

Shale Gas



NSA 

NETHERLAND, SEWELL & ASSOCIATES, INC.



NSAI 

One of the **most respected** names
in independent reserve reporting

NSAI 

Preferred by companies
who need **reliable results**

NSAI 

Quality at
a **competitive price**

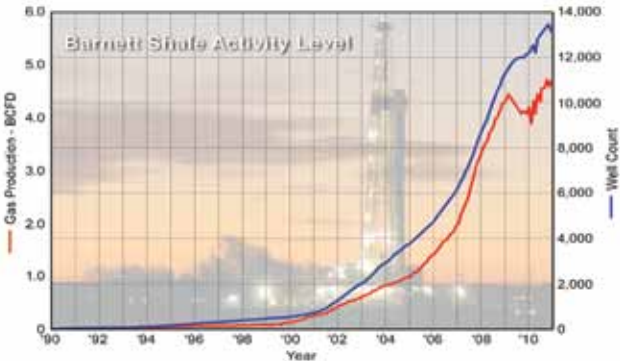
NSAI 

Expertise in
Shale Gas

Shale gas developments have experienced explosive growth in recent years and have become an increasingly important source of natural gas in the United States. Netherland, Sewell & Associates, Inc. (NSAI) has developed its expertise over the past decade by working with numerous clients, from the early exploration phase through the development phase, who are active in all major shale gas plays. We understand the technological and economic drivers behind this growth, the complexities unique to each play, and the uncertainties in estimating producible volumes. Our team can lend their judgment and expertise, based on thousands of hours of relevant experience, to any evaluation.

We have been involved in projects ranging from the early development of Antrim Shale to the more recent developments in the Barnett, Fayetteville, and Woodford to the exciting new opportunities such as Haynesville, Marcellus, Montney, Mancos, and Utica. Our insights are delivered on the lease, local, and regional levels. NSAI maintains a regional mapping system and a public production database system for several of the major shale plays, and has developed type curves grouped by area, operator, and completion type.

Our team will work with you to quantify your reserves and resources, optimize your development strategies, and identify your expansion opportunities. And, when it comes to financing or acquisition and divestiture activity, you can trust that an evaluation by NSAI will be highly respected by the industry and financial community.



Typical Scope of Work

Depending on the project needs, our scope of work may include:

- Performance assessments of historical production including primary completion and refract evaluations, drainage studies, pipeline volume studies, and estimation of recovery for offset producers
- Comprehensive geologic and petrophysical assessment of the shale including identification of competent frac barriers and additional conventional pay zones
- Geologic support for prospect development and mineral acquisition
- Interpretation of seismic data to identify presence of karsting and faulting
- Recommendations for acquiring core data and laboratory testing procedures as well as interpretation of free gas, total organic carbon (TOC), and isotherm data
- Independent reserves and resources assessments, including economics
- Vertical and horizontal well drilling and completion design including stimulation and flowback procedures
- Design of development programs intended to maximize reserves base and asset value

Selected Productive Shale Gas Clients

Our clients range from small independent operators to major national oil companies, as shown in a partial list below:

- Chesapeake Energy Corporation
- Crosstex Energy Services, LP
- Goodrich Petroleum Corporation
- Hallwood Petroleum, LLC
- Infinity Energy Resources, Inc.
- Petrohawk Energy Corporation
- PetroQuest Energy, LLC
- Plains Exploration & Production Company
- Questar Energy Company
- Shell Oil Company
- Southwestern Energy Production Company
- The Williams Companies, Inc.
- Total E&P USA, Inc.
- Vantage Energy, LLC
- Western Gas Resources

U.S. Shale Plays



Shale Gas Experts

Randy Green – Reservoir Engineer – Dallas

Adam Howard – Reservoir Engineer – Dallas

Bill Knights – Geoscientist – Dallas

Patrick Lissonnet – Reservoir Engineer – Dallas

Emery Petrof – Reservoir Engineer – Dallas

Connor Riseden – Reservoir Engineer – Houston

Rick Talley – Reservoir Engineer – Houston

Selected Shale Gas Experience by Area

Antrim Shale – Michigan Basin, Michigan

Barnett Shale – Fort Worth Basin, Texas

Chattanooga Shale – Appalachians

Eagle Ford Shale – South Texas

Fayetteville Shale – Arkoma Basin, Arkansas

Haynesville Shale – East Texas and NW Louisiana

Marcellus Shale – Appalachians

New Albany Shale – Illinois Basin, Indiana

Ohio Shale – Appalachians

Pierre Shale – Raton Basin, Rockies

Sunbury Shale – Appalachians

Woodford and Caney Shales – Oklahoma

Because of our commitment to independent evaluations, the NSAI name is highly respected by both the energy and financial communities. By applying sound judgment and methodology, our shale gas team is able to assess the project requirements, interpret the data, and provide top quality results.

Our clients get the NSAI name and our team of experts. We think they get the very best.



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