

Single-well geothermal system consists of a low-temperature production well, coolant supply and withdrawal columns, and a jet pump, whose working nozzle is connected to the coolant supply line, while the diffuser is connected to the coolant withdrawal line. The jet pump is installed in the well at the point of maximum coolant temperature, and the jet pump's intake chamber is connected to the well. The upper part of the coolant withdrawal column contains a radial-tangential channel connecting the cavity of the riser column to the well, and a vortex nozzle oriented in the direction of the coolant supply column is located at the outlet of the radial-tangential channel.