

An Update Of Coal & Lignite Research in Southern Arkansas

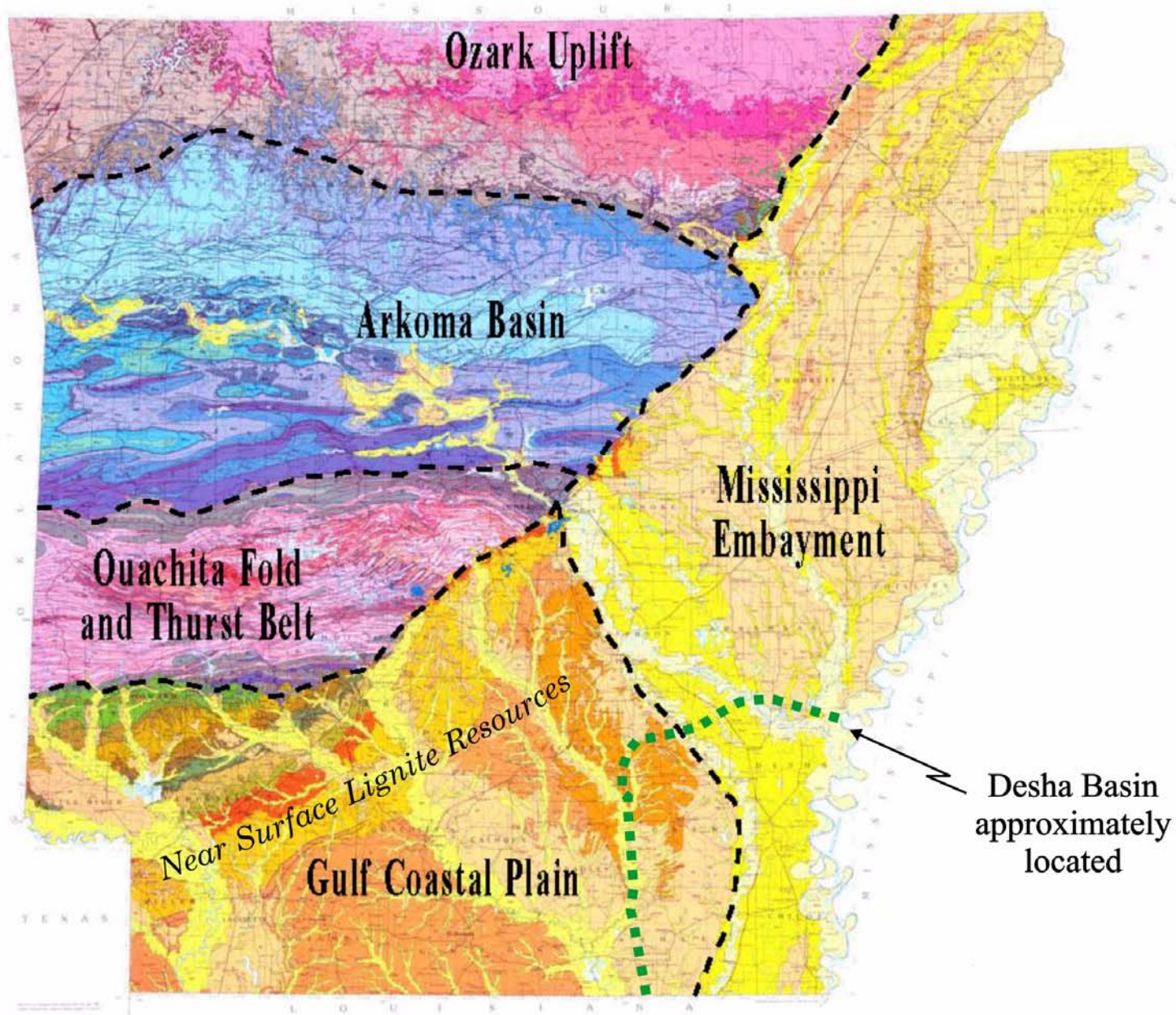
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CBNG Potential of SE Arkansas

- Desha Basin contains both Tertiary and Cretaceous coals buried from 1000' to 4000'
- Existing CenterPoint gas pipeline infrastructure in the Desha Basin is conducive for CBNG development
- Preliminary models of subsurface coals indicate sufficient thermal maturity to generate CBNG.



Eocene	Jackson Group
	Claiborne Group
	Wilcox Group
Paleocene	Midway Group
	Navarro Group
Upper Cretaceous	Taylor Group
	Austin Group
	Trinity Group
Lower Cretaceous	



Stratigraphy of Lignite and coal-bearing intervals in the Mississippi Embayment and Gulf Coastal Plain, Arkansas

Tertiary Exploration Target Desha Basin Project

- Subbituminous coals in the subsurface
- Intervals within Paleocene-Eocene Wilcox Group
(4.3 billion tons of lignite resource)
- Beds up to 10' thick; cumulative thickness up to 25'
- Current efforts are aimed at identification of coals through well log correlation
- Coal picks are imported into PETRA to develop a series of cross-sections, structure contour maps, and isopach maps

Cretaceous Exploration Target Desha Basin Project

- Subbituminous to Bituminous coals in subsurface
(**High Volatile C Bituminous** at a depth of 3050')
- Coal-bearing interval is within the Lower Cretaceous
(Trinity Group)
- Beds up to 8' thick; cumulative coal thickness of at least 12'
- Coal picks are imported into PETRA to develop a series of cross-sections, structure contour maps, and isopach maps

Near Surface Lignite Project

- Current efforts are focused on development of a drilling proposal for 100 new core holes.
- Each drill site has a determination for: (1) Depth of overburden (2) Projected core intervals; (3) Cumulative lignite thicknesses
- Cores will be sent to the EERC facility for testing:
 - (A) Coal to liquids analysis using Fischer-Tropsch
 - (B) Coal gasification testing for electrical power generation
- Final EERC data and report will be analyzed by Diversified Energy – A development pathway for the lignite resource will be recommended based on lignite quality and proximity to potential markets
- Coal picks are imported into PETRA to develop a series of cross-sections, structure contour maps, and isopach maps