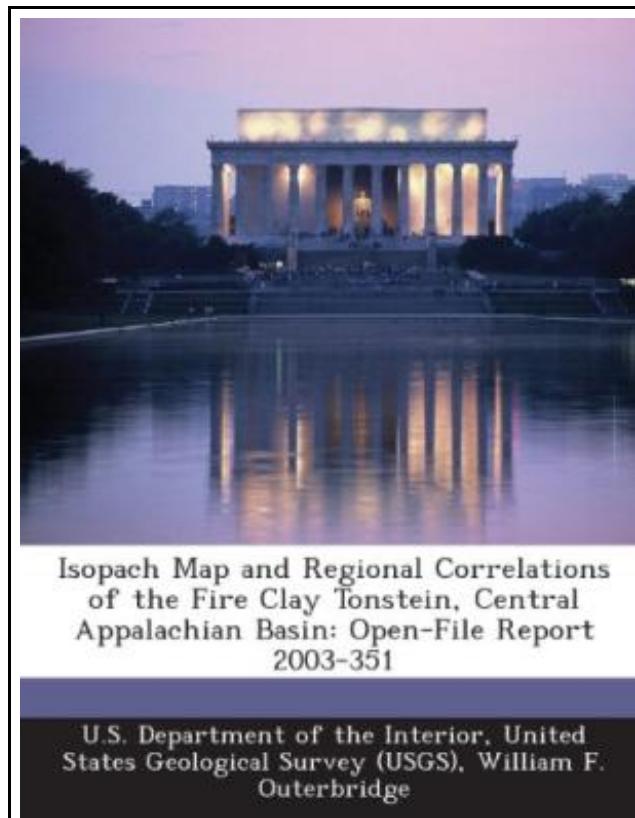


# Isopach Map and Regional Correlations of the Fire Clay Tonstein, Central Appalachian Basin: Open-File Report 2003-351 (Paperback)



Isopach Map and Regional Correlations  
of the Fire Clay Tonstein, Central  
Appalachian Basin: Open-File Report  
2003-351

U.S. Department of the Interior, United  
States Geological Survey (USGS), William F.  
Outerbridge

Filesize: 3.71 MB

## Reviews

*Complete guide for ebook fans. Better then never, though i am quite late in start reading this one. Your life span will likely be convert when you full reading this ebook.  
(Dr. Teagan Beahan Sr.)*

## ISOPACH MAP AND REGIONAL CORRELATIONS OF THE FIRE CLAY TONSTEIN, CENTRAL APPALACHIAN BASIN: OPEN-FILE REPORT 2003-351 (PAPERBACK)

[DOWNLOAD](#)

To download **Isopach Map and Regional Correlations of the Fire Clay Tonstein, Central Appalachian Basin: Open-File Report 2003-351 (Paperback)** eBook, please access the button below and download the document or get access to additional information that are related to ISOPACH MAP AND REGIONAL CORRELATIONS OF THE FIRE CLAY TONSTEIN, CENTRAL APPALACHIAN BASIN: OPEN-FILE REPORT 2003-351 (PAPERBACK) book.

Bibliogov, United States, 2013. Paperback. Book Condition: New. 246 x 189 mm. Language: English . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*.A tonstein that occurs within the Middle Pennsylvanian Fire Clay coal zone is a widespread marker bed that has been used for correlation purposes since the early 1900?s. Seiders (1965) first demonstrated that this tonstein is an altered volcanic air-fall ash deposit. Lyons and others (1992) have correlated the tonstein across Kentucky, West Virginia, Virginia, and Tennessee on the basis of mineralogical and geochemical ?fingerprinting? The correlation of the tonstein, herein often referred to as the Fire Clay tonstein over this four-state area, and the abundance of thickness data on this tonstein permit construction of an isopach map that depicts its distribution. In general, the tonstein thins from Tennessee, where it is up to 12 inches (30 cm) thick, northeastward to central West Virginia, where it is less than 4 in. (10 cm) thick, and its preserved area is about 14,300 sq. mi. (37,000 sq. km). The preserved volume is 0.90 cu. mi or 3.7 cu. km. The compaction ratio of ash to rock is 6:1, so the original ash volume deposited in this area was 5.4 cubic miles (22.2 cubic kilometers). The trends in thickness suggest the source of the ash was a volcano in the Yucatan tectonic plate, which, had it not moved relative to the North American Plate since the Pennsylvanian, would be located in the present Gulf of Mexico, south of Louisiana. The thickness and extent of the tonstein appears to have been controlled partly by winds and partly by the surface on which it landed. Its absence in some areas indicates that the ash was not preserved, probably because it floated downstream as pumice.

- [Read Isopach Map and Regional Correlations of the Fire Clay Tonstein, Central Appalachian Basin: Open-File Report 2003-351 \(Paperback\) Online](#)
- [Download PDF Isopach Map and Regional Correlations of the Fire Clay Tonstein, Central Appalachian Basin: Open-File Report 2003-351 \(Paperback\)](#)

## You May Also Like

---



**[PDF] Two Treatises: The Pearle of the Gospell, and the Pilgrims Profession to Which Is Added a Glasse for Gentlewomen to Dresse Themselves By. by Thomas Taylor Preacher of Gods Word to the Towne of Reding. (1624-1625) (Paperback)**  
Access the web link beneath to download and read "Two Treatises: The Pearle of the Gospell, and the Pilgrims Profession to Which Is Added a Glasse for Gentlewomen to Dresse Themselves By. by Thomas Taylor Preacher of Gods Word to the Towne of Reding. (1624-1625) (Paperback)" document.

[Save Book »](#)

---



**[PDF] Two Treatises: The Pearle of the Gospell, and the Pilgrims Profession to Which Is Added a Glasse for Gentlewomen to Dresse Themselves By. by Thomas Taylor Preacher of Gods Word to the Towne of Reding. (1625) (Paperback)**  
Access the web link beneath to download and read "Two Treatises: The Pearle of the Gospell, and the Pilgrims Profession to Which Is Added a Glasse for Gentlewomen to Dresse Themselves By. by Thomas Taylor Preacher of Gods Word to the Towne of Reding. (1625) (Paperback)" document.

[Save Book »](#)

---



**[PDF] Index to the Classified Subject Catalogue of the Buffalo Library; The Whole System Being Adopted from the Classification and Subject Index of Mr. Melvil Dewey, with Some Modifications . (Paperback)**

Access the web link beneath to download and read "Index to the Classified Subject Catalogue of the Buffalo Library; The Whole System Being Adopted from the Classification and Subject Index of Mr. Melvil Dewey, with Some Modifications . (Paperback)" document.

[Save Book »](#)

---



**[PDF] The First Epistle of H. N. a Crying-Voyce of the Holye Spirit of Loue. Translated Out of Base-Almayne Into English. (1574) (Paperback)**

Access the web link beneath to download and read "The First Epistle of H. N. a Crying-Voyce of the Holye Spirit of Loue. Translated Out of Base-Almayne Into English. (1574) (Paperback)" document.

[Save Book »](#)

---



**[PDF] Kindergarten Culture in the Family and Kindergarten; A Complete Sketch of Froebel s System of Early Education, Adapted to American Institutions. for the Use of Mothers and Teachers (Paperback)**

Access the web link beneath to download and read "Kindergarten Culture in the Family and Kindergarten; A Complete Sketch of Froebel s System of Early Education, Adapted to American Institutions. for the Use of Mothers and Teachers (Paperback)" document.

[Save Book »](#)

---



**[PDF] A Kindergarten Manual for Jewish Religious Schools; Teacher s Text Book for Use in School and Home (Paperback)**

Access the web link beneath to download and read "A Kindergarten Manual for Jewish Religious Schools; Teacher s Text Book for Use in School and Home (Paperback)" document.

[Save Book »](#)

