ABSTRACT

METHOD FOR AUTOMATIC CONTROL AND POSITIONING OF AUTONOMOUS DOWNHOLE TOOLS

Methods and apparatus for actuating a downhole tool in wellbore includes acquiring a CCL data set or log from the wellbore that correlates recorded magnetic signals with measured depth, and selects a location within the wellbore for actuation of a wellbore device. The CCL log is then downloaded into an autonomous tool. The tool is programmed to sense collars as a function of time, thereby providing a second CCL log. The autonomous tool aslo matches sensed collars with physical signature from the first CCL log and then self-actuates the wellbore device at the selected location based upon a correlation of the first and second CCL logs.

(Figure 2)