The Fayetteville Shale
From an idea to 3% of the nation’s gas supply

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Forward-Looking Statements

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The SEC has generally permitted oil and gas companies, in their filings with the SEC, to disclose only proved reserves that a company has demonstrated by actual production or conclusive formation tests to be economically and legally producible under existing economic and operating conditions. We use the terms “estimated ultimate recovery,” “EUR,” “probable,” “possible,” and “non-proven” reserves, reserve “potential” or “upside” or other descriptions of volumes of reserves potentially recoverable through additional drilling or recovery techniques that the SEC’s guidelines may prohibit us from including in filings with the SEC. These estimates are by their nature more speculative than estimates of proved reserves and accordingly are subject to substantially greater risk of being actually realized by the company.

The contents of this presentation are current as of May 1, 2014
• Exploration and production timeline
• Scope and scale of production
• Economic impact in Arkansas
• Proactive solutions that led to success
• Key partnerships
• Continuing responsible operations
• Q & A
1989  First natural gas produced in Arkansas

1929  Arkansas Western Gas (AWG) incorporates in Arkansas

1943  AWG drills its first gas well in Arkansas

1978  AWG becomes Southwestern Energy Company (SWN)

2002  • Fayetteville Shale in “idea” phase
     • SWN total production at 110 MMcf/d

2003  “Stealth Play”  
      Acquired 343,000 net undeveloped acres

2004  “Houston, we have gas!”  
      First Fayetteville Shale well (Thomas #1-9)

2005  • Acquired 15 drilling rigs
     • Drilling mix of vertical and horizontal wells

2008  500 MMcf/d FS production

2009  1 Bcf/d FS production

2014  • 2 Bcf/d production
     • 3 Tcf cum. production
     • 4th largest producer of natural gas in the U.S.
     • 3% of U.S. supply

1889  First natural gas produced in Arkansas

1920s  1930s  1940s  1950s  1960s  1970s  1980s  1990s  2000s  2010s
• The Fayetteville shale discovery proved that there were other shale plays that could be developed economically.

• Since 2004, more than 3,500 wells have been completed by SWN in the Fayetteville shale.

• In approximately 10 years, SWN has developed the Fayetteville shale into a 2 Bcf/d field with 4.8 Tcf in net reserves booked at year-end 2013.

• In 2013, SWN:
  – Completed 425 wells
  – Pumped 4,557 stages
  – Used 1.8 billion lbs of sand
• SWN holds approx. 906,000 net acres in the Fayetteville shale.

• SWN discovered the Fayetteville shale and has first mover advantage – average acreage cost of $320 per acre with a 15% royalty and average working interest of 74%.

• We plan to drill approximately 460 to 470 operated horizontal wells in 2014.

• Nine of the top ten highest wells based on initial producing rates were drilled in the second half of 2013.

Notes: Data as of March 31, 2014. Rates are AOGC Form 13 and Form 3 test rates.
Continuous improvement in our Fayetteville Shale operations – completed lateral length has more than doubled since 2007 while total well costs have decreased 17%.

Vertical integration and contiguous acreage position allow us significant economies of scale and operating flexibility.

Notes: Finding and development costs exclude revisions and capital investments in our sand facility, drilling rig related and ancillary equipment.
We collapsed the “learning curve” dramatically; Paradigm shift in gas prices

Total Fayetteville Shale Field Average Daily Production for September 2011: 2,698 MMcf/d

Source: Tudor, Pickering, Holt & Co. Securities, Inc., Arkansas Oil & Gas Commission
Natural Gas Production in Arkansas

Domestic energy source

8th of 32
Arkansas’s rank among natural gas producing states (2014)

18th of 31
Arkansas’s rank among crude oil producing states (2014)

25 counties
Have oil or natural gas production

14.2 Trillion cubic feet
Proved reserves of dry natural gas

40 Million Barrels
Proved reserves of crude oil

Source: AIPRO, University of Arkansas, Walton College of Business, 2009, IHS Global Insight, Energy Information Administration
Opportunities for families & communities in Arkansas

30,000+
Oil and natural gas-related jobs in Arkansas

$74,555
Average annual salary of employees in the oil and natural gas industry – nearly $40,000 above the average state wage (2010)

116.8%
Increase in oil and gas industry employment, while total employment increased by only 0.6% (2001-10)

Source: AIPRO, University of Arkansas, Walton College of Business, 2012, IHS Global Insight, Energy Information Administration
Economic Impact in Arkansas

564 Natural gas industry-related businesses
Established to support operations in the Fayetteville Shale play

SWN Vendors
$363 Million
Total paid to vendor businesses in Arkansas in 2013

Source: AIPRO, Southwestern Energy
Economic Impact in Arkansas

more than

$283 Million

Revenue Arkansas’s natural gas severance tax has generated since 2009

Source: State of Arkansas Department of Finance and Administration
SWN Examples in Fayetteville Shale Counties ($ Million)

Source: Southwestern Energy
Note: Gross Payroll is defined as direct salaries and income paid to employees who are residents in their respective counties. Other is defined as charitable giving, expenses paid for road repairs, and dust control, etc., which benefit residents, organizations and communities in their respective counties.
• Being proactive in several areas has helped make the Fayetteville Shale play a standout success.
  – Reducing our operational footprint
  – Developing community partnerships
  – Working with regulatory agencies on all levels
Reducing our Operational Footprint

- Horizontal drilling and multi-well pads
- Creative water supply and transport
- Centralized logistics control
Benefits of Horizontal Drilling

- Greater access to more of the shale gas reservoir
- Higher volumes of natural gas and greater recovery
- Less environmental impact
- More aesthetically pleasing
Sourcing water for hydraulic fracturing operations in a manner that would not compete with water for public use and would reduce truck traffic.

- Constructed 162 ponds
- Contracted use of 389 private water sources
- Manage permits for creek and stream withdrawals
- Reuse 100% flow back water
Creative Water Supply and Transport

Water Transfer Operations from Pond to Hydraulic Fracturing Site

Use of ponds has significantly reduced transport by truck

• Typical well uses ~120,000 bbls of water (~920 trucks)
• Transfer operations have reduced water transport by truck by 80 - 90%
Logistics Operations Center (LOC)
Charged with the optimization of truck traffic and minimization of impact to highways.

- Established in 2009
- 24/7 command center for all movements of field materials, water and sand in the Fayetteville shale, and water in the Marcellus shale
- Managed approx. 367,000 movements in 2013
- Instrumental to the timely delivery and take away of products and materials
Developing Partnerships

- Helped create a technical program with local community college
- Charitable contributions
- Regulatory agencies
• Goal: Hire locally
• Developed the Petroleum Technology Program
  – 2 year program
• Formed scholarship fund with other producers
Community Relationships

Community giving

- Everyday Heroes
- School grants
- 4-H
- County fairs
- Volunteerism
- Charitable donations
- SWN-Sponsored Arkansas State Science Fair
- Damascus Bobwhite Quail Habitat Restoration Project
- Junior Achievement of AR
Working with Federal Agencies

- Environmental Protection Agency
- Bureau of Land Management
- U.S. Army Corps of Engineers
- U.S. Forest Service
- U.S. Fish & Wildlife Service
• Arkansas Department of Environmental Quality (ADEQ)
• Arkansas Natural Resources Commission (ANRC)
• Arkansas Oil and Gas Commission (AOGC)
Working with Local Leadership

- City officials
- County Quorum Courts
- Community leaders
Partnering to Develop Regulations

• Arkansas was the first state to require hydraulic fracturing chemical disclosure. (2011)

• New rule requiring the sound level of 55 decibels at all “Noise Sensitive Areas” in proximity to natural gas compressors. (2011)

• According to a third-party review of Arkansas hydraulic fracturing regulations by STRONGER found industry regulations are “well managed and professional” and “identified a number of program strengths that warrant special recognition.”
Mitigation Efforts

USACE Mitigation Credits

• Restored over 500 acres of aquatic and terrestrial habitat
• Rehabilitated more than 8 miles of streams
• Our mitigation efforts have been presented by the USACE as national examples
Southwestern Energy named 2012 Natural Gas Production Partner of the Year U.S. Environmental Protection Agency

more than 37.0 Bcf METHANE EMISSION REDUCTIONS from 2006 - 2012
Commitment to Responsible Development

• Key is balancing environment, community and economy
• Focused on delivering V+ to all that are impacted by our business
Offset 100% of fresh water used in Southwestern’s operations by 2016:

- **CONSERVE**
  and monitor water use

- **REDUCE**
  water demand

- **PROTECT**
  water resources

- **INNOVATE**
  watershed management