

Abstract

Method of research is surface geological surveys, data collection climatology hydrology and hydrogeology carefully situations and the surrounding area as well as water analysis. Some of the data are taken from secondary data, either climatological data from BMKG and PSDA Semarang in 2011 as well as some previous research.

After secondary and primary data in the can, then the next step is conducted in this study is calculate rainfall areas carefully situations, interpretation of fracture density, calculating slope, calculate the area recharge is influenced rainfall stations, calculate the length of the fracture density, and make relevant maps and calculate the potential recharge per zone. Based on the value of fracture density, the authors divided the area into five zones carefully situations of potential recharge which overlaying with three rainfall stations in the area carefully situations.

Which can result from the interpretation of the fracture is the fracture density. With there is the greatest density of cracks indicate that the greater the fracture density then the more water can get into the reservoir, in other words, a recharge into the greater reservoir. This is due to because rainfall can enter through the cracks.

Based on calculations that the greatest potential recharge available at zone 2 of 23017.28 ltr / sec with the influence of rainfall station 1 with slope of 135.52%.

Hydrogeology is closely related to heat loss and potential recharge in the determination mass balance on the geothermal system that took place in the study area. Parameters related to the recharge potential is vast recharge area, slope slope and rainfall are affecting the recharge area. Based on calculations showed the greater these parameters, the potential recharge the greater.