• Joined CONSOL Energy January 2008
• 27 years of industry experience
• B.S Petroleum and Natural Gas Engineering degree from the Pennsylvania State University
• M.B.A. from the Katz Graduate School of Business at the University of Pittsburgh
• Registered Professional Engineer (Texas)
• Hold a U.S. Patent
About CONSOL Energy

- Founded in 1860; production began in 1864
- 2012 revenue: $5.4 billion revenue
- 8,900 employees
- 4.0 tcf of gas reserves; 4.2 Billion tons of coal reserves
- Member – Fortune 500; S&P 500
- Forbes – “Top 100 Most Trustworthy Companies”
- Gas Division operates in PA, West Virginia, Virginia, Ohio, Tennessee and Illinois Basin
- CONSOL Energy 2012 Production Activity: 64 Marcellus wells, 8 Utica wells, 109 Conventional and CBM wells
- 2012 Production:
  - ~ 56 million tons - coal
  - ~ 156.3 bcf – natural gas
CONSOL Energy Core Values and Priorities

Core Values

• Safety
• Compliance
• Continuous Improvement

Priorities

• Production
• Cost

Values are not priorities – priorities change while values remain constant
CONSOL Energy Expectations

• We will work safely, at Absolute ZERO for safety incidents.
  – Annual pledges empowering every individual employee to stop work for any unsafe or noncompliant operation

• We will perform our work with Environmental Excellence, and with Absolute ZERO incidents.

CONSOL Energy’s Core Values govern every aspect of our operations.
Natural Gas Division

• Began as CBM producer with vertical wells
• Transitioned to horizontal CBM wells
• 2008: Began drilling Marcellus shale
• 2010: Acquired Dominion E&P for $3.5B
• 2011: Marcellus shale JV with Noble Energy; Utica shale JV with Hess Corporation
• 2012: Began jointly developing Utica shale with Hess
• Drilled ~200 horizontal shale wells
Ohio Utica Shale Activity

Over the past 18 months, the CONSOL-Hess Joint Venture has drilled and completed wells in the following counties:

- Jefferson
- Harrison
- Belmont
- Guernsey
- Tuscarawas
- Portage
- Mahoning
- Noble

Acquired and shared our data and knowledge of:

- Logs, cores, microseismic, seismic, gas analysis, pressure gradients, GOR’s, drilling characteristics, impact of seasoning

No other operator(s) have a better regional understanding of the Utica Shale than do CONSOL-Hess
Ohio Utica Shale Acreage

- District office in Leetonia, OH

- Critical masses of contiguous acreage blocks exist in the following counties:
  - Guernsey
  - Jefferson
  - Harrison
  - Belmont
  - Noble
  - Carroll
  - Monroe

- Counties where acreage is more scattered than desirable:
  - Trumbull
  - Mahoning
  - Portage
  - Tuscarawas
  - Stark
  - Muskingum
Ohio Utica Shale Activity

Q1 2013:
• 2 Utica Shale wells drilled
• Average drilled lateral length 6,111 feet
• Completions Operations began: 4 wells, consisting of 67 frac stages, were completed on three separate pads in the first quarter.
• CONSOL’s first Utica multi-well pad in Mahoning County, OH completed in March
• Production results just underway

Hess Joint Venture:
• 16 joint wells in 2013
• Currently drilling in Guernsey and Harrison counties

Q2-4 2013:
• Three well pads in Noble County to be drilled by one rig, total of 11 wells in 2013
## Operations Overview – Gas
A Leading Position in the Ohio Utica Shale

<table>
<thead>
<tr>
<th>County</th>
<th>Well</th>
<th>Lateral Length</th>
<th>Stages</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noble</td>
<td>NBL 1A</td>
<td>4,394</td>
<td>14</td>
<td>10 BCPD &amp; 9 MMcfd</td>
</tr>
<tr>
<td></td>
<td>NBL 16A</td>
<td>4,793</td>
<td>16</td>
<td>768 BCPD &amp; 12 MMcfd</td>
</tr>
<tr>
<td></td>
<td>NBL 11A</td>
<td>6,236</td>
<td>--</td>
<td>Expected Completion:</td>
</tr>
<tr>
<td></td>
<td>NBL 11B</td>
<td>5,986</td>
<td>--</td>
<td>Expected Completion:</td>
</tr>
<tr>
<td></td>
<td>NBL 11C</td>
<td>--</td>
<td>--</td>
<td>Expected Completion:</td>
</tr>
<tr>
<td>Portage</td>
<td>PORT 2A</td>
<td>4,690</td>
<td>16</td>
<td>Completed but waiting on results</td>
</tr>
<tr>
<td>Mahoning</td>
<td>MAH 2A</td>
<td>2,785</td>
<td>9</td>
<td>240 Bbls of oil/day &amp; 1.4 Mcfd gas</td>
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<tr>
<td></td>
<td>MAH 7A</td>
<td>5,411</td>
<td>18</td>
<td>Completed but waiting on results</td>
</tr>
<tr>
<td></td>
<td>MAH 7C</td>
<td>5,290</td>
<td>16</td>
<td>Completed but waiting on results</td>
</tr>
</tbody>
</table>

### Hess-Operated

<table>
<thead>
<tr>
<th>County</th>
<th>Well</th>
<th>Lateral Length</th>
<th>Stages</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harrison</td>
<td>1H-24</td>
<td>--</td>
<td>--</td>
<td>1,056 BCPD &amp; 13.9 MMcfd</td>
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<tr>
<td></td>
<td>1H-23</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>1H-6</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>
CONSOL Energy Approach

• We start with the human factor—extensive safety and environmental training is required of all field employees, and all contractors and visitors must receive hazard training for safety and environmental annually before working on a site.
CONSOL Energy Approach--Environmental

- Minimize footprint of operations
  - Fully lined, multi-well pad sites
  - Full SPCC containment required under all fluid-containing vessels, whether 3rd party owned or CONSOL-owned
  - Outside of the Utica, our operations utilize 100% recycle of flowback water utilizing double-lined, lead detection equipped centralized impoundments

Environmental protection measures begin well before any drilling begins
CONSOL Energy Approach--Environmental

- When drilling in sensitive areas, we conduct enhanced geotech studies to guide well placement and casing plans
  - Components of geotech include:
    - Slope stability
    - Hydrogeology
- Employ closed-loop drilling to capture drill cuttings in roll-off boxes
- Fully disclose frac chemicals and drilling mud components, utilizing CAS-based additives only

Environmental protection measures continue through drilling and completion
2012 Safety Performance

• CONSOL Energy saw the second year of being below 2.0 for a recorded Incident Rate in our Coal Division
  – 1.30 in 2012 vs 1.49 in 2011—a 12.8% improvement

• Our Gas Division surpassed six million man hours without a lost time incidence—staying At ZERO

• Spent $201M on safety in 2012

Putting Safety first translates into savings through avoided lost time incidents
2012 Environmental Performance

- Total number of active gas-related permits = 640
- Record improvement to date in the number of environmental violations received
  - 30% improvement in the Coal Division
  - 53% improvement in the Gas Division
- Began tracking spills in 2012, both reportable and non-reportable
  - Dramatic downward trend as the result of increased focus and training
- $267M on environmental spend during 2012

Improvement in environmental performance demonstrate that increased awareness and focus do yield results
Utica Production Windows

• 5 Different Production Windows
• Very different depths
• Very different thermal maturity
• Very different production requirements
• Very different fluids
• Hydraulic fracturing fluid recovery vs. long term production
Utica Production Windows

Bubble Point

The pressure and temperature conditions at which the first bubble of gas comes out of solution in oil. Source SLMB

Dew Point

The pressure at which the first liquid comes out of solution (condenses) in a gas reservoir.
Utica BTU Values

- What are the existing midstream options?
  - Wet lines
  - Dry lines
- Is blending an option?
- On site treatment or centralized treatment?
- Moving Condensate
  - Tanks
  - Trucks
  - Pipelines
  - Enardo Valves
  - Vapor Recovery (VRU)
  - Vapor Destruction (VDU)
Tusc-3A Stimulation

- 17 Stages
  - Slickwater + Linear Gel Fluid System
    - 10,825 bbls/stage average
  - Average 44 perfs/stage
    - .42” EHD shots
  - 5 Clusters/Stage
  - Average Sand/Stage:
    - 100M  60,262
    - 40/70  221,180
    - 30/50  67,655
  - Average Maximum Sand 2.0 ppg
Tusc-3A Production

- Sept 2012 = 101 bpd + 364 mcfpd
- Oct 2012  = 31 bpd + 471 mcfpd
- Nov 2012  = 21 bpd + 202 mcfpd
- Dec 2012  = 24 bpd + 235 mcfpd
- Jan 2013  = 20 bpd + 218 mcfpd
Challenges Before Us

• CONSOL Energy relies heavily on contractors as extension of our workforce.
  – Over 4500 contractors work on our sites every day

• Their performance effects our performance
  – In 2012, for our Gas Division over 58% of the NOVs received were due directly to actions by contractors

• How do we train, communicate and enforce expectations of our contractors?

Challenge is how to reach our contractors in a meaningful way to align Core Values
Utica Production: Emerging Realities

Harry Schurr
General Manager, Utica Operations