Review Form 3

Journal Name:	**Journal of Engineering Research and Reports**
Manuscript Number:	**Ms_JERR_120677**
Title of the Manuscript:	**Reservoir Management Structure A Field "RK" Using Water Injection Project Planning With Suspended Well Reactivation Method**
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

Compulsory REVISION comments	**Reviewer's comment**	**Author's Feedback** *(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)*
Please write few sentences regarding the importance this manuscript for scientific community. Why do you like (or dislike) this manuscript? Minimum 3-4 sentences may be required for this part.	**The manuscript is interesting because it enhanced the knowledge of water flooding and reservoir simulation. I like the manuscript because water injection strategy was implemented to counter high watercut levels and improve the recovery factor. Key considerations include water availability, production performance, and economic feasibility. This help to broaden our understanding of the effect of high water on project economy.**	
Is the title of the article suitable? (If not please suggest an alternative title)	**Yes**	
Is the abstract of the article comprehensive? Do you suggest addition (or deletion) of some points in this section? Please write your suggestions here.	**No. more work is needed in the abstract to make it comprehensive. The suggestions are;** **1. The abstract should capture the problem definition that is the effect of high water on the reservoir management. The effect of water injection also need to be stated as water injection result suffered from mobility control causing poor sweep efficiency and viscous fingering. Thereby, affecting the project economy.** **2. The object should also be well stated in the abstract** **3. Methodology such as how the water injection plan was design should be mentioned** **4. Result comparison with previous work should be stated** **5. The author need to compare his result with experimental data to validate his model** **6. Recommendation for future work has to be mentioned** **7. All acronym that appears for the first time need to be defined in the abstract**	
Are subsections and structure of the manuscript appropriate?	**No. However here are some suggestions for improving the structure of the manuscript.** **1. Opening paragraph of the introduction should include the need for enhancing oil recovery and the various recovery methods i.e. primary recovery (gas cap, solution gas drive, water drive), secondary drive mechanisms (water injection and gas injection), and tertiary recovery like chemical injection, CO_2, and thermal. Their advantages and shortcomings of each method has to be well captured.** **2. Thereafter mention the reason for water injection and the various methods for carrying out water injection, starting with experiment approach and then simulation approach.** **3. Mention why did you choose simulation approach in the last paragraph?** **4. Why did the author choose water injection amidst of gas injection, water alternate gas injection, and enhanced oil recovery methods like chemical injection, miscible CO_2 gas injection, and thermal methods? The author need to state the reason** **5. By so doing, the author will carry the reader along.**	
Please write few sentences regarding the scientific correctness of this manuscript. Why do think that this manuscript is scientifically robust and technically sound? Minimum 3-4 sentences may be required for this part.	**1. The manuscript is scientifically robust because it includes the aspect of secondary recovery for oil production.** **2. The effect of water cut on the project economy** **3. Water injection suffered from mobility control which result in high water production compare to crude oil by viscous fingering effect. This because water is less viscous which travelled faster than oil and reaching the production well sooner** **4. This aspect needs to be well captured in the manuscript**	
Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form. -	**No. The references are scanty and most of the literatures consulted are obsolete as there are more recent works on the subject matter. I will suggest that the author should increase the number of references by consulting more recent works that are not more than four (4) years that is from 2020 to date. The number of references should be at least 30-40 for peer review**	

	work.	
Minor REVISION comments **Is language/English quality of the article suitable for scholarly communications?**	Yes	
Optional/General comments	**The following comments should also be addressed by the author to further enrich the quality of the manuscript** **1. The salinity of the injected water need to be mentioned** **2. The petro physical properties of the field such as porosity, saturation, and rock permeability has to mention** **3. The properties of the injected brine such as viscosity, density, and ph have to be mentioned** **4. The properties of the displaced fluid (crude oil) such as viscosity and density have to be define** **5. The author should mention the materials needed to achieve the study objective such as the input parameters (porosity, saturation, thickness of the reservoir, area etc.) for the simulation, software for analyzing the result** **6. The methods need to be discuss succinctly as it is too scanty** **7. All the equations need to be numbered appropriately.** **8. The author needs to mention the sources of the data such porosity (0.21%), initial water saturation (Swi: 0.25%), thickness (h:76.124ft), area (98.12 ft2), Boy (1.1002 stf/stb). How and where did the author got these values?** **9. The axis on all the figures as well as the legends are not clear, the author need to reproduce the figure to be clear and readable.** **10. The author did not compare his work with previous work to justify his model. Therefore, a thorough discussion of result is missing. So, it should be done. Additionally, experiment data is needed to support or validate the authenticity of the author's result** **11. The conclusion part need to addressed the significant of water injection and the findings. So, it should be modified.**	

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:

Name:	**Mohammed Nasiru Bello**
Department, University & Country	**University of Maiduguri, Nigeria**