

Hole cleaning is ~~one of a~~ major considerations ~~for en~~ both the design, and ~~a~~ execution of drilling operation's. ~~Especially in well's that having~~This is especially true in wells with a high-inclination, ~~if for~~ which the fluid velocity ~~is lowest~~may be ~~lower~~ than a critical value; a stationary bed ~~is developed~~ makes, which may causes several problems, such as ~~a~~ higher probability of ~~stuck a pipe~~ getting stuck, high-drag, ~~and~~ higher hydraulic requirements ~~etc.~~, if ~~not~~ removed properly ~~not~~ [1-5]. ~~In order to~~ clear ~~To avoid~~ such problems, ~~generated any~~ cuttings ~~generated~~ will have ~~to be~~ taken-out ~~removed~~ from the wellbore ~~through help of using a~~ drilling fluid. Factors that influence ~~ing~~ cutting transport ~~includes~~ drilling fluid ~~the~~ flow rate, drilling fluid-viscosity, drilling fluid-weight, ~~and~~ ; drilling fluid-type of drilling fluid, as well as ~~the~~ hole size, rotational speed, eccentricity, penetration-rate, and cutting size. Efficient cutting transport ~~are is~~ presumed ~~to be~~ achieved when the pump-flow-rate ~~above exceeds~~ a critical flow-rate value. An inadequate pump-flow rate may ~~bring cause~~ cuttings to fall back to the bottom of the hole. In inclined ~~highly-vertical~~ and horizontal wells, cutting beds ~~—i.e.,—~~ occur frequently ~~ie. fall-back~~ ~~back-fallen~~ cuttings that ~~have~~ piled up ~~on in~~ the surface of ~~the a~~ wellbore ~~—occur~~ frequently.

~~A lot of~~ Several cutting-transportation model's have been ~~ing~~ developed. ~~Nowadays, it was common~~ to recognize a ~~t~~ Two main approaches ~~can be recognized~~: an empirical approach, ~~and an~~ mechanistic approach [6]. However, ~~these the present~~ study employ ~~sed~~ three models, developed through an empirical approach; ~~these are the~~ ~~ie.~~ Rudi-Shindu's model [7], Hopkins' model [8], and Tobenna's model [9]. In 1995, Hopkins listed all variables ~~that is~~ required ~~to e~~ determine the minimum flowing-rate. ~~After several year,~~ Several years later, Rudi-Shindu introduced ~~the~~ slip velocity, and correction factors ~~for the~~ ~~to~~ drilling-fluid weight; and ~~the for the~~ angular ~~ie~~ inclination. ~~Tobenna~~ developed ~~a~~ model in 2010 ~~to for~~ calculate the critical flow rate ~~ing~~ for deviated wells based ~~to on~~ Bern-Lou's method. The models ~~was are~~ compared to case-study wells. ~~2 examples~~ Two exemplary wells that mimick ~~ed ing~~ operational conditions are considered.

Comment [A1]: At this instance, drilling operations in a general sense are being referred to, rather than to a specific operation, and so an article is not needed. Please also note that the indefinite article "an" should be used when followed by a vowel.

Comment [A2]: Note that "lower" is the comparative degree of the adjective "low," whereas "lowest" is its superlative degree. The correct degree at this instance is "lower" as a comparison is involved.

Comment [A3]: In a list starting with "such as" or "including," the use of "etc" and "and so on" is redundant.

Comment [A4]: Note that hyphenation is used when words form compound adjectives.

Comment [A5]: This phrase has been edited to remove unnecessary preamble.

Comment [A6]: This word has been edited to maintain consistency.