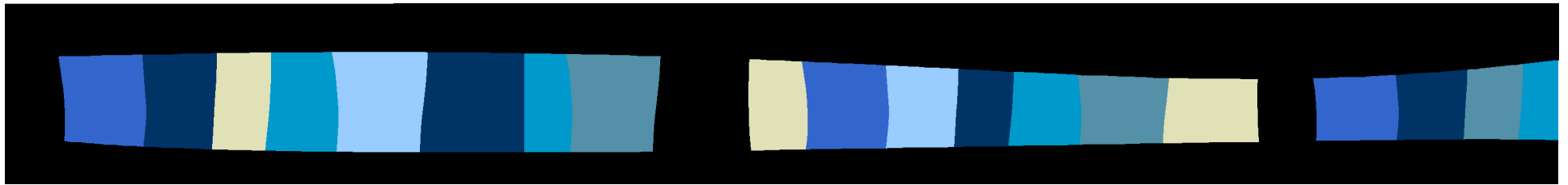


Surface Coal Mining in West Virginia



Some Expectations for the Future



Surface Mining Methods

■ Mountaintop Removal

- Expect Existing Operations Mining to Depletion
 - Most Within ~10 Year Time Frame
- Reduction in New MTR Operations / Permits
 - Next 5 Years and Beyond
- Most Suitable Full Scale MTR Reserve Blocks
 - Either Currently Being Mined or Are “On the Board”



Surface Mining Methods

■ Multi-Method Surface Mining

- Expect Hybrid Operations to be More Prevalent
- Combination of Mining Methods on Single Sites
 - MTR & Area Mining
 - Point Removal
 - Contour Mining & Highwall Mining
 - Blast Casting & Dozer Production
- Methods Tailored Specific to the Reserve
 - Combined for Volume Efficiency
- Increase in Remining & Previously Marginal Sites



Surface Mining Equipment

■ Large Scale Mining Equipment

- Expect Limited Number of New Machines
 - Draglines & Shovel

■ Mobile Equipment

- Similarly Sized to Existing Equipment
 - Expect Technology, Productivity, & Efficiency Gains
 - Fuel Efficiency, Digital Technology, GPS, etc

■ Secondary & Highwall Mining Equipment

- Improvements in Productivity and Reliability
- Depth of Penetration Likely Limited by Reserves



Reclamation Techniques

■ **Regrading**

- Elimination of Over Compaction
 - Will Lead to Substantially Improved Reforestation

■ **Revegetation**

- Better Understanding of Interaction of Species
 - Improved Survival Rates & Less Re-Seeding

■ **Acid Mine Drainage**

- Expect Slow But Continual Technology Gains
 - Prevention Will Continue to be Best Approach



Environmental Impacts

■ Water Quality Improvement

– Existing Sites

- More Consistent Flows & Lower Temperatures
- Passage of Time
- Rebound of Biological Populations

– Remined Sites

- Opportunity to Eliminate Problem Areas
- Incremental to Substantial Improvement Possible

■ Revegetation

- ### – Expect More Commercial Woodland Projects



Coal Industry Impacts

■ Mining Companies

- Continued Consolidation Of Large Operators
- Small Operators Prosperous in Niche Markets

■ Productivity

- Modest Gains in Tons / Man Hour
 - Fueled by Technology and Competition

■ Overall Production

- Flat to Modest Increases Over Next 10 Years
- Overall Declines Beginning Thereafter



Impacts to Society

■ Economic & Employment

- Surface Mining Will Provide Substantial Economic Activity Over the Next 10 to 15 Years
 - Expect Some Declines in Direct Employment
 - Increased Secondary Employment Opportunities

■ Post Mining Land Utilization

- Many Entrepreneurial Opportunities Will Exist
- Location of Site and Infrastructure Will Play Biggest Role

■ Unreclaimed & Problematic Sites

- Can be Substantially Reduced with Cooperative Efforts