

## CHAPTER I

### INTRODUCTION

#### 1.1 Research objectives

The objective of this research is to determine the rock salt reserve in the Maha Sarakham Formation of the Khorat Basin with respect to the solution mining applications. The mining reserve will be estimated along with the corresponding cavern locations and depths. The final results will be presented by series of contour maps and cross-sections defining the reserve and its variation within the basin.

#### 1.2 Rationale and background

The world demand of salt has increased to an estimate of 190-205 megatons annually. This is primarily due to the rapid growth of the Southeast Asian countries. Rock salt has long been one of the important raw materials for various chemical industries (Roskill, www, 2001). Even though extensive rock salt formations widely distribute in the northeastern region of Thailand (Japakasetr, 1985; Japakasetr and Workman, 1981; Sattayarak, 1983, 1985; Japakasetr, 1992; Japakasetr and Suwanich, 1982), the production from the local salt mining industry is limited, and hence the salt export still can not reach the overseas demands. Such limitation is due to the fact that the necessary geological sequences of the salt formations are not available to the investors, miners and engineers in a readily useful format. In addition, the existing