

HR-189 The Economic Potential of the Spergen Formation

Key Words: Spergen formation, Aggregate

ABSTRACT

The middle Mississippian (Meramec Series) units include the Spergen Formation, the St. Louis Limestone and the Ste. Genevieve Formation which outcrop sporadically within a curvilinear subcrop band trending through south-eastern and central Iowa. Studies of these units as they occur in Iowa have been cursory in the past, especially with regard to the lowermost occurring Meramecan unit, the Spergen Formation.

The Spergen Formation, as it occurs in southeastern Iowa is being considered as a desirable concrete aggregate source. At present, the depth of occurrence, thickness variations and geographic extent are very poorly known and the nature of lithologic variation in Iowa is obscure. Due to a paucity of information of its thickness, extent and nature of rapid lateral facies variations, the full economic potential of the unit has not been realized in some areas of southeastern Iowa. This is especially disheartening in view of the decline of acceptable concrete aggregate source materials in southeastern Iowa.

This report is an attempt to synthesize subsurface and surface data in order to present a more coherent picture of the depth, thickness and lithologic variations of the Spergen Formation. Recommendations have been made for the exploration of specific areas within the field area for future development of surface quarrying and subsurface mining operations where thickness, lithology and depth characteristics deem consideration.

Due to the lack of adequate data points in some quadrants of the field area, some of the recommendations are drawn on rather tenuous grounds, but a concerted effort has been made to be conservative in these judgements.