-August.

Should you need further information, please feel free to contact us.

Warm Regards,

Ana Martina Tubilleja

Programme Manager

Global Science and Technology Forum

10 Anson Road, International Plaza,

#13-12, Singapore- 079903

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From: theo listyani [mailto:listyani_theo@yahoo.co.id]
Sent: Thursday, July 14, 2016 5:19 PM
To: GEOS Conference Secretariat <secretariat@geoeearth.org>
Subject: Bls: GEOS 2016: Registration Reminder

Dear committee

I'm so sorry that I feel so difficult to open your seminar schedule... Would you like to send me the schedule in pdf or MS word form.

Thank you

Pada Senin, 4 Juli 2016 10:34, GEOS Conference Secretariat <secretariat@geoeearth.org> menulis:

Dear Dr. Theophila Listyani

Thank you for your email

We acknowledge the receipt of your copyright form.

Should you need further information, please feel free to contact us.

Warm Regards,

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Programme Manager

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Subject: Bls: GEOS 2016: Registration Reminder

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but may be I should resent again to you...

Thank you

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We would like to kindly inform you and co-authors (group or individually) to register before **29th July 2016** which is the early bird registration deadline. For more details please visit our website (<http://geoeearth.org/>) Kindly sign the attached Assignment of Copyright form by **29th July 2016**. We request the presenters of the paper to fill up the **online registration form**. Kindly send your copyright form and payment slip in a single email.

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paper submitted and accepted) and need.
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- **The Conference Proceedings** Print ISSN: 2251-3353, E-Periodical ISSN: 2251-3361 will be indexed by EBSCO, CrossRef, ProQuest and will be submitted to Scopus, ScienceDirect and Cabell's Directories amongst others, where applicable.
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- **Book:** Selected authors will be invited to contribute book chapters in "Recent Advances in Geosciences: Global Perspective" to be published by GSTF. The book will be co-edited by Dr. M. S. Pandian, GEOS Editor-In-Chief, from Pondicherry University, India and Prof. James P. Terry from Zayed University, Dubai, United Arab Emirates.
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Warm Regards,

Ana Martina Tubilleja

Programme Manager

Global Science and Technology Forum

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#13-12, Singapore- 079903

Phone: +65 6327 0165 | Fax: +65 6327 0162 | www.geoearth.org

Co. Reg. No. 200923362W



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RE: Registration

Dari: GEOS Conference Secretariat (secretariat@geoeearth.org)

Kepada: listyani_theo@yahoo.co.id

Cc: responses@globalstf.org

Tanggal: Kamis, 21 Juli 2016 16.43 WIB

Dear Dr. Theophila Listyani,

Thank you for your email

1. Payment via Wire transfer

Payments can be made through wire transfer to the following bank:

Account Name : Global Science & Technology Forum

Bank Name : United Overseas Bank (UOB)

Bank Address : Anson Road, #01-01 International Plaza, Singapore 079903

Account Number: 374-304-358-6

Swift Code : UOVBSGSG

* For wire transfer, please add **SGD 45.00** for local/overseas bank charges.

Warm Regards,

Ana Martina Tubilleja

Programme Manager

Global Science and Technology Forum

10 Anson Road, International Plaza,

#13-12, Singapore- 079903

Phone: +65 6327 0165 | Fax: +65 6327 0162 | www.geoeearth.org

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From: theo listyani [mailto:listyani_theo@yahoo.co.id]

Sent: Thursday, July 21, 2016 5:23 PM

To: GEOS Conference Secretariat <secretariat@geoeearth.org>

Subject: Registration

Dear committee

RE: GEOS 2016: Registration Reminder

Dari: GEOS Conference Secretariat (secretariat@geoeearth.org)
Kepada: listyani_theo@yahoo.co.id
Cc: responses@globalstf.org
Tanggal: Kamis, 21 Juli 2016 11.18 WIB

Dear Dr. Theophila Listyani

Thank you for your email

Yes, the conference is on 10 – 11 October. Meanwhile, Please note that the 3-hour complimentary tour is scheduled on the second day of the conference. The tour itinerary is as follows:

Starting and Ending Venue: Hotel Fort Canning Lobby
Fort Canning (The Legends)
Marina Bay Area
Helix Bridge
Marina Bay Sands
Merlion Park (stop)
Civic District
Chinatown
Clarke Quay
End at Fort Canning

Should you need further information, please feel free to contact us.

Warm Regards,

Ana Martina Tubilleja

Programme Manager
Global Science and Technology Forum
10 Anson Road, International Plaza,
#13-12, Singapore- 079903
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From: theo listyani [mailto:listyani_theo@yahoo.co.id]
Sent: Wednesday, July 20, 2016 6:33 PM
To: GEOS Conference Secretariat <secretariat@geoeearth.org>
Subject: Bls: GEOS 2016: Registration Reminder

Dear committee..

I got difficulty for payment via debit card this afternoon, so I'll try to pay via wire transfer tomorrow.

By the way, let me know your schedule.

Is it true that 10 - 11 Oct 2016 technical session?

So, when will complimentary city tour be held? Is 12 Oct 2016 right?

Thank you

Pada Rabu, 15 Juni 2016 12:31, GEOS Conference Secretariat <secretariat@geoeearth.org> menulis:

Dear Dr. Theophila Listyani

Hope this email finds you well.

We have noted of your submission to **GEOS 2016** conference which was accepted for oral presentation at the forthcoming conference to be held at **Hotel Fort Canning, Singapore** on **10th – 11th October 2016**.

We would like to kindly inform you and co-authors (group or individually) to register before **29th July 2016** which is the early bird registration deadline. For more details please visit our website (<http://geoeearth.org/>) Kindly sign the attached Assignment of Copyright form by **29th July 2016**. We request the presenters of the paper to fill up the **online registration form**. Kindly send your copyright form and payment slip in a single email.

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- **Keynote Address 2** will be delivered by **Assoc. Prof. Abdul Hadi Abd Rahman**, Department of Geosciences, Faculty of Geoscience and Petroleum Engineering, Universiti Teknologi Petronas, Malaysia
- **The Conference Proceedings** Print ISSN: 2251-3353, E-Periodical ISSN: 2251-3361 will be indexed by EBSCO, CrossRef, ProQuest and will be submitted to Scopus, ScienceDirect and Cabell's Directories amongst others, where applicable.
- **Journal:** All authors who present their papers at the conference will be invited to submit an extended version of their research paper for the **GSTF Journal of Geological Sciences (JGS)** (Print ISSN: 2335-6774, E-periodical: 2335-6782). All submitted papers will go through blind review process for acceptance. All accepted papers (after the review process) will be included in the JGS on a complimentary basis. GSTF JGS is hosted and published on Springer's Open Access publishing platform - **Global Science Journals (GSJ)**. In addition, it will be submitted to indexed by **CAS, EBSCO, CrossRef, ProQuest, Ulrichsweb, Cabell's Directories** and will be submitted to **Google Scholar, IndexCopernicus, ScienceDirect** amongst others.
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- **Panel Proposals** are invited for submission. A minimum of three papers centering on a specific topic will be accepted for submission under [Panel Category](#).

Should you have other questions, please feel free to contact us.

Warm Regards,

Ana Martina Tubilleja

Programme Manager

Global Science and Technology Forum

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RE: Registration

Dari: GEOS Conference Secretariat (secretariat@geoeearth.org)
Kepada: listyani_theo@yahoo.co.id
Cc: responses@globalstf.org
Tanggal: Senin, 25 Juli 2016 16.02 WIB

Dear Dr. T. Listyani R.A.,

Thank you for your email

We acknowledge the receipt of your payment and copyright form.

Look forward to meeting you at the conference

Should you need further information, please feel free to contact us.

Warm Regards,

Ana Martina Tubilleja

Programme Manager
Global Science and Technology Forum
10 Anson Road, International Plaza,
#13-12, Singapore- 079903
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From: theo listyani [mailto:listyani_theo@yahoo.co.id]
Sent: Saturday, July 23, 2016 5:33 PM
To: GEOS Conference Secretariat <secretariat@geoeearth.org>
Subject: Bls: Registration

Sorry, I was late to read your email....

Unfortunately, I've paid the seminar registration (850 SGD) plus 45 SGD (local bank charge) plus 30 SGD (local bank charge again) and Rp 35.000 (local bank charge Bank Mandiri Indonesia). So.. I've already paid Rp. 9.181.110 rupiahs for seminar.

Here I attach 2 files:

1. Copyright
2. Registration form & payment slip

RE: Registration

Dari: GEOS Conference Secretariat (secretariat@geoeearth.org)
Kepada: listyani_theo@yahoo.co.id
Cc: responses@globalstf.org
Tanggal: Selasa, 26 Juli 2016 18.33 WIB

Dear Dr. T. Listyani R.A.,

Thank you for your email

We acknowledge the receipt of your payment and copyright form.

Looking forward to your registration and participation in the conference.

Should you need further information, please feel free to contact us

Warm Regards,

Ana Martina Tubilleja
Programme Manager
Global Science and Technology Forum
10 Anson Road, International Plaza,
#13-12, Singapore- 079903
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From: theo listyani [mailto:listyani_theo@yahoo.co.id]
Sent: Monday, July 25, 2016 6:30 PM
To: GEOS Conference Secretariat <secretariat@geoeearth.org>
Subject: Bls: Registration

Dear committee

Thanks for your response of my payment.

Again, I want to inform you again that I have sent 895 SGD for seminar registration last Friday (July 22, 2016).

Please let me know if you have received my payment transfer.

Thank you

Ana Martina Tubilleja

Programme Manager

Global Science and Technology Forum

10 Anson Road, International Plaza,

#13-12, Singapore- 079903

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From: theo listyani [mailto:listyani_theo@yahoo.co.id]

Sent: Thursday, July 21, 2016 5:23 PM

To: GEOS Conference Secretariat <secretariat@geoeearth.org>

Subject: Registration

Dear committee

This morning I've tried to pay seminar registration by transferring via teller bank BNI 46 Indonesia. Unfortunately the bank can't serve me because there were no account number and swift code bank.

I only have your account name and bank name.

Account name: Global Science and Technology Forum Pte Ltd

Bank Name: United Overseas Bank (UOB)

Please inform me your **account number** and **swift code bank** so that I can pay the seminar registration soon.

Thank you.

Best regard,

Theophila Listyani R.A.

Indonesia

GEOS 2016: Confirmation of Attendance

Dari: GEOS Conference Secretariat (secretariat@geoearth.org)

Kepada: listyani_theo@yahoo.co.id

Cc: responses@globalstf.org

Tanggal: Senin, 3 Oktober 2016 19.52 WIB

Dear Dr. Theophila Listyani,
Hope this email finds you well

We are now in the process of finalizing the logistics of **5th Annual International Conference on Geological and Earth Sciences (GEOS 2016)** to be held on 11th October 2016 at Hotel Fort Canning.

There will be a **complimentary tour** right after the conference on 11th October 2016. Please revert to us so we can inform the conference venue regarding the numbers of delegates attending the conference.

Please advise if you need any special dietary requirements (Halal, Vegetarian, etc.) so we can inform the conference venue. GEOS was scheduled to be a 2-day conference. However, as of the current count, there are only 35 papers accepted and 11 delegates attending. To this end, the Organizing Committee had decided to convert it to be a conference meeting for a day. As we are already expecting attendance of delegates from Turkey, Japan, Indonesia, UAE, etc. (who have already made that necessary travel arrangements), the organizing committee has decided to pursue the conference. As such, we kindly request you to confirm your attendance.

We regret this development. We hope you can confirm your participation by tomorrow (4th October) so that we can make the necessary arrangements for those who will be attending the conference.

Meanwhile, please see attached tentative presentation program for your reference.

Would also appreciate if you can submit your power point presentation by 6th October.

Looking forward to your favorable response.

Should you need further assistance, please feel free to contact me

Warm Regards,

Ana Martina Tubilleja

Programme Manager

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GEOS_program.pdf
591.3kB

RE: GEOS 2016: Confirmation of Attendance

Dari: GEOS Conference Secretariat (secretariat@geoeearth.org)

Kepada: listyani_theo@yahoo.co.id

Cc: responses@globalstf.org

Tanggal: Rabu, 5 Oktober 2016 09.58 WIB

Dear Dr Theo,

Thank you for your email

We acknowledge the receipt of your PPT presentation. Meanwhile, we have noted that you will attend the GEOS 2016 conference. Please advise if you would like to moderate a roundtable / panel session on 10th October. If it would be of interest, please assist me with the proposed topic/theme so we can disseminate to the attendees.

Should you need further information, please feel free to contact us.

Warm Regards,

Ana Martina Tubilleja

Programme Manager

Global Science and Technology Forum

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From: theo listyani [mailto:listyani_theo@yahoo.co.id]

Sent: Tuesday, October 4, 2016 6:20 PM

To: GEOS Conference Secretariat <secretariat@geoeearth.org>

Subject: Bls: GEOS 2016: Confirmation of Attendance

Dear committee

Here I attach my power point of seminar

Thank you

Regard,

TL, Indonesia

Pada Senin, 3 Oktober 2016 19:52, GEOS Conference Secretariat <secretariat@geoearth.org> menulis:

Dear Dr. Theophila Listyani,
Hope this email finds you well

We are now in the process of finalizing the logistics of **5th Annual International Conference on Geological and Earth Sciences (GEOS 2016)** to be held on 11th October 2016 at Hotel Fort Canning.

There will be a **complimentary tour** right after the conference on 11th October 2016. Please revert to us so we can inform the conference venue regarding the numbers of delegates attending the conference.

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Would also appreciate if you can submit your power point presentation by 6th October.

Looking forward to your favorable response.

Should you need further assistance, please feel free to contact me

Warm Regards,

Ana Martina Tubilleja

Programme Manager

Global Science and Technology Forum

10 Anson Road, International Plaza,

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GEOS 2016 submission 13 update

Dari: GEOS 2016 (geos2016@easychair.org)

Kepada: listyani_theo@yahoo.co.id

Tanggal: Kamis, 6 Oktober 2016 08.08 WIB

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we acknowledge that we received new files for your GEOS 2016 submission. The information about this update is shown below.

Number: 13

Authors: Theophila Listyani

Title: Hydrochemistry of Groundwater in Yogyakarta Graben, Area of Code Sub Drainage, Yogyakarta, Indonesia

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Number: 13

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Uploaded by: Theophila Listyani <listyani_theo@yahoo.co.id>

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Dear Dr. Theo Listyani,

Thank you for your email

Please advise if you need any assistance.

Should you need further information, please feel free to contact us.

Warm Regards,

Ana Martina Tubilleja

Programme Manager

Global Science and Technology Forum

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Conference Program

DAY 1

Date: 10th October (Monday)

Venue: Hotel Fort Canning, Singapore

Room: Level 1, Lavender 3

9:00-9:30	Registration
9:30-10:15	Keynote Address: <i>"Global Energy Crisis - Reshaping Our Future"</i> Assoc. Prof. Eswaran Padmanabhan Department of Geosciences Faculty of Geosciences and Petroleum Engineering, Universiti Teknologi Petronas, Malaysia
10:15-11:00	Keynote Address: Dr. A Hadi B A Rahman Department of Geosciences Faculty of Geosciences and Petroleum Engineering, Universiti Teknologi Petronas, Malaysia
11:00-11:20	Coffee / Refreshment Break
11:20-11:40	GEOS 6 "The Petrology of Granitoids in the Southeast Pertek (Tunceli) (Eastern Taurus-Turkey)" Mr. Abdullah Sar Firat University, Turkey
11:40-12:00	GEOS 13 "Hydrochemistry of Groundwater in Yogyakarta Graben, Area of Code Sub Drainage, Yogyakarta, Indonesia" Dr. Theophila Listyani STTNAS Yogyakarta, Indonesia
12:00-12:20	GEOS 29 "Self-affinities of Folds and Incomplete Similarity" Dr. Kazuhei Kikuchi Tohoku University, Japan

12:20-12:40	<p style="text-align: center;">GEOS 23 " Hazardous slope control in an open-pit coal mine based on continuous tilt observations" Dr. Jan Mrlina Institute of Geophysics CAS, Czech Republic</p>
12:40-1:00	<p style="text-align: center;">GEOS 37 "Infiltration rate and climatic variability influence on groundwater sustainability in Al Jaw Plain, Al-Ain, United Arab Emirates (UAE)" Dr. Saber Hussein United Arab Emirates University</p>
1:00-2:00	LUNCH
2:00-2:20	<p style="text-align: center;">GEOS 11 "Analyses of magnetic properties and mineralogy on fertilizer and pesticide contaminated soil" Dr. Eleonora Agustine Universitas Padjadjaran, Indonesia</p>
2:20-2:40	<p style="text-align: center;">GEOS 10 "Magnetism and Morphology of Magnetic Minerals from Agricultural Soils: A Proxy Indicator of Pollution" Dr. Dini Fitriani Universitas Padjadjaran, Indonesia</p>
2:40-3:00	<p style="text-align: center;">GEOS 9 "Applied of Seismic Attenuation Tomography in Geothermal Field" Dr. Mia Uswatun Hasanah Universitas Padjadjaran, Indonesia</p>
3:00-3:20	<p style="text-align: center;">GEOS 35 "The Drain Net Modeling On The Base Terrestrial And Radar Data. Comparative Analysis" Dr. Ekaterina Karfidova Institute of Enviromental Geoscience, Russia</p>
3:20-3:40	Coffee / Refreshment Break
3:40-4:00	<p style="text-align: center;">GEOS 40 " Geodynamic polygon development using remote sensing data" Mrs. Dinara Talgarbayeva JSC "National Center of Space Research and Technology" SLLP "Institute of Ionosphere", Kazakhstan</p>
4:00-4:20	<p style="text-align: center;">GEOS 20 "Velocity anisotropy effect on physical properties of limestone" Dr. Ibrahim Sertcelik Kocaeli University, Turkey</p>

4:20-4:40	<p style="text-align: center;">GEOS 21 "Determination of Physical and Mechanical Properties of Arkoses" Dr. Cengiz Kurtulus Kocaeli University, Turkey</p>
4:40-5:00	<p style="text-align: center;">GEOS 22 "Spectral Analysis of Recent Ankara (Turkey) Terrorist Attacks" Dr. Fadime Sertcelik Kocaeli University, Turkey</p>
5:00-5:20	<p style="text-align: center;">BEST PAPER AWARD & BEST STUDENT PAPER AWARD</p>

Hydrochemistry of Groundwater in Yogyakarta Graben, Area of Code Sub Drainage, Yogyakarta, Indonesia

T. Listyani R.A.

Geological Engineering Department,
STTNAS Yogyakarta
Indonesia

Email: listyani_theo@yahoo.co.id

Abstract— Eruption of Mount Merapi in 2010 ago had an impact on the quality of surface water, but no clear effect on the groundwater. Code Sub-drainage Area is an affected area of the volcanic eruption, because the river is located on the slopes of Merapi and its upstream comes from the upper slope of the mountain. Groundwater flows in the area surrounding the River Code in south direction, with gradient flow smaller in the downstream direction. This flow pattern resembles the surface topography. Types of shallow groundwater chemistry is dominated by sodium calcium - bicarbonate water, consist of Ca-HCO_3 ; $\text{Ca-Cl,SO}_4\text{,HCO}_3$; Na,Ca-HCO_3 whereas the hydrochemistry types of deep groundwater is more varied (Na,Mg-Cl,HCO_3 ; Na,Ca,Mg-SO_4 , HCO_3 and Na, Ca,Mg-HCO_3 . Groundwater from the springs which were found has the type of Na,Mg - Cl,HCO_3 . The hydrochemistry of groundwater is highly dependent on the Merapi volcanic rock aquifers, especially from Yogyakarta Formation and controlled by mixing and leaching hydrochemical processes.

Keywords- hydrochemistry, groundwater, Code Sub-drainage Area.

I. INTRODUCTION

A. Background

The research areas included in Yogyakarta Groundwater Basin . This basin is limited by Quaternary volcanoes in the northern part, which is still very active. Code River has upstream area in the upper slopes of Merapi and it flows through the Yogyakarta city and surrounding areas. Groundwater in the area is of course also supported by the flow of water from the river.

Eruption of Mount Merapi in 2010 had an impact in many aspects of life, not least in terms of potential groundwater in the area of Yogyakarta. Code River is a river that divides the Yogyakarta city, where in its sub-drainage area, many people live and take much quantity of groundwater.

Some previous researchers have examined the quality of groundwater in the Yogyakarta Groundwater Basin, and found indications of pollution caused by household and industrial. Contamination of groundwater due to eruption of Merapi is less obvious. However, studies of groundwater quality remains

an important part in understanding the potential of groundwater in the area which has quite densely population .

By knowing the type of groundwater chemistry, interpretation of hydrochemical process and indications of groundwater pollution in an area can be known. Type of groundwater chemistry are an indication of the various hydrochemical processes and travel duration of groundwater in rock formations in a groundwater basin. The dominance of the major cations and anions can be studied to see the evolution of chemistry and groundwater salinity.

B. Location

The research area is located in the Code Sub-drainage Area, covers an area of Sleman, Yogyakarta and Bantul Districts, Yogyakarta Province. This area is in the southern part of Java Island, Indonesia (Figure 1). Code Sub-drainage is part of the Opak Drainage Area , where the river flow into the South Sea (the Indian Ocean). Code Sub-drainage selected in this study because the river flows through a region with a large population , and the area affected by the eruption of Merapi (2010). This hydrogeology studies is related to groundwater quality after the eruption of Merapi (2010).

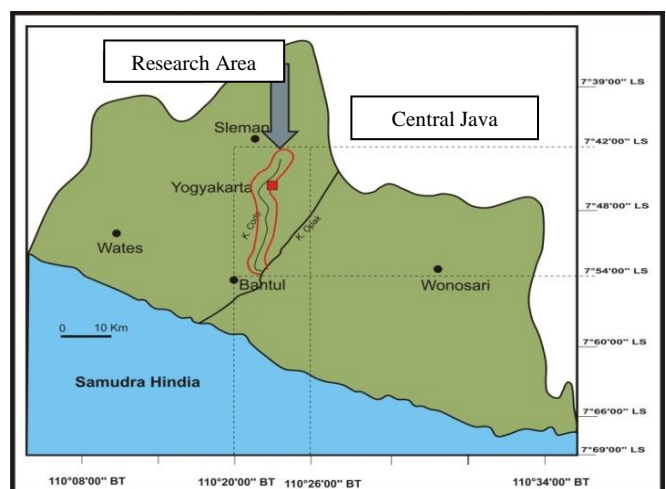


Figure 1. Research area is located at Code Sub-drainage Area, Yogyakarta Province, Java, Indonesia.

II. PURPOSE AND GOAL

Purpose of this study is to conduct hydrogeological survey in the field, equipped with a sampling of groundwater, both on shallow wells, springs encountered in the well. The goal is to conduct a chemical analysis of the water to see hydrochemical character of groundwater in the study area.

III. METHOD

Hydrogeological survey was preceded by previous literature review. After that, the geological observation has been carried out in the field. The equipment used is standard equipment field geologist (hammer, loupe, compass), hydrogeological field equipment (pH meter, TDS meter, measuring rope), equipped with a rock sample bag and sample bottles of water. The primary data of groundwater samples have been taken in 2012.

Description geomorphology, petrology and geology of the environment carried out especially in locations of outcrops. Description groundwater at several wells, randomized, accompanied by measurement of groundwater level, pH and TDS groundwater. Samples of groundwater taken from several shallow / deep wells and springs. Furthermore, groundwater samples tested in the laboratory of chemical / physical groundwater in Yogyakarta (BTKL/Balai Teknologi Kesehatan Lingkungan/Environmental Health Technology Office). Tests conducted on the physical properties of water (color, turbidity, taste, odor, turbidity) and the chemical composition of water. The test results of the chemical / physical groundwater is then analyzed to determine the hydrochemistry of groundwater in research areas.

IV. DISCUSSION

A. Aquifer Characteristic

The research area is included in Yogyakarta Groundwater Basin (Sir Mac Donald & Partners, 1984)[1]. Quaternary stratigraphy of this area is composed by young Merapi volcanic rocks that include two rock formations, namely the formation of Sleman and Yogyakarta Formation (Fig. 2). Rocks from both formations have become a free aquifer and semi confined aquifer in the study area.



Figure 2. Right: Old Merapi sediments (Sleman Formation) outcropped at research area (Ndalutung Village).
Left: Young Merapi sediments (Yogyakarta Formation) outcropped at riverbank of the middle part of Code (Sorosutan Village).

Warsono (1990) [2] said that aquifer group of Sleman and Yogyakarta formations is primarily semi unconfined. It appears that between Sleman Formation and Yogyakarta Formation are continuous rock, no clear impermeable barrier layer rock.

However, look at the position of Yogyakarta Formation located at the top, or near the soil surface, then aquifer formations formed is still possible in the form of free aquifer. This aquifer is characterized by the upper limit in the form of alluvial deposits which have almost the same aquifer permeability of Yogyakarta Formation. Due to impermeable boundary between Yogyakarta and Sleman Formations often does not exist, then both these formations are often merge into one group aquifer .

Groundwater generally flows to the south, through the Sleman and Yogyakarta Formation aquifers. Shallow groundwater aquifer is generally tapped from Yogyakarta Formation, while deep groundwater is taken from Sleman Formation. Catchment areas are in the northern part of the study area that is around the peak to the slopes of Merapi while discharge area is on own research area on the lower slopes to the foot of Mount Merapi .

B. Quality and Chemical Type of Groundwater

Secondary data were obtained from several previous researchers. MacDonald and Partners (1984, in Putra, 2011)[3] said that the inorganic chemistry quality of groundwater in Yogyakarta is very good for irrigation, drinking and industrial water. Springs have $EC < 100 \mu S/cm$, $TDS < 70 mg/l$. Geological boundary in the south, east and west have $EC < 600 \mu S/cm$, $TDS < 500 mg/l$. Nitrate content known as 0.00 to 2.8 mg/l .

Meanwhile, Sudharmaji (1991, in Putra, 2011) and Hendrayana (1993, in Putra, 2011) [3] said that the degradation of the quality of inorganic chemicals in the shallow groundwater associated with human activity in the late 80s and early 90s in the middle of Yogyakarta City. However , groundwater quality is generally good at the time, and only in a few places that have a nitrate concentration exceeded 10 mg/l. Nitrate content is generally 0.03 to 12.92 mg/l .

Based on the results of the groundwater quality testing, Sutriati *et al* (2011)[4] concluded that the quality of well water around river which has examined was not affected by the eruption of Mount Merapi. This groundwater usually has relatively good water quality and meet the Source Water Quality Standards. Results of water quality checks performed well in the field shows lava flows with Merapi volcanic ash does not significantly affect pH, DHL and dissolved oxygen .

Meanwhile, the primary data of shallow groundwater taken in this study are summarized in Table 1. The samples were taken from some population wells. Analysis of the data showed that the groundwater in the study area is generally show Na,Ca - HCO_3 type. High enough of nitrate concentration sample found on the CD-S4 .

Deep groundwater samples taken from three wells in the PDAM (Regional Company of Drinking Water) in Mlati and Tempel Sleman and Bantul PDAM wells (Table 2). Primary data of shallow and deep groundwater in Tables 1 and 2 then combined with secondary data obtained from the Geological Agency and PAB (Clean Water Agency) Yogyakarta. Analysis of the compilation of these data resulted in shallow

groundwater hydrochemical map as shown in Figure 3 as well as in the deep groundwater hydrochemical map (Fig. 4). From the map it appears that the type of shallow groundwater chemistry dominant form of calcium - sodium bicarbonate water, whereas deep groundwater chemical types are more varied.

Testing the physical / chemical properties of groundwater is also performed on samples derived from springs (see Table 2) . The analysis showed that the water has a type of Na, Mg - Cl , HCO₃. It is interesting to note in this regard is the significant presence of Cl. Indications of pollution may be seen from the content of Cl in this water .

TABLE I. TESTING RESULT OF PHYSICAL/CHEMICAL CHARACTERISTICS OF GROUNDWATER FROM SOME DUG WELLS.

Parameter	Unit	Sample				
		CD-S1	CD-S2	CD-S3	CD-S4	CD-S5
		Loc 2	Loc 21	Loc 25	Loc 47	Loc 48
Color	TCU	ttd	10	2	ttd	ttd
Turbidity	NTU	7	1	2	1	2
TSS	mg/l	2	1	9	12	8
Cl	mg/l	11	28	32,8	47,8	28
SO ₄	mg/l	32	37	43	38	26
HCO ₃	mg/l	204,4	62,17	384,3	362,9	244
Na	mg/l	10,58	10,82	94	116	60
K	mg/l	8	17	18	12	13
Ca	mg/l	41	73	45,57	46,57	35,02
Mg	mg/l	4,8	5	22	18,86	12,82
Fe	mg/l	0,376	<0.0098	<0.0230	<0.0230	<0.0230
Zn	mg/l	<0.0041	<0.0041	<0.0041	<0.0041	<0.0041
Mn	mg/l	0,1468	<0.0129	<0.0129	<0.0129	<0.0129
NO ₃	mg/l	0,22	2,23	6,35	32,04	3,65
NH ₃	mg/l	0,0146	0,008	0,0105	0,0053	0,0038
PO ₄	mg/l	0,72	4,0859	0,9396	5,4908	1,1382
DO	mg/l	4,8	5	3,8	3,6	3,8
BOD	mg/l	4,3	2,3	4,1	4,5	3,9
COD	mg/l	16	12	16	16	16
pH				6,9	6,9	7
Chemical type		Ca- HCO ₃	Ca- Cl, SO ₄ , HCO ₃	Na, Ca, - HCO ₃		

Chemical types of groundwater in the study area are variable. Putra (2011)[3] said that the water in this area has chemical types of HCO₃ - SO₄ , HCO₃ - NO₃ and NO₃ - HCO₃ - SO₄. In contrast to this researcher, the primary data in this study showed that the type of water chemistry is dominated by bicarbonate anion, consists of Ca - HCO₃; Ca - Cl,SO₄,HCO₃; Na,Ca - HCO₃ in wells and Na,Mg - Cl,HCO₃ on spring. Groundwater under study has the potential contamination which is low - medium (Listyani & Isjudarto, 2013)[5]. Type of groundwater chemistry is highly dependent on the aquifer Merapi volcanic rocks, especially from Yogyakarta Formation and influenced by some of the sources of pollution household or farm, for example in phosphate and nitrate .

TABLE II. TESTING RESULT OF PHYSICAL/CHEMICAL CHARACTERISTICS OF GROUNDWATER FROM SOME DEEP WELLS AND KADIPURO SPRING.

Parameter	Unit	Deep groundwater sample			Spring sample
		Sleman 1	Sleman 2	Bantul	Kadipuro CD-M1 (Loc 52)
Na	mg/l	187	67	80	119
K	mg/l	14	10	15	12
Mg	mg/l	36,33	14,48	21,81	33,92
Ca	mg/l	48,48	24,24	35,96	33,06
Cl	mg/l	131,4	11	35	94
HCO ₃	mg/l	305	140,3	225,7	292,8
SO ₄	mg/l	65	46	41	75
Fe	mg/l	0,8659	1,1278	1,842	<0.0230
B	mg/l	tt	tt	tt	
Zn	mg/l	0,0168	<0,0022	0,006	<0.0041
Mn	mg/l	0,2457	0,1679	3,227	<0.0129
TDS	mg/l	511	187	278	
pH		7	6,7	6,7	7,6
Turbidity	NTU	5	7	47	2
Color	TCU	19	15	13	7
NO ₃	mg/l	0,46	1,83	0,17	<0.05
NH ₃	mg/l	0,0024	0,0012	0,002	0,0187
PO ₄	mg/l	2,1133	0,576	4,223	1,0184
Chemical type		Na,Mg - Cl,HCO ₃	Na,Ca,Mg - SO ₄ ,HCO ₃	Na,Ca,Mg - HCO ₃	Na, Mg - Cl, HCO ₃

Shallow groundwater in the study area has a type of bicarbonate anion chemistry, with a variety of cations Na, Ca and Mg which are dominant. Figure 3 shows the variation of the chemical type. In general, the dominance of Ca ions occur in the northern part of the study area, whereas further south, in line with groundwater flow, Na ion is increased. However , the bicarbonate ion remains the dominant anions in the groundwater.

Characteristics of chemical types of deep groundwater are more difficult to see about their development. Fig. 4 show that the type of hydrochemicals in the deep groundwater varies randomly. Groundwater with type of Ca,Mg - HCO₃ scattered in several places, in the west, east, north and south. The dominance of chloride ions appear in several locations, in the north until the middle part of the study area. It showed that groundwater evolution was also quite long although in the catchment areas at the north.

Shallow groundwater is generally not long ago fallen into the subsurface. The dominance of bicarbonate ions show that shallow groundwater is young age groundwater, with mixing as dominant hydrochemical process. Compared to shallow groundwater, the deep groundwater chemical types are more leads to the enrichment of anions sodium, supported by their

dominance of chloride ions in some places. This shows that the groundwater flow in the trip should be longer and farther. According to the tri linear diagram of Piper, the processes of mixing and leaching are much more common in the deep groundwater .

Cl,HCO₃. Hydrochemistry types are highly dependent on the aquifer Merapi volcanic rocks, especially from Yogyakarta Formation through the process of mixing and leaching.

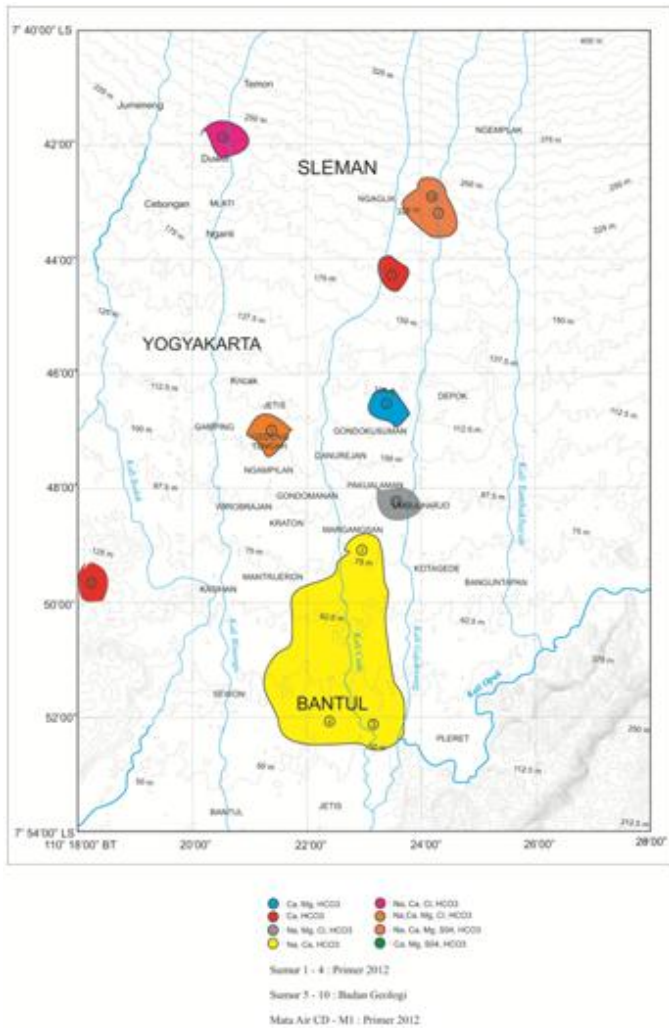


Figure 3. Hydrochemical map of shallow groundwater in research area.

V. CONCLUSION

Groundwater system in the study area is included in Yogyakarta Groundwater Basin. From the surface data is known that local hydrogeological study prepared by a group of Yogyakarta and Sleman Formations aquifer. Catchment areas are in the northern part of the study area that is around the peak to the slopes of Merapi while discharge areas is on own research area on the lower slopes to the foot of Mount Merapi. Type of shallow groundwater chemistry is dominated by sodium calcium - bicarbonate water, consists of Ca - HCO₃; Ca - Cl, SO₄, HCO₃; Na,Ca - HCO₃ whereas the type of chemistry of deep groundwater is more varied (Na,Mg - Cl,HCO₃ ; Na,Ca,Mg - SO₄, HCO₃ and Na,Ca,Mg - HCO₃. Groundwater from the spring which was found has the type of Na,Mg -

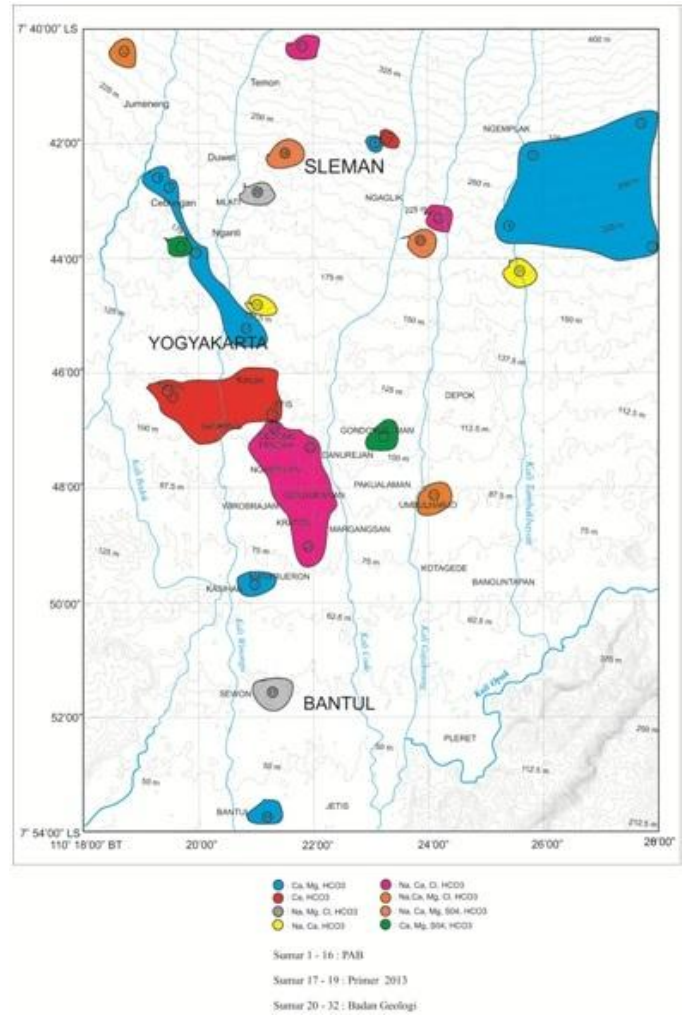


Figure 4. Hydrochemical map of deep groundwater in research area.

ACKNOWLEDGMENT

The author wants to say thank you to Indonesian Government especially to Higher Education Department because of its grant to make the research carried out. Special thanks also give to Ir. Isjudarto, M.T., Prayetno, S.T. and Radeni Ilyan Putra, S.T. which have supported the research both of at field and studio.

REFERENCES

[1] Sir Mac Donald & Partners, 1984, "Greater Yogyakarta Groundwater Resources Study", in Groundwater, Volume 3, Groundwater Development Project (P2AT), Binnie & Partners Hunting Technical Services Ltd.,Ministry of Public Works, Government of the Republic of Indonesia.

- [2] S. Warsono, 1990, "Survei Konservasi Airtanah Daerah Istimewa Yogyakarta", Dir. of Environmental Geology, Dirjend. of Geology and Mineral Resource, Dept. of Mining and Energy, Bandung.
- [3] D.P.E. Putra, 2011, "Evolution of Groundwater Chemistry on Shallow Aquifer of Yogyakarta City Urban Area", Journal of Southeast Asian Applied Geology, Vol. 3, Number 2, July – December 2011, Dept. of Geological Engineering, Faculty of Engineering, Gadjah Mada University, Yogyakarta.
- [4] A. Sutriati, , Tontowi, Sumarriani, 2011, "Kualitas Air Sungai dan Sumur di Daerah Istimewa Yogyakarta setelah Letusan Gunung Merapi Tahun 2010", Sabo Jurnal, Vol. 2, No. 1, Mei 2011, Balai Sabo, Research Center of Water Resource, Research and Development Agency, Ministry of Civil Project, Yogyakarta.
- [5] T.Listyani and A. Isjudarto, 2013, "Konservasi Sumberdaya Airtanah pada Sub DAS Code, Daerah Istimewa Yogyakarta dalam Rangka Manajemen Airtanah Pasca Erupsi Merapi 2010", Report of Dikti Competition Grant Research (2nd year).

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Date: 10 October 2016
Venue: Singapore

A handwritten signature in blue ink, reading 'Jan Mrlina', is positioned above a horizontal line. The signature is written in a cursive style.

Dr. Jan Mrlina
Program Committee Member, GEOS 2016

A handwritten signature in blue ink, reading 'Anton Ravindran', is positioned above a horizontal line. The signature is written in a cursive style.

Dr. Anton Ravindran CEng (UK), FBCS
President, GSTF