

NET THICKNESS CONTOUR MAP OF THE HALITE WITHIN SILURIAN SALINA E IN OHIO

by

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STRATIGRAPHY

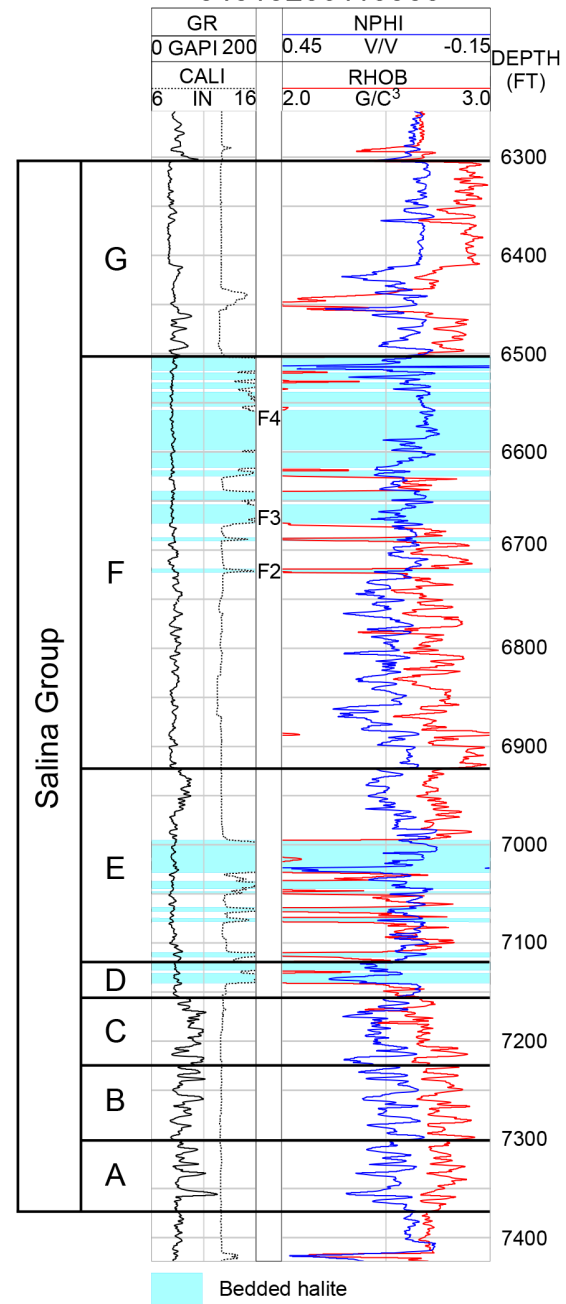
The Silurian Salina Group consists of interbedded anhydrite, dolomite, halite, and shale (Clifford, 1973). The Salina is broken into seven units in eastern Ohio (see type log below). These units, in ascending order, are A, B, C, D, E, F, and G. Halite-bearing units are the B, D, E, and F units. Halite is most abundant in the F unit and occurs in four zones, identified as the F1, F2, F3, and F4 units. Typically, salts in the F1 and F2 units are mined.

THICKNESS

This map shows hand-drawn thickness contours of the halite within the Salina E unit of the Silurian Salina Group. The halite in the Salina E unit is the most widely distributed halite in the Salina Group in Ohio. The bedded halite in the Salina E unit ranges from 1 to 5 bed(s). Thickness of the halite in the Salina E unit ranges from 0 ft (0 m) to over 110 ft (33 m) in Harrison County. The western margin of the Salina E halite is absent either due to nondeposition or dissolution of the halite. The thicker halite deposits of the Salina E unit in Harrison County may have deposited in local depocenters or structurally thickened.

TYPE LOG FOR THE SALINA E

34013206110000



The Salina Group units were identified using Clifford's (1973) Salina unit definitions, as shown on the geophysical log above. Halite beds were picked using gamma-ray (GR), caliper (CALI), bulk-density (RHOB), and porosity (NPHI) curves when available. Halite has a relatively low gamma-ray value and is relatively soft, so the caliper shows borehole rugosity in the halite measures. Halite has a relatively consistent density of 2.16 g/cm³, and has low porosity; however, because of the borehole rugosity the halite appears to have a higher porosity, causing the density and porosity curves to cross. After the halite beds in each salt-bearing unit were picked, the beds in each unit were added together and the thickness values were hand contoured.

EXPLANATION OF MAP SYMBOLS



REFERENCES

Clifford, M.J., 1973, Silurian rock salt of Ohio: Columbus, Ohio Department of Natural Resources, Division of Geological Survey Report of Investigations 90, 21 p., 4 pl.

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