

VARIABLE FLOW RESISTANCE SYSTEM FOR USE IN A SUBTERRANEAN WELL

ABSTRACT

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A variable flow resistance system (25) can include a flow chamber (46) through which a fluid composition (36) flows in a well, the chamber (46) having an inlet (44) and an outlet (40). The fluid composition (36) enters via the
10 inlet (44) in a direction which changes based on a ratio of desired to undesired fluid in the fluid composition (36). A well system (10) can include a variable flow resistance system (25) through which a fluid composition (36) flows between a tubular string (22) and a formation (20), the flow
15 resistance system (25) including a flow chamber (46) through which the fluid composition (36) flows, with only one chamber inlet (44). The fluid composition (36) flows more directly from the inlet (44) to an outlet (40) as a ratio of desired to undesired fluid in the fluid composition (36)
20 increases. Another flow resistance system (25) can include at least one structure (54) which influences portions of the fluid composition (36) which flow circuitously between the inlet (44) and the outlet (40) to maintain such circuitous flow.

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Fig. 1