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Journal Name:	**Journal of Geography, Environment and Earth Science International**
Manuscript Number:	**Ms_JGEESI_32939**
Title of the Manuscript:	**HYDROGEOCHEMICAL ASSESSMENT OF GROUNDWATER QUALITY IN OWERRI METROPOLIS, IMO STATE, SOUTHERN NIGERIA**
Type of the Article	**Original Research Article**

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty'**, provided the manuscript is scientifically robust and technically sound.
To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline)

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PART 1: Review Comments

	Reviewer's comment	**Author's comment** *(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)*
Compulsory REVISION comments	**The research aim and sampling strategies, analytical part is not clearly followed. Although some changes to be need for improving standards.**	We re-organized the article as advised
	No clear objective in abstract, please add and rewrite a constructive abstract.	The abstract have been reconstructed with clear objective
	Introduction part is not enough, need more references in related to groundwater quality and should be add more recent literatures. Most of the line are taken into some basic text books, it is no need for basic level and global level readers as well as researchers are not interested to this type write up.	Thanks for this comment. It have been revised
	The study area needs more information's like land use and land cover, more hydrogeological conditions (surface and subsurface characters of lake) of the study region should be elaborately discussed. Soil characteristics (type), in subsurface lithological characters in specific on parent rocks are important parameters for identifying water quality surface as well as groundwater. **Some more discussion on geochemistry in the study area can be added up. There is no need for detailed information about humidity, wind, and vegetation characteristics.**	We have included detailed information on land use and land cover, hydrogeological conditions, Soil characteristics, lithological characters on the parent rocks of the study area, plus other geochemical discussions.

	<u>In the methodology part</u>, authors not mentioned field measurements How to determine pH electrical conductivity and DO. Need detailed analytical techniques, instruments and software's used. The use of physico-chemical symbols throughout the manuscript is erratic and not consistent.	We have included details on analytical techniques, equipment and software used for measurement and evaluation of physio-chemical parameters in the revised article. We have ensured consistency of physio-chemical symbols.
	Please include QA and QC taken throughout the study	We have included a detailed QA and QC in the study.
	Mentioned the formula for the estimation of ionic balance error in the analytical method section.	Have been revised.
	Must need improve the methodology.	We made major improvements in the methodology.
	<u>Results and Discussion</u> part mention year of WHO in the table.1	We assembled the values from multiple WHO Guidelines to Drinking-Water Standard editions – 2008, 2011, 2017. So we referenced it, instead of including the years in the table.
	Fig.1 Location map; need lat-long values, North Arrow, Scale bar, legend and National map	Have been done
	Fig 2 is too general and not useful to this type of publications, in mu suggestion you can be properly mention and interpret in Fig.3. So remove fig 2.	Noted and Removed
	Please explain why you can make Duruv plot, it have any significance in accordance this study, if have clearly discuss.	We have put up detailed explanation of the durov diagram and its significance to the study.

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	Table-3: highlight/bold the significant correlation values. **Table-4. Mostly all the samples having TDS level is less than 100 mg/l, than why you can construct and classify this type of table.** **Gibbs plot, Wilcox plots are also important graphical representation for water quality studies.** **Trace elements characteristics are not properly discussed in the manuscript.** **Conclusion is not clear and there is no significant output present in the manuscript. Mention clear soundings and output of the research.**	Done We used the system and steps set by Hounslow to classify the samples. Find it in the new subheading – Rock Source detection We have included Wilcox, Gibbs, and Giggenbachs diagrams in the discussions We included a discussion on the trace elements characteristics of the study area We have thoroughly revised the conclusion.
Minor REVISION comments		
Optional/General comments		