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## (54) Title: OPTIMIZED FLOW CONTROL DEVICE PROPERTIES FOR ACCUMULATED GAS INJECTION

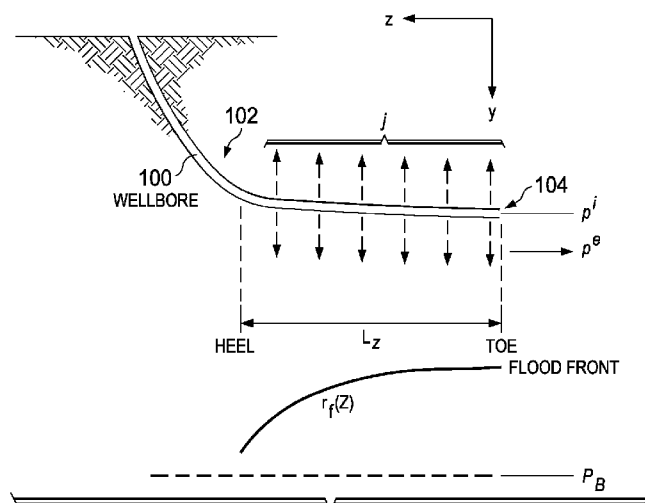


FIG. 1

(57) Abstract: A computer implemented method, system, and computer program product are provided for determining flow control device (FCD) properties for a gas injection well that would yield a prescribed shape of a gas injection front according to a target gas injection profile. An FCD distribution function is adjusted based on the results of a simulation of injected gas flow distribution in the gas injection well over a period of time. The simulation and resulting adjustment of the FCD distribution function is repeated until a convergence between a shape of a displaced oil volume front obtained using the adjusted flow control device distribution function and a target gas injection profile is reached within a predetermined convergence range. The FCD properties are then determined based on the adjusted FCD distribution function.