

Abstract

This thesis deals with the application of gravity survey to detect and delineate geological structures. The thesis further deals with various processing and interpretation methods, which include the creation of computer-generated models. To meet these goals, the gravity measurement was carried at the locality with the expected presence of abandoned historical mineshaft of known orientation. The goal is therefore to clarify and scrutinize information gained from various historical sources. Different models of survey area were made during the interpretation phase of the survey including 2D and 3D models according to the unknown recent state of the mineshaft. The result of this study is a comparison of several different approaches used in gravity surveys such as methods of elevation measurements, residual drift approximation, regional-residual field separation, source depth estimation, and modelling.