

# STORAGE OF NATURAL GAS IN SALT CAVERNS

*by*

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## ABSTRACT

It is now feasible to store billions of cubic feet of natural gas safely and economically in stable salt caverns. Factors that must be considered and utilized are spacing of the caverns, pillar to diameter ratios, maximum and minimum storage pressures, bottom hole temperature and the phenomenological method of evaluation. Many existing caverns would not meet the criteria necessary to assure stable and tight high pressure subsurface storage vessels. Therefore, it is the intent of this paper to outline the studies necessary to design and construct new large scale facilities for surge capacity and peak-shaving purposes. Elements of these studies are dependent upon elastic, viscous and plastic material behavior.

PB-KBB Inc. and affiliated companies have designed, constructed and operate several gas storage facilities and presently have others in design and construction stages. This paper does not necessarily reflect what has been proposed by others, but rather, the approach recommended by PB-KBB Inc.