

## **3D simulation model of active Al Ays volcano, Saudi Arabia.**

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Al Ays region of Saudi Arabia has experienced some seismic activities during May 2009, which is believed to be a result of the magma movement beneath the earth, as this area part of the Cenozoic Harrat of Western Saudi Arabia which is one of the largest basaltic provinces in the world. In this research we simulate 3D subsurface geological model using simulation software (3D Geomodeller) to construct the magma shape and position constrained by 3D gravity and magnetic inversions. Results showed better understanding of the geometry underneath the active Al Ays volcano.