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ANADARKO PETROLEUM CORPORATION

Developing the Marcellus Shale *Facing the Challenges of Pennsylvania*

SPE-GCS Northside
February 8, 2011



Cautionary Statement

This presentation contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. Anadarko believes that its expectations are based on reasonable assumptions. No assurance, however, can be given that such expectations will prove to have been correct. A number of factors could cause actual results to differ materially from the projections, anticipated results or other expectations expressed in this presentation. Anadarko cannot guarantee that it will successfully execute on its exploration, drilling, development or other operational plans, or meet its production or reserves guidance. See “Risk Factors” in the company’s 2009 Annual Report on Form 10-K and other public filings and press releases. Anadarko undertakes no obligation to publicly update or revise any forward-looking statements.

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Anadarko Petroleum Corporation

- One of the World's Largest Independent Oil and Natural Gas Exploration and Production Companies
- 2.4 BBOE of Proved Reserves at Year-End 2010
- Approximately 4,300 Employees Worldwide
- Total Assets of Approximately \$50 Billion at Year-End 2010





Our Mission and Values

Anadarko's mission is to provide a competitive and sustainable rate of return to shareholders by exploring for, acquiring and developing oil and natural gas resources vital to the world's health and welfare.

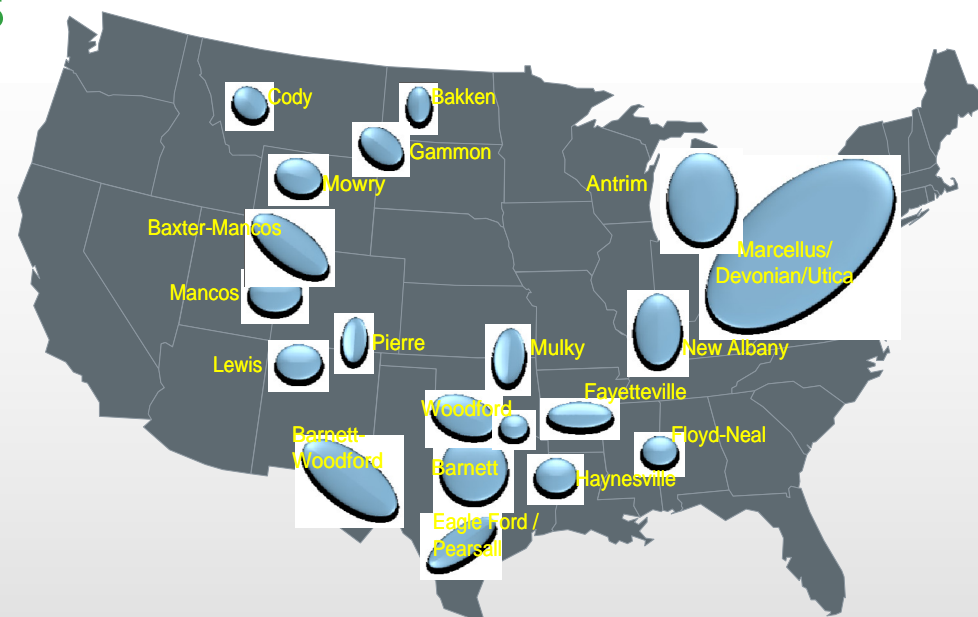
- Integrity and Trust
- Servant Leadership
- People and Passion
- Commercial Focus
- Open Communication



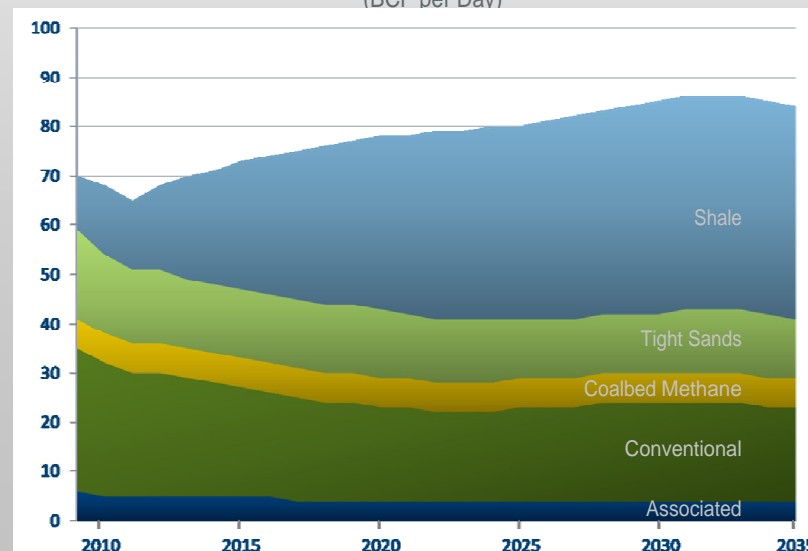


Rise of the Shale Plays

- Natural gas is key to cleaner, more secure energy future
- Growth from NA natural gas coming from shale plays
- Unlocking potential means addressing technical and operational challenges
- Developing Marcellus Shale requires strong relationships with all stakeholders



North American Dry Gas Productive Capacity
(BCF per Day)

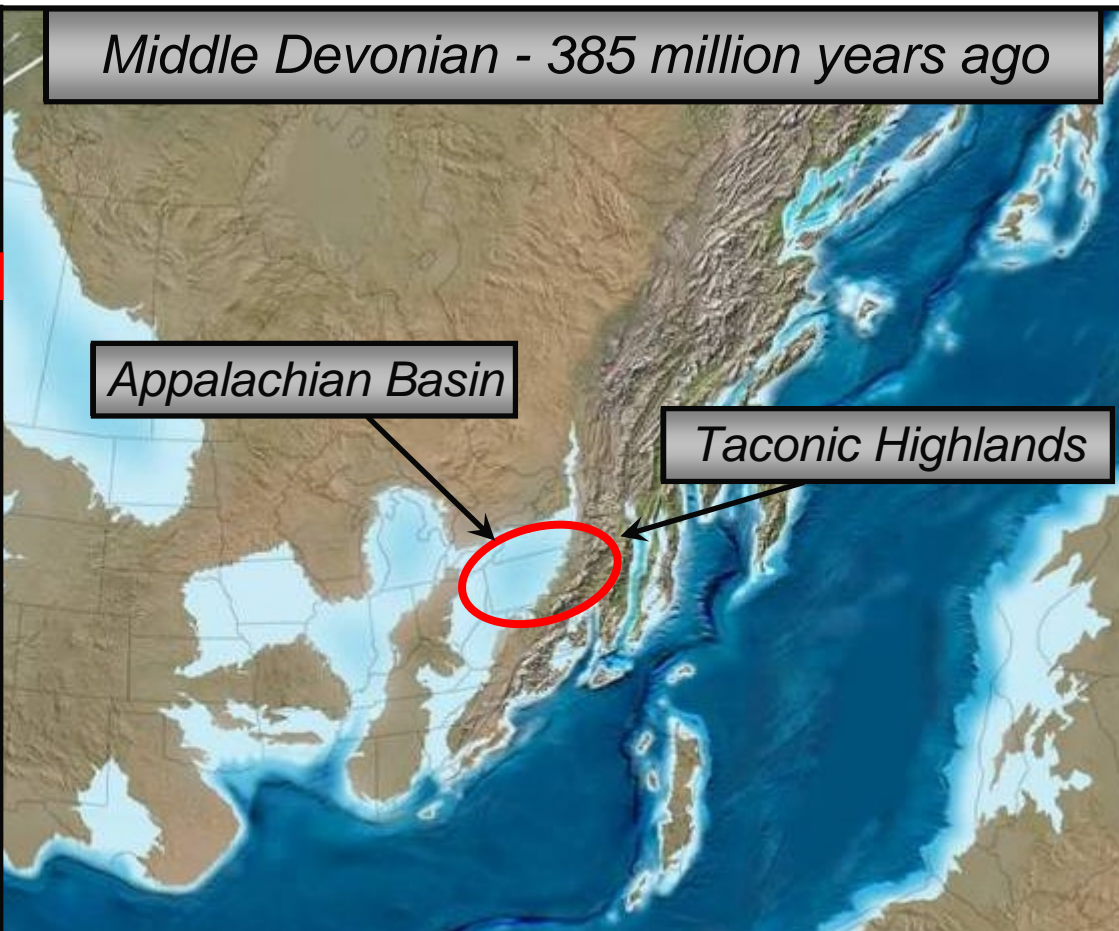




Appalachian Basin: Stratigraphic Column

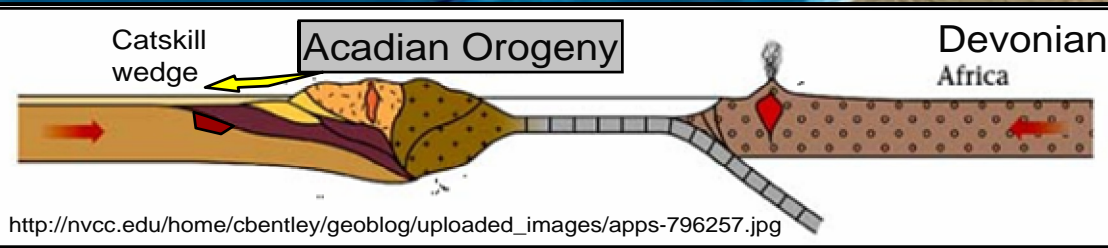
Period	Group	Unit	Lithology
Devonian	Upper	Genesee	Genesee Shale
			Tully Limestone
	Middle	Hamilton	
	Lower	TriStates	Onondaga Lst
Oriskany Sst			
Manlius Lst			
Upper	Salina	Bertie Shale	
		Syracuse Salt	
Silurian	Upper	Lockport	Rondout Dol
			Akron Dol
	Lower	Clinton	Rochester Sh
			Irondequoit Lst
			Sodus Shale
Ordovician	Upper	Trenton/Black River	Trenton Lst
			Black River Lst
	Lower	Beeman-town	Tribes Hill Lst
			Theresa Sst
Cambrian	Upper	Beeman-town	Little Falls Dol
			Potsdam Sst
Precambrian Basement			

Middle Devonian - 385 million years ago



Appalachian Basin

Taconic Highlands



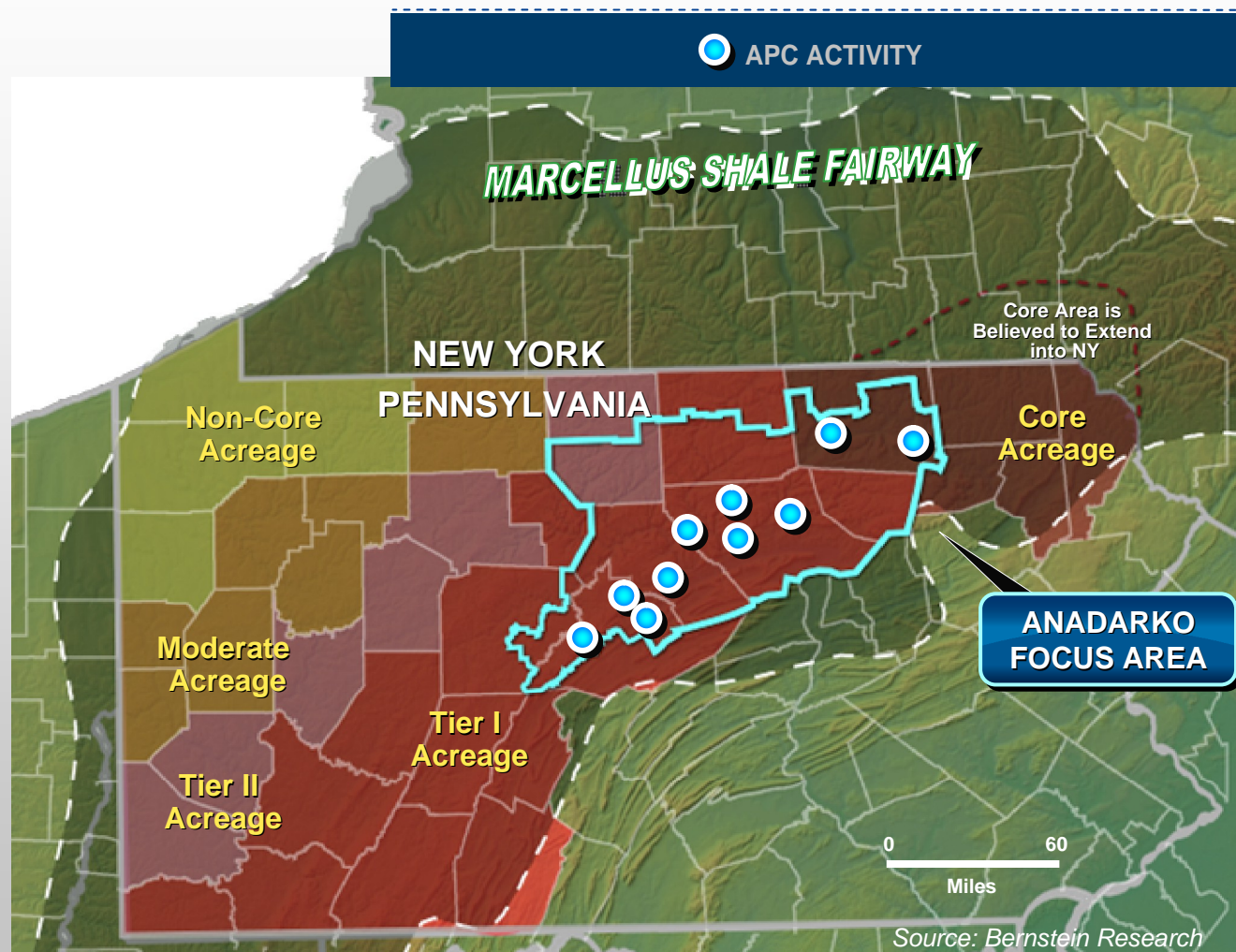
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Marcellus Shale: All the Right Ingredients

A Great Combination

- Thickness
- Maturity
- Over-Pressured
- Higher Recovery
- Acreage Position
- Infrastructure
- Premium Natural Gas Market





Marcellus Shale: Greatest Potential

Play	Total Resource (Tcf)	Reserve Potential (Tcf)
Marcellus	1500	363
Barnett	168	44
Fayetteville	52	26-42
Woodford	23	11
Haynesville	717	215



Resource numbers are from public data sources.



Current APC Activity

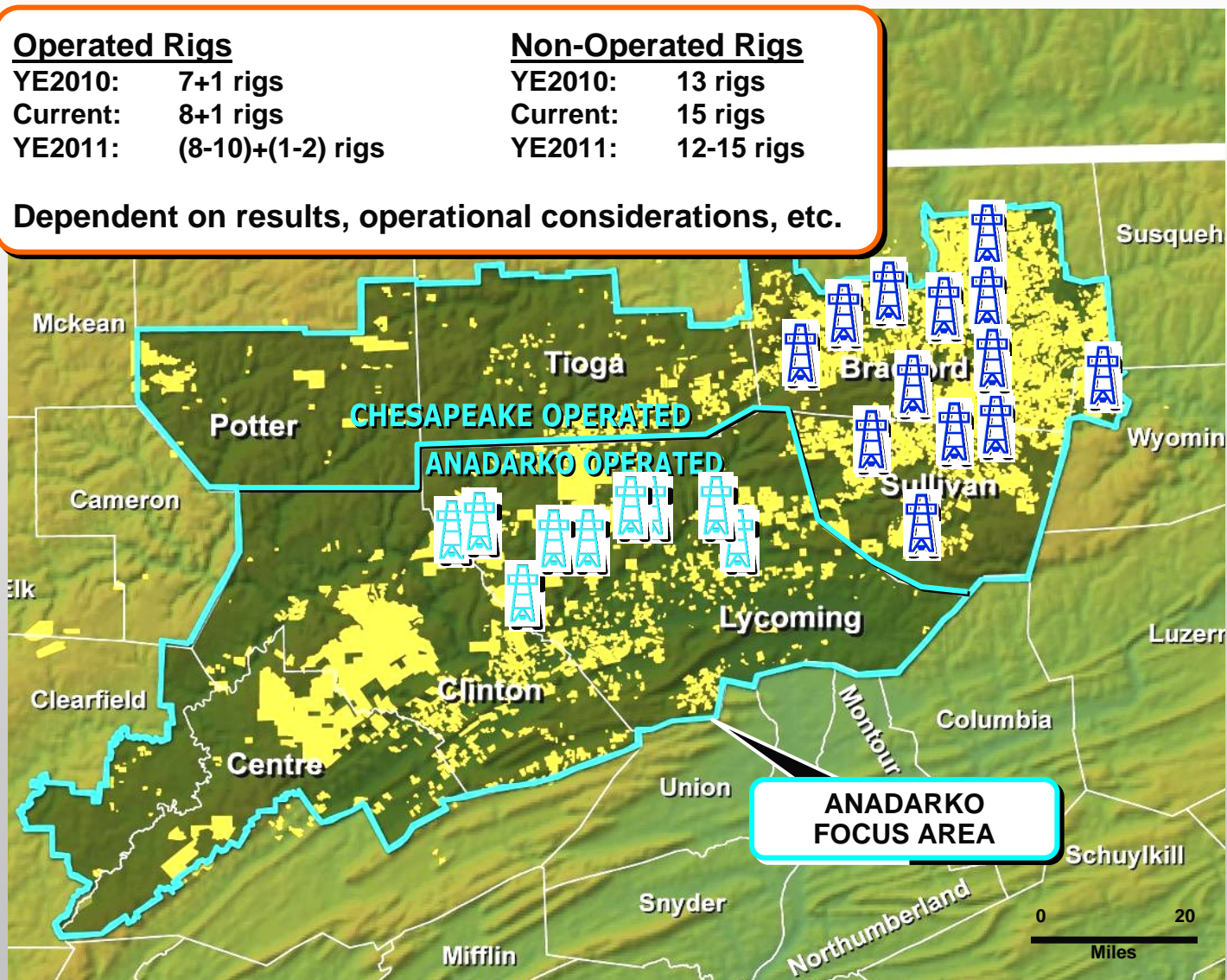
Gross Acreage: ~760,000
Net Acreage: ~334,000

Marcellus Shale Play



<u>Operated Rigs</u>		<u>Non-Operated Rigs</u>	
YE2010:	7+1 rigs	YE2010:	13 rigs
Current:	8+1 rigs	Current:	15 rigs
YE2011:	(8-10)+(1-2) rigs	YE2011:	12-15 rigs

Dependent on results, operational considerations, etc.



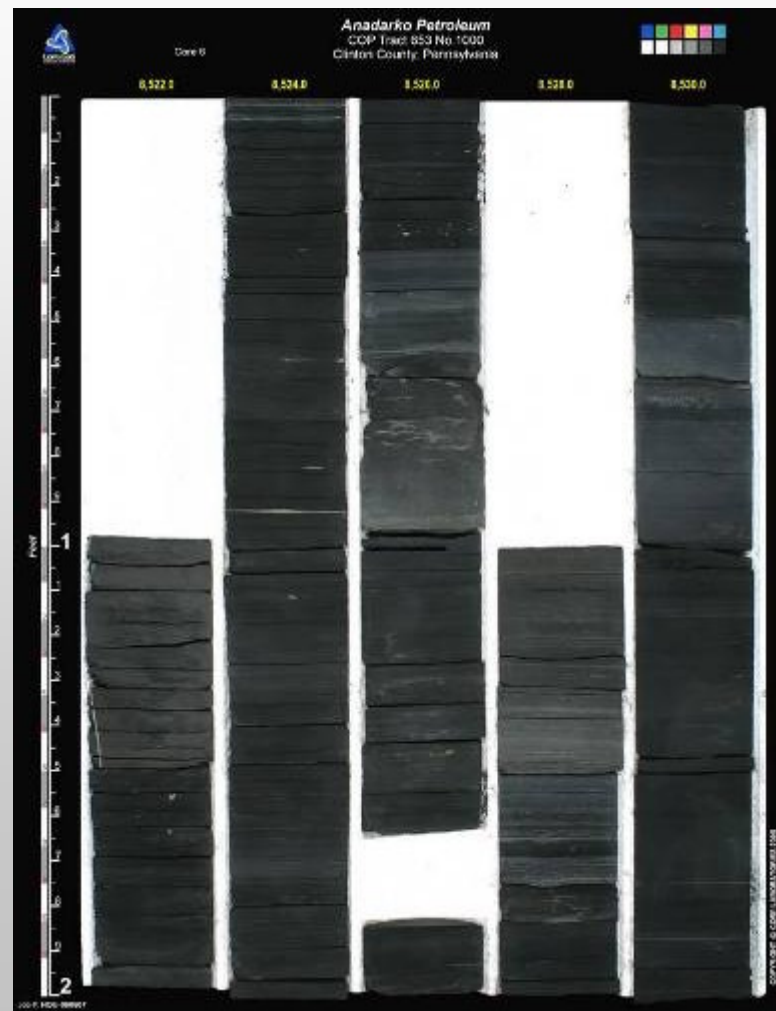
- APC ACREAGE
- OPERATED RIGS
- NON-OPERATED RIGS



Technical Drivers

Key Deliverable: *Understanding what controls performance*

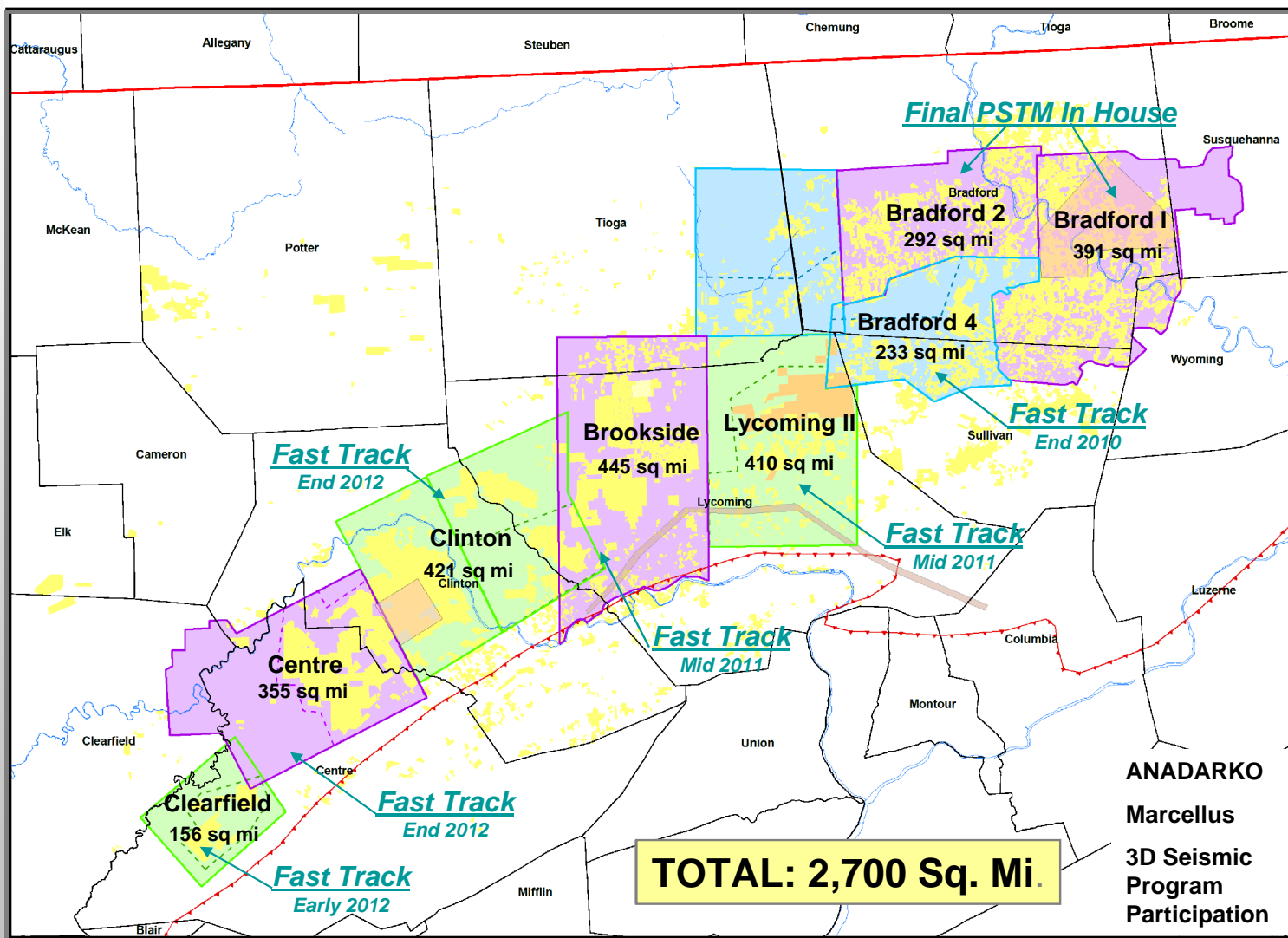
- Structural complexity
- Lateral placement
- Lateral orientation - azimuth
- Lateral lengths
- Role of natural fractures
- Heterogeneity
- Completion optimization
- Optimal Spacing





Structural Complexity

MARCELLUS 3D SEISMIC PROGRAM





Basic Well Configuration

Multiple well pads

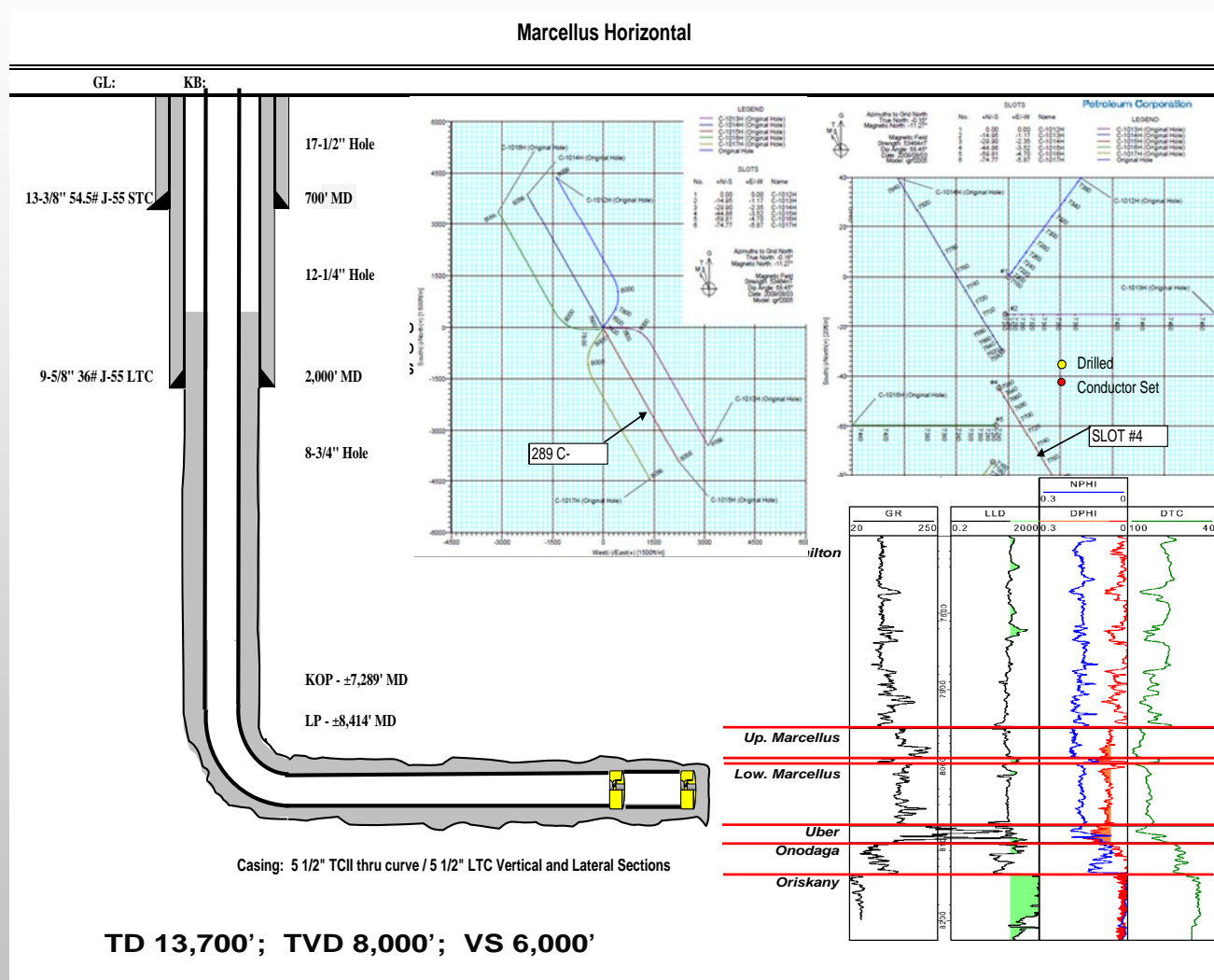
- Collision issues
- Batch drilling
- Skidding package

Target L. Marcellus

- 330° / 150° azimuth
- 3500'-7000' laterals
- 1,000' separation

Optimization

- Spudder rig
- Cuttings
- Slimhole design

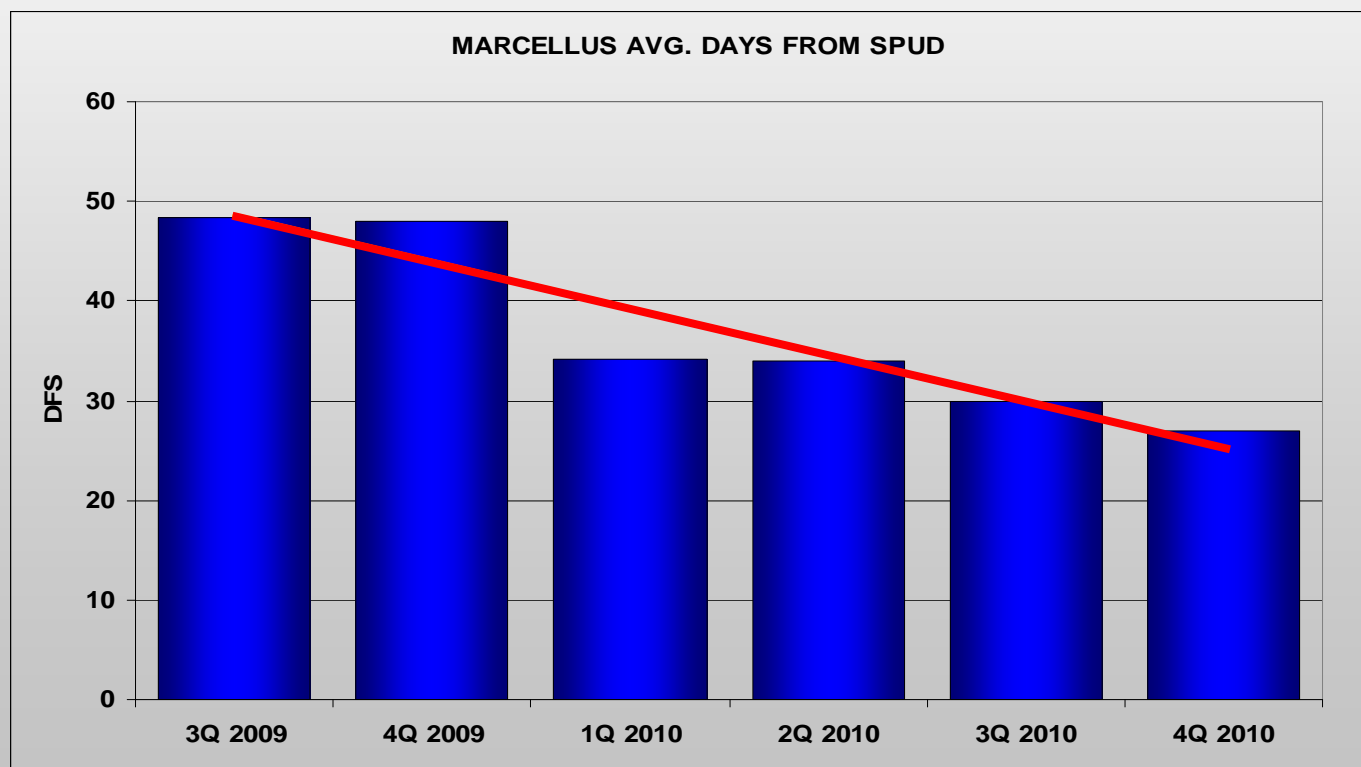




Operated Drilling Cycle Time

• Significant improvements driving down cycle times

- Cycle times reduced by ~ 50% while lateral lengths increased by ~ 40%
- Record well – spud to RR 19.2 days (14,756' MD, 6,802' VS)
- Skid operations – 12 hours





Cycle Times: Spudder Rigs





Completions Optimization

● Basic completion design

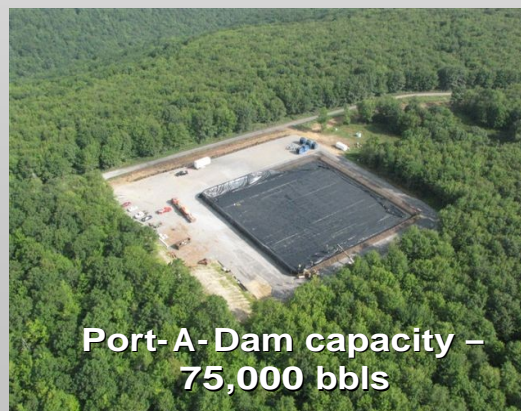
- 10-15 stages per well
- 300' to 500' between stages
- Perf and plug (pump down)

● Stage design

- 7,000 to 10,000 bbls water
- 350,000 to 500,000 lbs
- 40/70 sand and 100 mesh
- 2-3 ppg concentration
- Gel sweeps

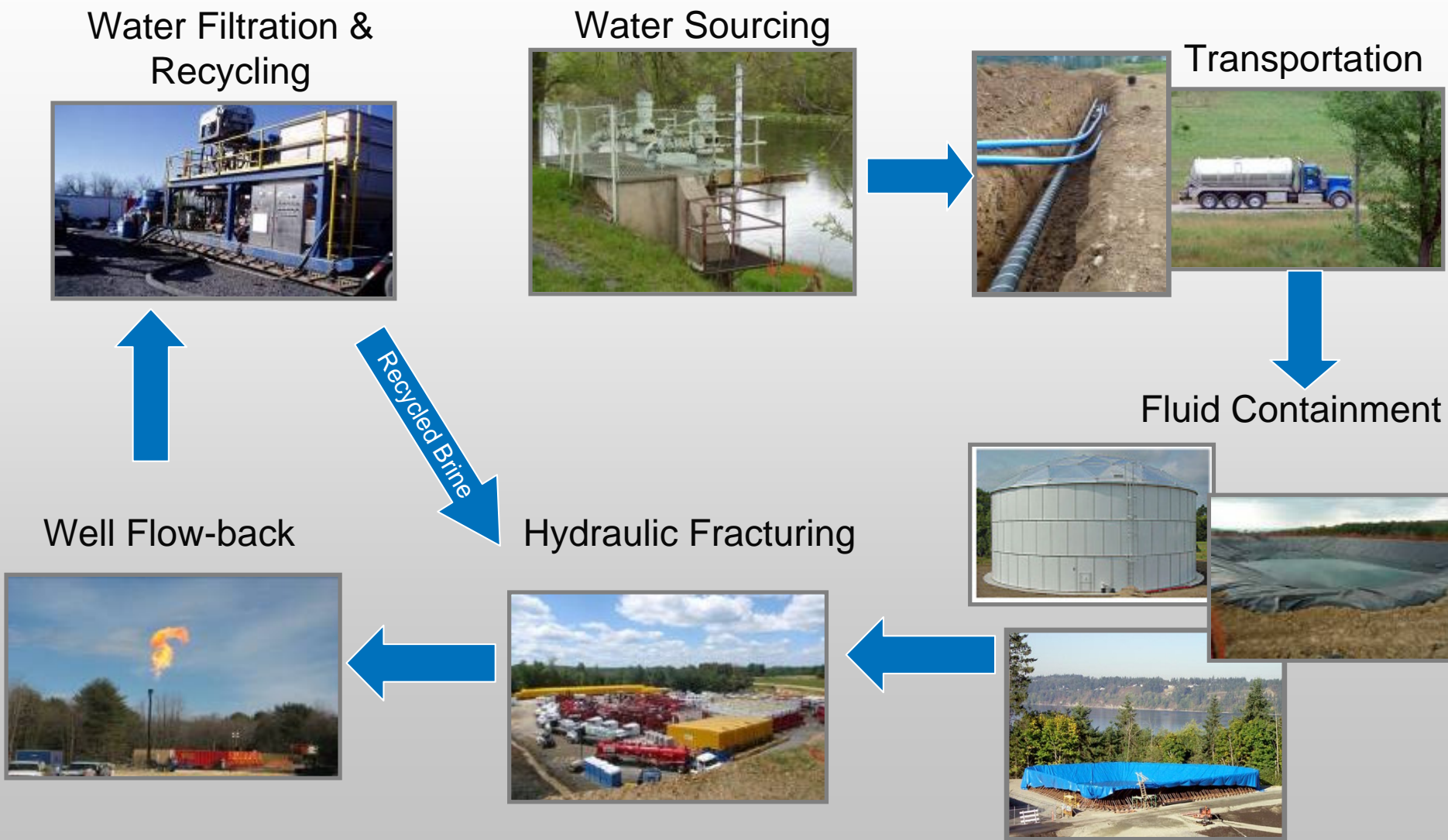
● Cycle times

- 3-4 stages/day
- Water is key





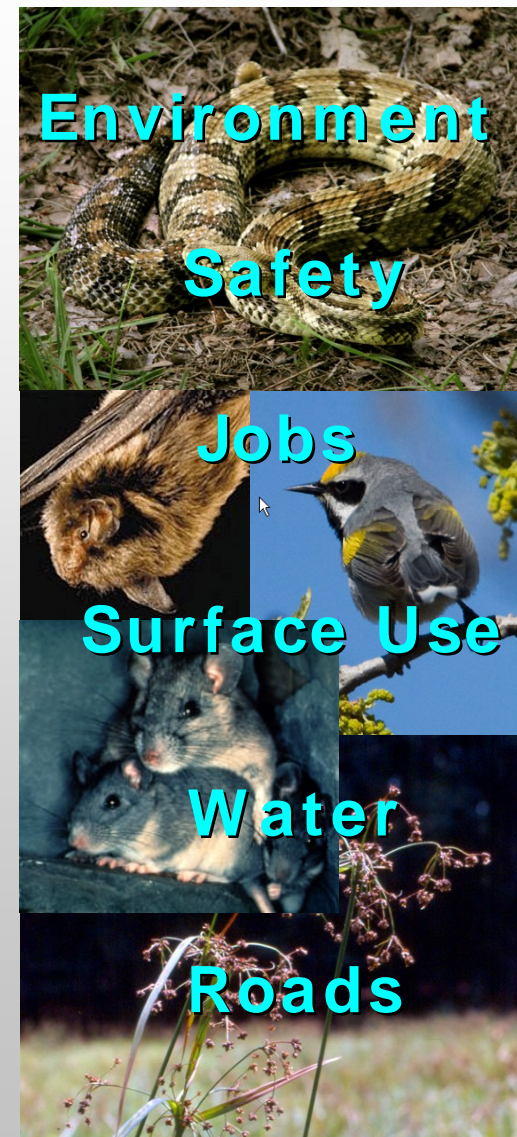
Water Management: Reduce, Re-Use, Recycle





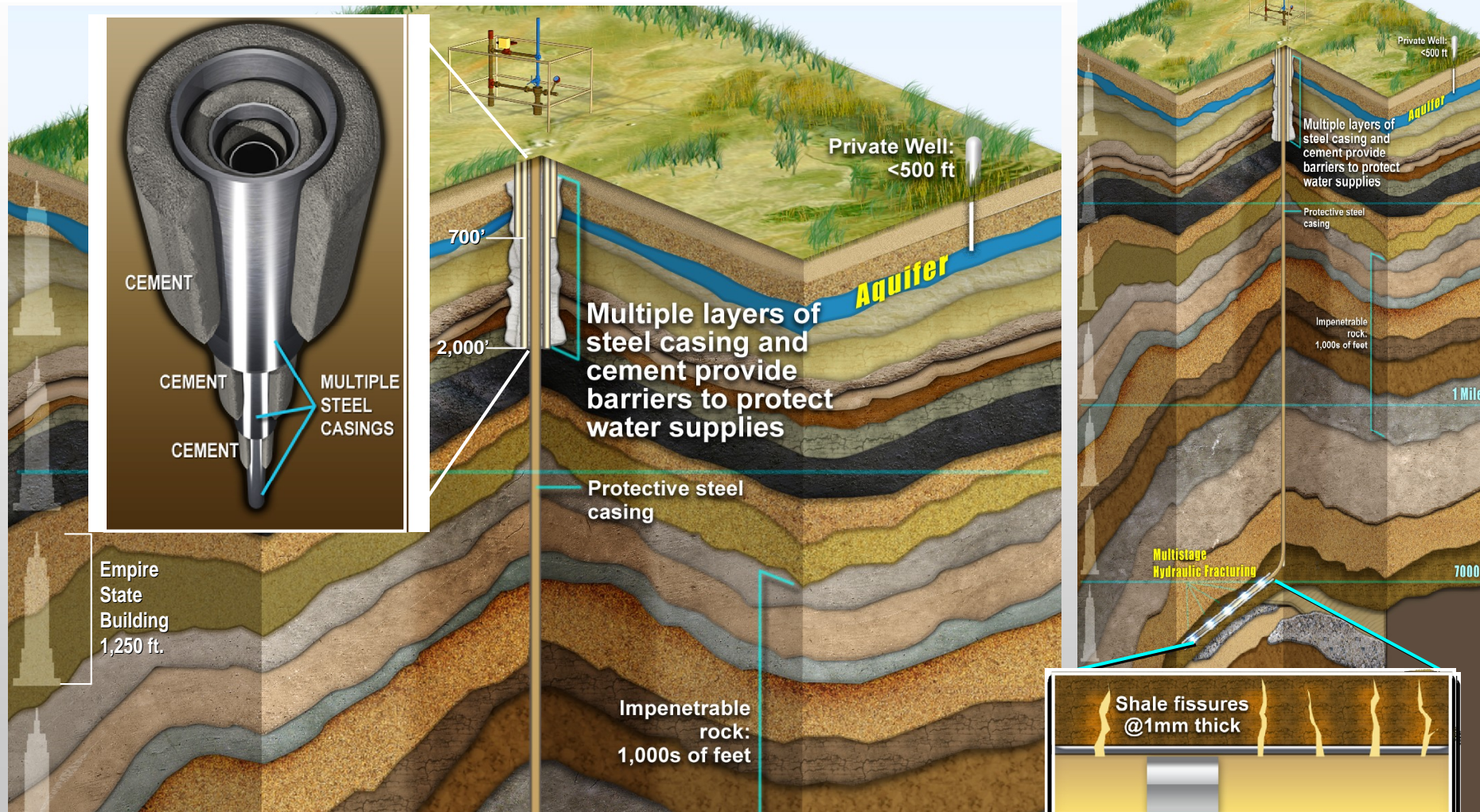
Fostering Coalitions with Stakeholders

- **Cooperative development unlocks potential**
 - Tremendous resource potential for industry
 - Lower energy costs from cleaner, secure source
 - Job creation and local economic development
 - Royalties paid to mineral owners (incl Commonwealth)
- **Focus on safety and the environment**
 - Protect world class natural resources and diversity
 - Manage water resources and limit surface disturbance
 - Improve the road infrastructure
- **Innovation leads to cooperative solutions**
 - Groundwater protection
 - Water recycling and reclamation
 - Multi-well pad development
 - Closed loop drilling
 - Containment technologies





Spotlight: Groundwater Protection



- Protection of surface water aquifers is achieved by running two strings of pipe and cementing across the water located above 700'



Spotlight: Water Use

Water Use vs. Other Energy Technologies

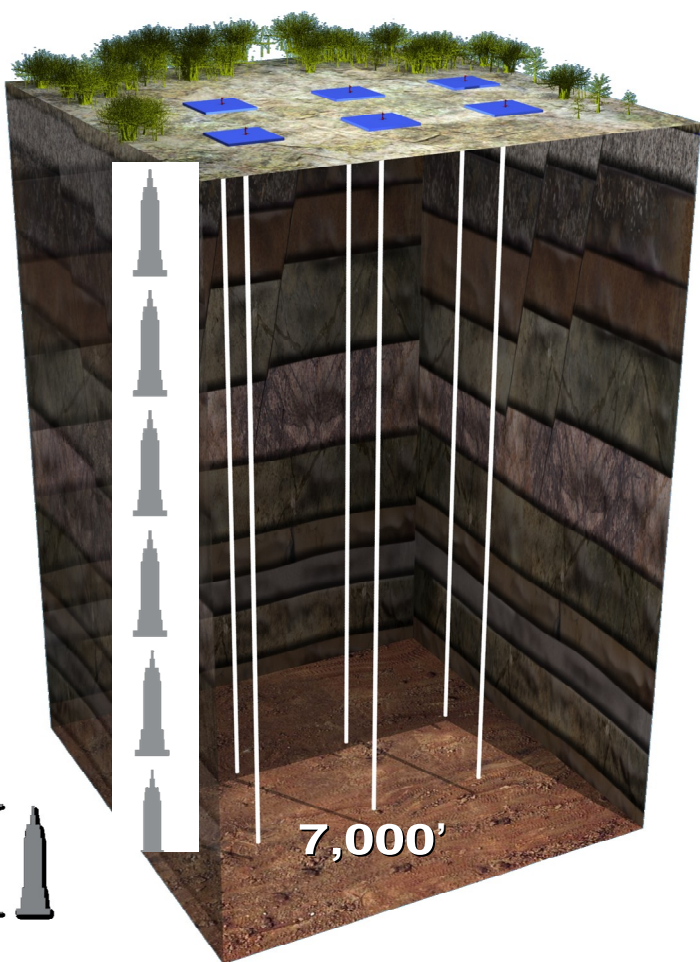
Energy Resource	Water Used vs Energy Produced (gals/mmbtu energy produced)	Midpoint
Deep Shale Natural Gas	0.60 - 5.8	3
Nuclear (uranium - power plant use)	8 - 14	11
Conventional Oil	8 - 20	14
Synfuel- Coal Gasification	11 - 26	18.5
Coal (power plant use)	13 - 32	22.5
Oil Shale	22 - 56	39
Tar Sands	27 - 68	47.5
Synfuel- Fisher Tropsch (from coal)	41 - 60	50.5
Enhanced Oil Recovery (EOR)	21 - 2,500	1,260.5
Fuel Ethanol (from corn)	2,510 - 29,100	15,805
Biodiesel (from soy)	14,000 - 75,000	44,500

Source: The Groundwater Protection Council and the U.S. Department of Energy

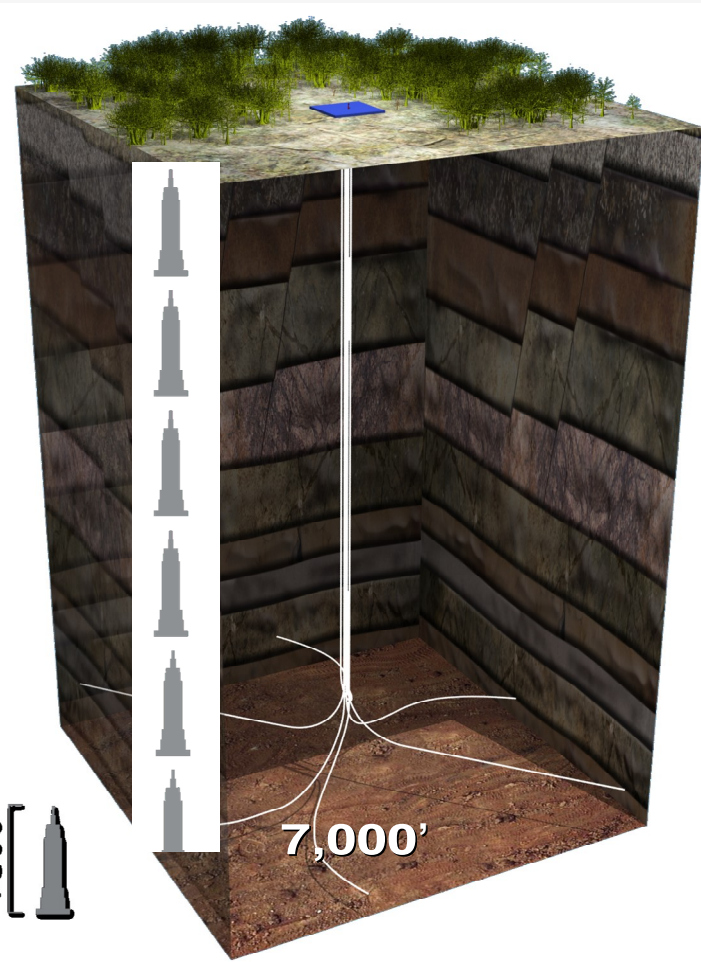


Spotlight: Responsible Surface Use

**Traditional development
with vertical wells requiring
one pad site per well**



**Multi-well development
minimizing surface use with 6-12
wells drilled from a single pad site**





Responsible Surface Use (One DCNR Area)

<u>Surface Use</u>	<u>Area (acres)</u>
Pad locations & road access (15)	140
Water Containment	21
Water lines	14
Midstream Pipelines	110*
Compressor Stations	10
<hr/>	
Total Use	295
Tract Area Produced	15,309
% of Total Area Used	<2%

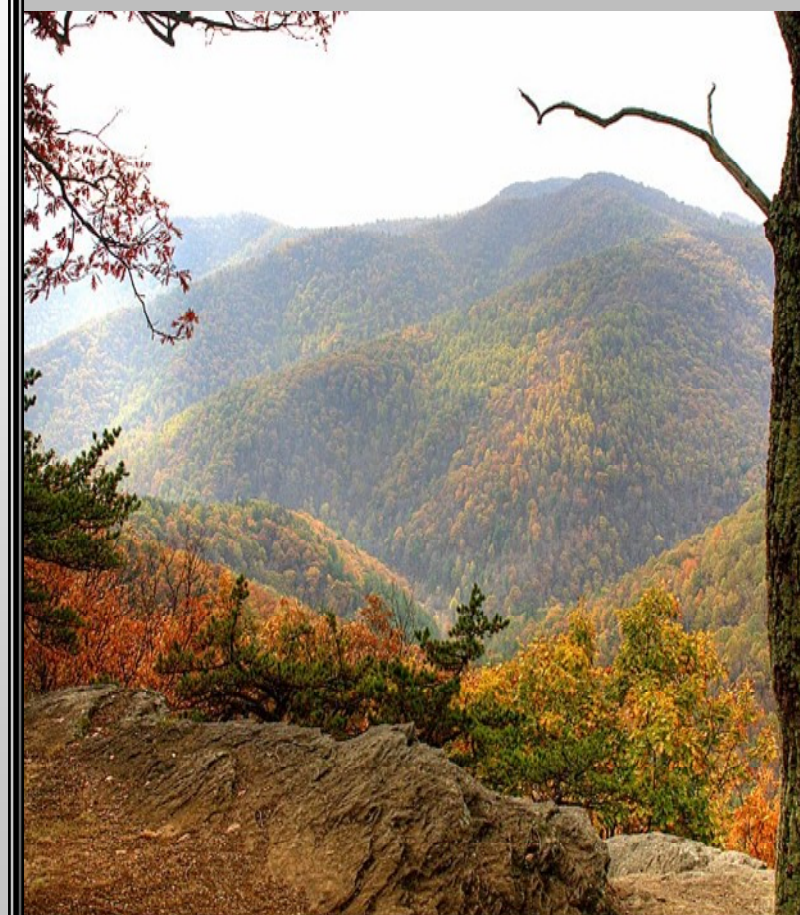
* NOTE: attempt to route pipelines in previously-disturbed ROWs



Spotlight: Spill Prevention Guidelines

- Establishes Goal of Zero Spills
- Documents Proactive Spill Prevention Steps Being Taken
- Establishes Anadarko Employee Expectations
- Establishes Contractor Expectations
- “Zero Spill Zone” & “Eyes On”
- 3rd Party Audits & “What if” Scenarios

Spill Prevention Guidelines Anadarko Petroleum Corporation Appalachia Operations





What is a Closed Loop System ?

Open Loop System



Captures cuttings and stores them in a lined reserve pit.

Closed Loop System



Captures cuttings without the need for a reserve pit. The contained cuttings can be recycled or safely transported to an approved landfill.



Containment Technology Applications

● Drilling Phase

- Engineered containment around SBM reserve tanks and SBM base fluid
- Liner under all rig mats and 8'x14' work area mats



Rigid barrier is liquid proof with overlapping seam design



Heavy 30mm liner, held in tension, and secured with barrier cap

Completed installation





Containment Technology Applications

● Completion Phase

- Line entire location under frac equipment and fluid storage
 - *Material is static-free, anti-slip, and tear-resistant*
 - *Liner extends to solid barriers/conduits on perimeter (12" to 18")*
- Continuous visual inspection with repair/replace capability on site
- Non-fresh water exclusively stored on site and within containment
- Separate, individual containment units under engines/pumps
- Permanent tank batteries located within steel containment and lined

Three-layered system
(felt, plastic, felt)

8 oz. Geotextile felt (top, bottom)
30mm woven coated HDPE reinforced plastic liner



Completed installation



EHS: Committed to Continuous Improvement



ENVIRONMENT, HEALTH AND SAFETY AT ANADARKO PETROLEUM CORPORATION

Mission: To respect and protect the safety and health of the public, our employees, our contractors and the environment in all countries and communities in which we conduct our business.

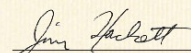
Vision: To achieve excellence in our safety, health and environmental performance.

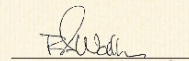
Policy: In achieving our *Mission* and *Vision*, our *Policy* is to:

- Promote a culture that allows for employee involvement in maintaining a safe work environment while recognizing that safety, health and environmental incidents are preventable;
- Strive for zero injuries and incidents;
- Be a recognized leader in environmental stewardship;
- Promote continuous improvement in our processes, reducing risk to safety, health and the environment; and
- Adhere to applicable laws, regulations, Company policies and procedures, and recognized standards.

Everyone has the responsibility, and will be held accountable, to work safely and in an environmentally sound manner.

- Our number one priority is the safety and well-being of the public, our employees, and contractors.
- Our business activities will be conducted to minimize our environmental impact.


James T. Hackett
Chief Executive Officer


R. A. Walker
Chief Operating Officer



Pathway to Excellence

- Proven Approach to make the Company's EHS Mission, Vision and Policy an Operational Reality
- Clearly Defines that Everyone is Accountable for EHS Performance



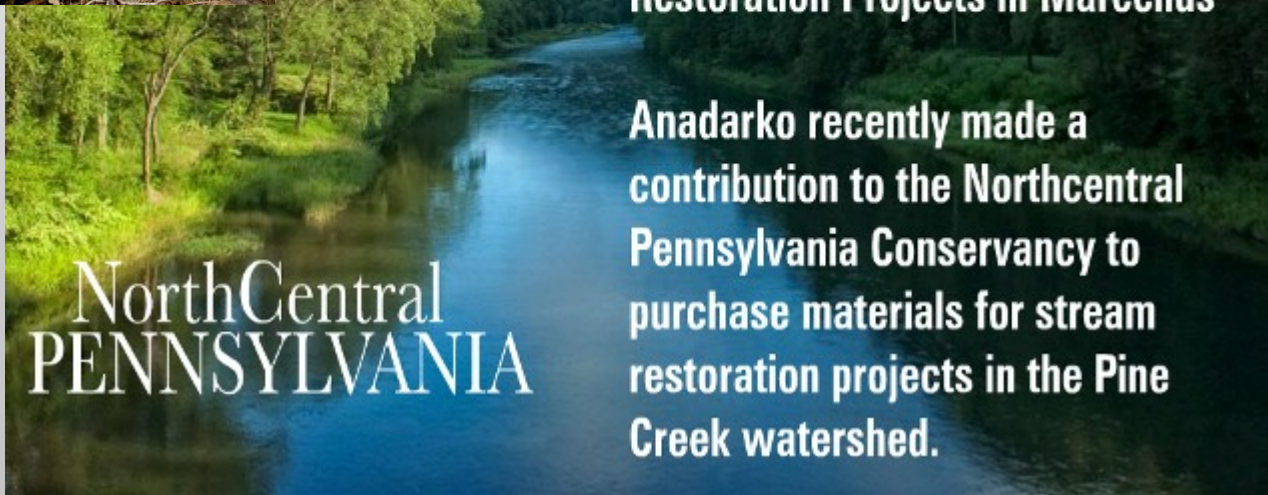
Local Philanthropic Program 2009/2010 Contributions and Projects



Anadarko Funds Stream Restoration Projects in Marcellus

Anadarko recently made a contribution to the Northcentral Pennsylvania Conservancy to purchase materials for stream restoration projects in the Pine Creek watershed.

- \$15,000 contribution to Pennsylvania College of Technology “Fit for Natural Gas” Program





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