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Journal Name:	Asian Journal of Geological Research
Manuscript Number:	**Ms_AJOGER_52001**
Title of the Manuscript:	**GEOELECTRICAL INVESTIGATION USING SCHLUMBERGER ARRAY FOR GROUNDWATER OCCURRENCE IN PART OF BOSSO ESTATE MINNA SHEET 164 SW NORTH-CENTRAL NIGERIA**
Type of the 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:
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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	**1. Show the location of VES on the Map.** **2. Please make neat diagram of the study area. I suggest you to use blank rectangle to show the study area rather than colour filled rectangle.** **3. The contact between rock units should be smooth. There is no sharp contact between geological units. Redraw the geological map.** **4. Connect the present research with previous literature that have used VES for groundwater potential mapping.** **5. Use texture rather than pictures (geological units) to show the VES interpretation. The image is misleading (fig 3-5).** **6. Fig 6. How many VES location you have used to draw the Iso-resistivity map. From Table 2, only four VES stations reach the depth 30m. Why you have chosen 30m, please provide the reason in detail.** **7. The approximate depth of investigation using maximum 80m (AB/2) is 32m. However, the depth of investigation in Table 2 reaches 55m. Please revise methodology and result.** **8. Top soil in VES-1 and VES-4 has resistivity difference around 110, why? Check VES 1 and 5 as well same result but different interpretation. Please revise the resistivity interpretation.** **9. The geological layer interpretation is not uniform as well check VES1-10. Pease use the proper geological nomenclature.** **10. Hydrogeology description, add water level information and water usage in the area. In addition, climate and physiography information of the study area.** **11. Table 1. The citation is wrong the Authors didn't give that range of resistivity values for different materials. Revise your citations and give the appropriate one and reinterpret Table 2 accordingly.** **12. Integrate the VES results with borehole information of the area. It is not plausible to assess groundwater potential solely on Electrical resistivity method. At lease you can use data from the wells in the area.** **13. "In conclusion, the study area can be said to have a good potential for groundwater occurrence." It is impossible to conclude that using only VES survey. Please add supporting data for the present methodology. Similar problem in recommendation part as well.**	
Minor REVISION comments	Follow the citation and reference guideline of the journal. Avoid the use of the term basement, refer the geological map for nomenclature e.g. granite, Show the field photo of VES survey and the instrument. Fig 6 & 7 show the location of the VES points. Use the same format of grid for all maps. Explain how you interpolate the point data, which technique you have used. I recommend you to show all the VES curves and you can interpret one representative curve with the geology of the area. Table 2. Do you have strong evidence of the resistivity value is the representative of each lithology. If yes please provide the evidence otherwise please remove that one and change it with the curve type symbols. "Low resistivity values also indicates substantial clay content. Higher resistivity implies lower clay proportions and increased permeability" This is not always true because resistivity depends on water content as well. Revise the interpretation part. "Bosso Estate falls within North-Central Nigeria where three major lithologic subdivisions make up the Precambrian basement complex rocks: the migmatite-gneis complex; the Schist belts and the Older Granite suites (also called the Pan-African granite suites, 600 Ma)." Please add the citation and correct spelling for migmatite-gneis to migmatite-gneiss. Add the units of the scale. Fig6-8	

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Optional/General comments	Add more information and validations to support the results and discussion. The scope of the study is very small to assess the groundwater potential areas. So I suggest to extend the scope of the present study. Add more references.	

PART 2:

	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)*
Are there ethical issues in this manuscript?	*(If yes, Kindly please write down the ethical issues here in details)*	

Reviewer Details:

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