



WY Infrastructure Authority Fall Board Meeting

October 25, 2011



Chesapeake Energy Overview



- » Second largest U.S. natural gas producer and the 13th largest oil producer
- » Most active explorer for natural gas and oil with 169 active U.S. drilling rigs
- » Employ over 11,500 employees in 16 states
- » Applying unconventional thinking and state of the art technologies, Chesapeake has grown from a \$50,000 startup in 1989 to a \$30 billion enterprise today
- » Chesapeake is leading the effort to reduce American dependence on unreliable, high-cost foreign oil.

Industry Leadership

» Leader in identifying and capturing world-class unconventional natural gas and liquids resources

- ▶ In past 4 years, discovered 5 of America's best unconventional plays: Granite Wash, Mississippi Lime, Haynesville Shale, Tonkawa Tight Sand and Utica Shale

» Leader in technological innovations in unconventional reservoirs

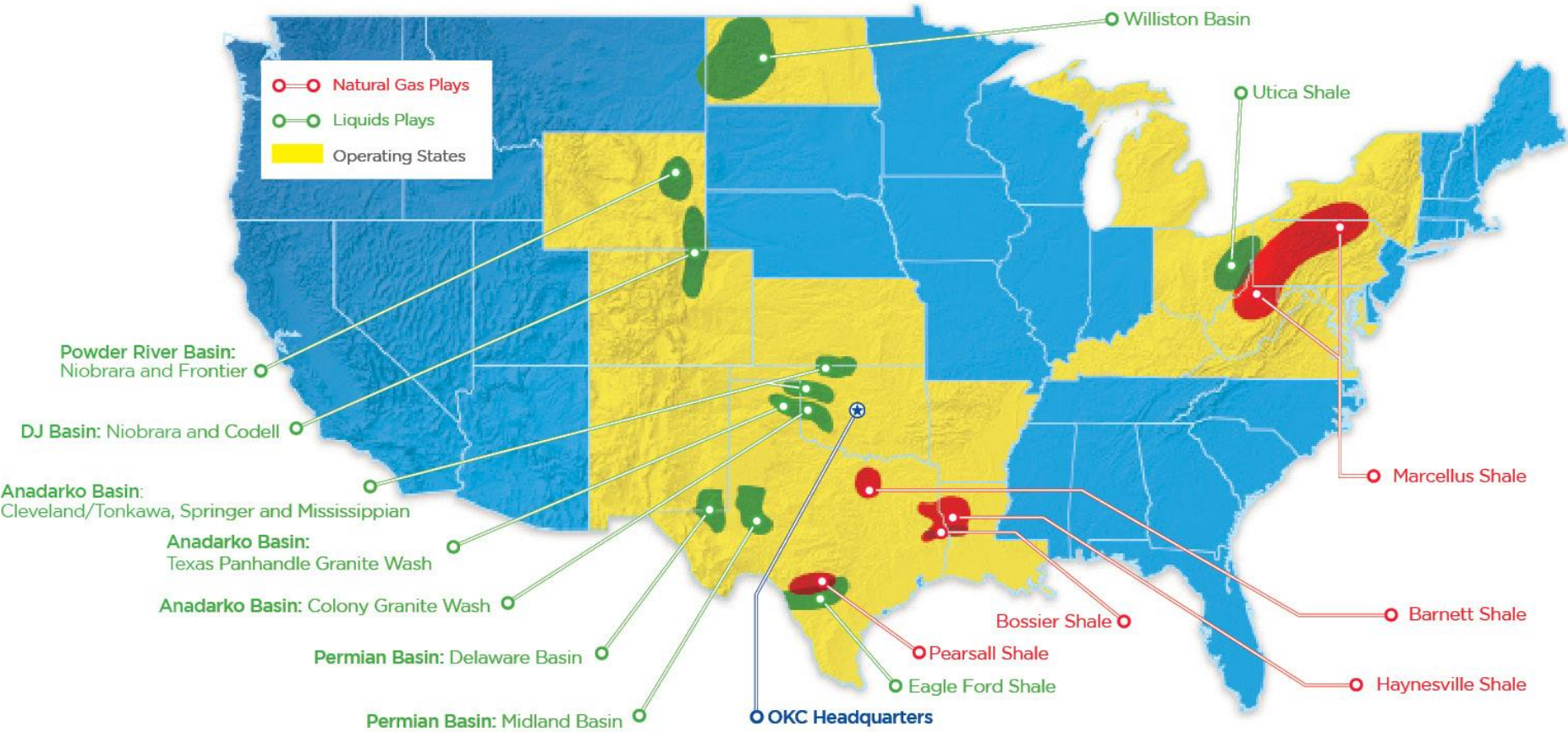
- ▶ #1 inventory of shale core rock data and built industry's only proprietary unconventional petrophysics lab

» Diversified operational focus

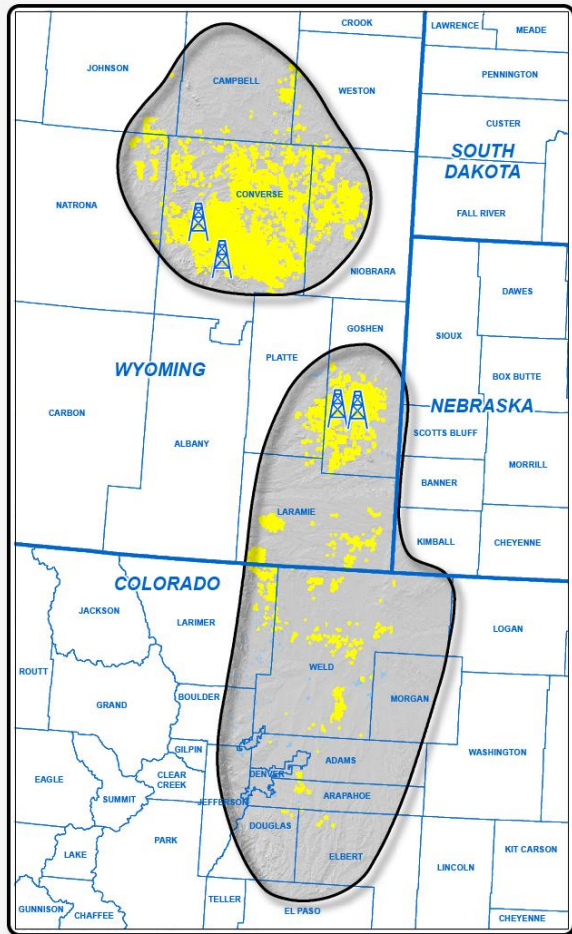
- ▶ Leading positions in 12 of the Top 15 unconventional liquids-rich plays in the U.S.
 - #1 in the Anadarko Basin (including Granite Wash, Cleveland, Tonkawa and Mississippi Lime plays)
 - #1 in the Utica Shale
 - #2 in the Eagle Ford Shale
 - #3 in the Niobrara Shale in the Powder River and DJ Basins
 - Top 5 in the Permian Basin (includes Avalon, Bone Spring, Wolfcamp and Wolfberry plays)
 - Top 10 in the Williston Basin
- ▶ Leading positions in 4 of the Top 5 best U.S. natural gas shale plays (having sold the Fayetteville)
 - #1 in the Marcellus Shale
 - #1 in the Haynesville Shale
 - #1 in the Bossier Shale
 - #2 in the Barnett Shale

CHK's track record of leadership and achievements during the past 22 years has been unique and has positioned the company for superior performance for years to come

Chesapeake Operating Areas



Rockies Overview



Basin Boundary Current CHK Leasehold

- » CHK has recently entered the Niobrara and Codell plays in the DJ Basin (DJB) of northern Colorado and southern Wyoming with ~420,000 net acres and in the Powder River Basin (PRB) of Wyoming with ~470,000 net acres
- » CHK has 6 rigs operating in Wyoming, all of which are currently in Converse County
- » In 2011 and 2012, the Company plans to increase its Niobrara and Frontier operated rig count to an average of 10 and 20 rigs because of the Cooperative Venture announced with CNOOC
- » Early success by CHK and others with Initial Production (IPs) ranging from 500 boe/d to 1,700 boe/d

Cooperative Venture Overview



The production from this project should reduce dependence on foreign oil imports and will increase U.S. natural gas and oil production for the benefit of U.S. industrial, utility and residential consumers.

- » On January 30, 2011, Chesapeake Energy Corporation and CNOOC Ltd. entered into an agreement whereby Chesapeake will sell to CNOOC Ltd. a minority, non-operating interest in Chesapeake's oil and natural gas leaseholds in the Niobrara Formation and Frontier and Codell Sands area in the Denver-Julesburg (DJ) Basin and the Powder River Basin of Colorado and Wyoming for approximately \$570 million, plus an additional \$697 million of carried drilling and completion costs.

- » The transaction involves a purely economic investment in leasehold assets for the purpose of conducting preliminary exploration.
 - ▶ Chesapeake will conduct all leasing, drilling, completion, operations and marketing and will be in exclusive control of the assets.
 - ▶ CNOOC Ltd. will have no employees within Chesapeake and will receive no training/information sharing rights as part of the transaction.

Unconventional Oil Well Process



Six Basic Steps:

1. Seismic exploration
2. Site preparation
3. Drilling the well
4. Completing the well
5. Marketing the oil
6. Reclaiming the site

Site Preparation

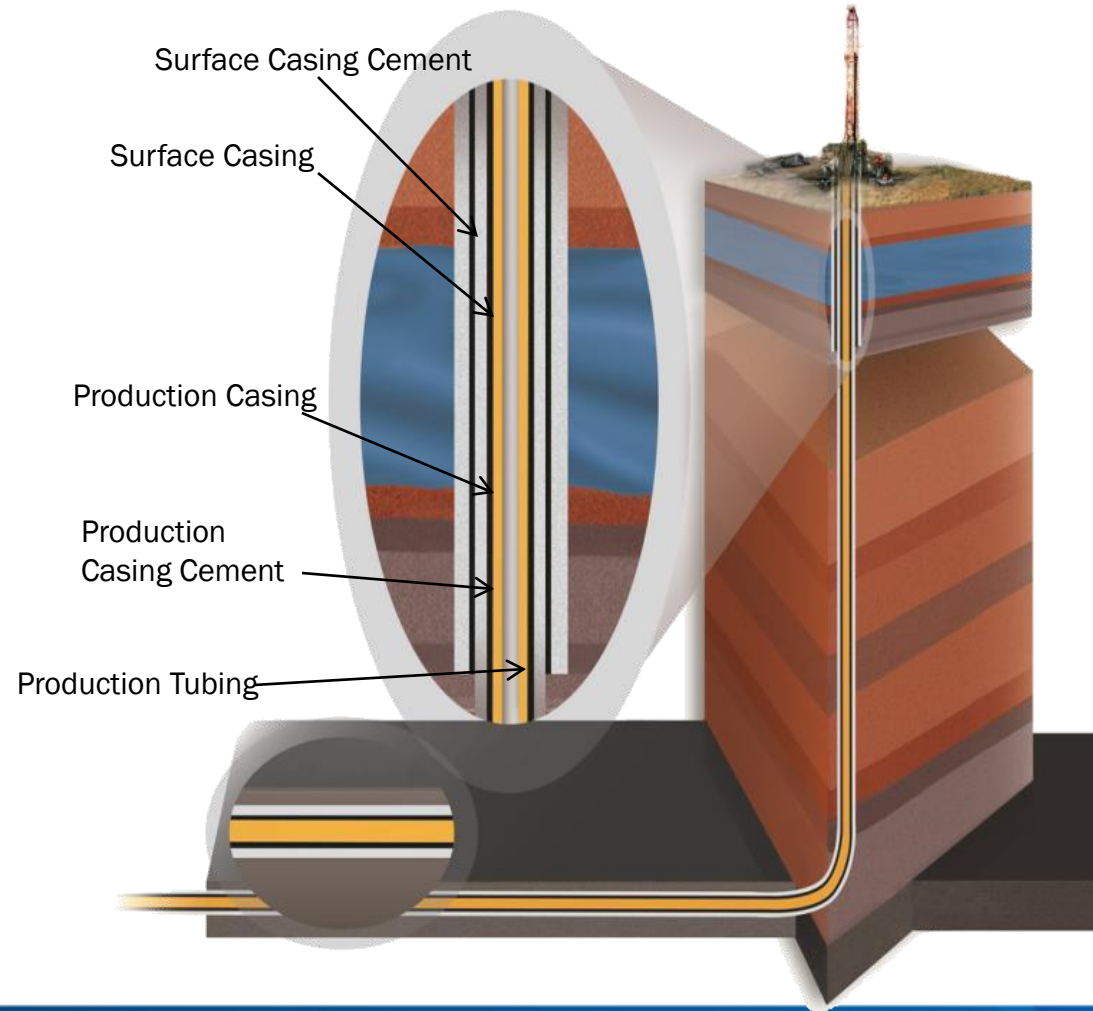
- » Prior to drilling, padsite is prepared as needed
- » Drilling multiple wells from a single padsite reduces the number of padsites needed
- » With fewer padsites, overall environmental footprint is reduced



Drilling the Well- Horizontal Wells

Computer-driven, state-of-the-art technology allows for horizontal drilling

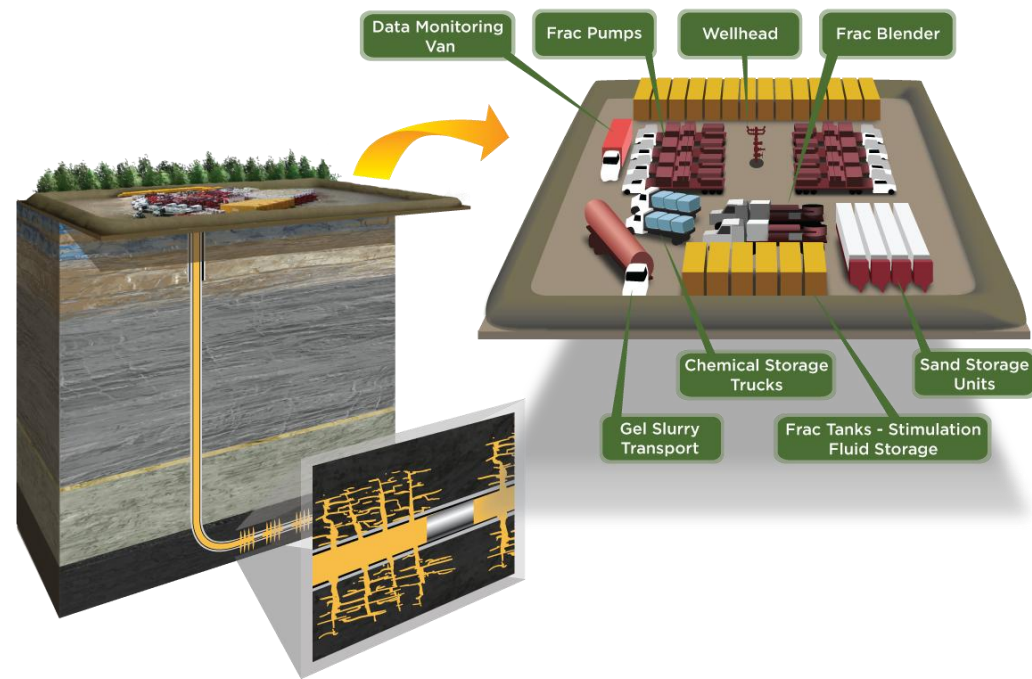
- Horizontal drilling allows for access to a greater volume of the deep shale reservoir
- Access to a greater volume of the reservoir makes shale oil development economic
- Results in approximately 90% less overall surface disturbance



Hydraulic Fracturing

After the drilling rig leaves, hydraulic fracturing (“fracking”) begins

- » Fracking is a process to “stimulate” natural gas and oil from the hard shale
- » Water is mixed with sand and pumped into the shale reservoir under high pressure
- » This process fractures the shale to release the natural gas and/or oil
- » Completed in a matter of days



Safety

To assure drilling safety,
Chesapeake uses:

- » Trained/qualified personnel and contractors
- » A strict drug/alcohol policy
- » Engineered Drilling Fluid (Mud) Program
- » Equipment
 - ▶ Blow-out preventer (BOP)
 - ▶ Secure locations



Declare Your Energy Independence Campaign



Chesapeake has developed a plan that will help end one of the largest transfers of wealth in history - more than \$400 billion a year of American money exported to foreign nations whose interests often are opposed to ours. It can reduce energy costs for all citizens, enhance national security, create a million high-paying American jobs and improve our environment.

» More domestic oil

- ▶ Increase existing production of domestic onshore oil and natural gas liquids by 50%

» Substitute natural gas for diesel and gasoline

- ▶ Use natural gas as a primary transportation fuel, saving businesses and consumers about \$2 per gallon

» GTL and Biogas

- ▶ Investing in new breakthrough technologies
 - \$155 million to building the world's largest bio-based, renewable "green gasoline" production plant

Clean Energy Fuels Corp. – LNG Fueling Infrastructure



- » CLNE will use CHK's \$150 million investment, plus \$150 million from CHK friends Temasek/Seatown/RRJ, to accelerate its build-out of LNG fueling infrastructure for heavy-duty trucks at truck stops across interstate highways in the U.S., thereby creating the foundation for "America's Natural Gas Highway System"
- » These two investments are projected to help underwrite 250 - 300 LNG truck fueling stations, increasing by more than 20-fold the number of publicly accessible LNG fueling stations and providing a foundational grid for heavy-duty trucks to have ready access to cleaner and more affordable American natural gas fuel along major interstate highway corridors
- » 8 million American heavy duty trucks consume ~3 million barrels of diesel every day
- » The effort to move U.S. transportation sector to natural gas is an important element in significantly increasing domestic natural gas demand

America's Natural Gas Highway – September 2011 Actual



America's Natural Gas Highway – December 2012 Projected



“Green Gasoline” Is On the Way Too!



- » **Sundrop Fuels, Inc. is developing biobased “green gasoline” made from natural gas and cellulosic material.**
- » **CHK has agreed to invest \$155 million for a 50% ownership stake in Sundrop Fuels, Inc.**
 - ▶ **The investment over the next two years will fund construction of the largest nonfood waste biomass-based “green gasoline” plant in the world, capable of annually producing more than 40 million gallons of ultra-clean liquid transportation fuel from natural gas and waste biomass.**
 - ▶ **The plant will utilize Sundrop Fuels’ proprietary gasification process coupled with proven methanol-to-gasoline process to produce gasoline, rather than the more expensive Fischer-Tropsch process producing a wide variety of hydrocarbons that require further refining or processing**

Summary

- Chesapeake is the most active driller in the United States and the second-largest natural gas driller in the United States
- CHK holds a substantial position in multiple unconventional plays and the #1 leaseholder in the best U.S. shale plays.
- CHK has developed the industry's leading position in the horizontal Niobrara and Frontier plays in the Powder River Basin (PRB) and the DJ Basin (DJB) of northern Colorado and southern Wyoming with ~890,000 net acres
- The Niobrara Play cooperative venture transaction is simply a non-controlling, minority investment in limited-duration leasehold interests for the purpose of enabling the further exploration and development of assets, which will return \$1.2 billion of foreign capital to the United States.
 - ▶ The cooperative venture will enable CHK to develop the field more quickly and create ~4,000 jobs in the area.
- Chesapeake has developed an achievable, saleable and affordable three – pronged plan to move our nation away from OPEC oil and toward a transportation future that runs on America's own abundant supplies of natural gas and oil.