

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~~ clearTo 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 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~~ Two main approaches can be recognized: an empirical approach, ~~and an~~ mechanistic approach [6]. However, ~~these the present~~ study employ ed 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 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 eding 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.