Entry and Exit Strategies in International Shale Opportunities*

Patrick Burdett\textsuperscript{1} and Bill Haskett\textsuperscript{1}

Search and Discovery Article #70132 (2012)**
Posted December 10, 2012

\*Adapted from oral presentation at AAPG International Conference and Exhibition, Singapore, 16-19 September, 2012
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\textsuperscript{1}Decision Strategies, Inc., Houston, Texas (pburdett@decisionstrategies.com)

General Comments

In emerging unconventional plays, liquids most commonly precede or “spark” the development of infrastructure. There are often three periods of intense activity.

1. Land acquisition frenzy
2. Successful proof of productivity
3. Access shortage

Strategies may be categorized as:
- Go big
- Go small
- Sample and test
- Wait for others

In all strategies, there is a need to attract and retain good people.
Entry and Exit Strategies in International Shale Opportunities

Patrick Burdett, Engagement Leader
Bill Haskett, Senior Principal
Decision Strategies, Inc.
www.decisionstrategies.com
+1.713.465.1110

CONFIDENCE THROUGH CLARITY
Simplified Objectives Hierarchy Example

Maximize Early Value

Establish Production Potential
- Reliably Evaluate
- Sample fairly

Minimize Spend
- Enable Efficiency
- Mitigate Downside

Means Objectives
- Understand Liquids
- Good Geog. Dist.
- Multiple Sections
- Drill Sufficient Wells
- Multi-use Pads
- Staged Pilot
Life Cycle For Shale Gas

- Liquids “spark” the development of infrastructure
- Three periods of high activity
Life Cycle For Shale Gas

- Liquids “spark” the development of infrastructure
- Three periods of high activity

![Diagram showing the life cycle of shale gas development](chart.png)
Life Cycle For Shale Gas

- Liquids “spark” the development of infrastructure
- Three periods of high activity

Diagram:
- Early exploration Frenzy
- High risk limits peripheral land buys
- Successful Liquids Frenzy
- Access Shortage Frenzy
- Commercial Liquids Threshold
- Commercial Gas Threshold
- Time
- Cost
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- Early exploration Frenzy
- Successful Liquids Frenzy
- 1st Frenzy
- Access Shortage Frenzy
- 2nd Frenzy
- Access shortage 3rd Frenzy
- Proof of productivity
- Rapid decline in cost due to efficiency, play targeting, and increasing infrastructure
- Production transitions to gas dominance
- High demand causes supply flood
- High risk limits peripheral land buys
- Potential is recognized

Cost

Time
Life Cycle For Shale Gas

- Liquids “spark” the development of infrastructure
- Three periods of high activity

Cost

Liquids “Spark”

Early exploration Frenzy

Access Shortage Frenzy

Successful Liquids Frenzy

High demand causes supply flood

Commercial Liquids Threshold

Commercial Gas Threshold

Increase in demand due to Factory phase development in several basins

Time

First Frenzy

High risk limits peripheral land buys

Potential is recognized

Second Frenzy

Proof of productivity -

Third Frenzy

Access Shortage

Gas Evolution
Life Cycle For Shale Gas

- Liquids “spark” the development of infrastructure
- Three periods of high activity

![Diagram showing the life cycle of shale gas]

- Early exploration frenzy
- Proof of productivity: 2nd frenzy
- Access shortage: 3rd frenzy

- Rapid decline in cost due to efficiency, play targeting, and increasing infrastructure
- Production transitions to gas dominance
- High demand causes supply flood

- Commercial Liquids Threshold
- Commercial Gas Threshold
Play Entry – The “Three Frenzies” Model

Emerging Unconventional Plays often have three periods of intense activity.

Buying off-peak can reduce cost and increase the potential of obtaining material acreage.
Play Entry – The “Three Frenzies” Model

Canning
Recognition of the Potential

Duvernay

Proof of Concept

“Land Cliff”

Montney

FRENZY 1

FRENZY 2

FRENZY 3

Access Shortage

Over-spending common

Eagle Ford
Land Cost – Supply / Demand is Real

- High early purchase risks stranding capital or direct loss from pilot failure
- Competition reduces land availability for late acquisition
- Increased competition elevates cost

Cost

Availability

Initial entry into a calm area
Activity noticed
Pilot production period
Pilot “Good”
Theoretical Economic Limit
Land Cliff

Time
4 Simple Rules For Unconventional

- Seek Material Interest in Material Plays
- Create and Maintain Competitive Advantage
- Have an Exit Plan

*Nothing can make up for bad rock!*
Strategy 1: Go Big

• Buy as much as possible now when land is cheap.

• **Strengths:**
  Cheap land, control the game including infrastructure and pace of development, large upside potential, ability to divest low-grade areas.

• **Weaknesses:**
  Large amount of risked capital exposure if play fails.

• The burden of learning is on the major landholder. Are they capable of learning on their own?
Strategy 2: Go Small

- Attempt to sweet spot the play.*
- **Strengths:**
  - Limits sunk cost, similar upside to Strategy 1 but with less capital exposure, if competition absent
- **Weaknesses:**
  - Loss of control, low probability of success due to very poor ability to define sweet spots. A focused purchase in the wrong area would gain you little play-wide information
- *This situation is often forced upon industry through government controlled lease auctions.*

*Typically not possible
Strategy 3: Sample and Test

• Grid-based approach; buy enough for effective appraisal and pilot program, leave the option to buy more

• **Strengths:**
Limits sunk cost, gains information regarding possible sweet spots limiting later land purchases

• **Weaknesses:**
Loss of control, competition could block you out (you may teach the competition), Land Cliff increases costs

• Attractiveness varies based upon the ability to keep test information proprietary and competition
Strategy 4: Wait For Others

- Buy nothing and wait for more public information to become available.
- Strengths – no sunk costs, ability to opt out entirely based on future information
- Weaknesses – total loss of control, skyrocketing land costs could greatly increase costs to play, third party acquisitions could block you out entirely, the quality of information gained could be poor
Growth vs Efficiency Matrix

**Strengths**

- Buy Early
- Uncertainty Tolerant
- Frenzy Driver
- First or Second in.

- Unlock value through efficiency
- Typically proficient
- Well Moneyed
- Bargaining advantage

**Weaknesses**

- Risk takers sometimes get bitten
- May be trend followers
- Don’t like being shut out of Plays

- Often larger silo companies.
- They do not usually overpay
- Buy to increase area efficiency
Manage Your Strategy

Competitive Advantage

People and Skills
Financial Capability

Strategy

Factory Efficiency
Image and Communication

Control Your Own Destiny