

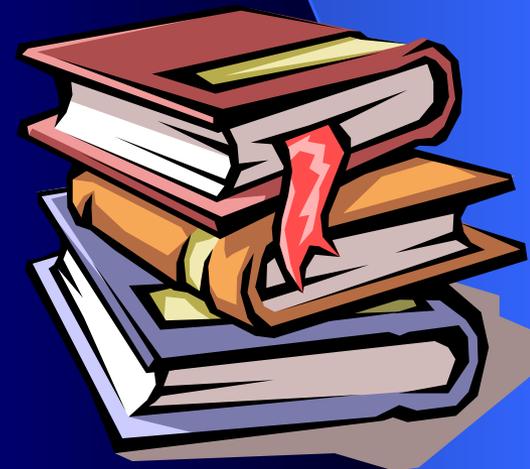
Oil & Gas State Land Leasing Workshops

Corning, New York
January 9 & 10, 2003

New York State Department of
Environmental Conservation
Division of Mineral Resources

Division of Mineral Resources

- The Division of Mineral Resources is responsible for ensuring the environmentally sound, economic development of New York's non-renewable energy and mineral resources for the benefit of current and future generations.
- Two Major Regulatory Programs
 - Mined Land Reclamation
 - Oil, Gas and Solution Mining



Oil and Gas Overview

- Oil & gas regulatory program
- Trenton/Black River gas drilling
- Leasing state land

Oil and Gas Development in NYS

- 1821 – Fredonia natural gas street lights
- 1860's – Oil discovered in New York
- 1880's – Peak oil production
- 1940's – Second peak of oil production
- Over 70,000 wells drilled in New York
- First regulatory program enacted 1961
- Oil, Gas & Solution Mining Law 1981

Oil, Gas & Solution Mining Law

- Regulate drilling, operation & plugging of
 - Oil, gas, storage and solution mining wells
 - Stratigraphic, geothermal and brine disposal wells
- Regulate underground natural gas & LPG storage facilities
- Prevent waste, protect landowner correlative (mineral) rights
- Lease state lands for oil and gas development
- Environmental protection

State Land Leasing Program

- Leasing of state lands for oil & gas authorized by law since 1930's
- DEC oil & gas leasing agent for all state lands except Forest Preserves, State Parks, lands under Lake Ontario
- Approval of surface managers needed

State Land Leasing Summary

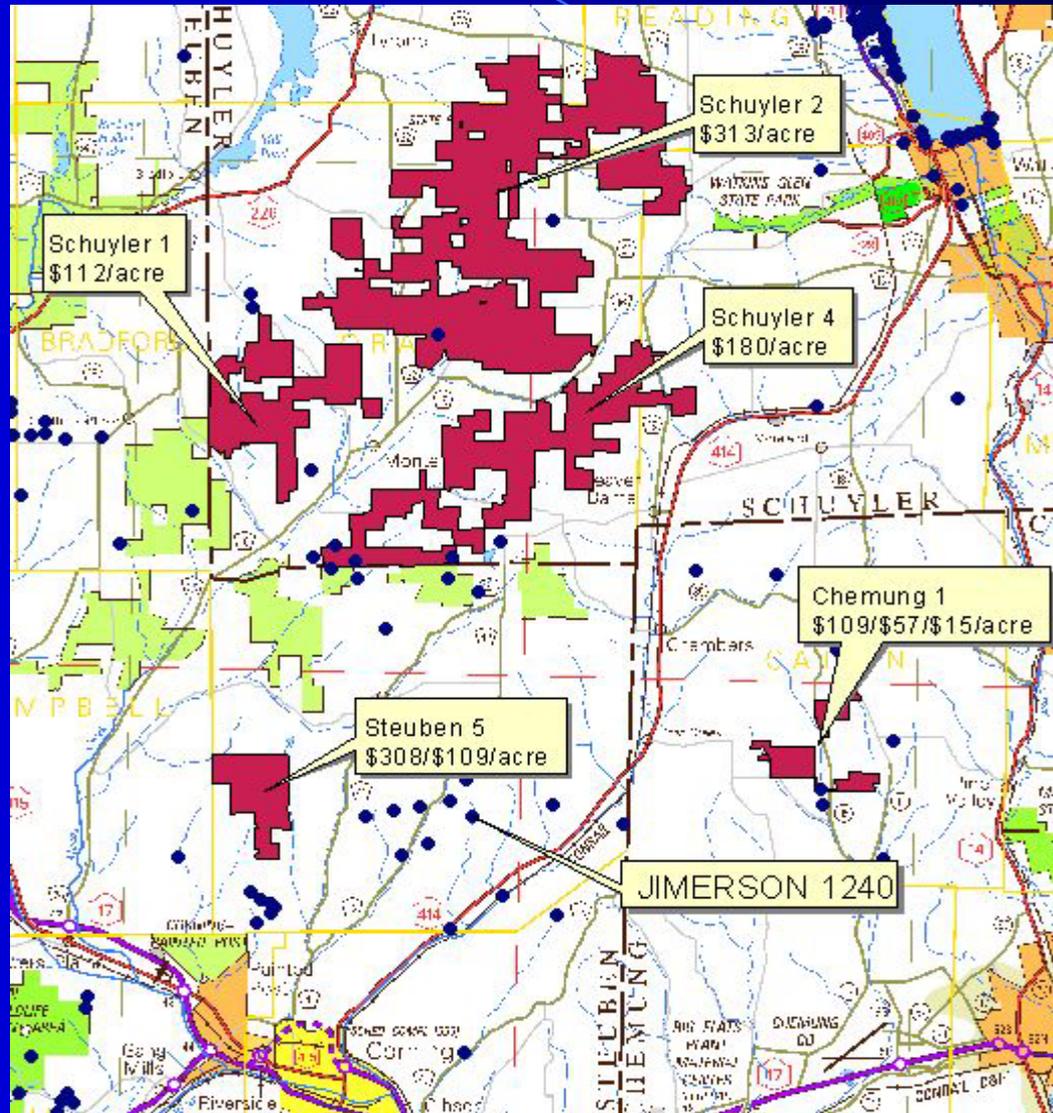
- 350,000 total acres of state land in central and western NY
- 61,000 acres leased for oil and gas exploration & production
- Over 100 wells on state land
- Revenues deposited in General Fund, except Wildlife Management Area revenues which are deposited in the Conservation Fund



State Land Leasing Process

- O&G companies nominate areas for leasing
- Bid guarantee deposit @ nomination: \$500 + \$1/acre. Applied toward successful bid
- Division of Mineral Resources (DMN) consults surface managers (e.g., Lands & Forests/Fish & Wildlife) for their approval and site-specific lease conditions
- If land managers approve, DMN schedules competitive lease sale of mineral rights

May 1999 State Lease Sale

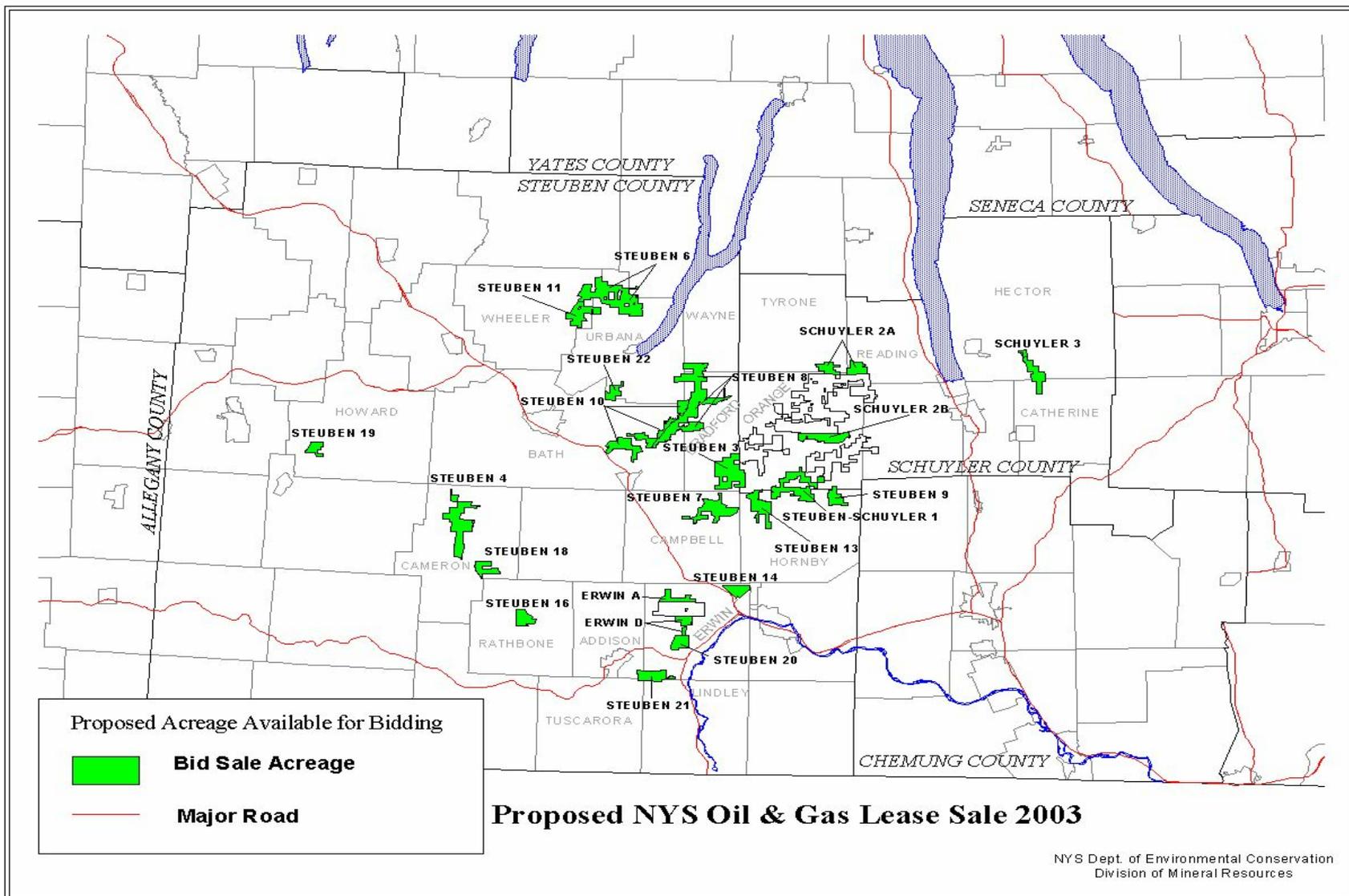


State Land Leasing Revenues

Royalties, bonus bids, and delay rentals

- 1998: *\$279,523*
- 1999: *\$3,206,406*
- 2000: *\$183,408*
- 2001: *\$379,845*

Proposed 2003 Sale



Leasing Program Roles

- Division of Mineral Resources
 - Leasing process and lease stipulations
 - Well drilling permit reviews
 - Well spacing and unitization
- Lands & Forests; Fish, Wildlife & Marine Resources
 - Lease stipulation process
 - Tract assessments/exclude sensitive areas from surface disturbance
 - Provision of Temporary Revocable Permits
 - Overall stewardship of state lands

Well Life Cycle Environmental Regulation

- 1992 Final Generic Environmental Impact Statement: Site review under SEQR, specific Environmental Assessment Form, other permit coordination
- Setbacks and spacing
- Site reclamation and restoration
- Well plugging conditions

Pre-site Inspections



Drilling Inspections



SRA 2, Drilling Inspections



Site Reclamation Inspections



Reclaimed Site, SRA 2 Well



SRA 2 Well, Reclaimed Site



Post-Operation Inspections, Producing Well



Well Plugging Inspections



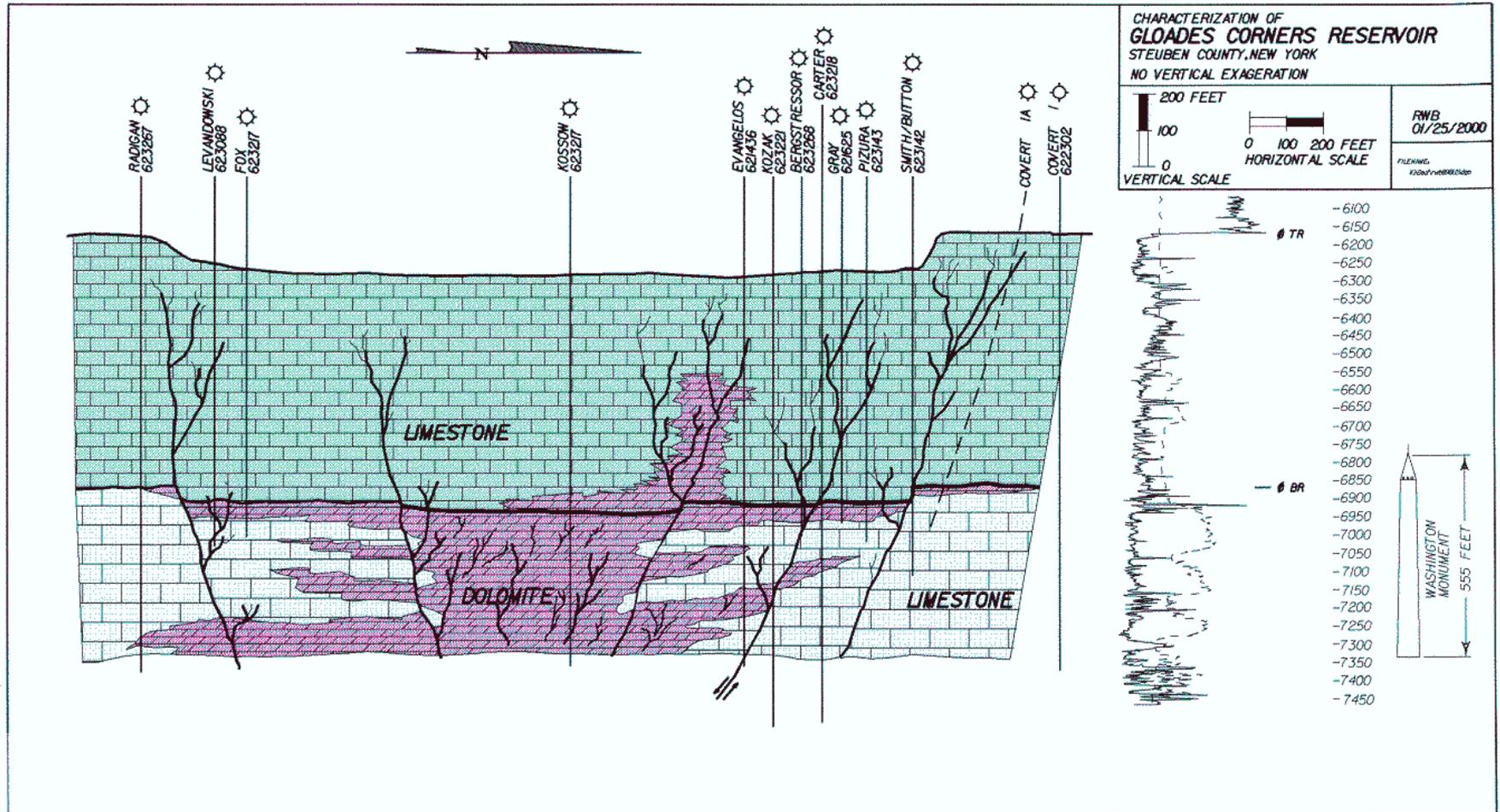
Post-Operation Inspections – Plugged Wells



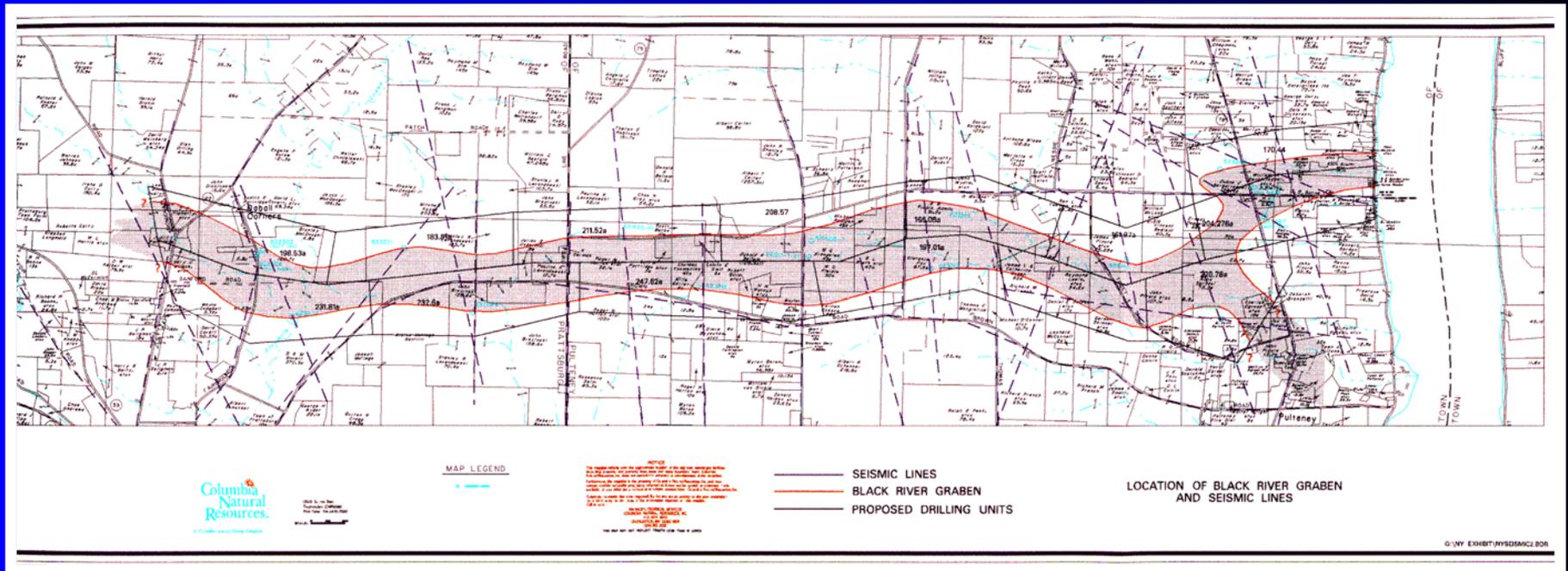
Trenton/Black River Drilling

- New deep gas discoveries
- Changed nature of NY activity
 - Deep gas (1-2 miles) v. shallow oil & gas
 - 25x greater per-well production
 - Well spacing of 200-640 acres v. 40-80 acres
 - Well costs of \$1,000,000 v. \$100,000
 - Central New York, moving east and west

Trenton/Black River Reservoirs



Geology: Glodes Corners Road Field



- Graben feature is about 7 1/2 miles long and 4000 feet wide
- Interrupted by transcurrent faulting near eastern end

New Investment in NYS

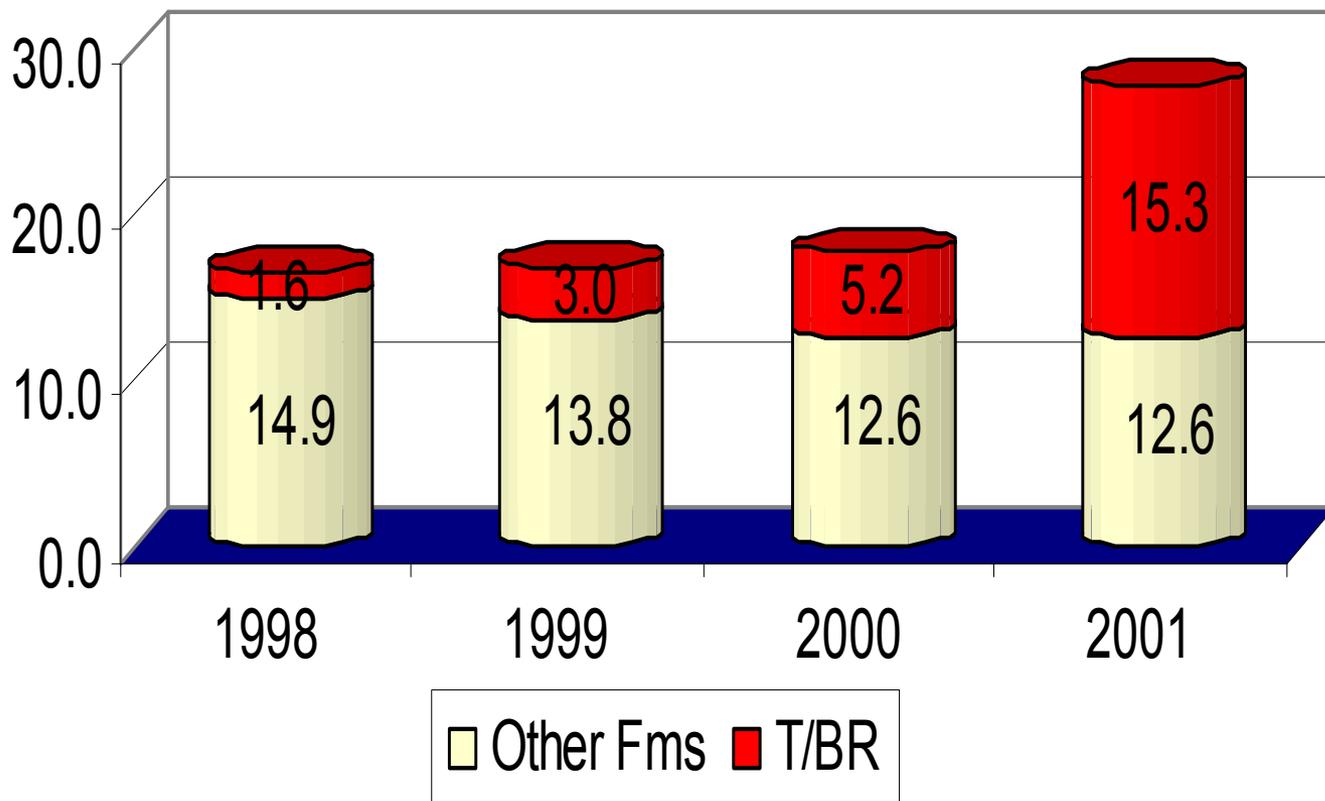
- \$1 million per well drilled
- More than \$150 million invested since 1996
- More expected...
- Millions in future royalties to landowners (\$6.3 million distributed in 2/02 to landowners)
- Significant local tax revenues
- Local economic multipliers
- Help meet state clean energy needs

Trenton/Black River Summary

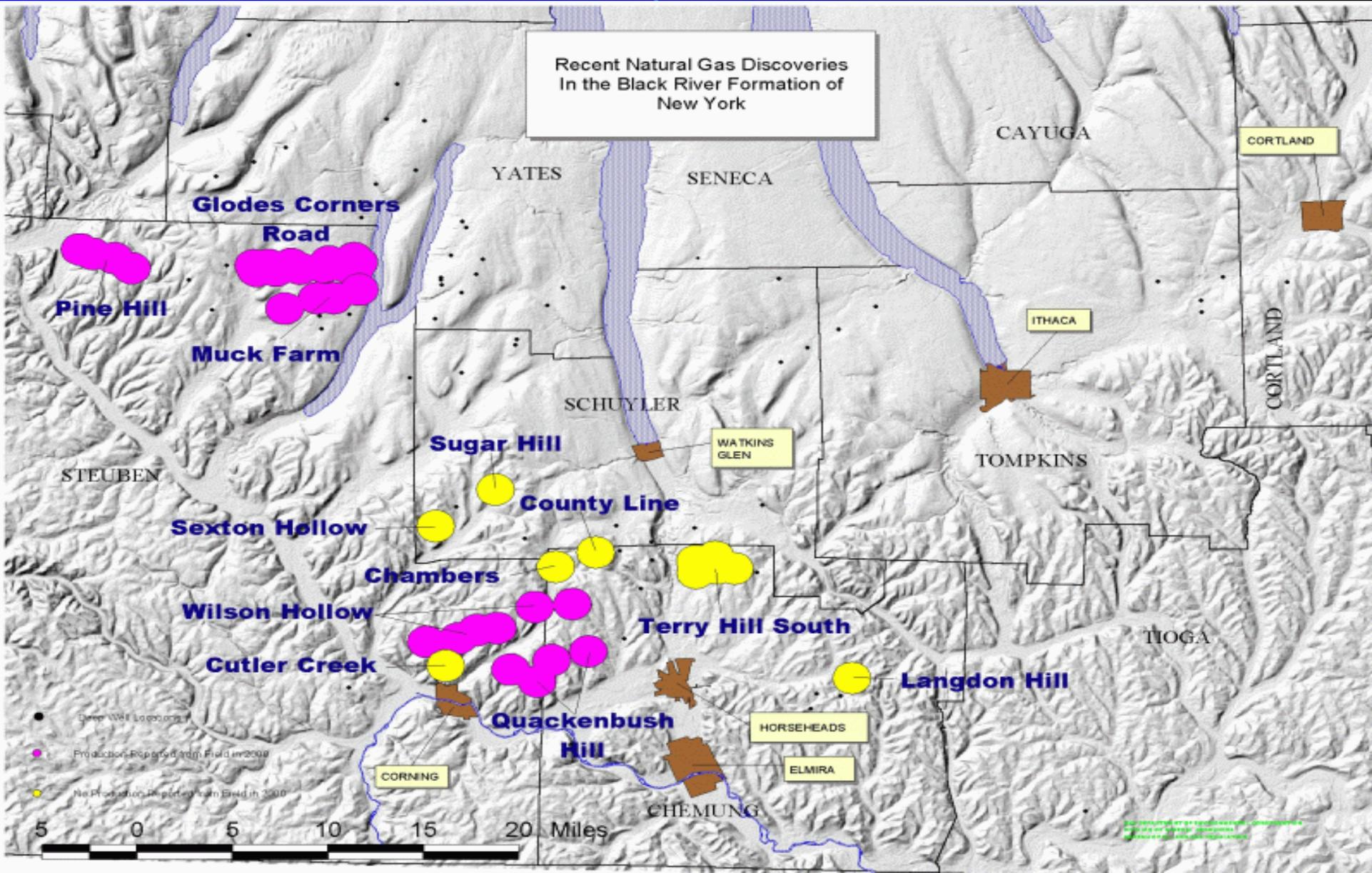
- 170 wells drilled since 1995 (includes 49 sidetracks)
 - 42 permit applications in 2002
- 14 new gas fields discovered
 - Steuben = 6, Chemung = 4, Schuyler = 2, Yates = 1, Broome = 1
- 6 Commissioner Well Spacing Orders issued
- 2000 Production = 5.2 BCF
 - 70% increase over 1999
 - 30% of NYS total of 17.7 BCF
- 2001 Production = 15.3 BCF
 - 55% of NYS total of 27.9 BCF

New York Gas Production

New York Production in **BCF** Trenton/Black River Increases



Trenton/Black River Fields



DEC Responsibilities

- Review, condition & issue permits
- Inspections & monitoring: 24/7
- Respond to local governments, landowners & public
- Spacing hearings, compulsory integration
- State land leasing requests

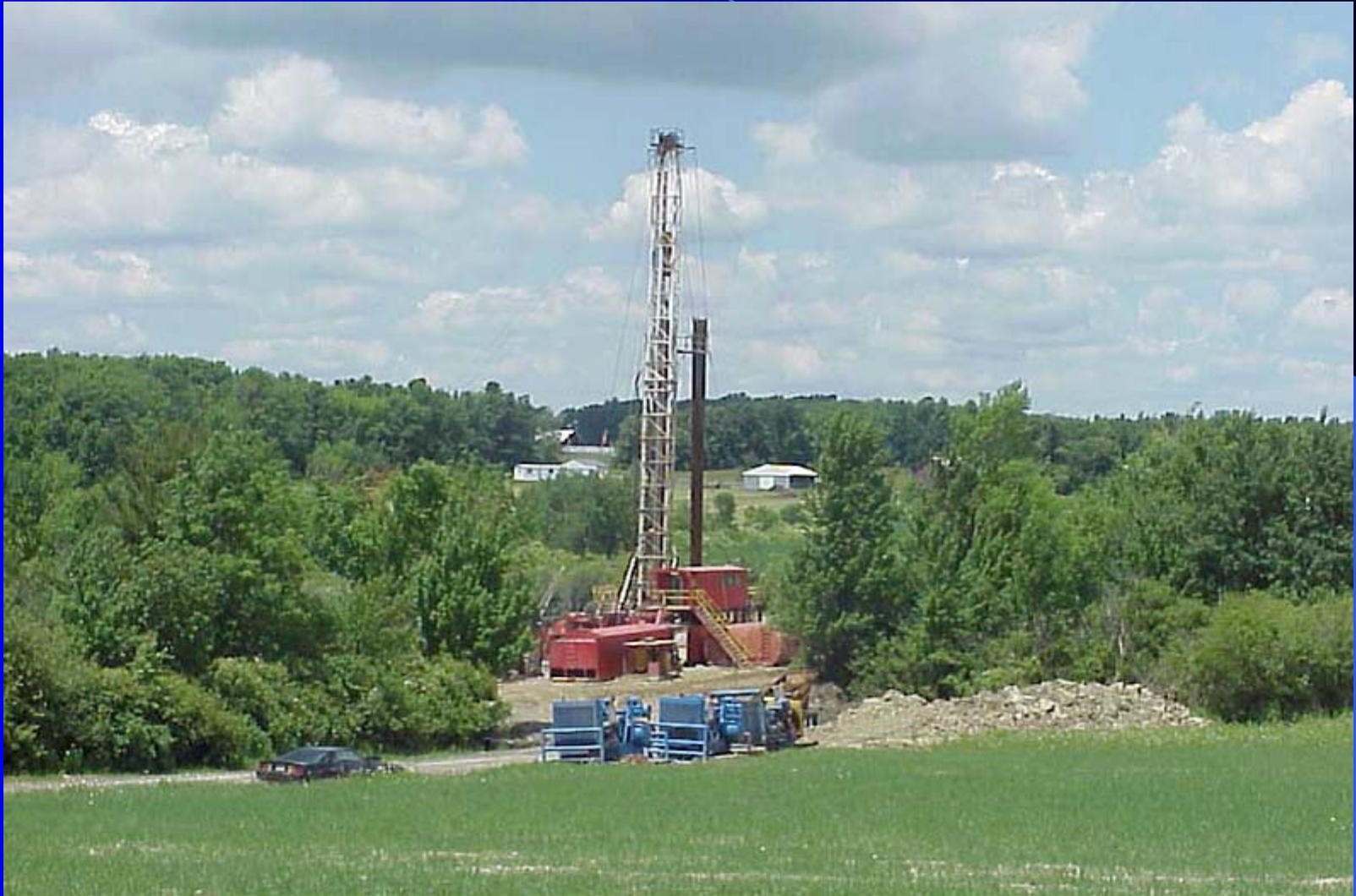
DEC Outreach and Information

- Website
- Landowner information brochure
- Public meetings & presentations
 - Region 8: 26 presentations, 3,150 attendees
 - AAPL, CFAB, FWM Board, NY Conservation Council, Town Planning Boards
- IOGCC Leasing Workshop – 4/22/02

Erwin GMA #2 Well, 11/2001 Shut-in Well



Ballam-Carter Drilling Operations



Muck Farm Field, Snyder #1 Keuka Lake Area

