

SONAR Survey Under Difficult Conditions

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1. INTRODUCTION

During preparation for a routine inspection of a propane storage cavity in the autumn of 1994, concerns arose that the roof pockets, known to be present in this cavity, may have been more extensive than originally thought. Because of the thin salt cover in the roof of this cavity there was a possibility that the roof pockets may have extended into the potentially permeable strata above the cavity. Before the cavity could be used for storage it was clear that the roof of the cavity would have to be accurately surveyed and the depth of the roof pockets measured. It was not possible to carry out this survey using current in house sonar methods as gas trapped in the pockets would give rise to interface reflections. A different approach would be required. This paper describes the method which was successfully used to survey the cavity roof and discusses the results obtained.