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Genuine Foreign Parts: The Made-In Canada Large JV Solution?

Jay Todesco – Nexen Energy ULC
Tony Cioni – Torys LLP

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Part 1

Background on Unconventional Resource Development

Top 10 Countries with Technically Recoverable Shale Oil/Gas Resources, According to EIA (6/2013)

Shale Oil

Billion Barrels

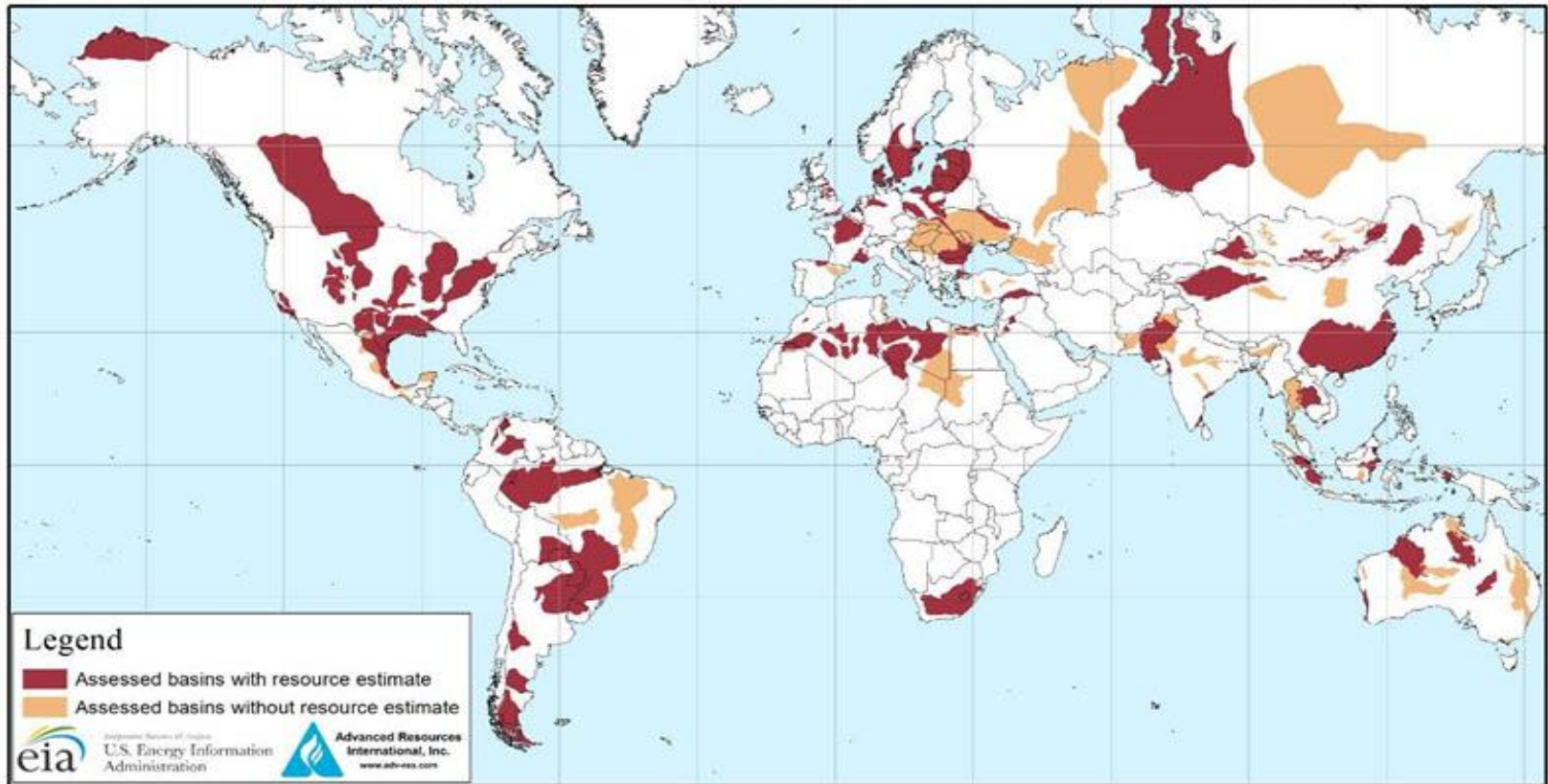
Russia	75
U.S.	58
China	32
Argentina	27
Libya	26
Australia	18
Venezuela	13
Mexico	13
Pakistan	9
Canada	9

Shale Gas

Trillion Cubic Feet

China	1,115
Argentina	802
Algeria	707
U.S.	665
Canada	573
Mexico	545
Australia	437
South Africa	390
Russia	285
Brazil	245

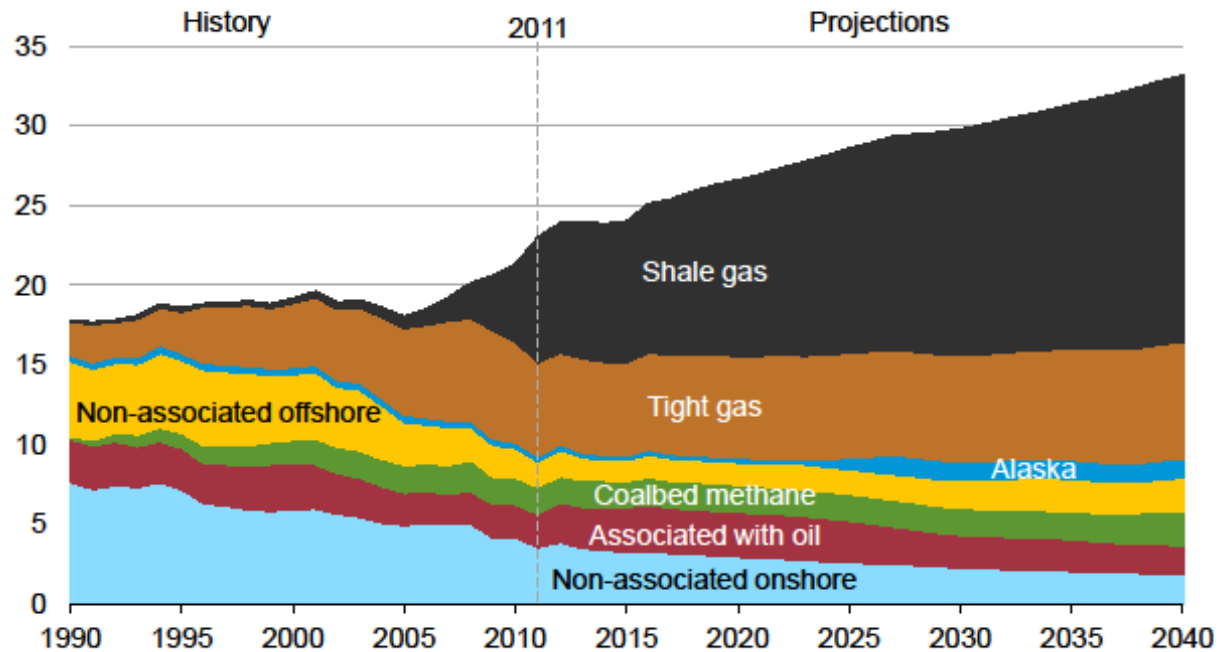
Unconventional Resource Opportunity is a Global Business



Source: United States basins from U.S. Energy Information Administration and United States Geological Survey; other basins from ARI based on data from various published studies.

Shale gas leads growth in total gas production through 2040 to reach half of U.S. output

U.S. dry natural gas production
trillion cubic feet



Source: EIA. Annual Energy Outlook 2013

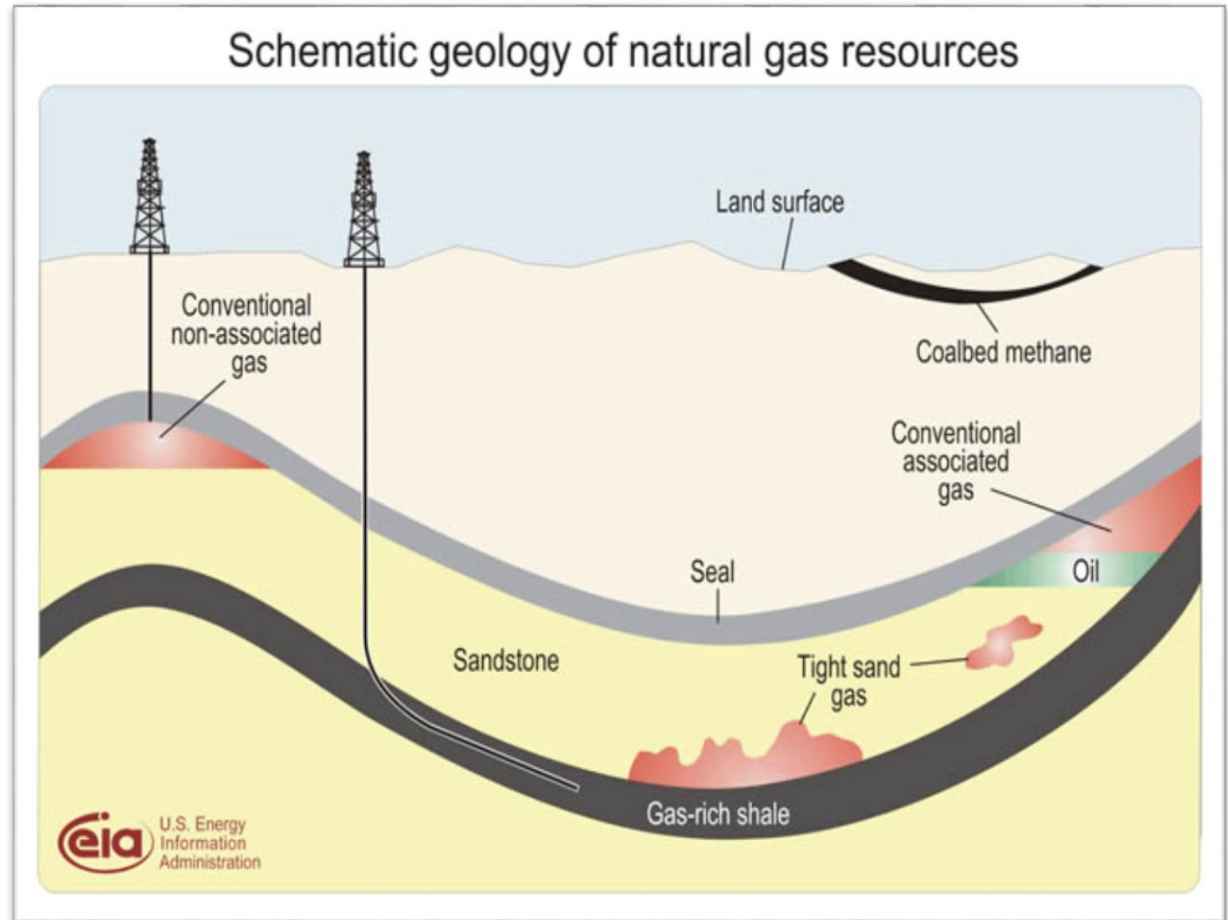
Part 2

Commercial Differences between Unconventional and Conventional

Conventional vs Unconventional

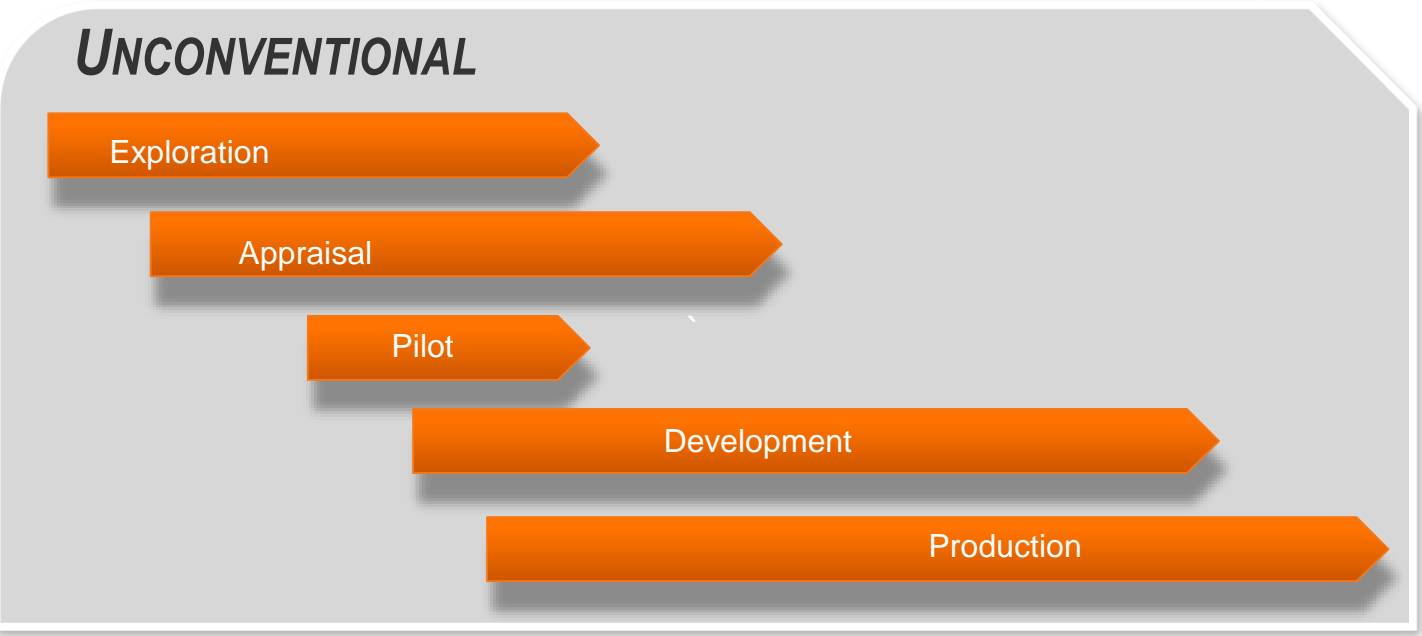
In Unconventional operations:

- No reservoir or accumulation to delineate;
- Don't make a "Discovery" as such
- Identify a geological horizon with hydrocarbon rich shales – "Unconventional Resource"



Project Profile

- Conventional generally has well defined stages.
- Unconventional less likely to be undertaken in series – different stages can be ongoing & overlapping at any one time



Part 3

Philosophical Differences between Small/Conventional and Large/Unconventional Scale JVs

Governance Matters

Operating Committee:

- CAPL operates through a consulting obligation and Independent Operations Notices. Large JVs require a more formal structured vehicle for decision making – an Operating Committee
- Controls all Joint Operations
- Approves work programs and budgets
- Creates advisory subcommittees (technical, finance and marketing)

Work Programs and Budgets

- Address yearly and multi-year work obligations with significant expenditure commitments
- AFE's for information only unless materially different from WP&B (required for \$1MM Joint Account Expenditures)
- Contracts – Op Com approves “Contracting Plan”
- Multi-Year Work Programs
- Project AFE level commitments

Independent Operations

- G&G seismic “Test Wells” and Drilling Pads only
- Cash Penalty for seismic and test wells and full forfeiture for non-participation in drilling pad
- Ring-fence by Drilling Pad
- Lower back-in penalty in early phases
- No back-in at all after the pre-development phase

Abandonment Plan

How do you address abandonment and reclamation?

- Within a given time an Abandonment Plan is required to be adopted
- Creation of an Abandonment Fund
- IFRS Asset Retirement Obligation

Production Facilities

- Many JOAs do not address most issues dealing with major facilities such as:
 - capacity allocation (for both JV and sole risk participants); and
 - expansion operations
- Major facilities sometimes governed under a separate CO&O (\$150,000,000) – application for PJVA form agreement?

Secondment

Merger of Operating Capabilities:

- A commercial focal point of the investment for many SOEs
- Maximum number of secondees specified
- Costs included in Budget
- Procedures required to address security, access to data, etc.

Remedies for Monetary Default

- International standard: Full forfeiture
- Common law/project finance dislike for full forfeiture
- CAPL earn-back right (CAPEX + 400%)
- Dilution (at full or discount value)
- Buy-Out (at full or discount value)
- Consider behavioural incentives driven by choice of remedies

Transfer and Pre-Emptive Rights

- CAPEX requirement of large scale JVs and freer need to make incremental dispositions?
- Credit importance of 'knowing your partner'
- Limited utility of Rights of First Offer
- Rights of First Refusal: Devaluation? Money where your mouth is?
- Mere consent right: Money where your mouth is?