Devon’s Competitive Advantage

- **Premier** asset portfolio
- **Top-tier** operating results
- **Significant** financial strength
- **Culture** of innovating

**Multi-decade** growth platform

> 30,000 STACK & DELAWARE POTENTIAL LOCATIONS
Culture Provides Sustainable Advantage

- Culture embraces **creativity & innovation**
- Competitive edge begins with enterprise-wide data quality & real-time access
- Industry leader in data acquisition & integration
- Contributing to best-in-class performance
Our Evolution In Data & Analytics

2010
Network mobility at the well head, enhancing operator productivity.

2011
Enterprise-wide reporting implemented to improve accessibility & visibility of data.

2012
Advanced analytics applied to optimize production through Decision Support Centers (DSC).

2013
Advanced analytics applied to geosteering.

2014
24-hour real-time monitoring of D&C operations established with advent of Well Construction Center.

2015
Predictive analytics and artificial intelligence department officially formed.

2016
Initial artificial intelligence initiatives deployed in Well Construction Center.

2017
Advanced machine learning deployed in the Geosciences and Subsurface disciplines.

2018 & Beyond
Robotic process automation and machine learning projects to increase G&A efficiency, decrease cycle times and further optimize results across E&P value chain.
A Data-Driven Organization

- Proprietary systems efficiently capture billions of data points daily
- Remote-access tools provide real-time data streams
- Advanced analytics drives faster & better decisions
- Disciplined proof-of-concept process accelerates innovation
Staffing Transformation At Devon

- Technical specialists; not generalists
  - Specialized petro-professionals
  - Application development engineers
  - Technology “SWAT” teams
  - Data scientists
  - Black-belt process experts
  - Integrated planning personnel

- Established strategic partnerships with innovative 3rd parties

- Structured to *rapidly deploy* successes enterprise wide
Technology Projects In Flight

Subsurface
- Improved 3D seismic interpretation
- High-graded location selection
- Optimized landing zones
- Well productivity predictions
- Depletion analysis
- Geospatial optimization
- Cutting-edge frac modeling

Drilling & Completions
- Cyber-geosteering
- Flat, in-zone wells
- Fiber-optic sensing
- Prolonged drill-bit life
- Coiled-tubing drill-outs
- Efficient flowbacks

Production Operations
- Predictive pump failures
- Field-issue prioritization
- Faster response times
- Optimized compressors
- Production monitoring
- Flood optimization
- Inter-well communication (data analytics)
- Gas lift for EOR
- Asphaltene solutions
- SAGD increased recoveries

Water Management
- Water-treatment options
- Frac fluid chemistry
- Data acquisition and management systems
- Leak detection in piping systems
- Water transfer and storage safety

Corporate
- Accounting process automation
- World-class partnerships in digital innovation platforms
- Enterprise dashboards for information
- Accessible mobile applications across all aspects of the E&P value chain
Best-In-Class Operating Performance

Best-in-class well productivity
Avg. 90-Day Wellhead IPs BOED, 20:1

Cost Structure Improving
LOE, Production Taxes and G&A
34% IMPROVEMENT(1)

D&C Costs Declining
From peak rates in 2014
40% SAVINGS

Optimizing Base Production
Uplift
2% $100MM ANNUAL BENEFIT

DEVON WELL ACTIVITY
(Since 2012)
>450% IMPROVEMENT

Source: IHS/Devon. Top operators with more than 40 wells over the trailing 12 months.

(1) Compared to 2014.
Integrated Earth Models Improving Well Productivity

- Earth modeling basis for all design work

- Investing in cutting-edge technologies
  - 3D seismic inversion
  - Advanced petrophysical analytics
  - Fluid, core & rock lab work
  - Reservoir pressure sensors

- Driving improved reservoir management through optimizing:
  - Landing zones
  - Spacing
  - Completion designs
  - Dynamic linkage with stimulation modeling

**Massive Upside Opportunity**
- Further optimizing full-field development results
- Real time integration of continuous data points
- Automation to dramatically cut “analysis” cycle time
Innovation Improving Drilling Results

- Performance enhanced with real-time 24-hour monitoring
- Cyber-geosteering enhances efficiency
- Maximized time in zone
- Integrated “SWAT” teams leverage expertise
- Optimized wellbores driving IRR higher

**Bottom line results:**
- Cost per foot has declined 30% since 2014
- ~99% in-zone time with flat, quality wellbores
- Nearly eliminated expensive sidetracks
Industry-Leading Completion Designs

- Proprietary completion design = record results
  - STACK: Privott 17-H (24-hour rate, 6,000 BOED)
  - Delaware: Fighting Okra (30-day rate, 3,000 BOED)

- Optimized designs & improved planning compressing cycle times
  - More stages per day (~5% savings on stimulation costs)
  - Fewer flowback days ($60K per well)
  - Coil tubing drill-out enhancements ($100K per well)

**Bottom line results:**
- Top well productivity in U.S.
- 450% improvement since 2012
- D&C costs down as much as 40% since 2014
Technology Enhancing Base Production

- Implemented “Decision Support Centers” in 2012
  - 9 support centers across operations
  - Data acquisition is automated with machine learning identifying exceptions
  - Predicts and prioritizes issues
  - Minimizes field downtime; maximizes volumes

- Field staff more analytical & less tactical

- Predictive models maximizing artificial lift

- Algorithms optimize compressor results

**Bottom line results:**
- 2% uplift in base production
- >$100 million annual benefit
- Upside with artificial intelligence initiatives
Dynamic Market Intelligence Systems

- Benchmarking aptitude contributing to best-in-class results
- Proprietary software in place to analyze industry well performance
- Multiple data sources integrated into analytics tools for dissemination
- Learnings quickly integrated into engineering workflows
- Helps focus staff on expanding out-performance versus peers
Supply Chain Innovation Critical To Winning

- Integrated operational planning with supply-chain provides certainty of execution at below-market rates
- Innovative work underway (Unbundling, diversified vendors, longer-term contracts to secure capacity)
- Efforts have contributed to offsetting industry inflation & achieved 15% savings at Hobson Row project
- Supply chain work combined with systematic hedging provides cash flow to ensure operating momentum
Multi-Zone Manufacturing

- Development concept in STACK & Delaware
- The next frontier of efficiency gains
- Benefits of multi-zone manufacturing
  - LOE and capital efficiencies
  - Simultaneous operations
  - Increase recoveries
  - Optimize surface facilities
  - Short cycle times
- Efforts maximize commercial results
Technology Revolution In Early Stages

- Massive technology upside remains for Devon
  - Big data platforms will further advance
  - Predictive analytics in early stages
  - Artificial intelligence initiatives underway
  - Robotic process automation pilots in progress
  - Virtual workforces are a reality

- Pursuing a multibillion-dollar prize
  - Accelerated & better decision making
  - Faster rate of change across E&P value chain
  - Technical staff focused on skilled tasks
  - Potential for substantial G&A efficiencies
Thank you.

Please follow us to the **Q&A Breakout Session**
We are also hosting technology focused 1-on-1 meetings

- Tony Vaughn
  Chief Operating Officer
- Ben Williams
  Chief Information Officer
- Michael Siemer
  Vice President, E&P Data & Analytics
- Garrett Jackson
  Vice President, Drilling