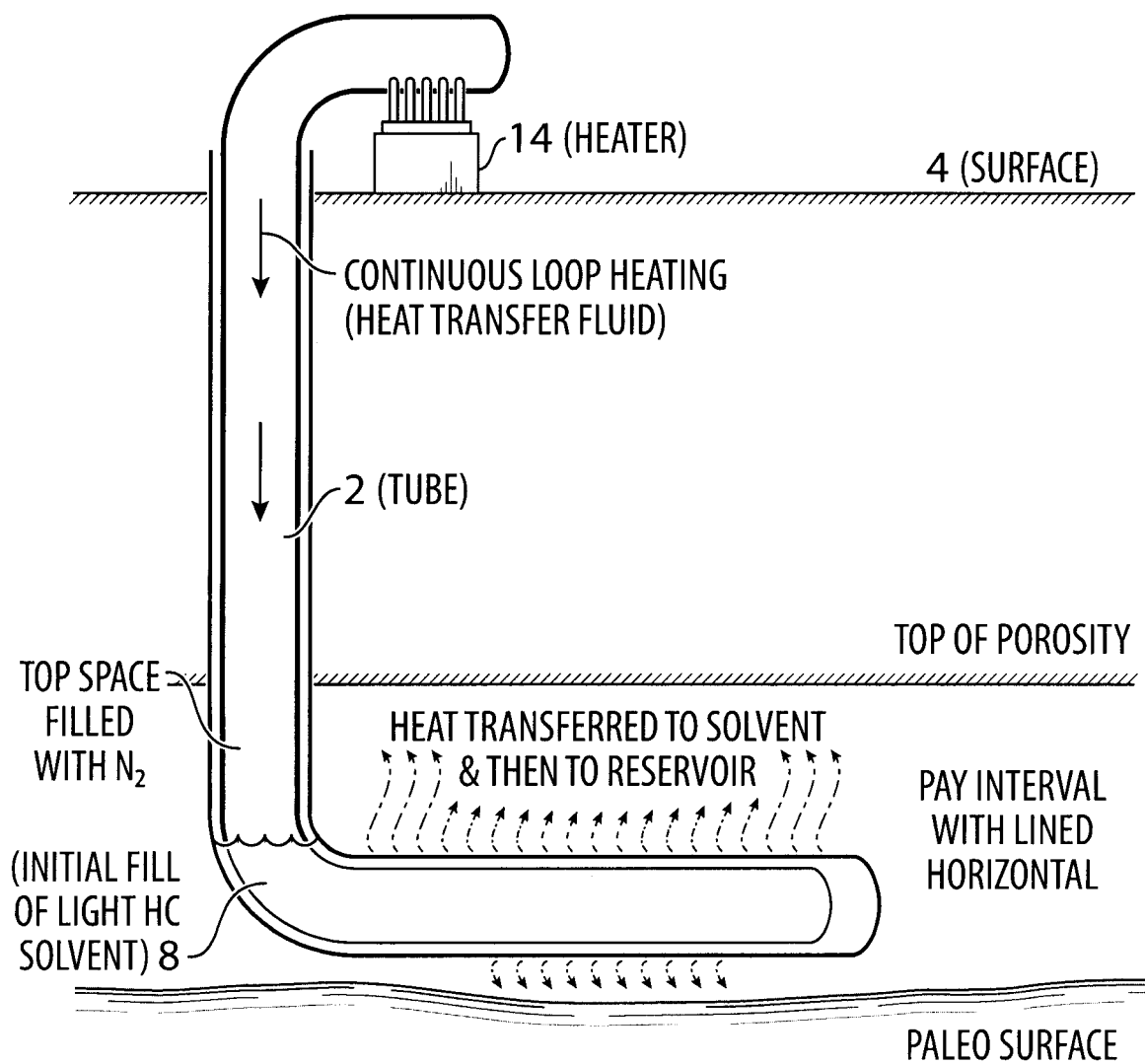
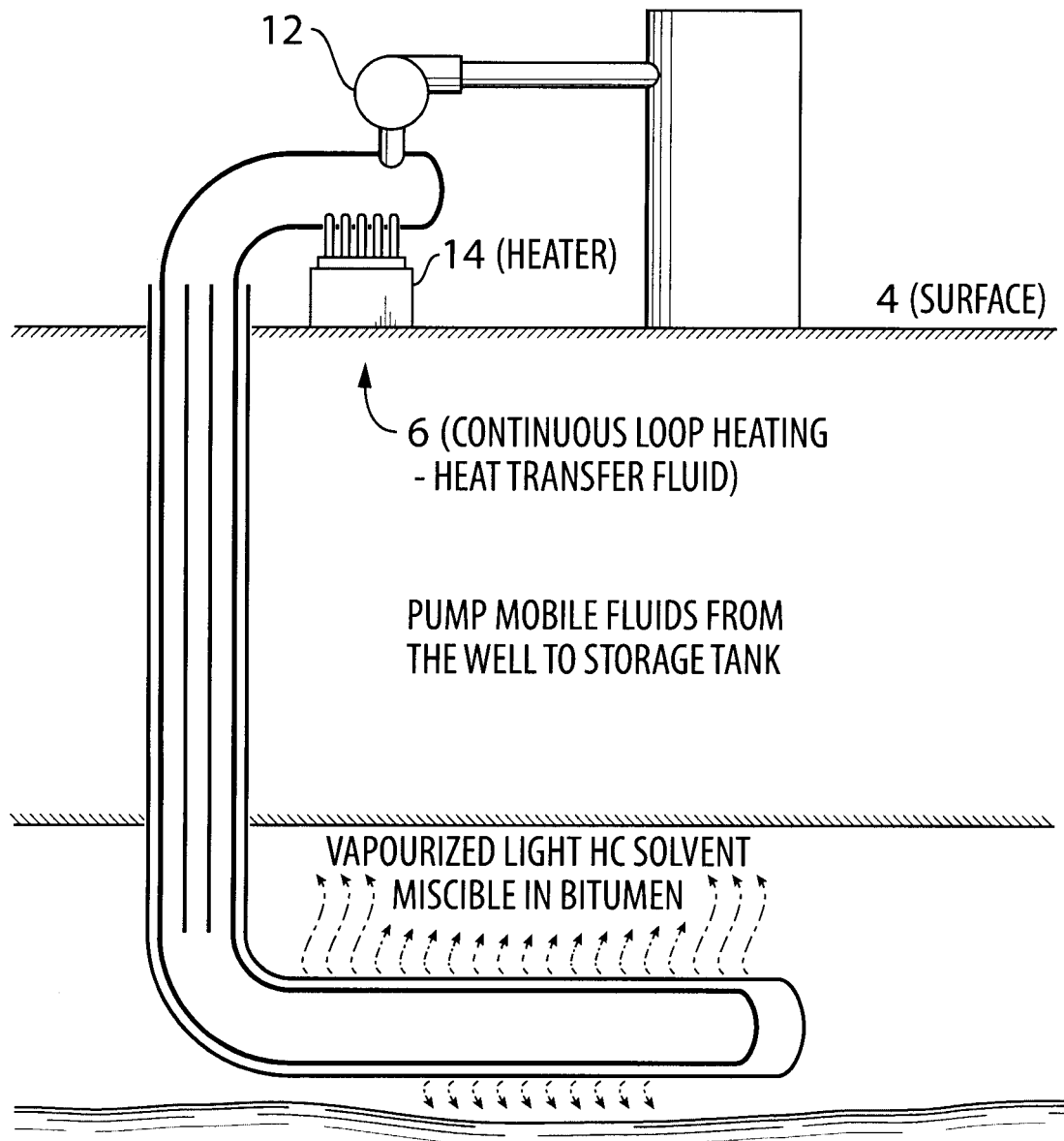
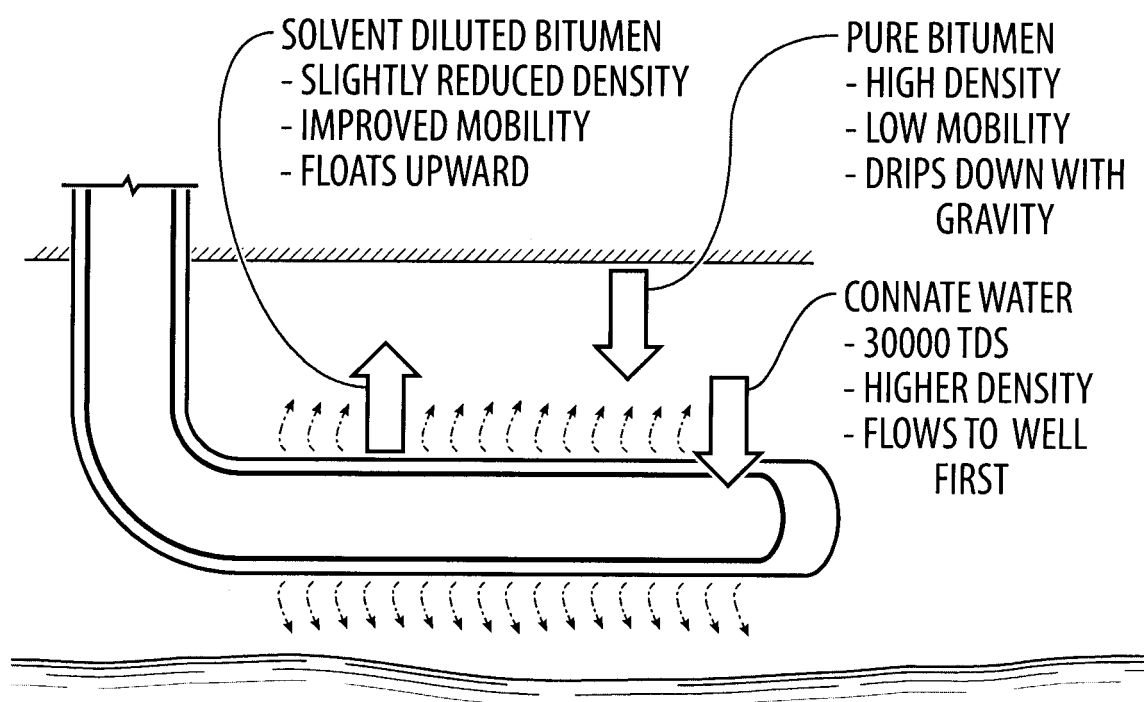
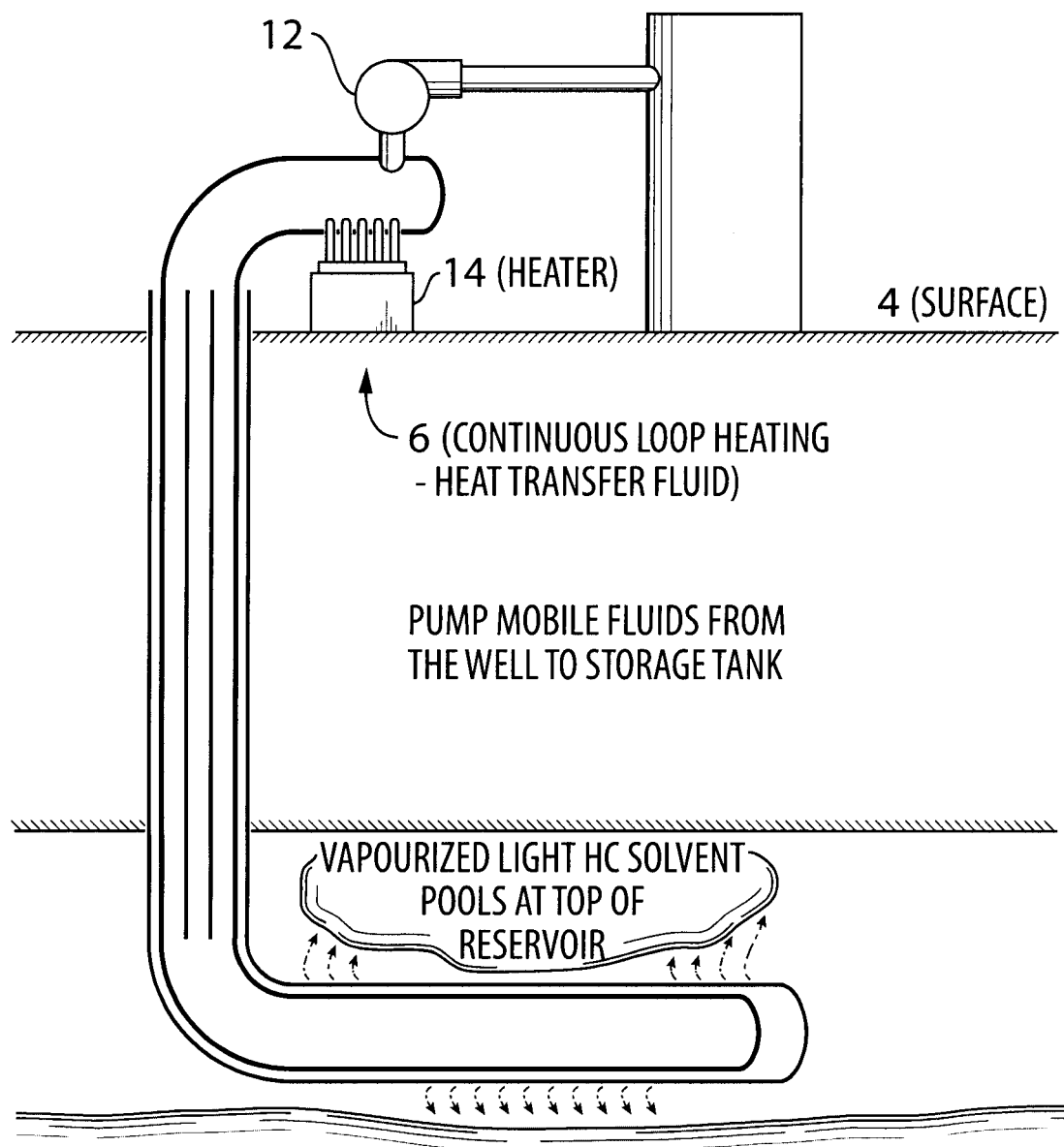


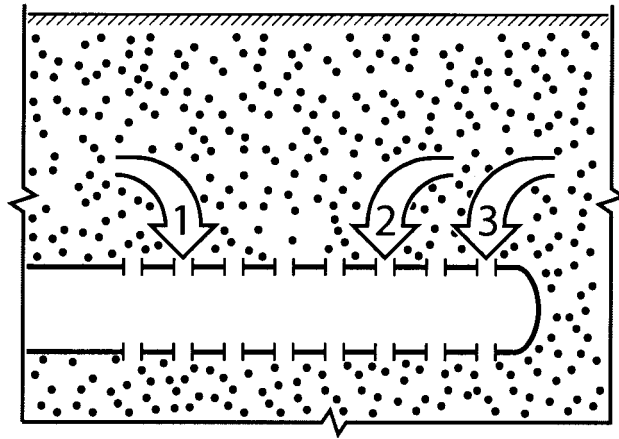
SINGLE WELL HEATING - START UP**FIG.1**

SINGLE WELL HEATING - END OF PREHEAT**FIG.2**

SINGLE WELL HEATING - END OF PREHEAT**FIG.3**

SINGLE WELL HEATING - NEAR ABANDONMENT**FIG.4**

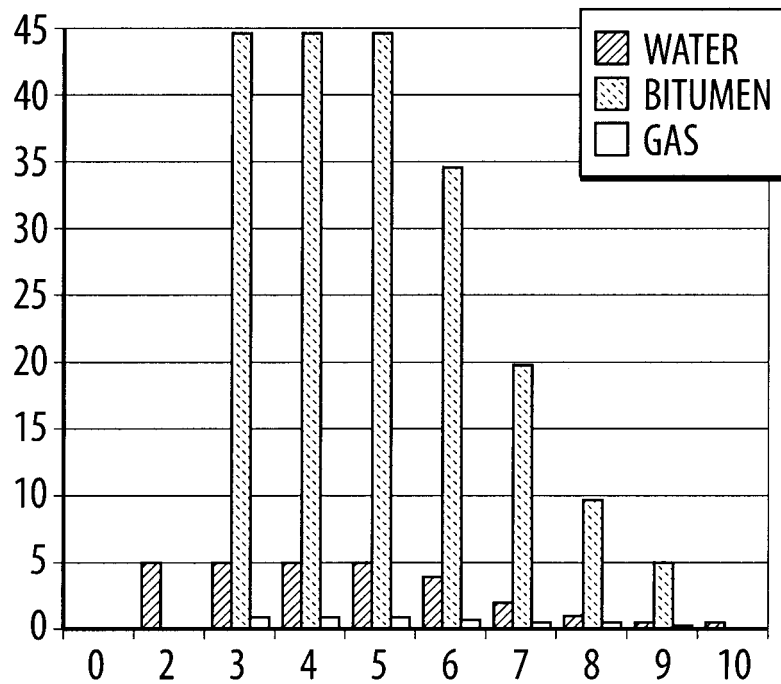
SINGLE WELL HEATING - PRODUCTION PROFILE HYPOTHESIS



1. INITIALLY, ONLY CONNATE WATER, WHICH NATURALLY SURROUNDS EACH SAND GRAIN, $S_{w_c} > S_{w_{irr}}$, AND IS THE CONTINUOUS PHASE, FLOWS TO THE WELL.
2. AFTER SOME WATER IS PRODUCED, THERE IS PORE SPACE FOR BITUMEN TO FLOW FROM THE FIRST ROW OF SAND GRAINS, PUSHED BY WATER FROM THE NEXT ROW OF SAND GRAINS.
3. AS BITUMEN FLOWS, THE SOLUTION GAS WILL ALSO BE PRODUCED AT GOR ~ 7 .
4. WATER, BITUMEN AND GAS WILL FLOW TOGETHER TO DEPLETION.

FIG.5

SINGLE WELL HEATING - PRODUCTION PROFILE



INITIALLY, ONLY (CONNATE WATER, WHICH NATURALLY SURROUNDS EACH SAND GRAIN, $S_{w_c} > S_{w_{irr}}$) FLOWS TO THE WELL.

AFTER SOME WATER IS PRODUCED, THERE IS PORE SPACE FOR BITUMEN TO FLOW FROM THE FIRST ROW OF SAND GRAINS, PUSHED BY WATER FROM THE NEXT ROW OF SAND GRAINS.

FIG.6

SINGLE WELL HEATING - SOLVENT RECOVERY

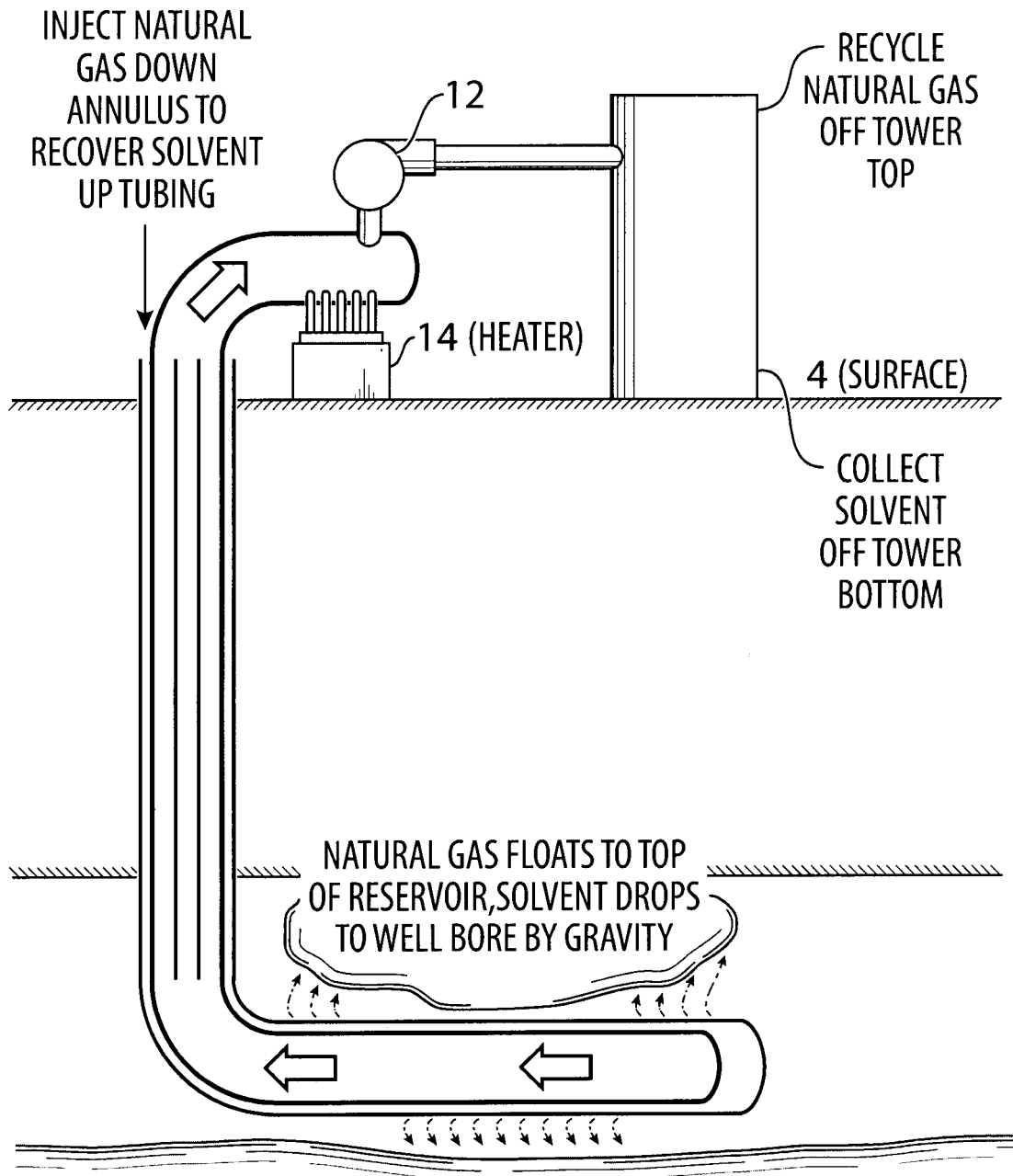


FIG.7