Arkansas Energy Rocks

Teacher Energy Education Workshop

Oil and Gas Regulation

June 15-17, 2015

Differences Between Policy, Legal, Regulatory and Liability With Respect to Resource Development

Policy: ***What governments do to encourage or discourage a particular activity***

Legal: ***The right to engage in a particular lawful activity on that property (fed/state/private)***

Regulatory: ***Permission to engage in that particular activity if certain conditions are met***

Liability: ***Who is responsible for what in case of failure during activity***

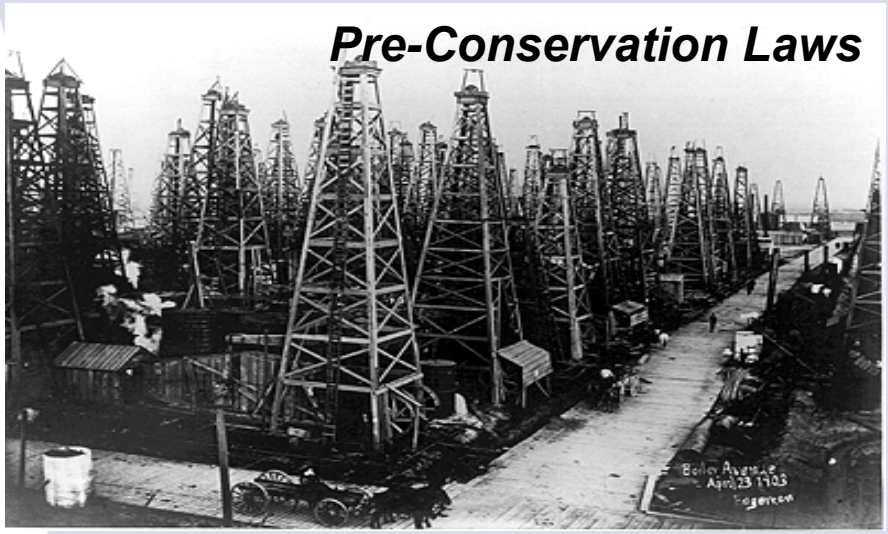
Frameworks for each of these dependent on role of federal, state and local government and court (civil) jurisdictions.

Historically, Oil and Gas Regulation Primarily Done by the States

Initially State Regulatory Oversight (Conservation Laws) designed to Prevent the Physical Waste of a Non-Renewable Resource (1939)

Environmental Regulatory Oversight was Increased as Issues Developed and as New Environmental Requirements were Adopted at Federal Level (1970s)

Pre-Conservation Laws



Pre-Conservation Laws

U.S. Regulatory Framework for Oil and Gas Development

- ***Frameworks flow from the powers granted to the Federal, State and Local Governments in the U.S. and Individual State Constitutions***
- ***In Broad Terms:***

  Federal Government granted authorities dealing with public health and safety and commerce across state boundaries

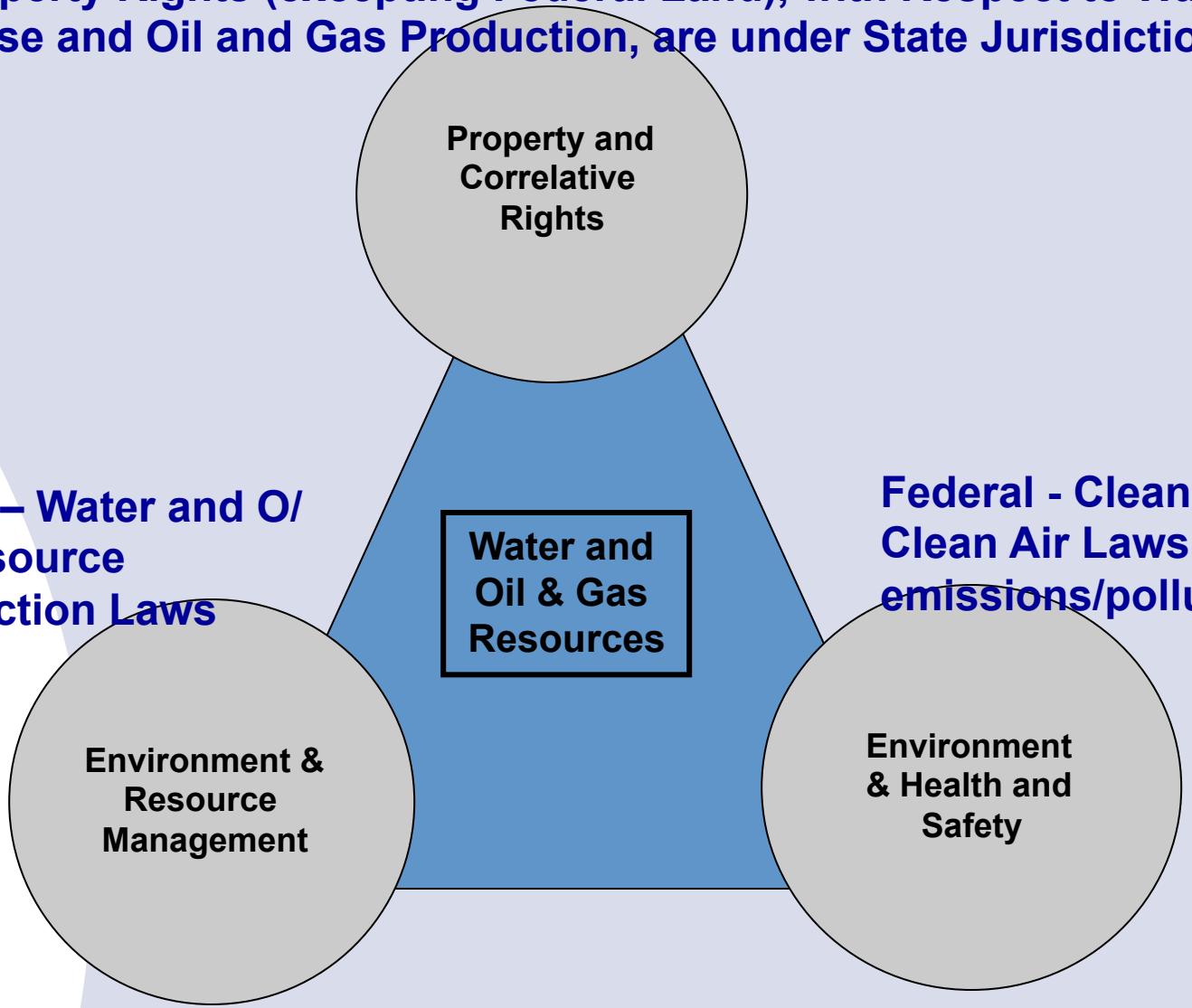
  State Governments retained authorities dealing with the same public health and safety issues within state boundaries, but retained authorities over all private property within state boundaries (federal owned lands exempted)

- ***Resource management and associated regulatory frameworks flow from these respective authorities, and given oil and gas resources are property, primary regulatory jurisdiction over oil and gas resources has historically been a function of the individual states.***

ARKANSAS OIL AND GAS COMMISSION

"Generalized" State and Federal Jurisdiction – Water and Oil & Gas

Property Rights (excepting Federal Land), with Respect to Water Use and Oil and Gas Production, are under State Jurisdiction



State – Water and O/G Resource Protection Laws

Federal - Clean Water & Clean Air Laws – emissions/pollution

ARKANSAS OIL AND GAS COMMISSION

State and Federal Regulatory Sharing

- States can also administer federal regulatory programs such as provisions of the Clean Air Act, Clean Water Act, Safe Drinking Water Act, through the granting of "Primacy" by the Federal Government.
- State assumes provisions of the federal program and enforces at the state level utilizing state resources (federal $ grants may be available to offset costs).
- Under primacy agreements states adopt "state specific" regulations which meet the mandates of the federal program, however a state may adopt more stringent requirements if the state so chooses.

ARKANSAS OIL AND GAS COMMISSION

Primary Arkansas State Agencies Involved in Oil and Gas Regulation

ANRC: Arkansas Natural Resources Commission – (water use)

AOGC: Arkansas Oil and Gas Commission – (oil/ gas conservation and ground water protection)

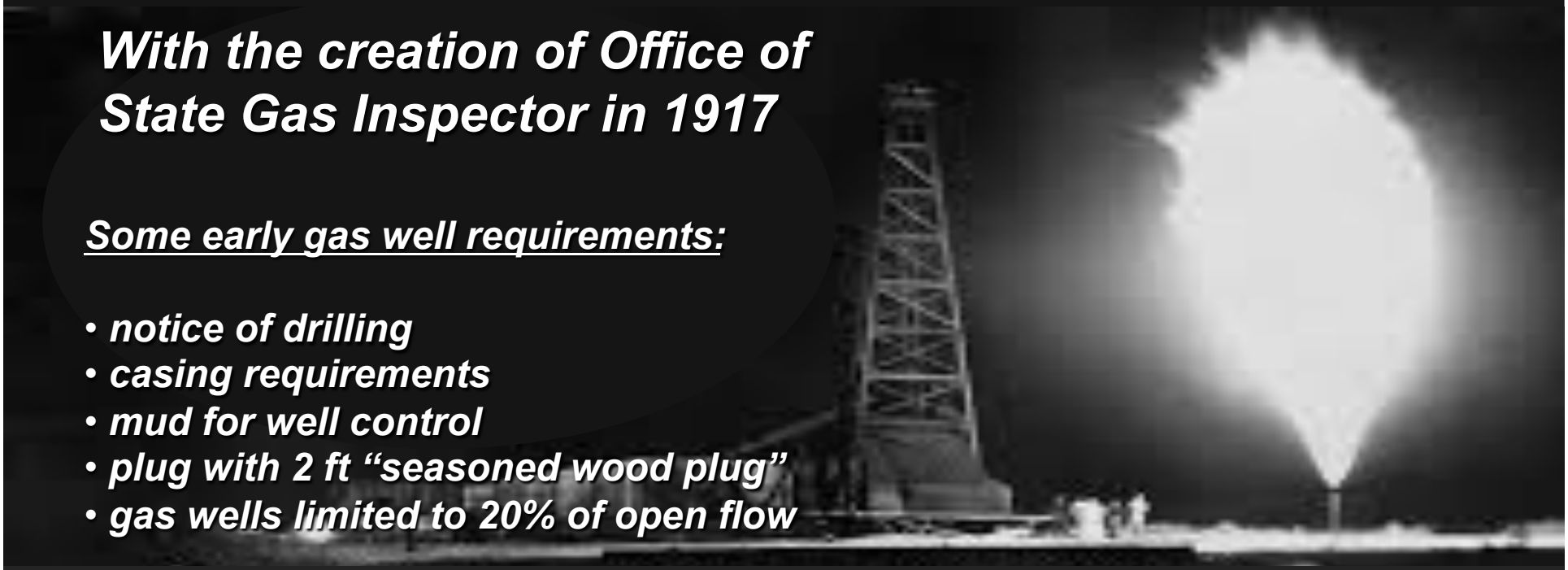
ADEQ: Arkansas Depart of Environmental Quality – (surface water and air environmental protection)

USACE: US Army Corps of Engineers – (surface water)

The Arkansas Oil and Gas Commission Story ……..

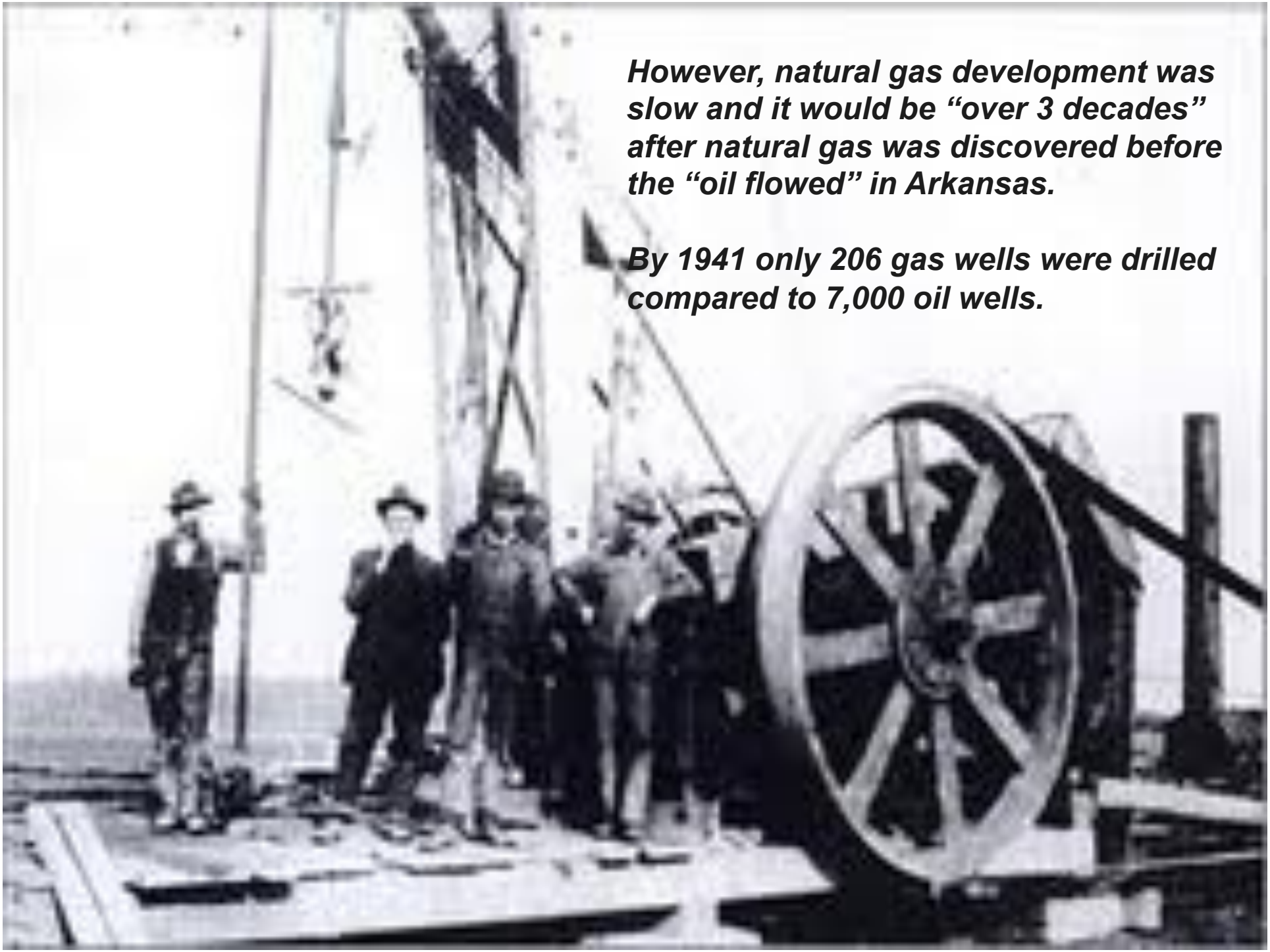
"The Commission Story" begins with natural gas, which was first discovered in Arkansas in 1888…..

With the creation of Office of State Gas Inspector in 1917



Some early gas well requirements:

- *notice of drilling*
- *casing requirements*
- *mud for well control*
- *plug with 2 ft "seasoned wood plug"*
- *gas wells limited to 20% of open flow*



However, natural gas development was slow and it would be "over 3 decades" after natural gas was discovered before the "oil flowed" in Arkansas.

By 1941 only 206 gas wells were drilled compared to 7,000 oil wells.

The Story of the Oil and Gas Commission "really" begins with the discovery of oil in El Dorado on January 10, 1921.

The Oil and Gas Commission El Dorado Office today is located on the site of the Busy – Armstrong #1 discovery well.

With rapid development – especially occurring in the prolific Smackover Field…..

The Office of Commissioner of Conservation was established in 1925.

In 1927 the State Board of Conservation was created by Governor.

The 1933 Arkansas Board of Conservation established.

And finally….

Arkansas Oil and Gas Commission created in 1939.

1941 – Arkansas joined the Interstate Oil Compact Commission – Arkansas was one of the initial founding states of the Compact

SUBCHAPTER 9—INTERSTATE COMPACT TO CONSERVE OIL AND GAS

§ 15–72–902. Content

The Interstate Compact to Conserve Oil and Gas referred to in the above section, and which it is hereby proposed to enter and to extend by agreement, subject to the approval of Congress, reads as follows:

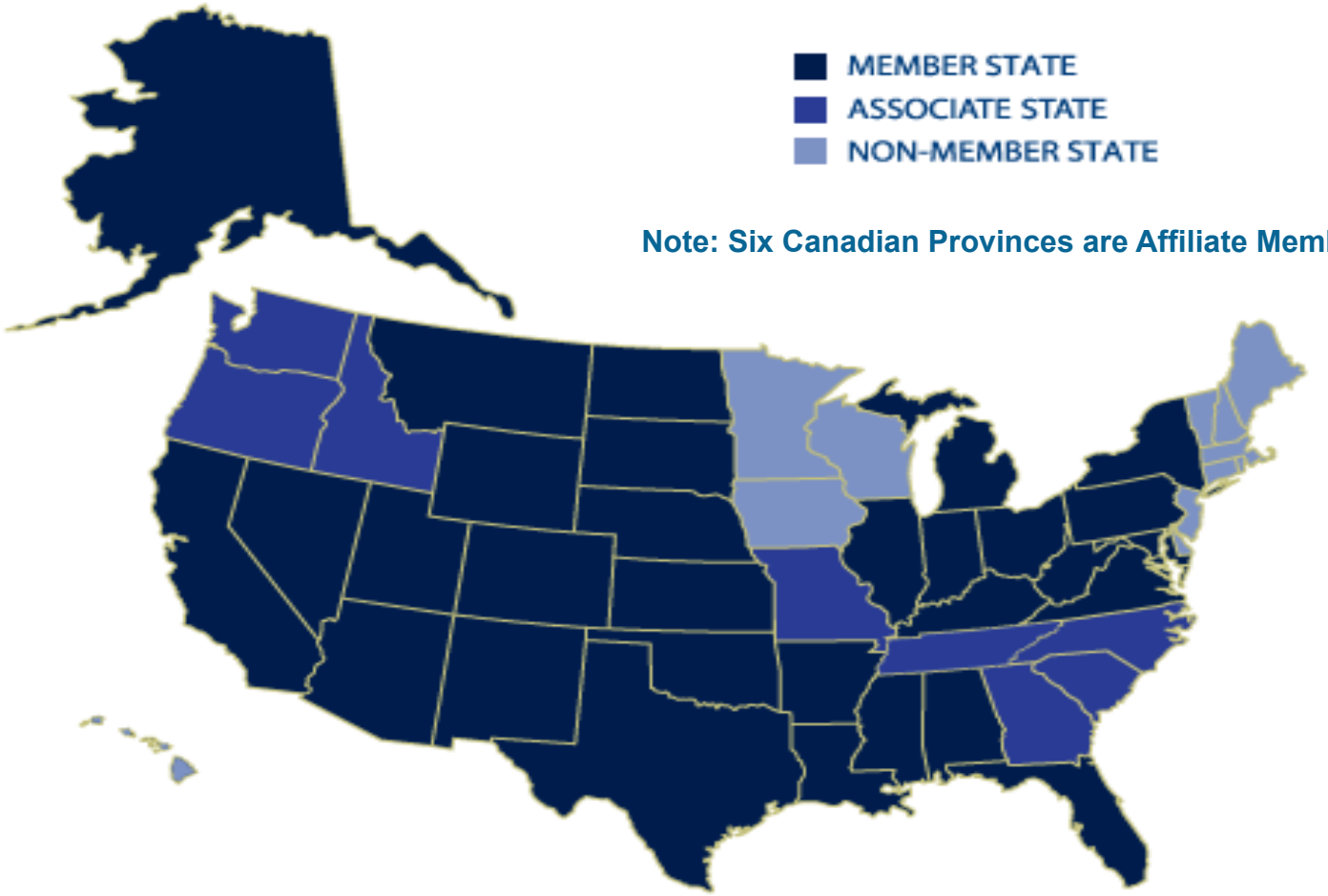
"AN INTERSTATE COMPACT TO CONSERVE OIL AND GAS

"ARTICLE I.

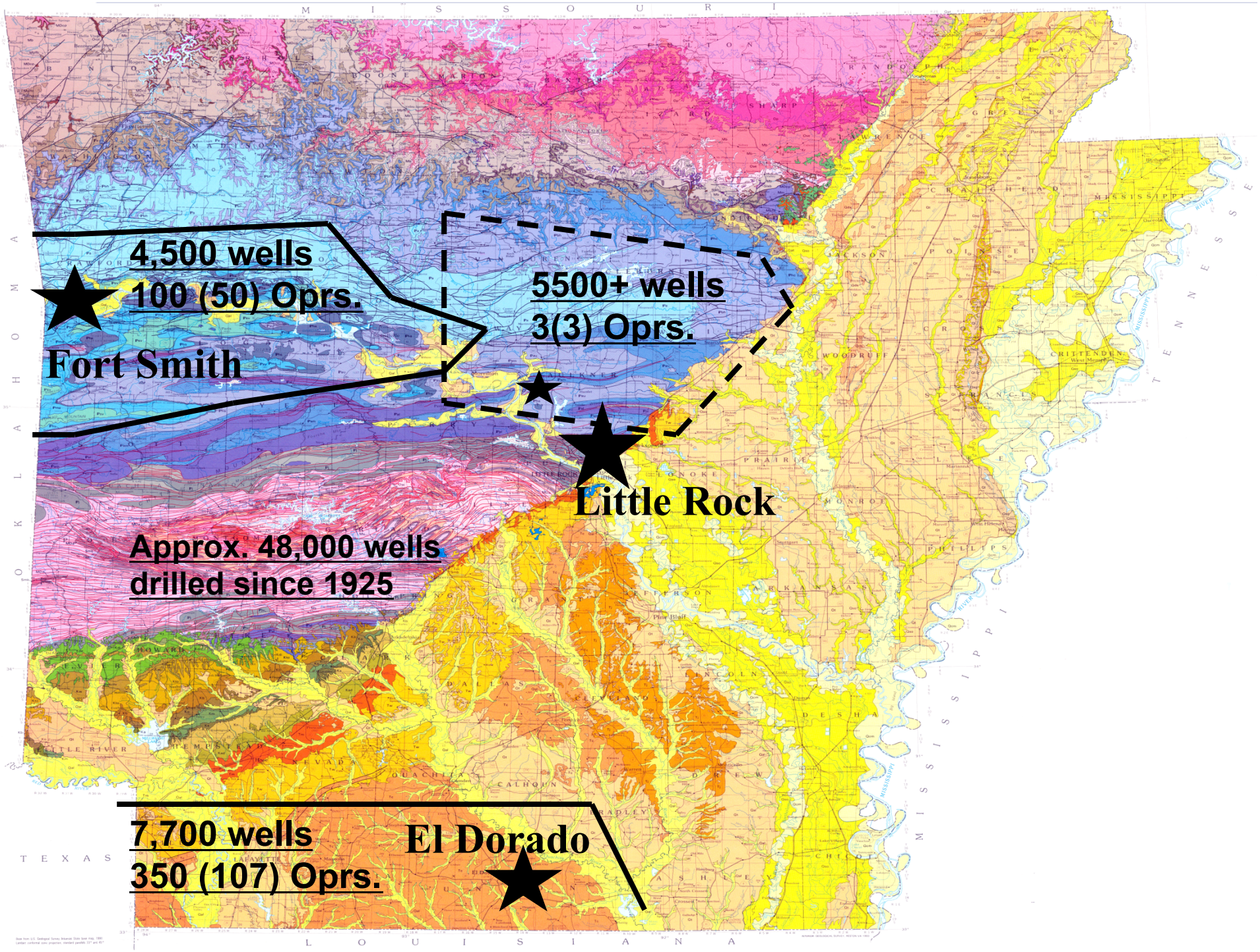
"This agreement may become effective within any compacting state at any time as prescribed by that state, and shall become effective within those states ratifying it whenever any three of the states of Texas, Oklahoma, California, Kansas, and New Mexico have ratified and Congress has given its consent. Any oil-producing state may become a party hereto as hereinafter provided.

IOGCC 38 Member States

INTERSTATE
Oil & Gas
COMPACT COMMISSION

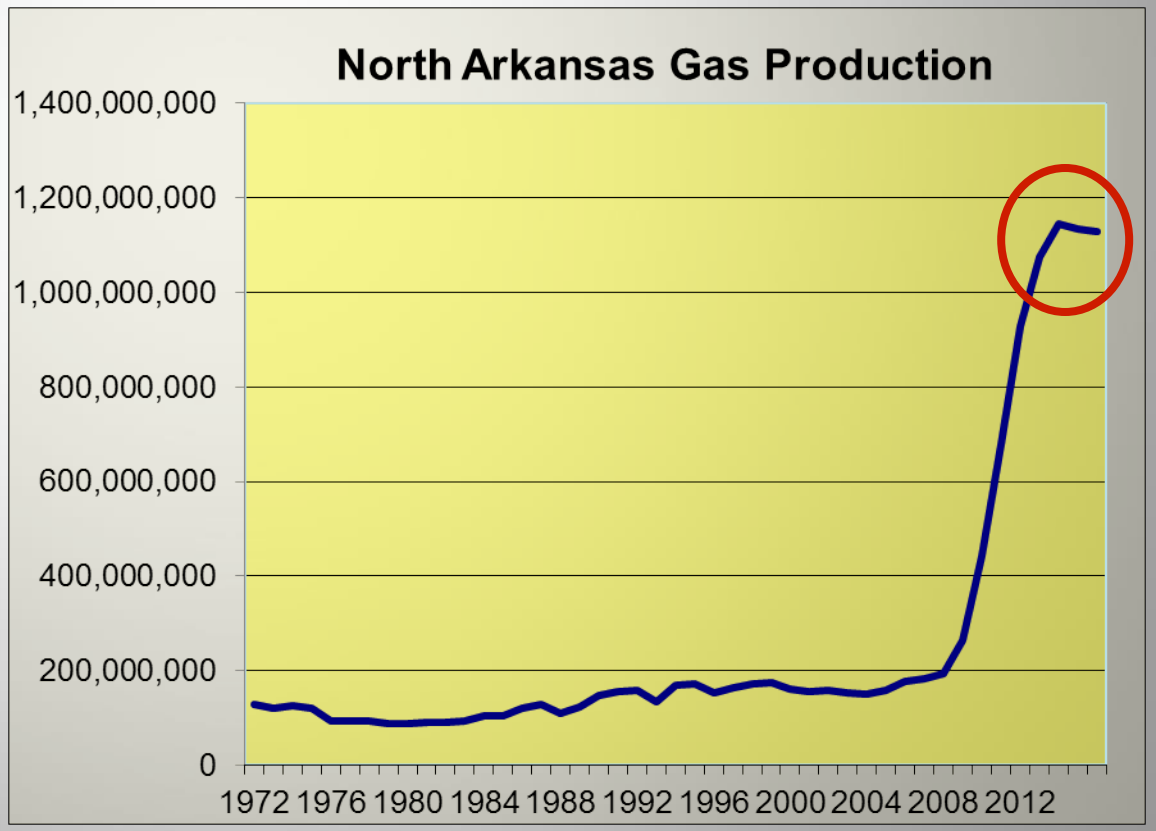


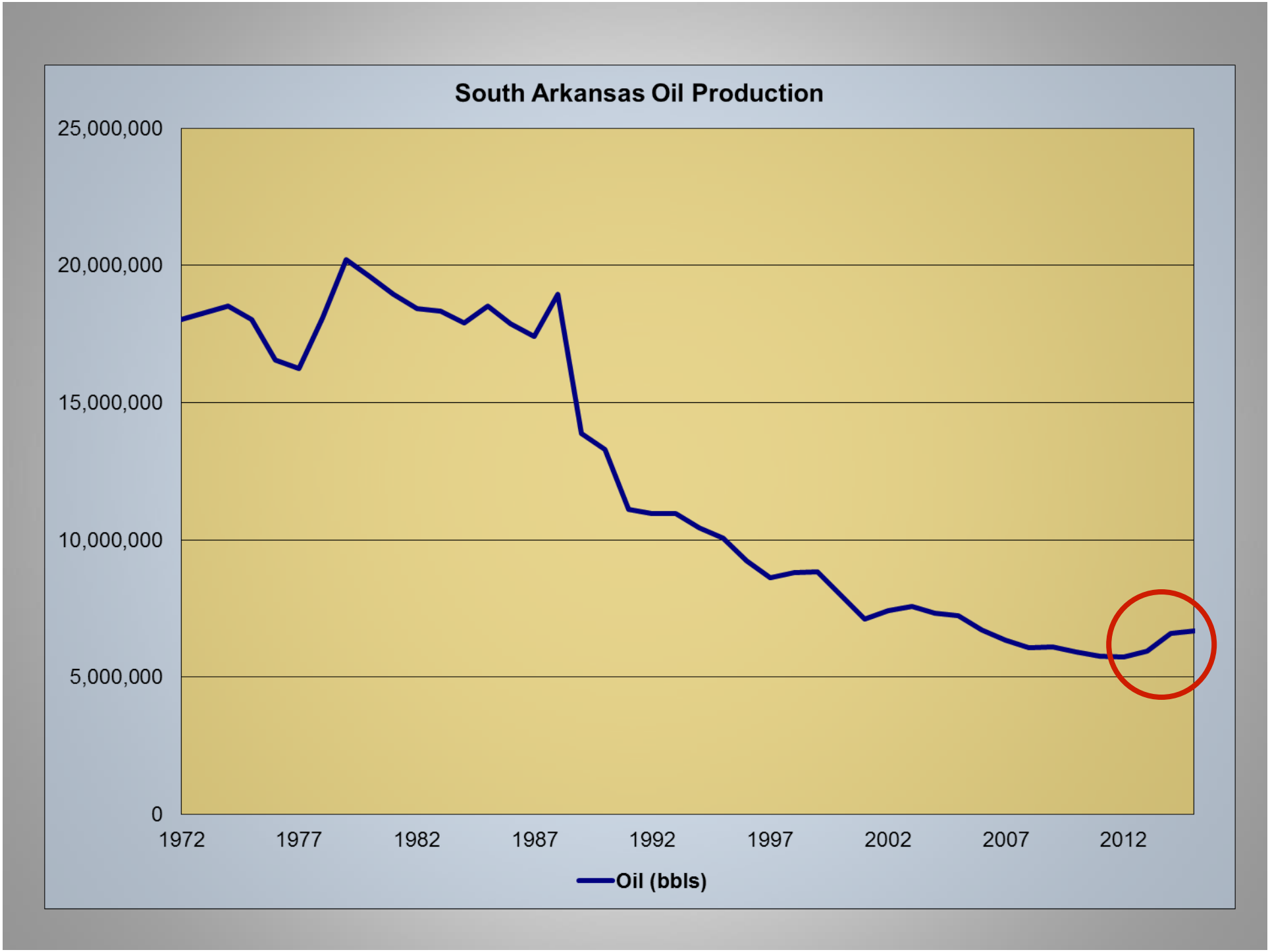
Note: Six Canadian Provinces are Affiliate Members


4,500 wells
100 (50) Oprs.
Fort Smith
5500+ wells
3(3) Oprs.
Little Rock
Approx. 48,000 wells
drilled since 1925
7,700 wells
350 (107) Oprs.
El Dorado

Natural Gas Production Information

- **Production Information:**
  - 2006 – less 200 bcf. 2014 - over 1 tcf. Approximately 90% from the Fayetteville Shale, 10% from the Arkoma Basin.
- **AR - consume less than 250 bcf per year.**
- **# of *Producing* Wells in FS:**
  - 2006 165
  - 2007 574
  - 2008 1290
  - 2009 2138
  - 2010 3033
  - 2011 3835
  - 2012 4406
  - 2013 5022
  - 2014 5567




South Arkansas Oil Production
25,000,000
20,000,000
15,000,000
10,000,000
5,000,000
0
1972
1977
1982
1987
1992
1997
2002
2007
2012
Oil (bbls)

AOGC MISSION

The purpose of the Arkansas Oil and Gas Commission is to prevent waste, encourage conservation, and protect the correlative rights of ownership associated with the production of oil, natural gas and brine, while protecting the environment during the production process, through the regulation and enforcement of the laws of the State of Arkansas.

Commission Structure

- **9 Commissioners:**
  - Governor appointed, 6 year terms, no term limitations, member terms staggered. Promulgates regulations.
- **Director:**
  - Hired by Commissioners with approval of the Governor, serves at the pleasure of the Governor. Serves as Commission Secretary, non-voting member. Administers regulatory program.
- **Staff:**
  - Hired by Director, currently authorized 44 full-time employees & 10 “extra help” positions. Implements regulatory program.

AOGC REGULATORY FUNCTIONS

Issue Permits to Drill

oil, natural gas and brine production wells and other exploratory holes.

Issue Authority to Operate and Produce wells:

- ***Authorize production zone completions***
- ***Initial production test to establish production allowable***
- ***Commingling of separate zones of production***

Conduct Compliance Inspections during drilling process and operational life of well.

Issue Authority to Plug and abandoned wells, including plugging process approval and staff witness of plugging procedure to insure protection of producing and fresh water zones.

AOGC REGULATORY FUNCTIONS

- ***Issue Permits to conduct seismic operations*** *for exploration of oil and natural gas.*
- ***Issue Permits to drill and operate Class II UIC*** *enhanced oil recovery injection wells and saltwater disposal wells under authority of US EPA.*
- ***Issue Permits to drill and operate Class V UIC*** *brine injection wells for the disposal of spent brine fluids following removal of bromine and other minerals.*

AOGC REGULATORY FUNCTIONS

- ***Issue Permits to Regulate the Gathering Handling, and Transportation of Exploration and Production Fluids (Tank Trucks).*** ***Require each "transporter" using motor vehicles to transport exploration and production fluid (excludes fresh water), to be permitted.***

- ***Issue Permits and Regulate Natural Gas Pipelines,*** ***for certain pipelines under the authority of the US DOT, and certain pipelines that are not federally regulated.***

AOGC REGULATORY FUNCTIONS

- ***Classify Wells for Severance Tax Purposes:***
  - *General Rule A-7 – Outlines procedure and how wells are classified.*
    - *Three different tax categories based on different categories:*
      - *1.5% for New conventional wells for 24 months, and new high cost wells for 36 months. High cost can be extended if well hasn't paid out.*
      - *5% for Conventional and High Cost after payout.*
      - *1.25% for Marginal Conventional (less than 250 mcf per day) and Marginal High Cost (less than 100 mcf per day).*

AOGC REGULATORY FUNCTIONS

- ***Process royalty and working interest owners complaints***
  - *non-payment, late payment, improper amount.*
  - *authority to audit in non-compliance situations*
  - *Investigate improper assessment of expenses*

- ***Investigate Landowner complaints***
  - *enforce environmental regulations*
  - *facilitate discussions with operator*

- ***Provide information*** *and presentations to General Public, Legislature, state and federal government agencies, and other stakeholders.*

AOGC REGULATORY FUNCTIONS

Administer Abandoned Well Plugging Program

- *Plug orphan and abandoned wells and clean-up associated well sites utilizing industry funded program.*

Conduct monthly Commission Hearings

- *Review and approve regulations*
- *Establish Field Rules*
- *Hear applications for Integration of interests to protect correlative rights of mineral and leasehold working interests*
- *Declare wells "abandoned."*
- *Impose civil penalties and/or compel compliance.*

THE COMMISSION DOES NOT….

- ***Interpret mineral leases*** ***or provide legal advise concerning leases (publications on web page)***
- ***Interpret landowner/operator agreements*** ***for land use or determine land damage costs resulting from drilling***
- ***Adjudicate*** ***the validity of mineral leases***
- ***Maintain records*** ***of mineral lease ownership***

Major Issues

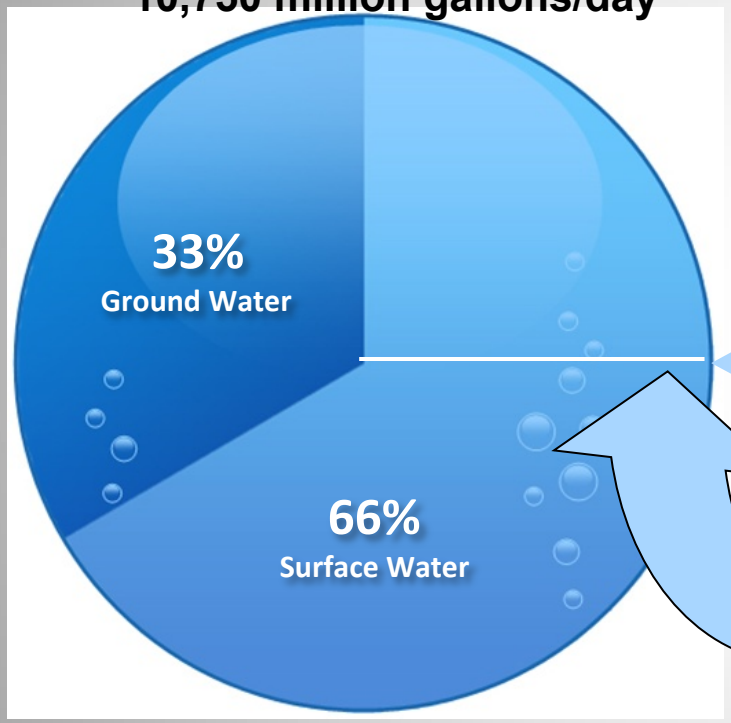
- ***Water Use***
- ***Groundwater contamination***
- ***Seismic Activity***

ARKANSAS OIL AND GAS COMMISSION

State Water Plan Documents Current Water Use, Future Needs and Amount of Available Water for Energy Use

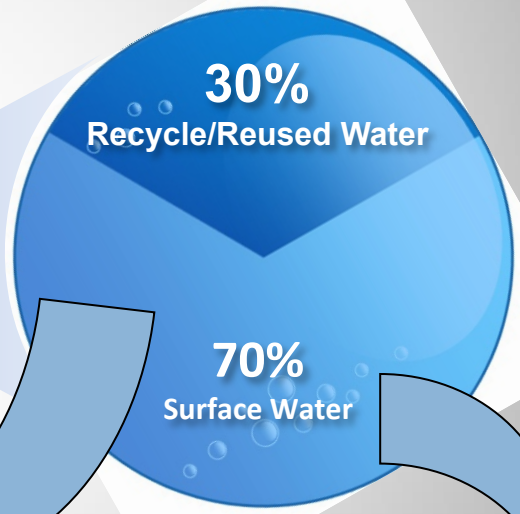
Statewide Water Use:

10,750 million gallons/day



Gas Operations Water Use:

10 million gallons/day (600 Wells/year)



State regulations only permit a maximum 25% of excess run-off can be used.

Gas Operations Use Less than 0.03 % of State's Total Water Runoff Volume

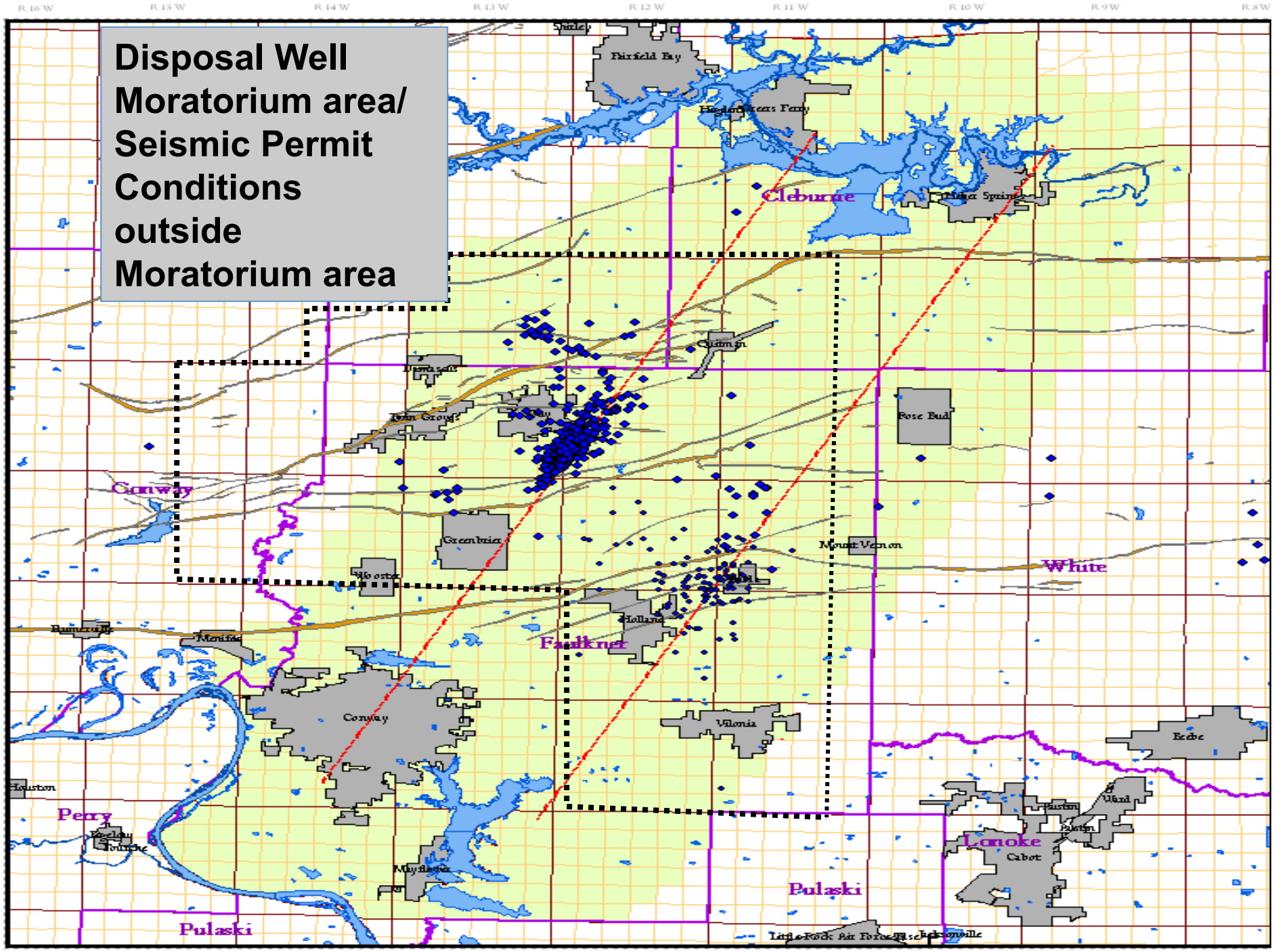
Source: Arkansas Water Plan and AOGC estimates

USGS
science for a changing world

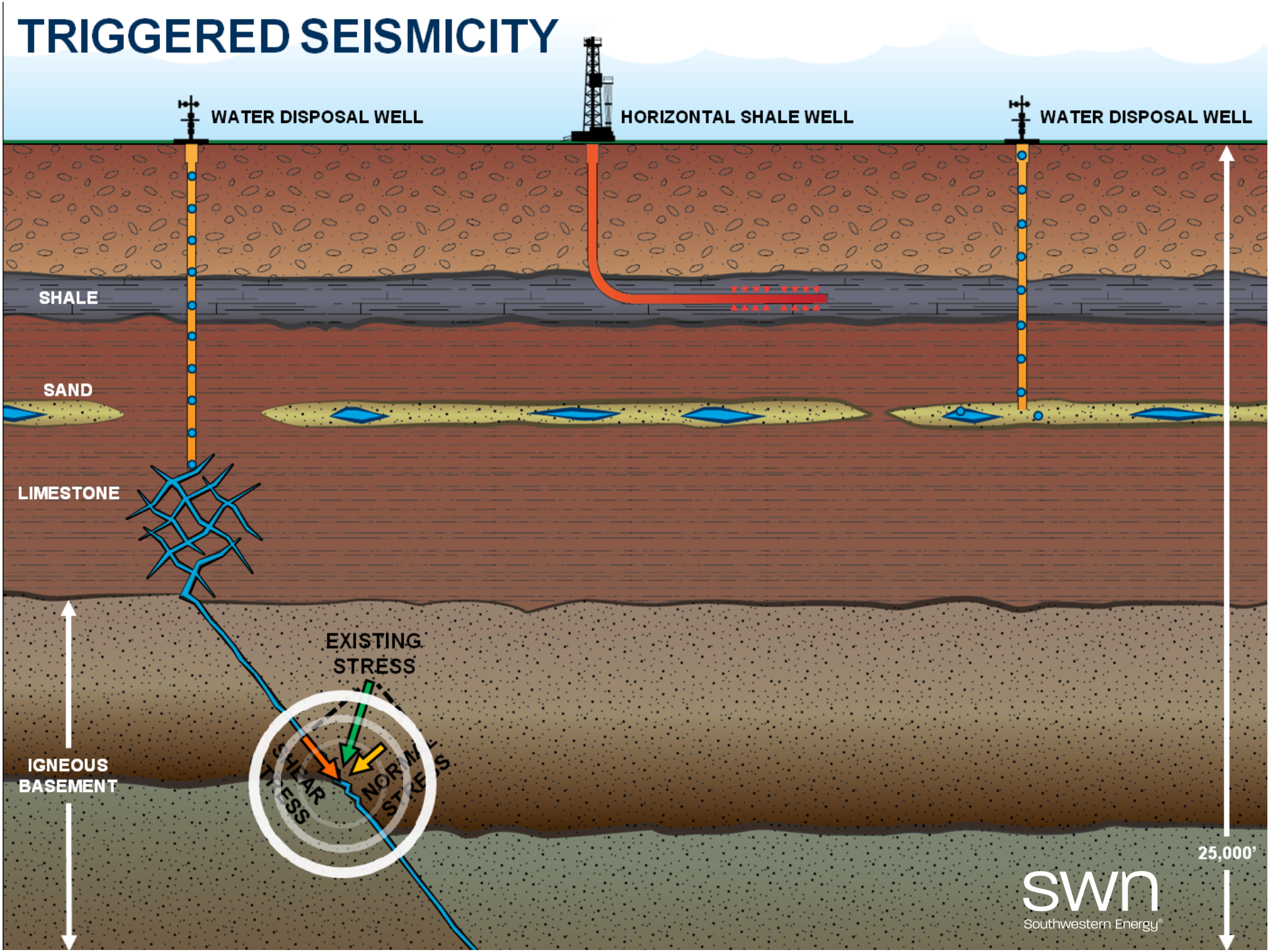
Prepared in cooperation with (in alphabetical order)
the Arkansas Natural Resources Commission, Arkansas Oil and Gas Commission,
Duke University, Faulkner County, Shirley Community Development Corporation, and
the University of Arkansas at Fayetteville, and
the U.S. Geological Survey Groundwater Resources Program

Shallow Groundwater Quality and Geochemistry in the Fayetteville Shale Gas-Production Area, North-Central Arkansas, 2011

Scientific Investigations Report 2012–5273

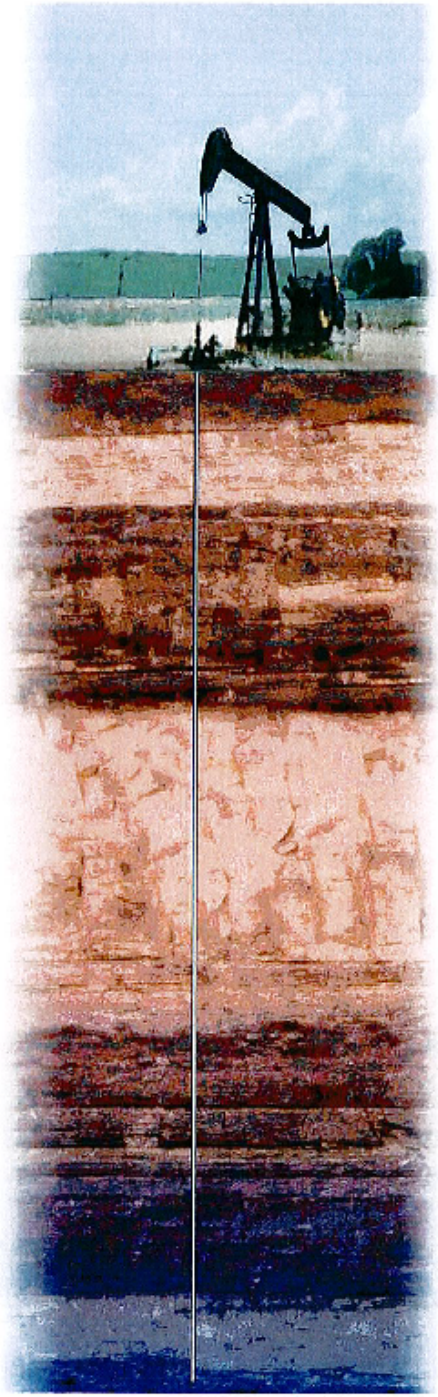

Disposal Well Moratorium area/ Seismic Permit Conditions outside Moratorium area
Cleburne
Conway
Faulkner
White
Perry
Pulaski
Pulaski
Lonoke

TRIGGERED SEISMICITY



Arkansas
Hydraulic Fracturing
State Review

February, 2012



Report concluded:

"regulatory program well managed and professional" with rule amendments, water well complaint protocol and AOGC web page cited as program strengths.

Two primary recommendations:

- **Conduct inspections during active hydraulic fracturing operations - Implemented**
- **Increase staffing to provide additional field inspection capability – Requested in FY 14 Budget**

QUESTIONS ?