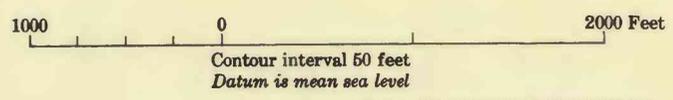
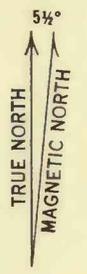


INDEX MAP  
EXPLANATION

- |                   |  |            |                                  |
|-------------------|--|------------|----------------------------------|
| Upper Ordovician  | Om   | ORDOVICIAN | [Pink shaded area]               |
|                   | Maquoketa shale  |            | General synclinal or basin areas |
| Middle Ordovician | Ogd  |            | Zn                               |
|                   | Galena dolomite and Decorah formation, undifferentiated  |            | Zinc in dump                     |
|                   | — —  |            | ▲                                |
|                   | Contact  |            | Location of surface outcrop      |
|                   | ↘ ↙  |            | ■                                |
|                   | Strike and dip of beds   |            | Shaft                            |
|                   | ↖ ↗  |            | — —                              |
|                   | Strike of vertical joint   |            | Adit                             |
|                   | ✦  |            | — —                              |
|                   | Intersecting vertical joints   |            | Caved adit                       |
|                   | Pb — OLD — ROCK — LEAD   |            | ●                                |
|                   | Lead-bearing joints with name where known  |            | Shallow lead pits                |
|                   | Dashed where approximately located   |            | ○                                |
|                   | — — 520 — —  |            | Drill hole                       |
|                   | — — 530 — —  |            | ○                                |
|                   | — — 540 — —  |            | Inclined drill hole              |
|                   | Structure contours   |            | x <sup>5/16</sup>                |
|                   | Dashed where approximately located. Drawn on base of Guttenberg limestone member of the Decorah formation. Contour interval 10 feet. Datum is mean sea level |            | Benchmark                        |
|                   |  |            | x <sup>W 679</sup>               |
|                   |  |            | Water-level benchmark            |

Geologic contacts in areas not structurally contoured are from U. S. Geological Survey Bulletin 294, plate 8, by H. F. Bain



Topography from U. S. Geological Survey Bulletin 294, plate 8 with revisions and corrections by Allen V. Heyl, Jr. and Allen F. Agnew  
Geology by Allen V. Heyl, Jr., Allen F. Agnew, C. H. Behre, Jr., and E. J. Lyons, U. S. Geological Survey, and H. G. Hershey, Iowa Geological Survey, 1945

GEOLOGIC STRUCTURE MAP OF THE CENTER GROVE-PIKES PEAK AREA, DUBUQUE COUNTY, IOWA