

# Hydraulic properties of Dammam aquifer in Shithatha area within Karbala Governorate / Iraq.

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- **Abstract:** Two wells in Shithatha area which is located in the west of Karbala governorates between the longitudes (43° 24' 38", 43° 33' 26.7") and latitudes (32° 30' 11.3", 32° 38' 13.7"), were chosen to compute the hydraulic properties of Dammam aquifer by performing pumping test procedure on them. The condition of Dammam aquifer is (confined). The average value of the hydraulic gradient is equal (0.0028). The average amount of Hydraulic conductivity (K), Transmissivity (T) and Specific capacity (SC) are (12.9 m/day), (808.13 m<sup>2</sup>/day) and (676.04 m<sup>2</sup>/day) respectively. The computed results show the variations in the hydraulic properties values which indicate the heterogeneity condition of Dammam aquifer.
- **Keywords:** Karbala governorates, hydraulic properties, heterogeneity