

Review Form 1.7

Journal Name:	Journal of Engineering Research and Reports
Manuscript Number:	Ms_JERR_114132
Title of the Manuscript:	Predicting Onset of Sand Production in Oil Wells using Machine Learning
Type of the Article	Original Research Article

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PART 1: Review Comments

	Reviewer's comment	Author's comment <i>(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)</i>
<p><u>Compulsory</u> REVISION comments</p> <ol style="list-style-type: none"> 1. Is the manuscript important for scientific community? (Please write few sentences on this manuscript) 2. Is the title of the article suitable? (If not please suggest an alternative title) 3. Is the abstract of the article comprehensive? 4. Are subsections and structure of the manuscript appropriate? 5. Do you think the manuscript is scientifically correct? 6. Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form. <p><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></p>	<p>Yes, the manuscript is important for the scientific community as it addresses a significant challenge in the oil and gas industry—sand production in oil wells. The application of machine learning, specifically the Support Vector Machine (SVM) algorithm, for predicting the onset of sand production is a valuable contribution that can have practical implications for the industry.</p> <p>The title is appropriate for the content of the manuscript, as it clearly reflects the focus on predicting sand production in oil wells using machine learning, specifically the SVM algorithm.</p> <p>Yes, the abstract provides a comprehensive overview of the study, including the problem addressed, methodology employed, key parameters considered, and the potential practical implications of the research. It effectively summarizes the key findings and contributions of the study.</p> <p>The subsections and structure of the manuscript are generally appropriate. However, it would be beneficial to have a separate section specifically dedicated to the limitations of the study. This can help readers understand the potential constraints and areas for future research.</p> <p>The manuscript appears scientifically sound, utilizing a dataset from 63 oil wells and employing geomechanical parameters to develop a predictive model for sand production onset. The use of the SVM algorithm is justified and has shown promising results.</p> <p>The references seem appropriate for the context of the study. However, considering the rapid advancements in machine learning applications in the oil and gas industry, it may be beneficial to include a few more recent references (if available) to strengthen the discussion on the application of SVM and other machine learning techniques in sand production prediction.</p>	
<p><u>Minor</u> REVISION comments</p> <ol style="list-style-type: none"> 1. Is language/English quality of the article suitable for scholarly communications? 	<p>The language and English quality of the article are generally good. However, in a few places, the sentence structure could be refined for better clarity. For example, in the abstract, the sentence "The model achieved a score of 1 across all parameters, indicating high reliability and accuracy in sand production prediction" could be rephrased for smoother flow.</p>	
<p><u>Optional/General</u> comments</p>	<ul style="list-style-type: none"> • Consider providing a brief statement in the introduction or methodology section about the potential limitations of using machine learning models, such as the need for high-quality training data, potential biases, and the black-box nature of some models. • The comparison table (Table 6) is a valuable addition to showcase the performance of the SVM model compared to other models. It effectively communicates the superiority of the SVM model in terms of accuracy. Consider briefly discussing the implications of this superior accuracy in the discussion section. • The conclusion provides a strong summary of the study's findings. Consider adding a sentence or two about future directions for research in this area or potential enhancements to the developed model. • Overall, the manuscript is well-organized, and the methodology is clearly described. Ensure that the figures and tables are appropriately referenced and explained in the text for better clarity. 	

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PART 2:

	Reviewer's comment	Author's comment <i>(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)</i>
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

Reviewer Details:

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