Analisis Uji Pemompaan dan Uji kambuhan Sumur Airtanah-Dalam di Desa Martajasah, Kabupaten Bangkalan, Madura

---

Abstrak

Martajasah is one of the villages in Bangkalan Region, Madura, which have difficuly of fresh water. This area has a lot of potential thar can be developed, particularly the potential of regious tourism. To increase the utilization potential of the region and support the public healthy, in 2007 PPGN-BATAN cooperated with the Government of bangkalan has made one (I) exploration/production groundwater-wells with the expectation it can meet a demand of fresh water in the Martajasah Village area. To determine the capacity of the wells, the maximum discharge pumping and the optimum discharge pumping from the wells pumping test it is necessary should be conducted, which includes step draw down pumping test, constant rate pumping test and recovery test. The purpose of this activity is to determine amount of well loss, loss of aquifer, well hydraulics equations and the value of the efficiency of wells to determine the optimum and maximum discharge wells and calculate the value of transmissivity/transmissivity (T) from the aquifer. The scope of these activities include the preparation of working equipment, testing of all equipment, measurement of static groundwater table, pumping test, and analysis of pumping test. Based on the result from step draw down test, well hydraulics equations obtained Sw= 0.0079 Q + 0.000003 Q2, so that according to the well hydraulics equations are then obtained a maximum pumping discharge (Qmax)= 3.9 liters/second (336.7 m3/days) with the well efficiency (E)= 89%, so the optimum pumping discharge (Qopt)= 3.455 liters/second= 298.52 m3/day. based on the result from constant rate pumping test and recovery test showed adequate transmissivity of wells, ie T= 136.5 m2/day=5.6875 m2/hour= 0.094 m2/minute.