



Canada-Korea Forum 9  
October 3<sup>rd</sup> & 4<sup>th</sup>, 2011



## Forward Looking Information

*Certain information set forth in this document, including management's assessment of Harvest's future plans and operations, contains forward-looking statements. By their nature, forward-looking statements are subject to numerous risks and uncertainties, some of which are beyond Harvest's control, including the impact of general economic conditions, industry conditions, volatility of commodity prices, currency fluctuations, imprecision of reserve estimates, environmental risks, competition from other industry participants, the lack of availability of qualified personnel or management, stock market volatility and ability to access sufficient capital from internal and external sources. The refining business adds the following risks and uncertainties, including but not limited to: the volatility between the prices for crude oil purchased and products sold (the "crack spread"), refinery operating risks such as spills and discharges of petroleum or hazardous substances, the stability of the refinery throughput performance, competition from other refiners and petroleum product marketers, crude oil supply interruptions, loss of key personnel, and labour disruptions.*

*Readers are cautioned that the assumptions used in the preparation of such information, although considered reasonable at the time of preparation, may prove to be imprecise and, as such, undue reliance should not be placed on forward-looking statements. Harvest's actual results, performance or achievement could differ materially from those expressed in, or implied by, these forward-looking statements and, accordingly, no assurance can be given that any of events anticipated by the forward-looking statements will transpire or occur, or if any of them do so, what benefits that Harvest will derive therefrom. Harvest disclaims any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.*

*All figures quoted herein are Canadian dollars, unless otherwise stated*

KNOC owns 100% of Harvest equity

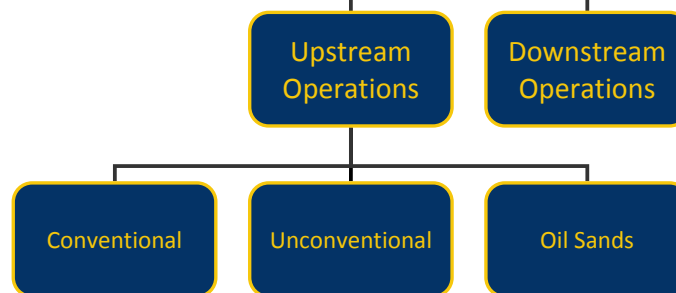


2010 Production: 180,000 boe/d  
2010 2P Reserves: 1.13 billion boe

Harvest continues to have publicly traded debt and debt capital market facilities and relationships.



2010 Production: 49,397 boe/d  
2010 2P Reserves: 514\* mmboe  
(\*includes acquisitions)



- Established in 1979 & wholly owned by the Government of Korea
- A substantial and growing business designed to mitigate the impact of oil prices on the Korean economy through:
  - Oil stockpiling (currently 146 mmboes)
  - Worldwide exploration and production of oil & gas
- KNOC strategic goals include:
  - Production capacity of 300,000 boe/d and reserves of 2Bn bbls by 2012
  - Substantial increases post 2012
- KNOC has a global portfolio comprising of 44 fields in production, 11 under development and 136 under exploration (2010)
- Harvest represents 41% of KNOC's proved reserves

**Worldwide E&P Projects of KNOC**



- Formed in July 2002
  - YE 2002 production volume of 4,307 boe/d
  - 2P reserves of 12,919 mboe
- Experienced significant growth & value appreciation
  - 1H'11 production volume of 54,340 boe/d
  - 2010 2P reserves of 461,393 mboe
- Became an integrated energy company with the acquisition of North Atlantic Refining in 2006
- Growth Oriented and Value Driven
  - Opportunistic Growth
  - Efficient and Effective Asset Management
  - Technical Focus to Achieve Growth

*Upstream*



Upstream

- 2011E 60,000+ boe/d (~70% liquids)
- Reserves: *includes acquisitions*
  - ~514 mmoes P+P (~85% liquids)
  - ~271 mmoes Proved (~80% liquids)
- Concentrated assets with development and EOR potential
- Significant undeveloped land (~900K acres)
- Active in unconventional opportunity with latest technologic expertise
- Strong operational and technical teams focused on high capital effectiveness and efficient operations

*Downstream*



Downstream

- Medium gravity sour-crude hydrocracking refinery in Newfoundland with 115,000 bbl/d capacity and retail/wholesale marketing operation
- Diversified, high quality product slate
- Opportunity to expand and enhance through high return debottlenecking projects

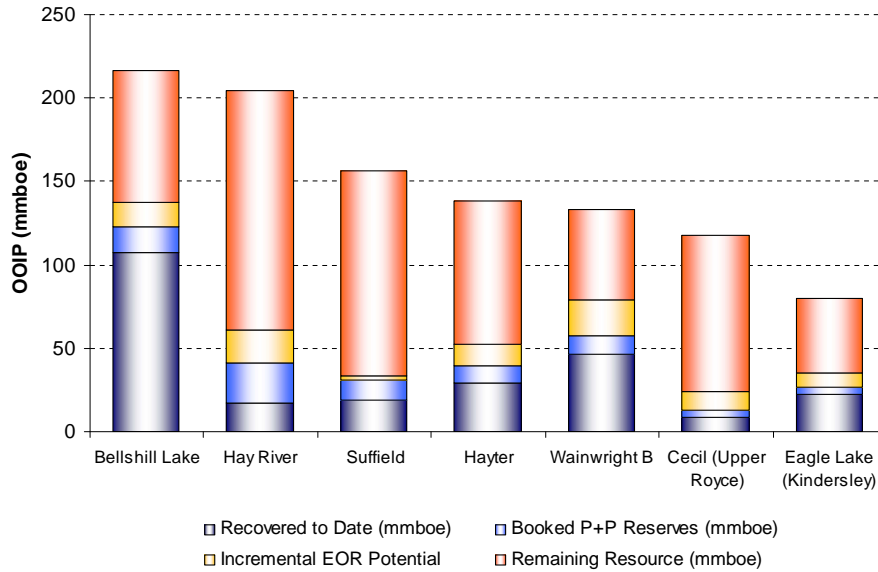
- Ongoing development and exploration of undeveloped and under-exploited asset base
  - Large inventory of identified opportunities
  - Very high success ratio based on extensive geotechnical database & expertise
- Application of enhanced recovery technology
  - Large remaining oil in place on producing assets
  - Opportunity to substantially increase recovery through EOR
- Unconventional resource opportunity
  - Commodity prices and evolving technology open up potential to pursue development of unexploited resource opportunity
  - Harvest land base well-positioned in key plays

- Harvest's drilling inventory is currently 1,900 gross locations
  - Drainage architecture improvements provide new opportunities
  - Can sustain 6-7 years of current capital program (approximately \$400 million/year)
  - Allows for 3-4 years of accelerated capital program
  - Increasing application of New Technology (Staged fracture horizontals) in light oil and gas applications
    - F&D costs for these opportunities are higher given higher completion costs
    - Attractive economics due to high initial productivity



- Hay River Enhanced Waterflood
  - Injection of water and natural gas to reduce decline rate
- Bellshill Lake
  - Enhanced water injection to supplement basal aquifer pressure, support and maintain gas saturation
- Wainwright
  - Polymer flood pilot to increase sweep efficiency of existing waterflood
- Suffield
  - Enhanced water injection
  - Caen polymer flood pilot
- Other
  - Medium/heavy oil water flood and EOR (polymer, microbial, etc)
  - CO2 flood potential on ~1Bbbls

## Significant Resource Pools (Working Interest Share)



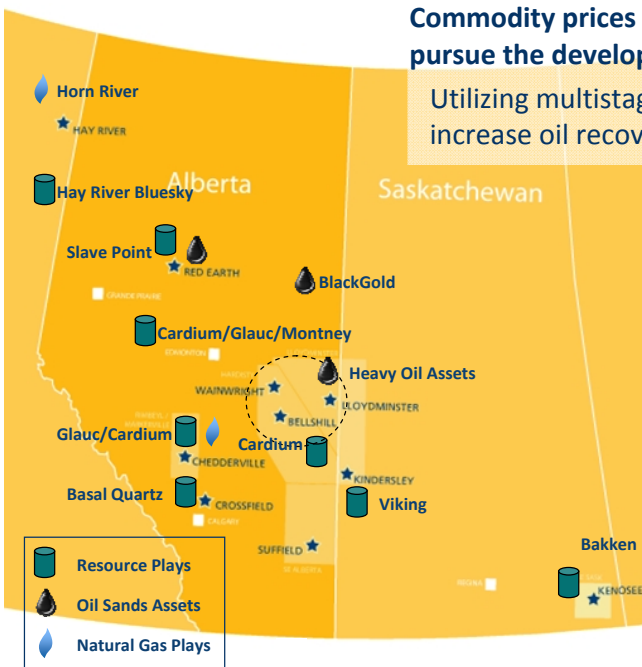
Commodity prices & evolving technology allow opportunity to pursue the development of unexploited resources

Utilizing multistage fracture technology in horizontal wells to increase oil recovery from tight oil and gas formations at:

- Red Earth Slave Point formation (Light Oil)
- Crossfield Basal Quartz formation (Nat. gas and liquids)
- Kindersley Viking formation (Light Oil)
- Cardium formation (Light Oil)
- Ante Creek Montney formation (Medium Oil)
- Horn River (Nat. gas)

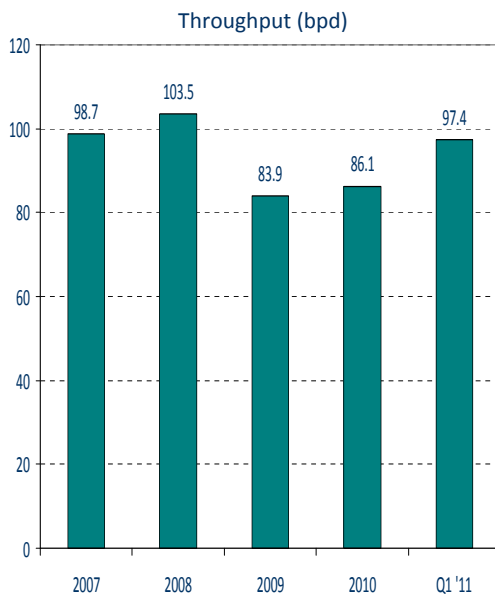
Unconventional assets include ~100,000 acres of undeveloped oil sands rights including: BlackGold

Our asset base offers Enhanced Oil Recovery potential & ongoing development in our conventional plays



- Resource Plays
- Oil Sands Assets
- Natural Gas Plays

- 115,000 bbl/d medium sour hydrocracking refinery and related businesses (complexity ratios: Nelson 8.6, Solomon 9.4 before projects)
- Product slate weighted to high-value 'clean fuels' (40% distillates, 36% gasoline and 24% heavy fuel oil)
- Location advantages for feedstock sourcing and product sales
- Allows Very Large Crude Carriers to tie in directly to the refinery dock, decreasing expenses
- ~7 million barrels of tankage storage capacity
- Low annual maintenance capex
- Marketing division with 58 retail gasoline locations, a retail heating fuels business and a commercial and wholesale petroleum products business
- Significant future opportunities for value enhancing projects
- Provides natural hedge for growing heavy oil/oil sands production



- Projects are planned to expand and enhance downstream operations
- Benefits will include:
  - Throughput capacity increased from 115 to 120 mbl/d
  - Enhance distillate yields by 9%
  - Energy efficiency improved by approximately 17%
  - Reduced high sulfur fuel oil output

### Korea

- Worldwide:
  - 10<sup>th</sup> largest oil consuming nation; 5<sup>th</sup> largest oil importer
  - 6<sup>th</sup> largest refining capacity
  - 2<sup>nd</sup> largest importer of LNG
- Wholly reliant on crude oil imports
- No significant crude oil reserves
- Home to large crude oil refineries
- Need/desire to diversify energy supply sources

### Canada

- Worldwide:
  - 6<sup>th</sup> largest oil producer; 3<sup>rd</sup> largest oil exporter; 3<sup>rd</sup> largest oil reserves
  - 3<sup>rd</sup> largest gas exporter; 3<sup>rd</sup> largest natural gas producer
- Only non-OPEC member among top 5 reserve holders
- Surplus in all energy commodities
- Largest crude oil and natural gas exporter to the U.S.
- Limited refining capacity
- Need/desire to diversify energy markets

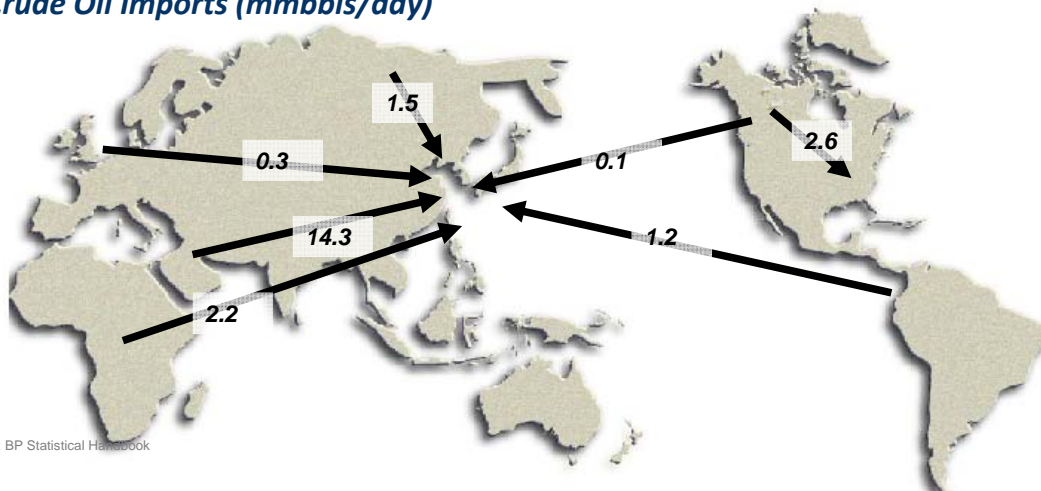
**Korea**

- Asia is highly reliant on Middle East for crude oil supply
- Countries most reliant on imports (Korea and Japan) source ~90% in Middle East
- Reliance on Middle East has led to an "Asian Premium" when buying oil
- Route from Middle East to Asia is challenging, expensive and risky (pirates, traffic...) – China building pipeline routes to bypass SE Asia

**Canada**

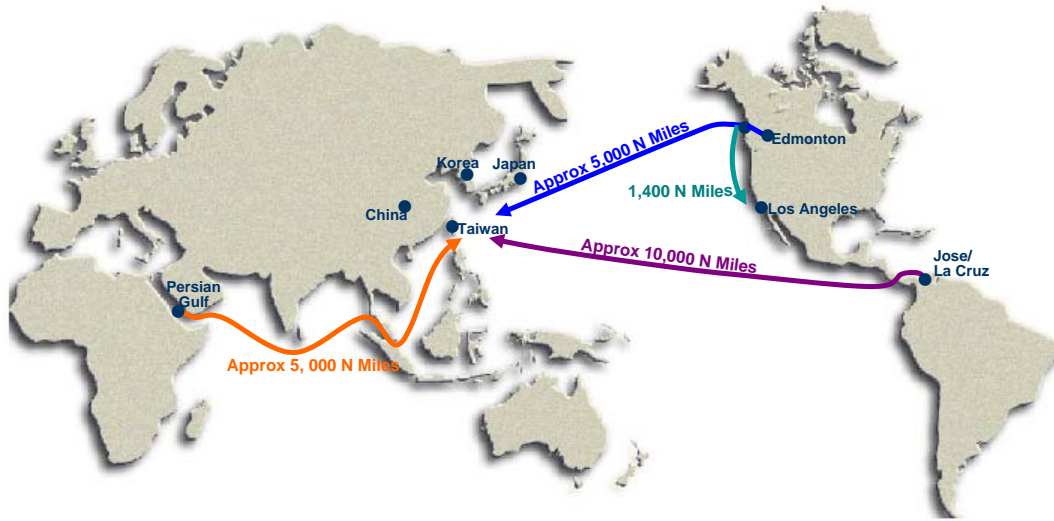
- ~100% of crude oil and natural gas exports to USA (single customer)
- Inability to access global hydrocarbon currently reduces direct revenue by ~\$50Bn/yr (royalties, taxes, reinvestment...)

**Crude Oil Imports (mmbbls/day)**



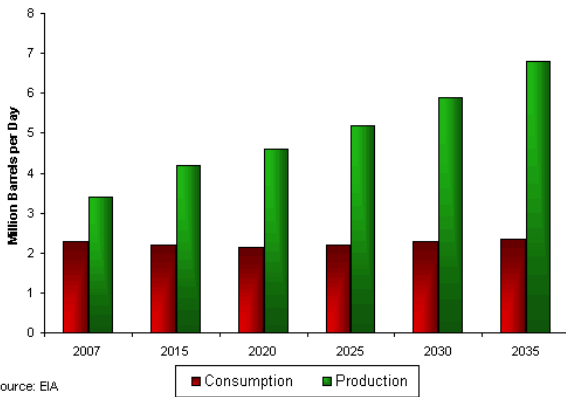
Source: BP Statistical Handbook

Underutilized opportunity to diversify markets/sources

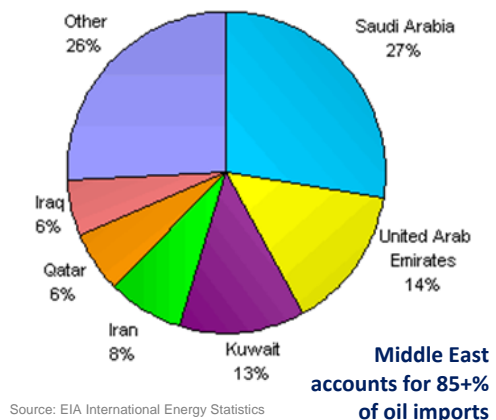


Western Canadian oil & natural gas growth can supply growing, undersupplied Asian demand

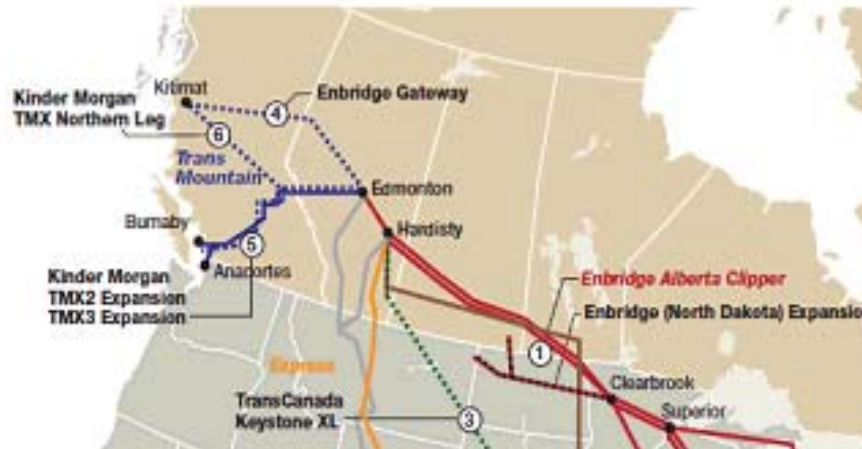
Canada's Oil Balance Forecast, 2007-2035



South Korea Oil Imports by Source, 2009



Canadian & Korean energy needs are complementary and working together will provide greater opportunities for both countries



Logistical opportunities to access Asian markets need a “push”

- The Canadian oil and gas industry has a unique combination of characteristics that make it very attractive for KNOC’s growth strategy
  - A large asset base with significant growth opportunity
  - Significant hydrocarbon exporter
  - Comfortable with foreign investment
  - Regulated & safe work environment; creates low political & fiscal risk
  - Large pool of experienced & technically advanced personnel
  - Low ownership concentration and active M&A market facilitates assembling significant asset base
  - Proximity to growing undersupplied demand markets in Korea & Asia
- KNOC’s investment in Canada has already proven to be very successful

- There are great synergistic opportunities between Korea and Canada
- Canada is an attractive place to invest in the oil & gas industry
- There is a need to continue to identify and deal with challenges as appropriate



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