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# Total Thickness of the Amburgy Coal in Eastern Kentucky

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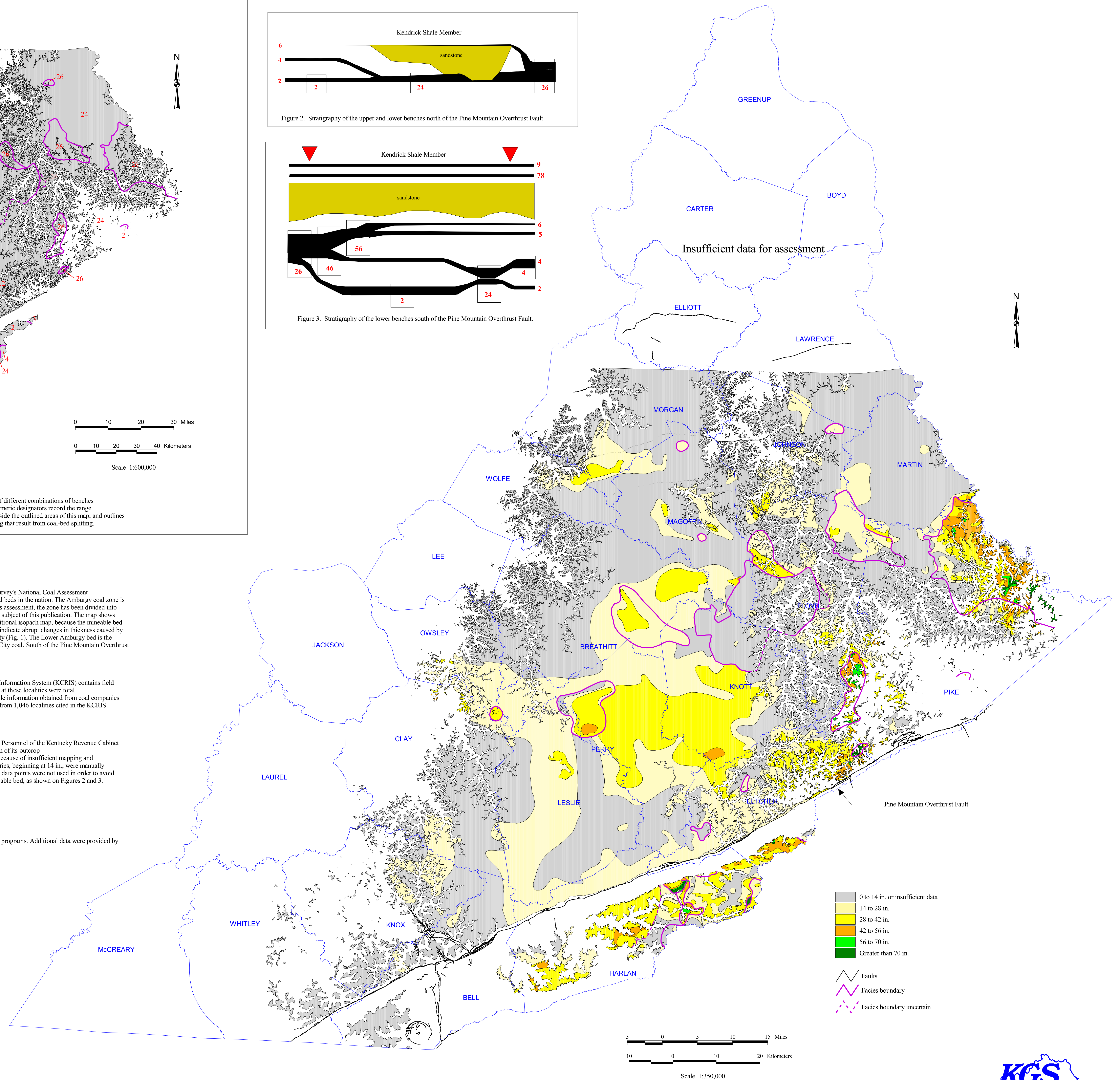
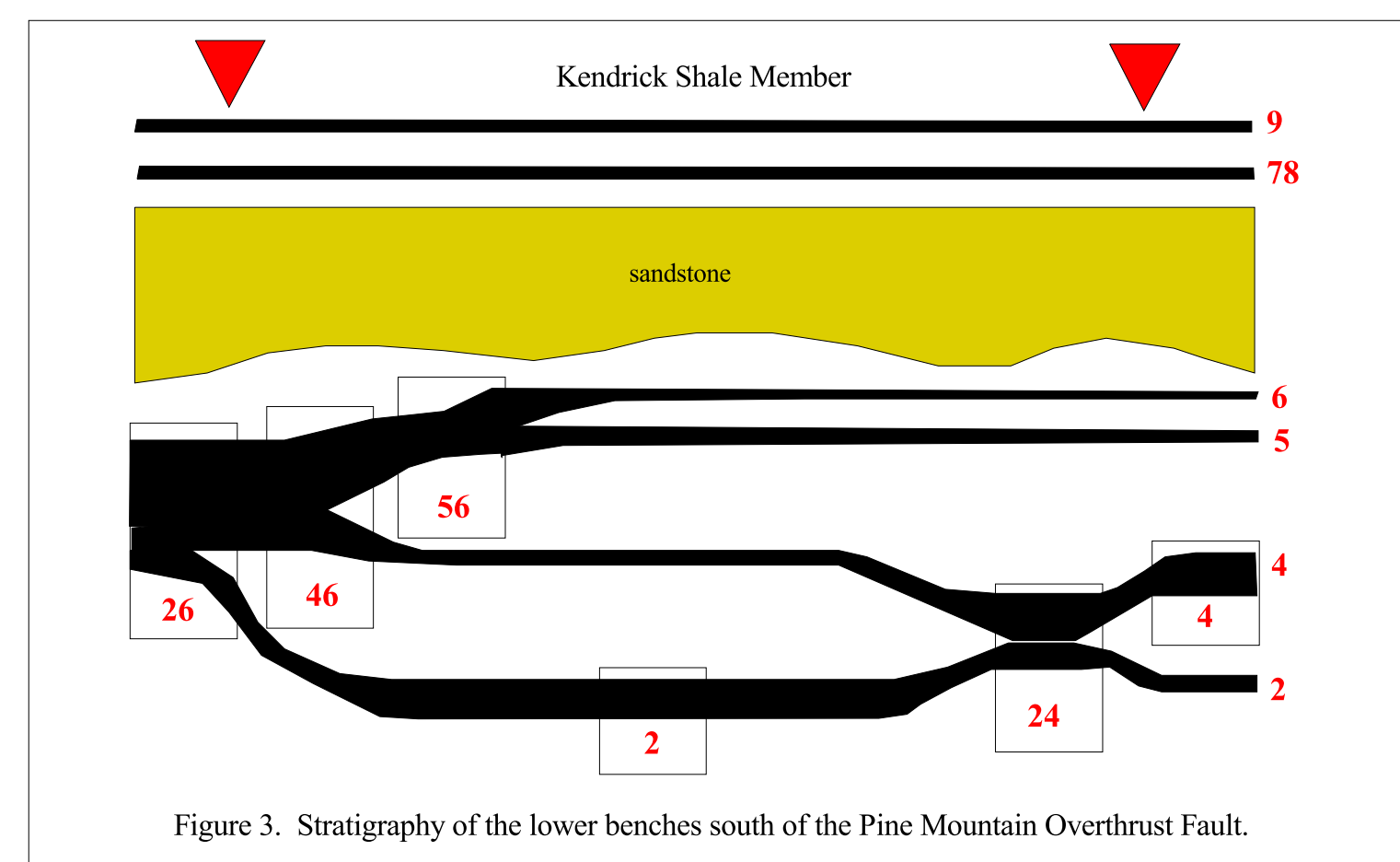
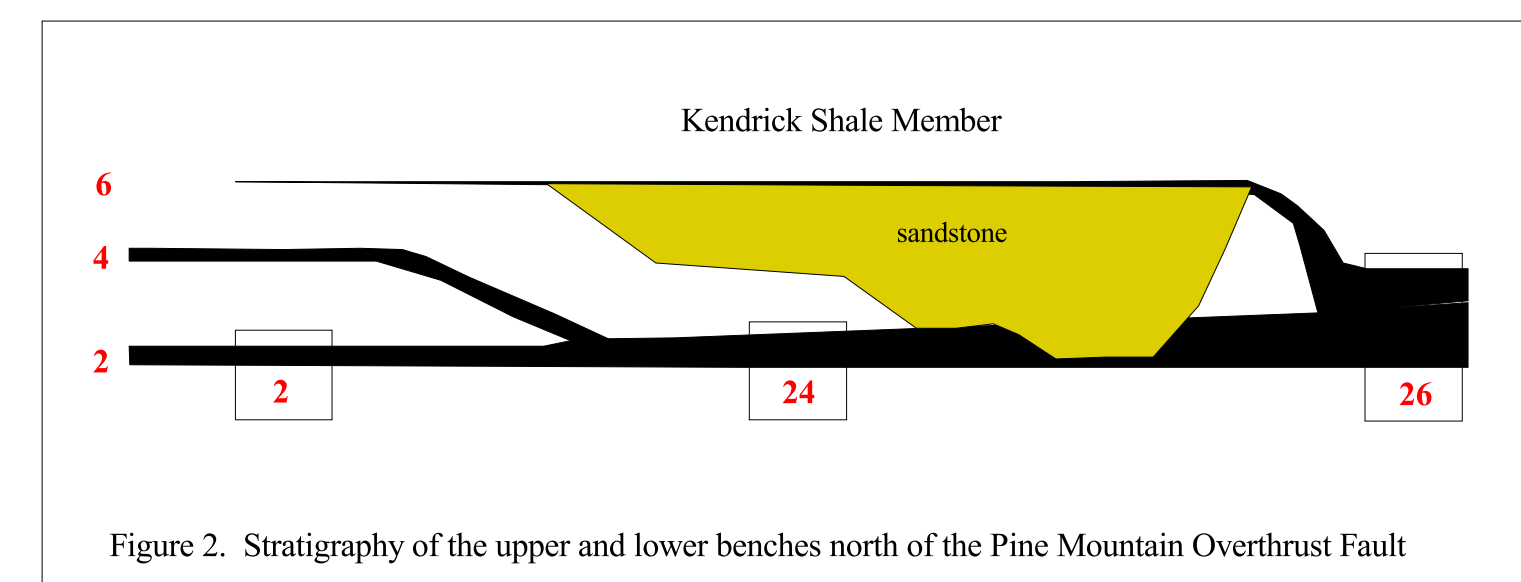
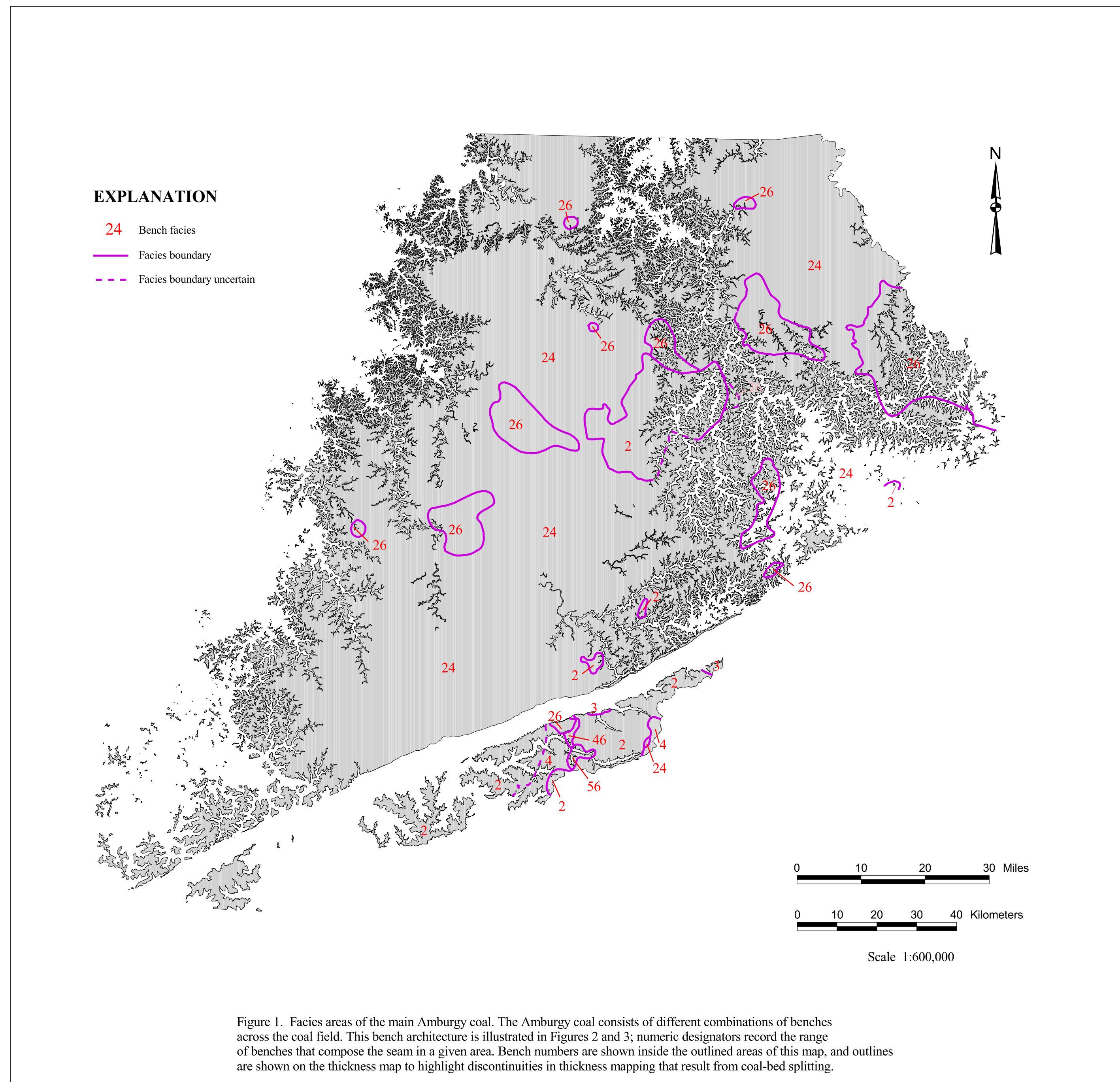
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# Total Thickness of the Amburgy Coal in Eastern Kentucky

Michael G. Shultz, Jeffrey A. Esterle, and Ernest E. Thacker



## Overview

This map showing the regional characteristics of the Amburgy coal bed was prepared as part of the U.S. Geological Survey's National Coal Assessment program, which compiles regional maps and databases that provide a comprehensive assessment of the most important coal beds in the nation. The Amburgy coal zone is composed of a number of distinct coal beds that merge in some areas to form mineable coal bodies. For the purpose of this assessment, the zone has been divided into two beds: the Lower Amburgy (A) and Upper Amburgy (B). The lower bed is of greatest economic significance and is the subject of this publication. The map shows the total coal thickness, minus partings, of the lower or main Amburgy bed for the eastern Kentucky region. It is not a traditional isopach map, because the mineable bed is not composed of the same benches in all areas (Figs. 1-3). Discontinuities, delineated by facies boundaries on the map, indicate abrupt changes in thickness caused by splitting. Discontinuities were classified on the basis of the nature, as well as the confidence in location, of the discontinuity (Fig. 1). The Lower Amburgy bed is the main bed north of the Pine Mountain Overthrust Fault, where it is also known as the Williamson, Gun Creek, and Cannel City coal. South of the Pine Mountain Overthrust Fault, the lower bed has complex bench architecture, and is known locally as the Creech coal.

## Point Data

Coal thickness and elevation measurements were derived from two different databases. The Kentucky Coal Resources Information System (KCRIS) contains field descriptions of coal beds that were made at natural outcrops, roadcuts, and surface and underground mines. Data collected at these localities were total coal thickness, bottom elevation, and, in some cases, total parting thickness. A second database contains records of borehole information obtained from coal companies and government agencies. This database also contains measurements of strata above and below the target coal bed. Data from 1,046 localities cited in the KCRIS database and 2,092 boreholes were used to make this map.

## Map Preparation

The outcrop area of the Amburgy coal was compiled from individually digitized 7.5-minute geologic quadrangle maps. Personnel of the Kentucky Revenue Cabinet and the Kentucky Geological Survey digitized the maps. For quadrangles where the coal had not been mapped, the position of its outcrop was inferred, where possible, based on underlying or overlying beds. This coal was not assessed north of the 38° latitude because of insufficient mapping and thickness data. Thickness data were plotted on 1:100,000-scale base maps. Standard U.S. Geological Survey 14-in. categories, beginning at 14 in., were manually drawn and digitized. Contour lines do not cross lines of discontinuity, such as coal-bed split lines. Also, some anomalous data points were not used in order to avoid overly complex contouring. Split lines shown on Figure 1 indicate the combination of coal benches that make up the mineable bed, as shown on Figures 2 and 3.

## More Information

Search for publications that relate to the Amburgy coal zone on the KGS Web site at [www.uky.edu/KGS/pubs/lop.htm](http://www.uky.edu/KGS/pubs/lop.htm)

## Acknowledgments

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