

Hydrology - Open-File Report 11

Investigation of Sinkhole Occurrences at Goretown, Near Loris, South Carolina

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INTRODUCTION

Mr. Harvey Graham, III, of Loris, S.C., reported on September 20, 1986, the occurrence of what he thought to be a sinkhole in his cornfield. The site is located along S.C. Highway 9 near the community of Goretown (Fig.1). A visit by hydrologists of the Water Resources Commission confirmed the existence of a sinkhole measuring 45 feet across and 8 feet deep that is continuing to subside, as evidenced by changes in its appearance during successive field visits.

The sinkhole is approximately 1,300 feet from two active mines that have been dewatering the local limestone. One of these is being operated by the Horry County Department of Public Works, and the other by a private firm called Bonzai, Inc., doing business as the No. 9 Mining Company. The area around the mines is largely rural, with many fields and only scattered homes. S.C. Highway 9, recently widened to four lanes, runs adjacent to the mines and is separated from them by a 200-foot-wide buffer zone. The highway right-of-way lies between the mines and the sinkhole in Mr. Graham's field.

There are a number of other active limestone mines in Horry County (Fig. 2); but only one, the G&C mine on U.S. Highway 378 has been active for longer than 6 years. This is also the only other mine associated with sinkholes as a result of dewatering operations. A total of 20 sinkholes have been mapped in that vicinity. The remainder of the mines may be located where conditions are not favorable for sinkhole formation, or they may not have lowered water levels sufficiently to trigger their occurrence.

Copies of this report are available in the SCDNR's Columbia office.