From First Idea to 10TCF in 10 Months: Discovery of Eagle Ford Shale in Hawkville Field*

Gregg Robertson¹

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¹Independent Oil & Energy Professional, Corpus Christi, Texas (firstrockinc@msn.com)
From First Idea to 10 TCF in 10 Months:

*Discovery of Eagle Ford Shale in Hawkville Field*
Eagle Ford Shale Trend
**First Rock STS 1 & Dora Martin 1:**

Summary of Rock Properties & Comparison To Other Shale Plays

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**BASIC ROCK PROPERTIES**

(GRI Method)

- **Gas-Filled Porosity, percent**
  - **Matrix Permeability, md**
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  - **Matrix Permeability, md**

**BASIC ROCK PROPERTIES**

(GRI Saturation)

- **Water Saturation, percent**
  - **Matrix Permeability, md**
  - **Water Saturation, percent**
  - **Matrix Permeability, md**
  - **Water Saturation, percent**
  - **Matrix Permeability, md**

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**Equations:**

- $y = 4E-09x^{3.7717}$
  - $R^2 = 0.7378$
- $y = 1E-13x^{3.8946}$
  - $R^2 = 0.5608$
- $y = 0.0001e^{-0.147x}$
  - $R^2 = 0.5416$
- $y = 1E-13x^{2.5944}$
  - $R^2 = 0.5608$
POINT NUMBER ONE: A good plan to make a significant discovery is to study a specific trend in infinite detail, never taking a shortcut on good science, knowing the players and competitors who are also hunting for the prize – becoming an EXPERT.

POINT NUMBER ONE “A”: While becoming an expert, never stop and think you’ve learned it all.
POINT NUMBER TWO: Don’t ever underestimate the value of good will established by strong working relationships with good people in the business.

POINT NUMBER TWO “A”: Building good will doesn’t guarantee making a major discovery, but it sure makes the journey more rewarding.
“The Dead Sea Scrolls”

Eagle Ford Isopach, 1974

Structure Base Austin Chalk, 1974
Nutech “NuSource”
Analysis of Key Well

Top Eagleford Shale

Base Eagleford Shale
Incredibly important seismic attribute used to map the Eagle Ford Shale:
POINT NUMBER THREE: Good science, thorough diligence, Points 1 through 2a, lead to prospect generation that you can really believe in.

POINT NUMBER THREE “A”: No, REALLY believe in, because it’s hard to be bold and aggressive if you still have doubts.
Petrohawk Energy expands in Fayetteville Shale

Published Nov 28, 2007

Petrohawk Energy Corporation has signed a definitive agreement to purchase strategic assets in the Fayetteville Shale for $343 million in cash from Alto Resources, LLC, ConocoPhillips Oil & Gas Company, and other parties.

The sale is expected to close in the first quarter of 2008 and is subject to customary closing conditions.

Petrohawk plans to use the assets to increase production in the Fayetteville Shale, which is one of the most prolific natural gas plays in the United States.

The acquisition will add approximately 25 producing wells and 35 undeveloped acreage positions to Petrohawk's portfolio in Arkansas.

The company expects to spend about $50 million to fund the acquisition, with the remaining cash to be used for working capital and general corporate purposes.

Petrohawk Energy Corporation is an independent oil and gas company headquartered in Oklahoma City, Oklahoma.

The Haynesville Times
November 12, 2008

Petrohawk Posts FIVE Haynesville IPs Over 15 Mmcfe/d!

Company Increases Risked Haynesville Shale Potential to 11.9 Tcf

Petrohawk has placed five wells on production in the Haynesville Shale and is now producing over 55 Mmcfe/d in gross production from these wells. All five wells have been plugged into sales at rates between 15 and 30 Mmcfe/d.

The Company also revised its resource potential calculation in the Haynesville Shale based on the increased well EOR assumption of 65%. The new resource potential estimate for the Haynesville Shale is approximately 11.9 Tcf.

Petrohawk's resource potential estimate for the Haynesville Shale is based on a 10-mile wide by 5-mile deep area in the eastern portion of the Haynesville Shale.

The acquisition will add approximately 25 producing wells and 35 undeveloped acreage positions to Petrohawk's portfolio in Arkansas.

The company expects to spend about $50 million to fund the acquisition, with the remaining cash to be used for working capital and general corporate purposes.

Petrohawk Energy Corporation is an independent oil and gas company headquartered in Oklahoma City, Oklahoma.
First Three Evaluation Wells With Current HK Producing Wells In Hawkville Field
POINT NUMBER FOUR: The old adages “there are no tite holes” and “there are no true stealth plays” can be proven wrong with a little creativity and luck.

POINT NUMBER FOUR “A”: For Point 4 to work…you really have to keep your mouth shut!
Discovery Well Hawkville Field
STS #1H, LaSalle County, Texas