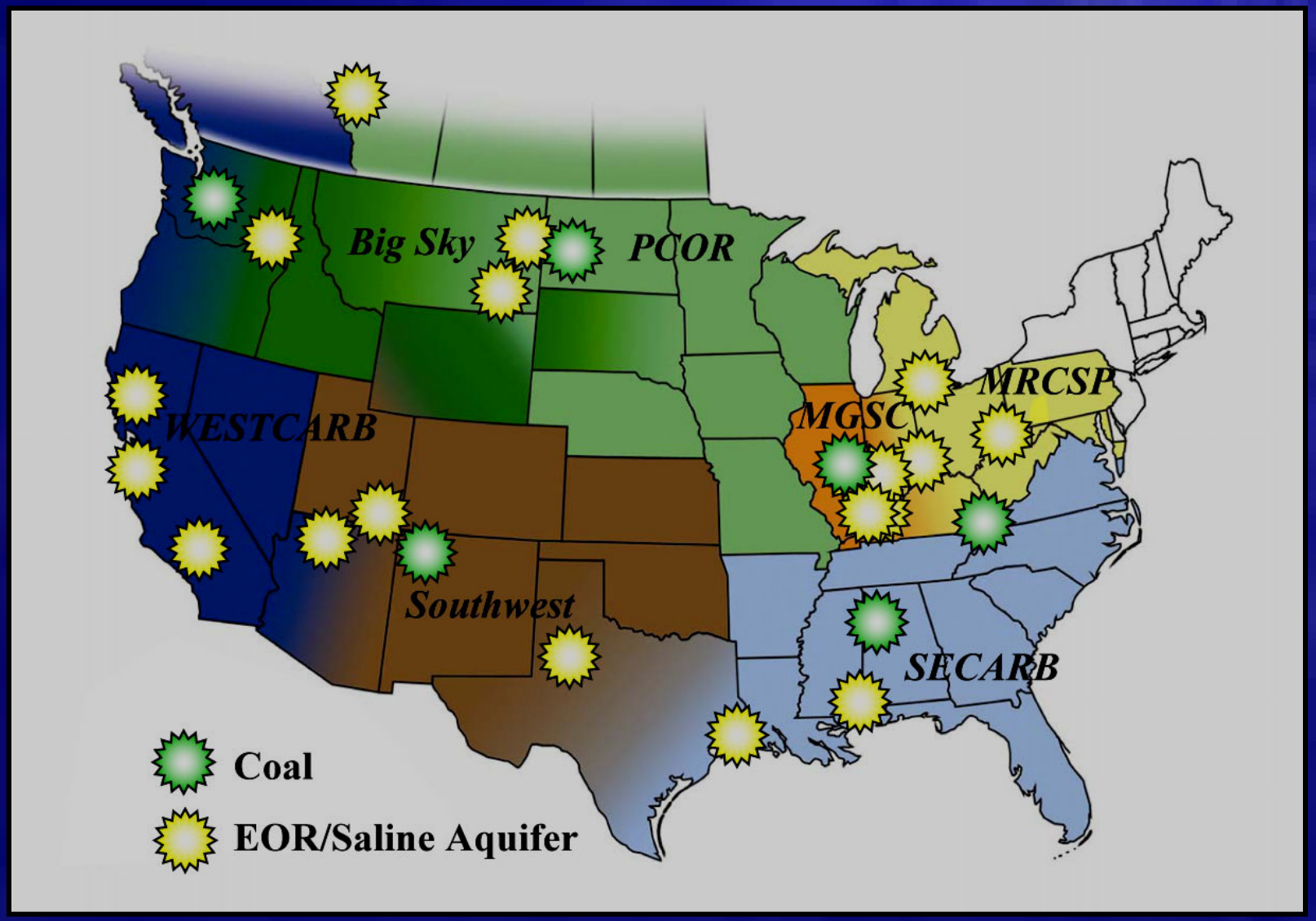
SECARB Field Verification Tests in Coal Seams for Carbon Sequestration and Enhanced Coalbed Methane Recovery

Nino Ripepi & Michael Karmis, Virginia Center for Coal and Energy Research / Virginia Tech

Jack Pashin, Geological Survey of Alabama

Matt Conrad and Mike Miller, Marshall Miller & Associates

SECARB Coal Group Projects



SECARB Coal Group Team

- Southern States Energy Board
- Virginia Center for Coal and Energy Research – Virginia Tech
- Marshall Miller and Associates, Inc.
- Geological Survey of Alabama
- University of Alabama
- Southern Company
- Kentucky Geological Survey
- Advanced Resources International
- Eastern Coal Council

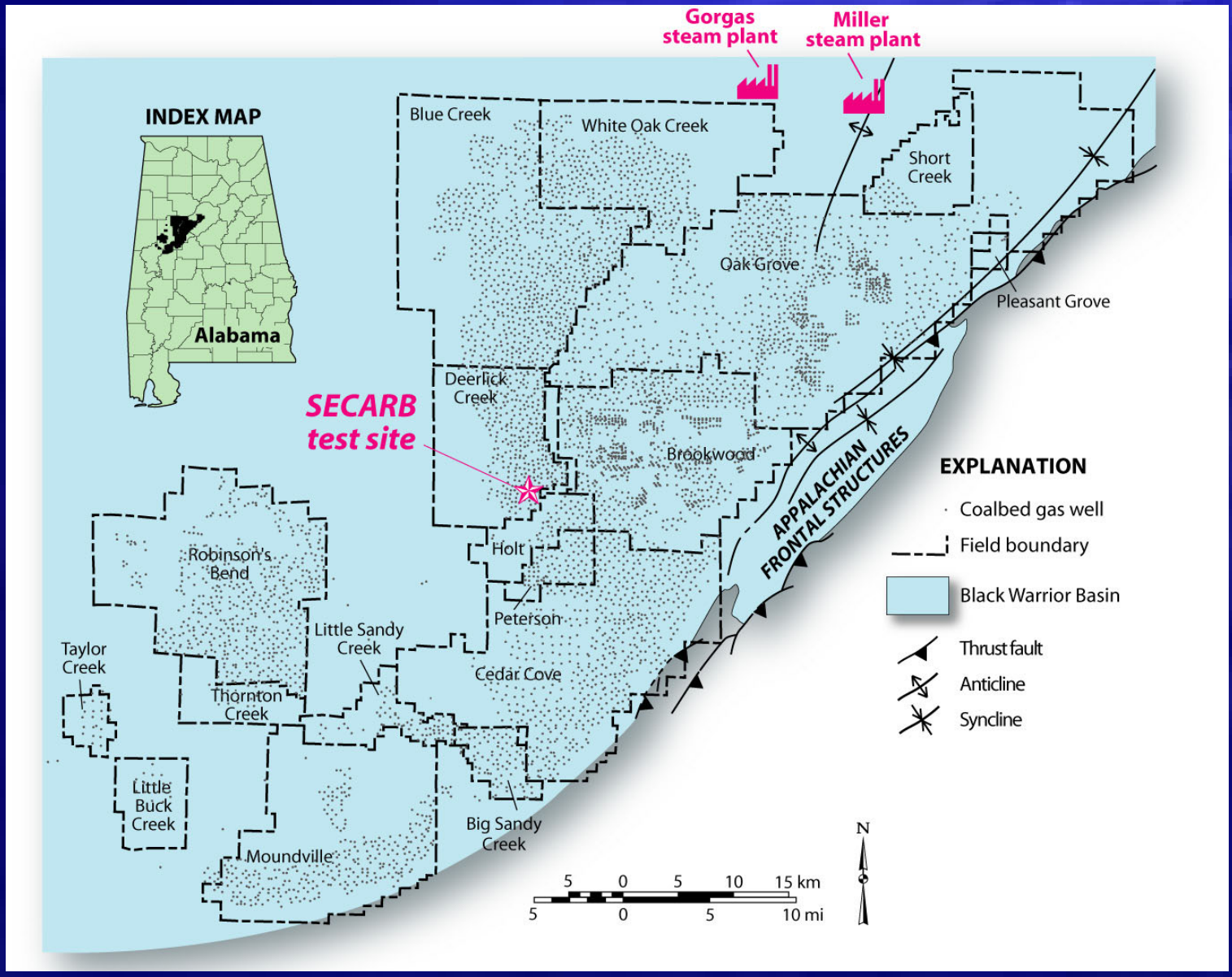
Participating Organizations

- Alpha Natural Resources
- Alawest
- AMVEST
- Buckhorn Coal
- CCP2 Project
- CDX Gas
- CONSOL,CNX Gas
- Cumberland Resources Corporation
- Dart Oil & Gas
- Denbury Resources
- Dominion E&P
- Dominion Resources
- EPRI
- Equitable Production
- Institute for Clean Energy Technology (MSU)
- GeoMet
- McJunkin Appalachian
- Norfolk Southern
- Natural Resource Partners
- Oak Ridge National Laboratory
- Penn Virginia
- Pine Mountain Oil & Gas
- Piney Land
- Pocahontas Land
- Univ. British Columbia

SECARB Coal Group Phase II Project Tasks

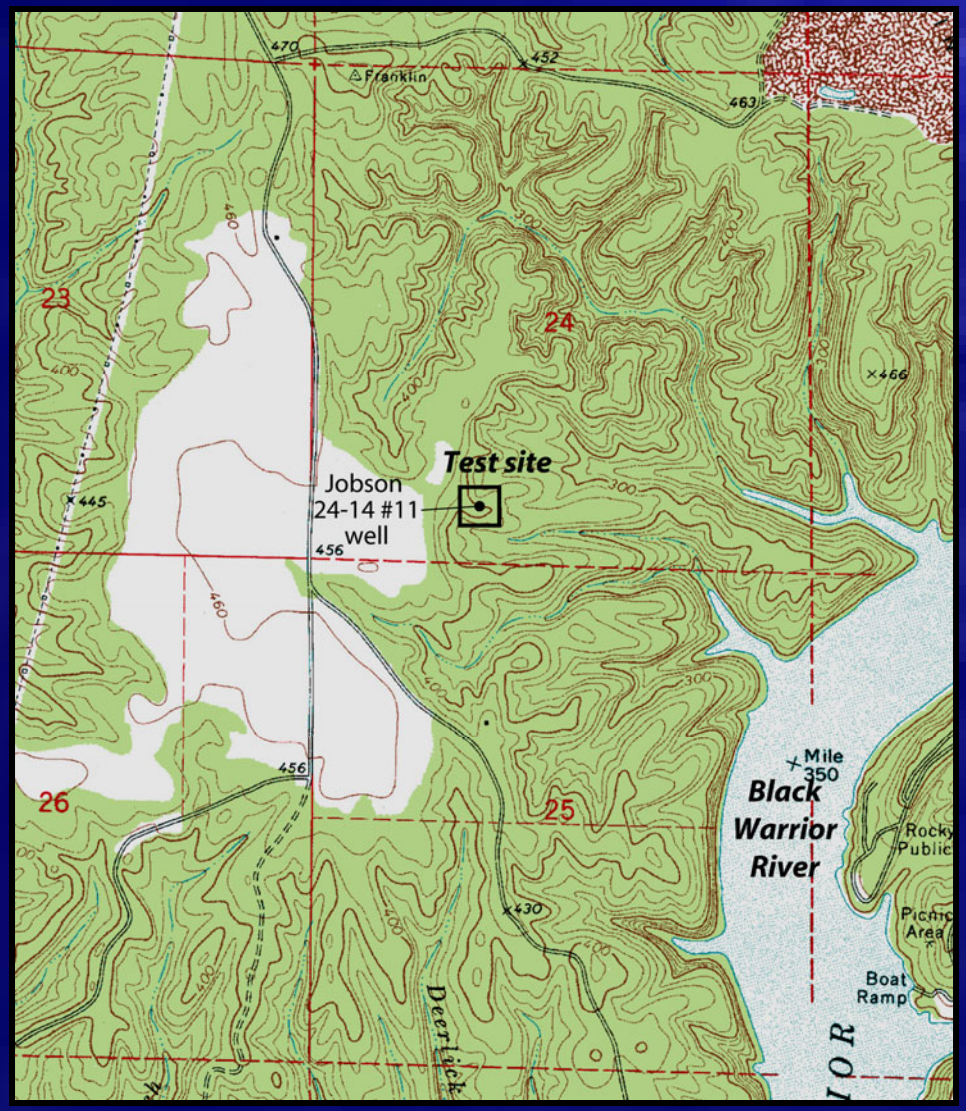
- Regional Characterization and Site Selection
- Reservoir Modeling
- Core Hole Drilling and Evaluation
- Pilot Preparation and Risk Analysis
- Pilot Project Operations (Multi-seam Interference Tests)
- Interpretation and Assessment
- Public Outreach
- Technology Transfer

Black Warrior Basin

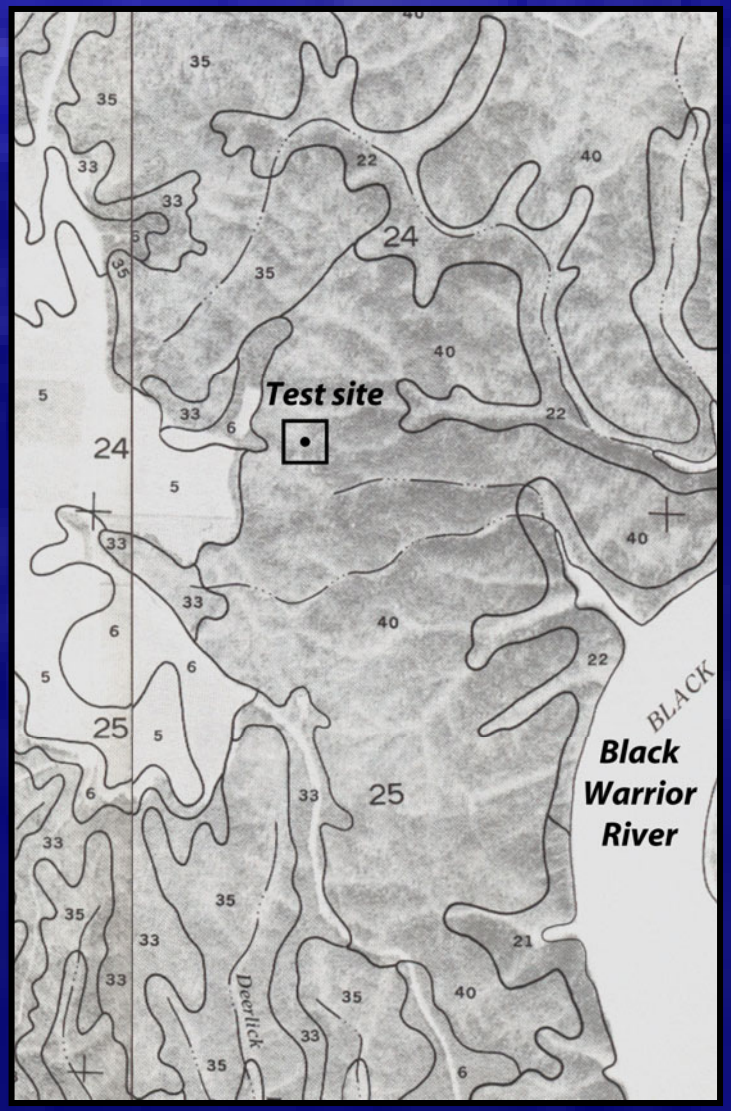


Black Warrior Test Site

Topography



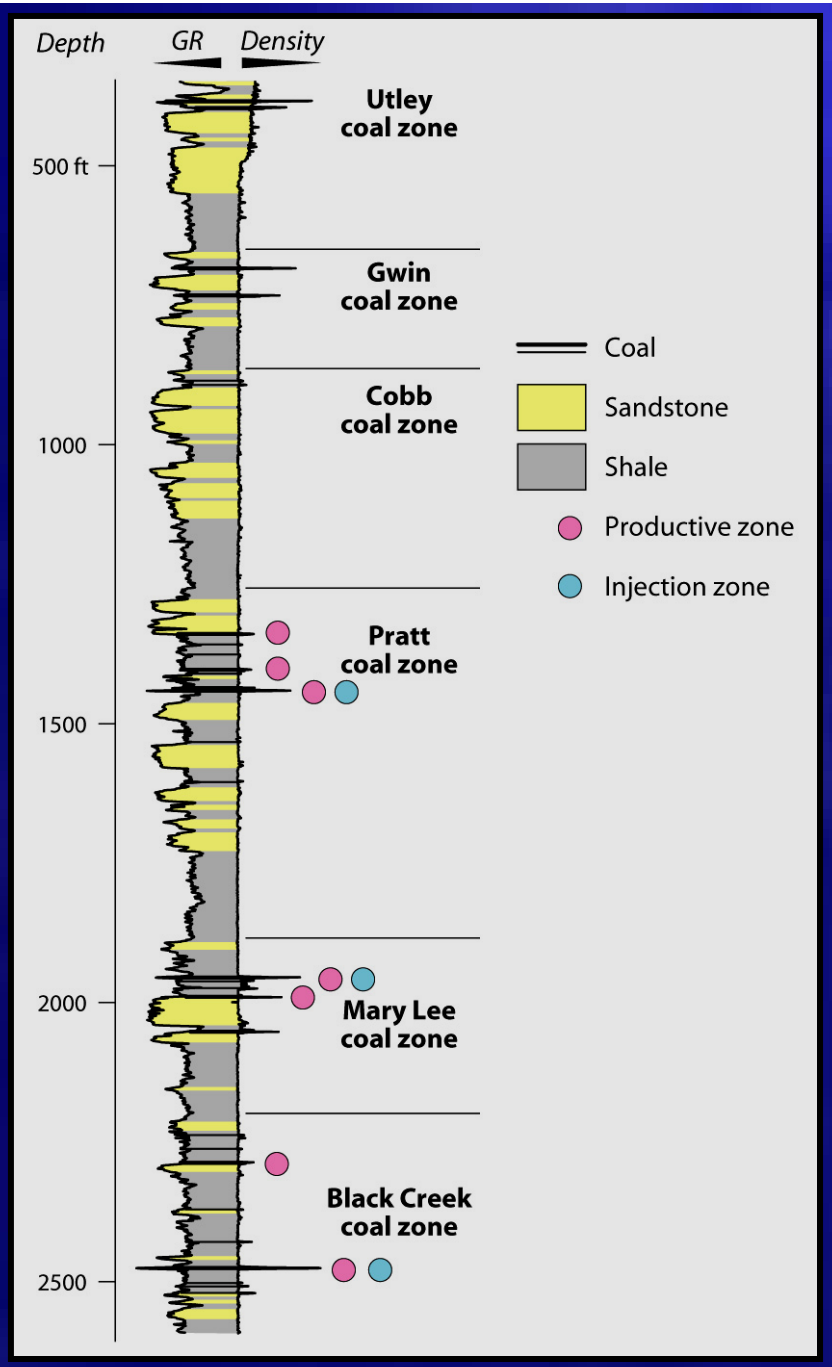
Soil Survey



http://www.secarbon.org

http://www.energy.vt.edu/secarb

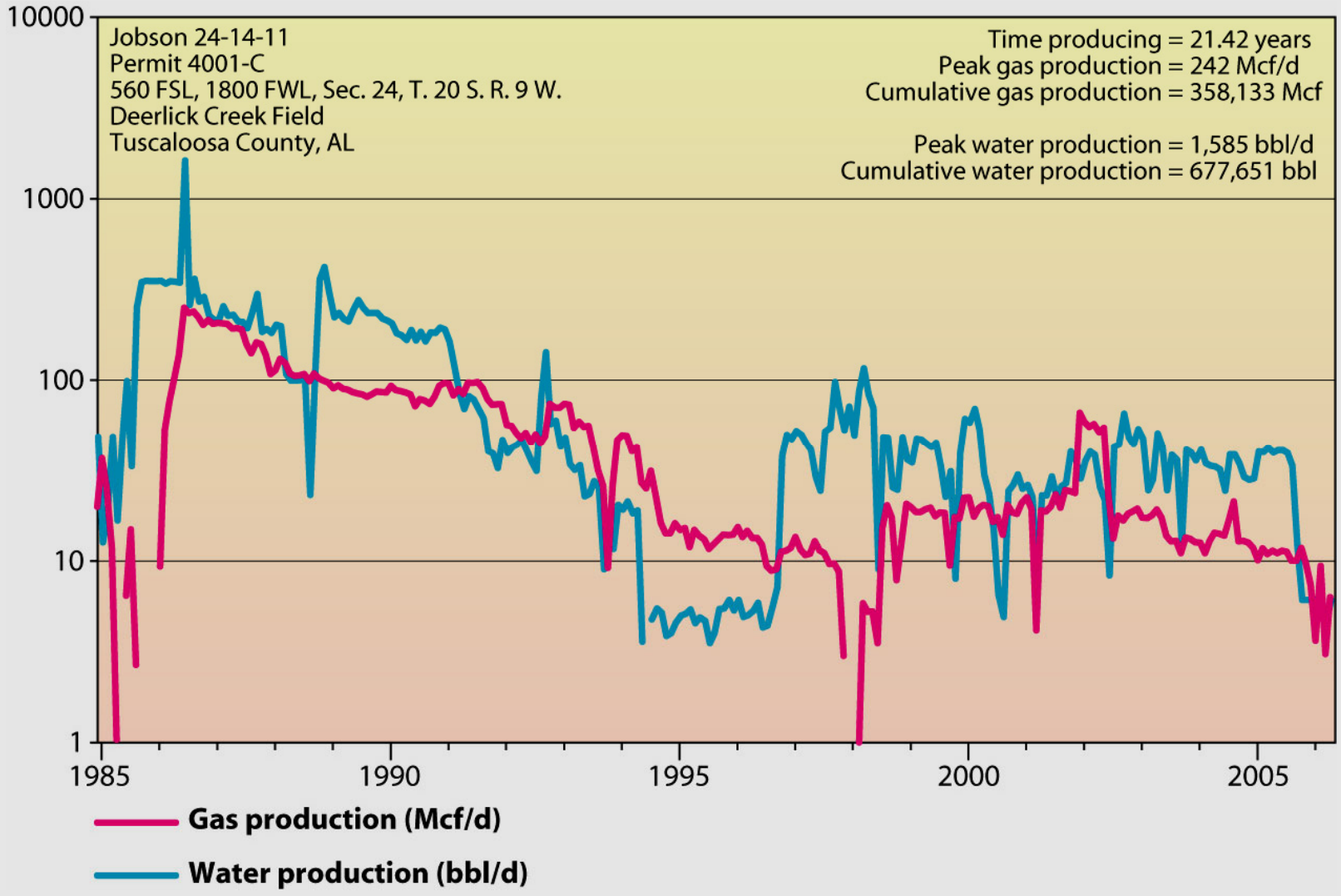
JOBSON 24-14 #11 WELL
DEERLICK CREEK FIELD



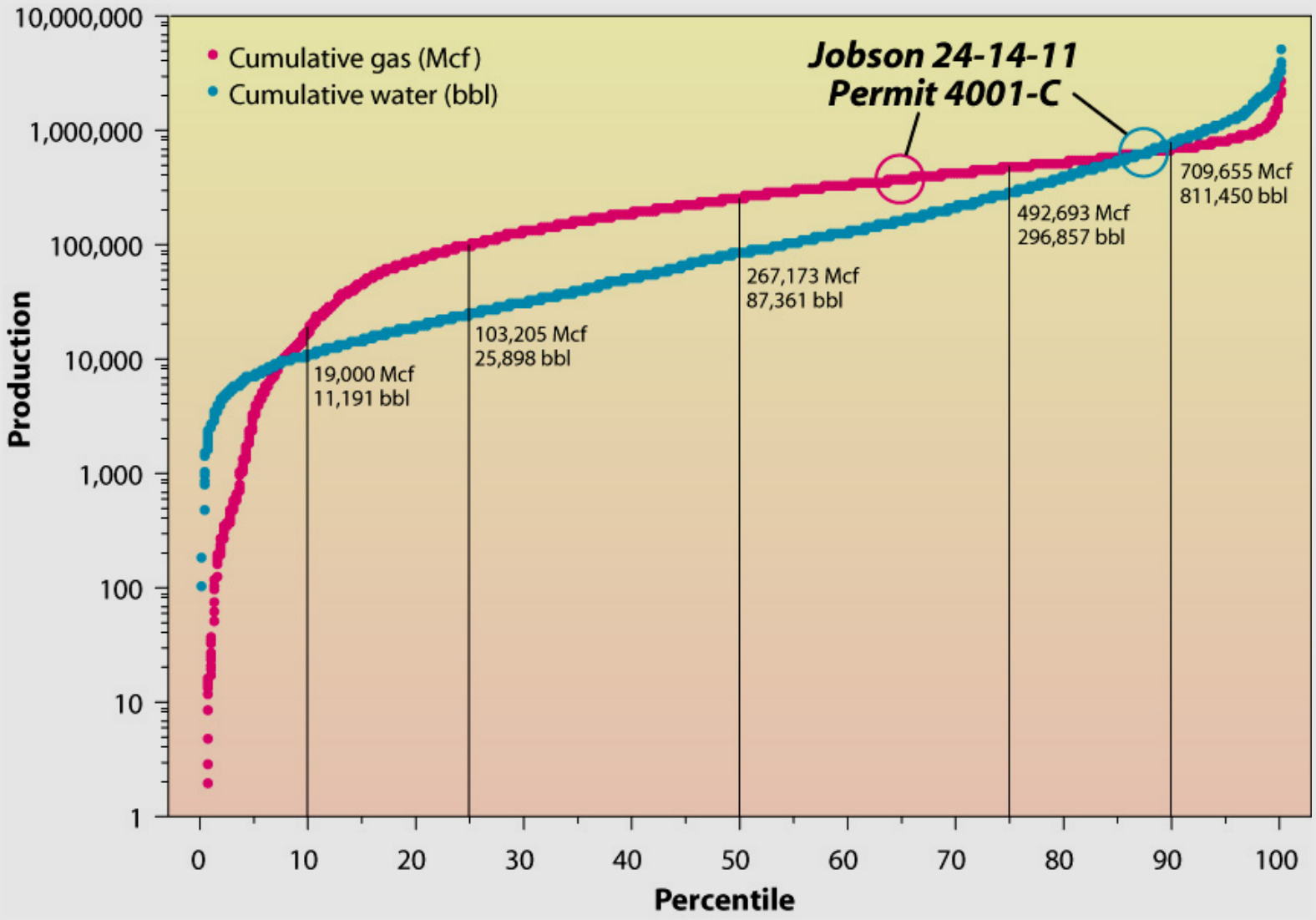
POTTSVILLE STRATIGRAPHY

Jobson 24-14 #11
SECARB test well
Deerlick Creek Field

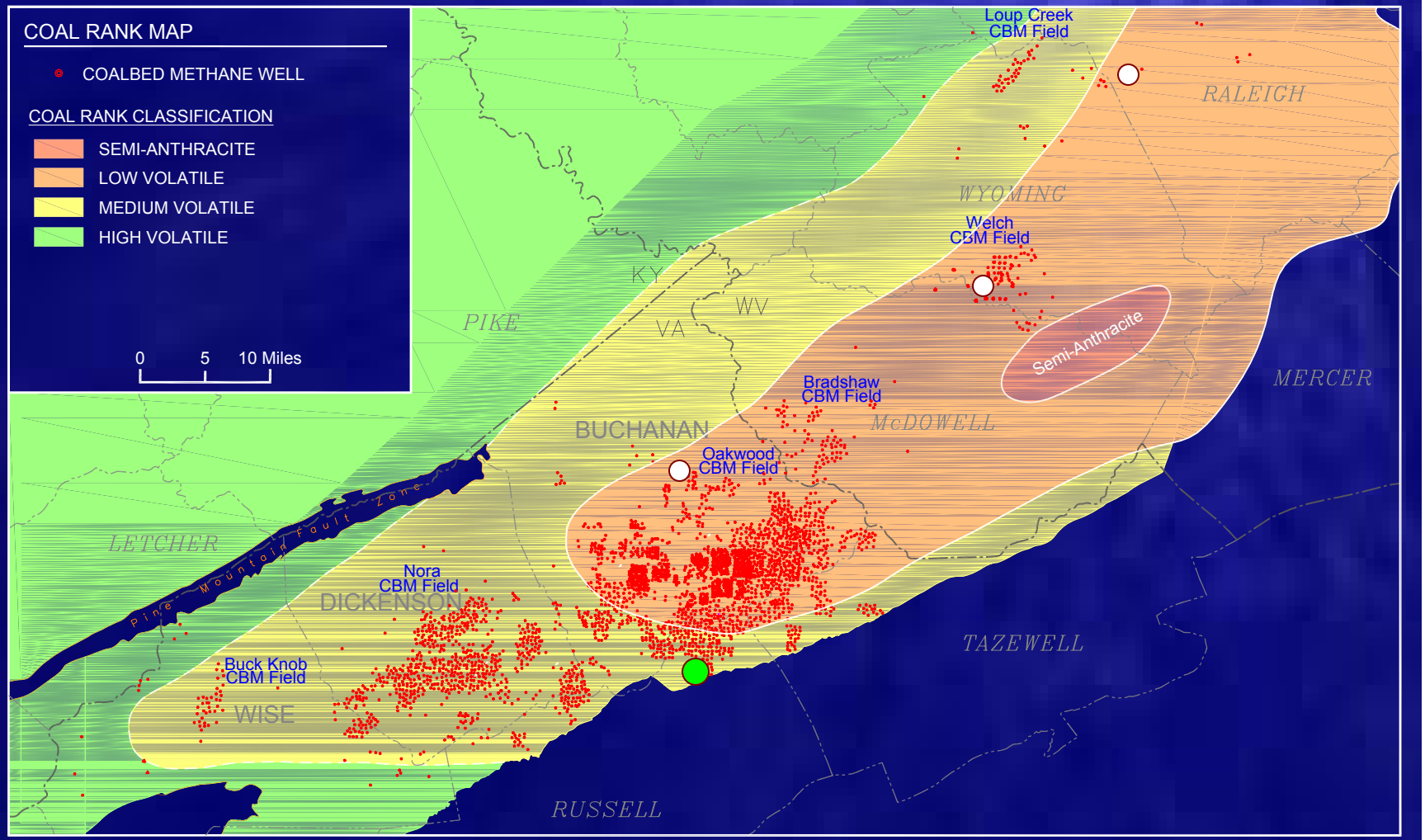
Production History



Cumulative Production



Central App. Potential Pilot Test Sites



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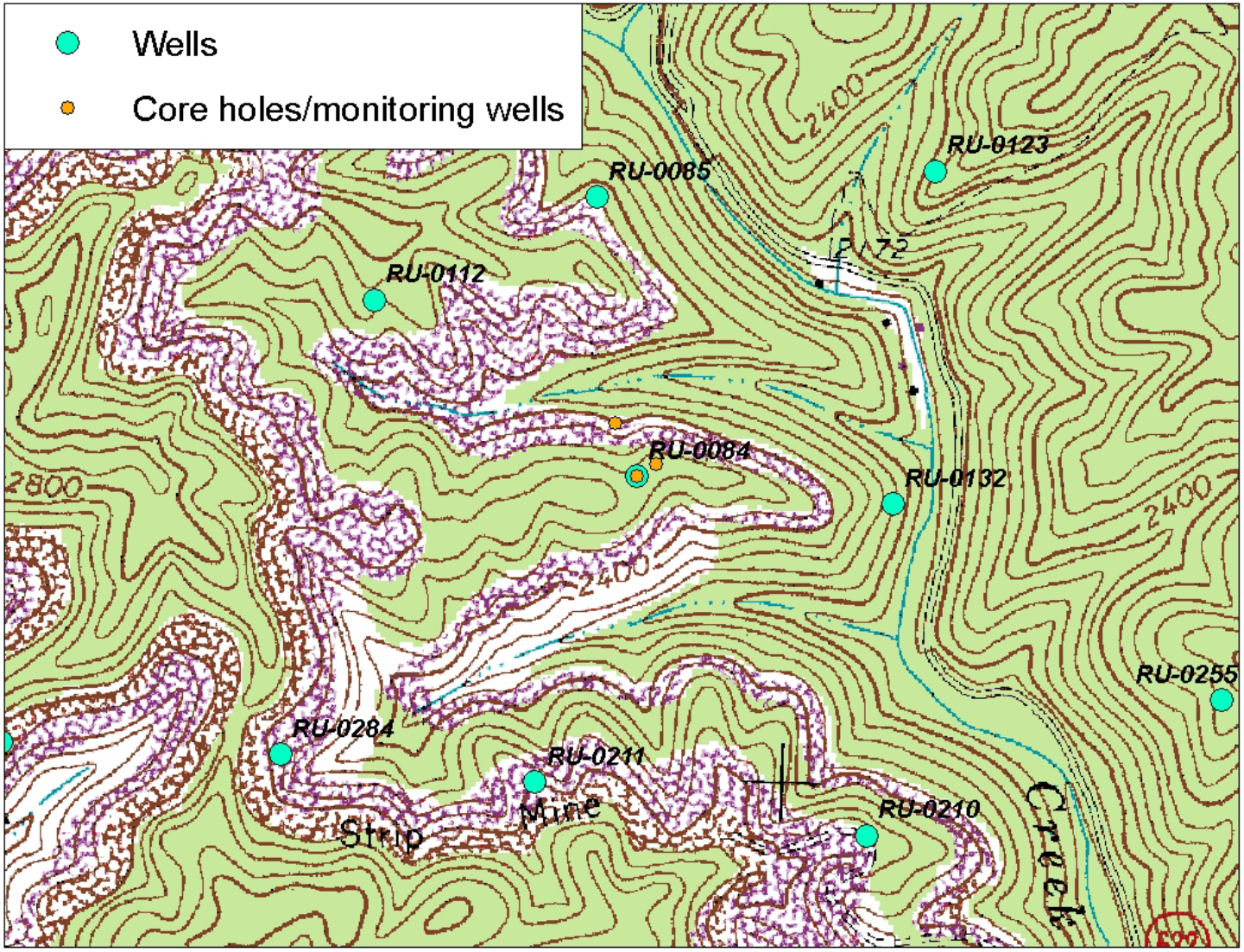
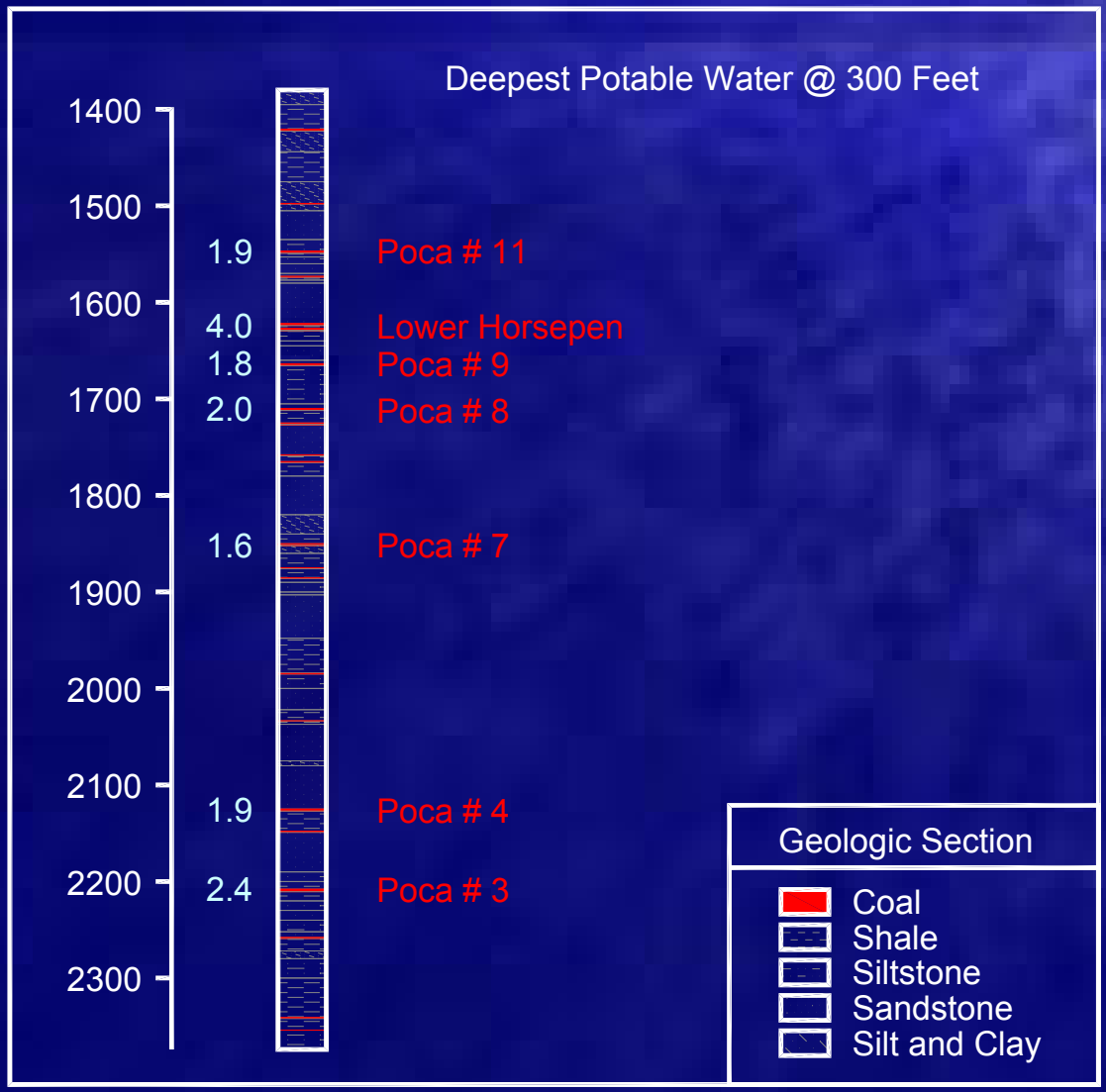
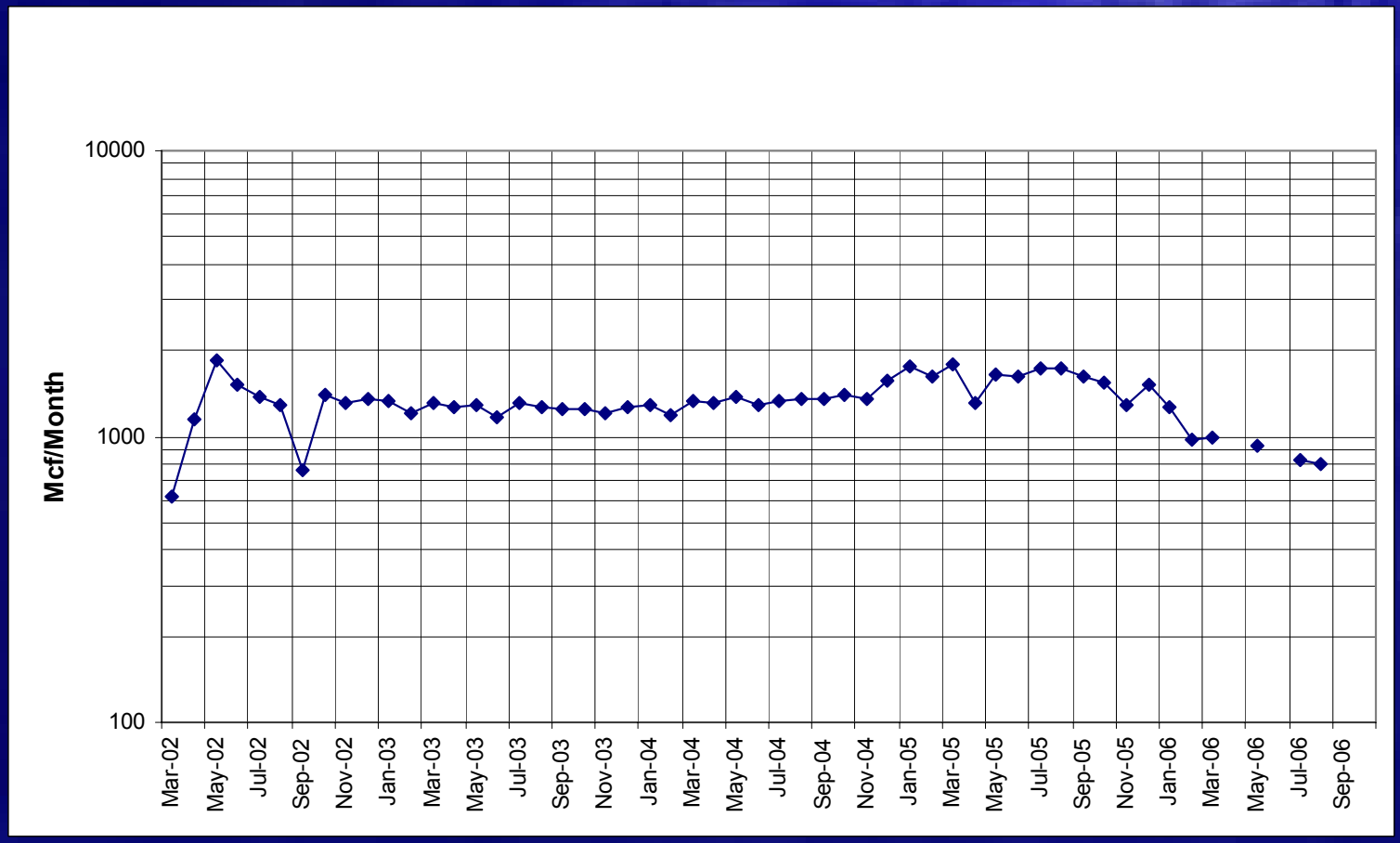
Proposed Pilot Test Site



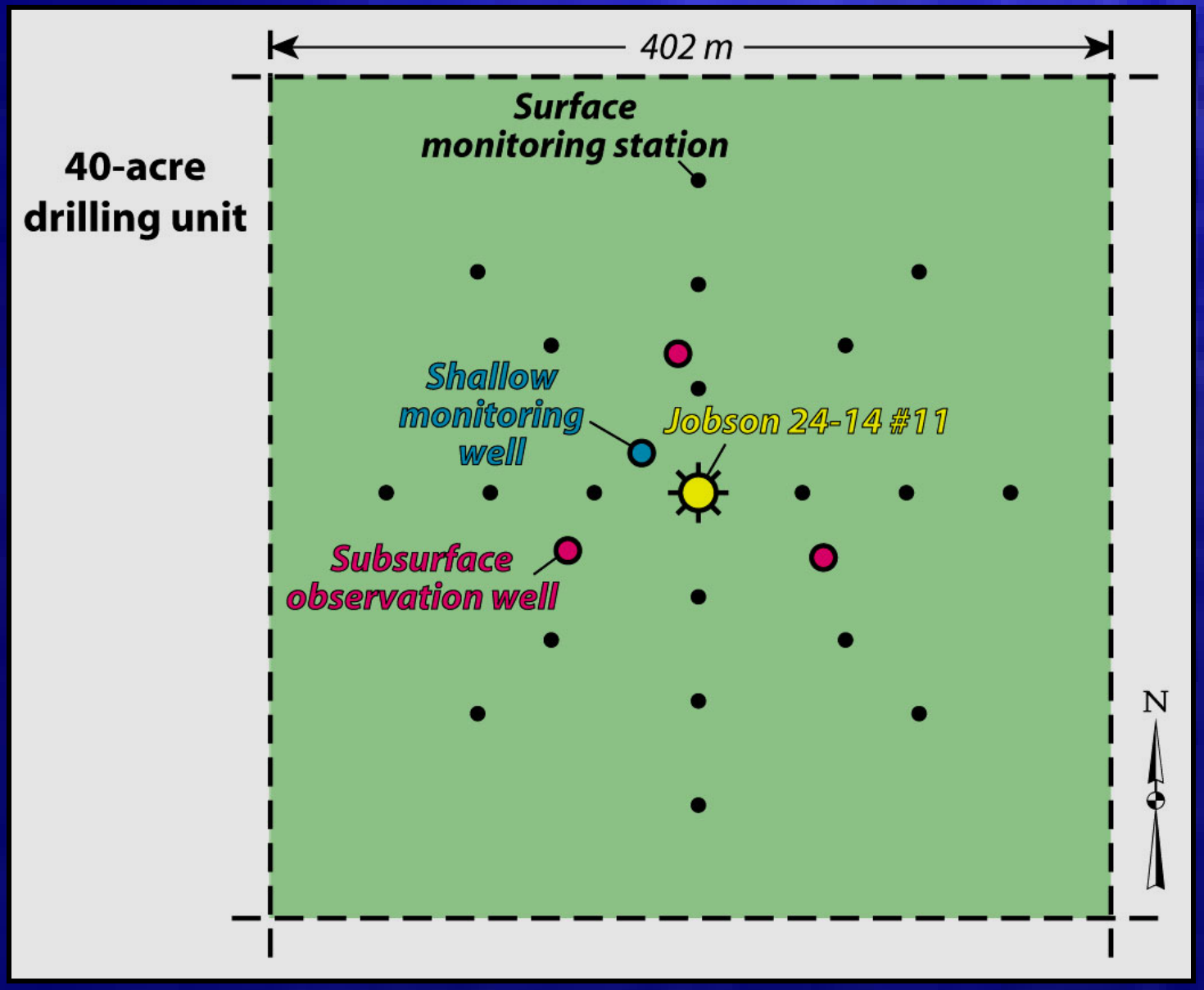
Central App. Proposed Pilot Test Site Stratigraphic Section



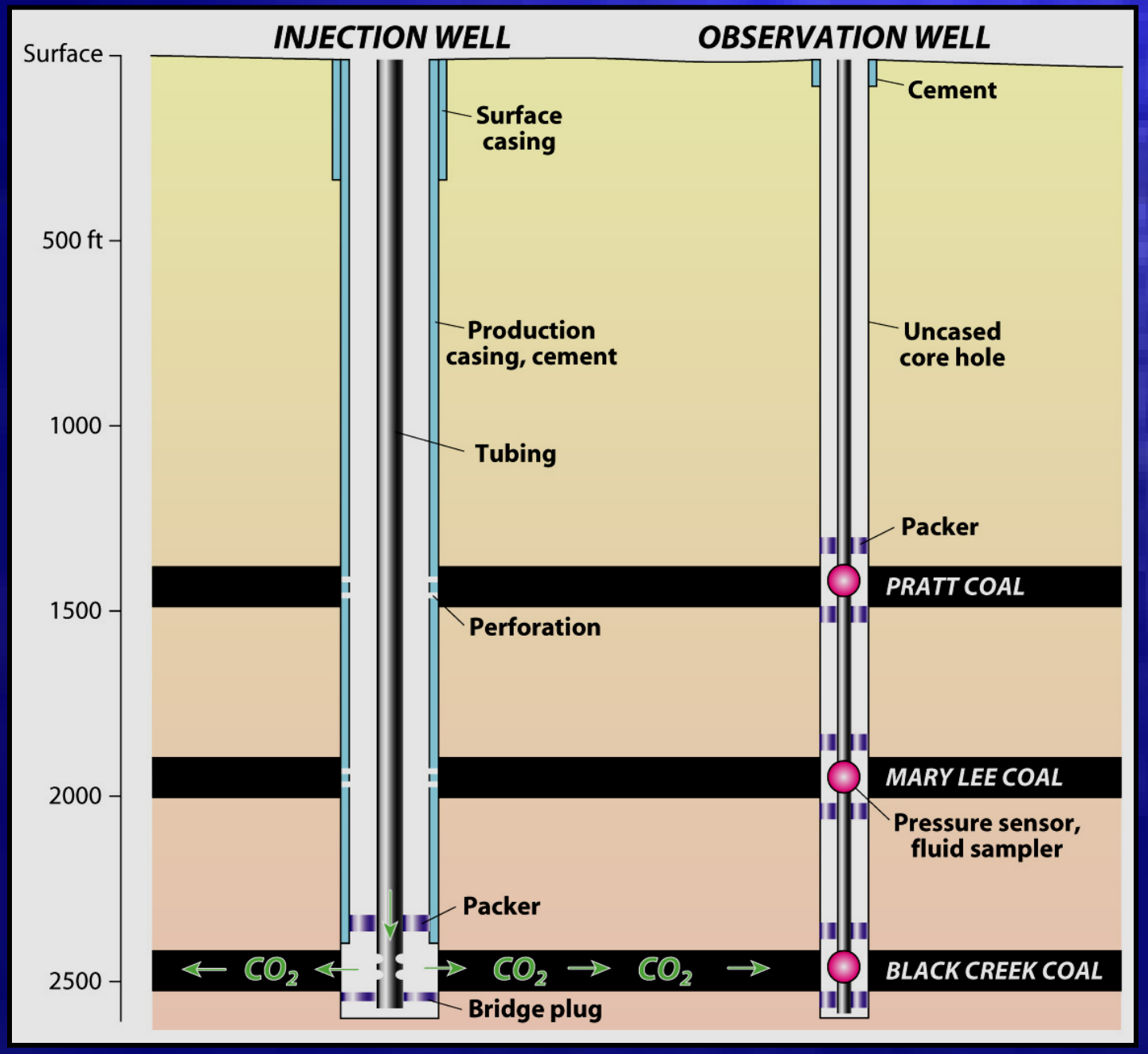
Proposed Injection Well CBM Production Summary



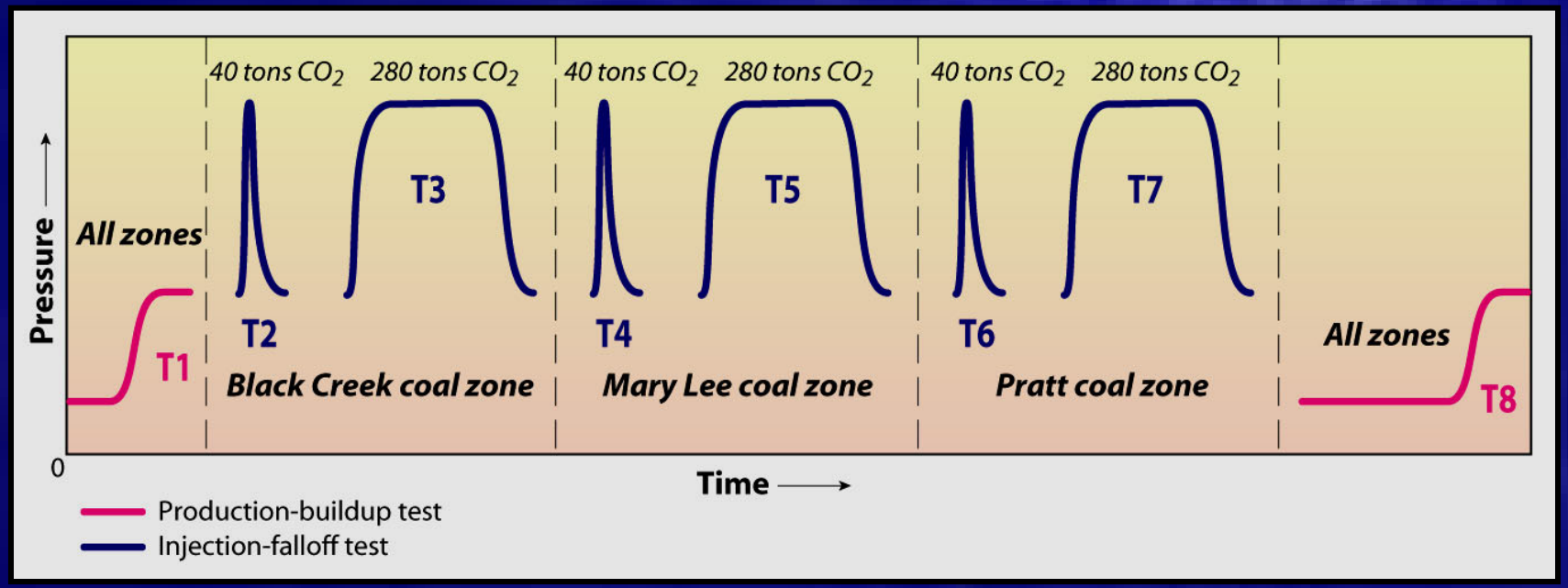
Monitoring Layout



Core Hole Testing



Production and Injection Tests

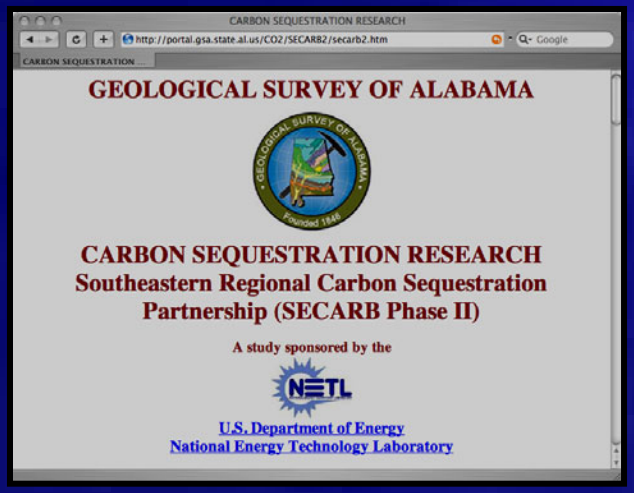


SURFACE MONITORING

Southern Company
NETL

Outreach Activities

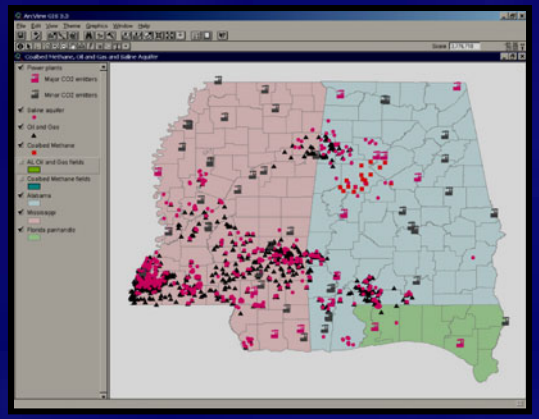
Web Resources



http://portal.gsa.state.al.us/CO2/CO2.htm

http://www.energy.vt.edu/SECARB

Publications



http://www.secarbon.org

Meetings

2006 INTERNATIONAL COALBED METHANE SYMPOSIUM

Eastern Coal Council
28th Annual Conference
"Coal:Energy Security"

http://www.energy.vt.edu/secarb

Test Schedule

Site selection – Completed

Monitoring – In Progress

Coring – Fall 2007

Injection Testing – Begins Winter '08

Site closure – 2009