

**ANALYSIS ELICTRICAL WORK POTENTIAL OF GEOTHERMAL
PRODUCTION WELL USING BACK PRESSURE METHOD ON UNIT XY**

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ABSTRACT

As the increasing demand of energy in indonesia, PT. Pertamina Geothermal Energy area Kamojang that is one of the companies which are engaged in geothermal power plant which contributed the need for electricity domestic with a total capacity of 235 MW with consisting of 5 units of steam power plants electricity. But to produce the electrical power needs to be done a calculation about the potential electrical power for every production wells, so it is necessary to do back pressure production test for every production wells.

Back pressure production test was conducted to obtain capability of geothermal production well, it is necessary to know the output curve of well production , back pressure production production test done by closing the wells first untill wellhead pressure reach a stability and then produce well with setting wellhead pressure at different wellhead pressure until it achieve stability for each setting of the wellhead pressure.

The result of back pressure production test for every production wells in unit "XY" that the maximum mass flow of XY-1, XY-2, XY-3, and XY-4 wells at 10 kg/cm² are 28,49 tons/hour, 103,72 tons/hour, 175,31 tons/hour and 68,97 tons/hour. So the maximum potential for unit "XY" is 50 MW with total mass flow is about 373,04 kg/cm².

Key words: Production test, back pressure, Output curve, wellhead pressure.