



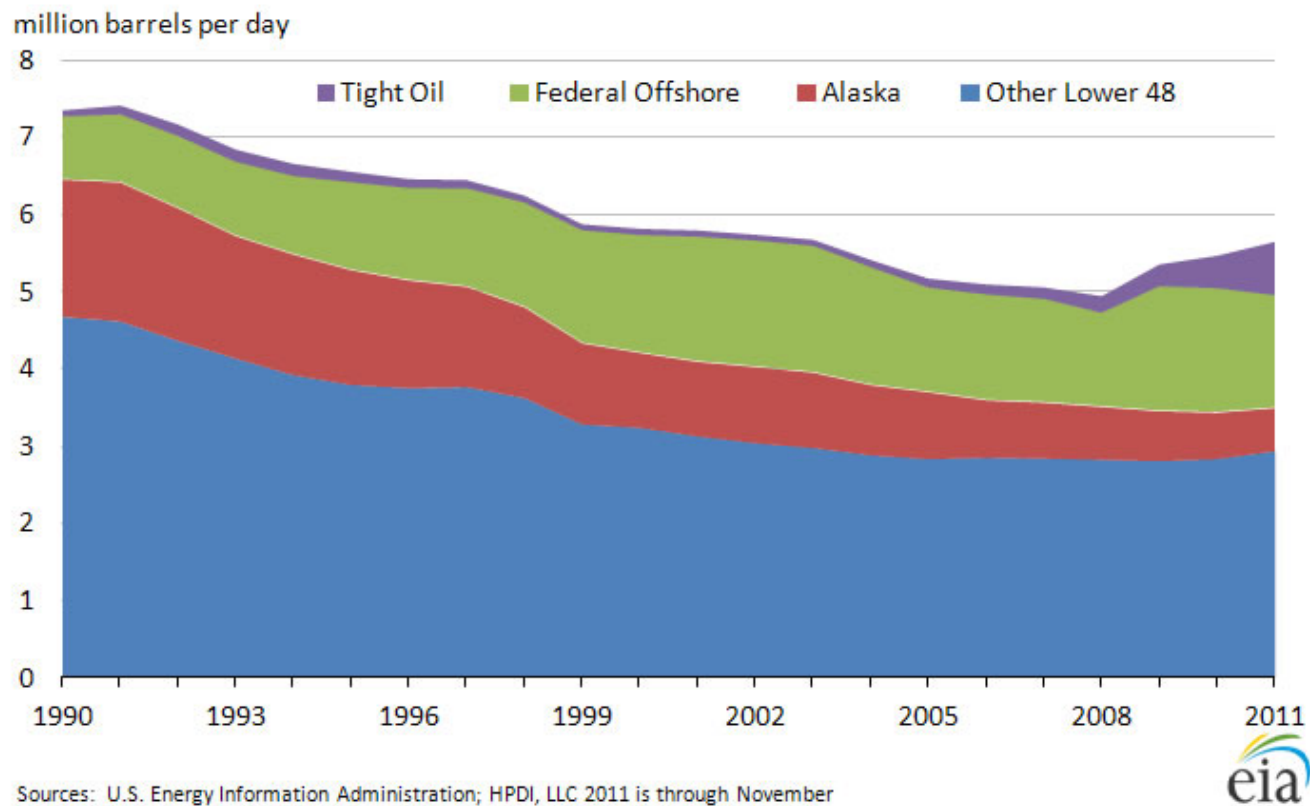
LOGISTICS CONSIDERATIONS IN A CHANGING CRUDE MARKET

CRUDE OIL QUALITY ASSOCIATION MEETING, NEW ORLEANS, LA
PRESENTED BY TIMOTHY P. BERRIGAN

November 8, 2012

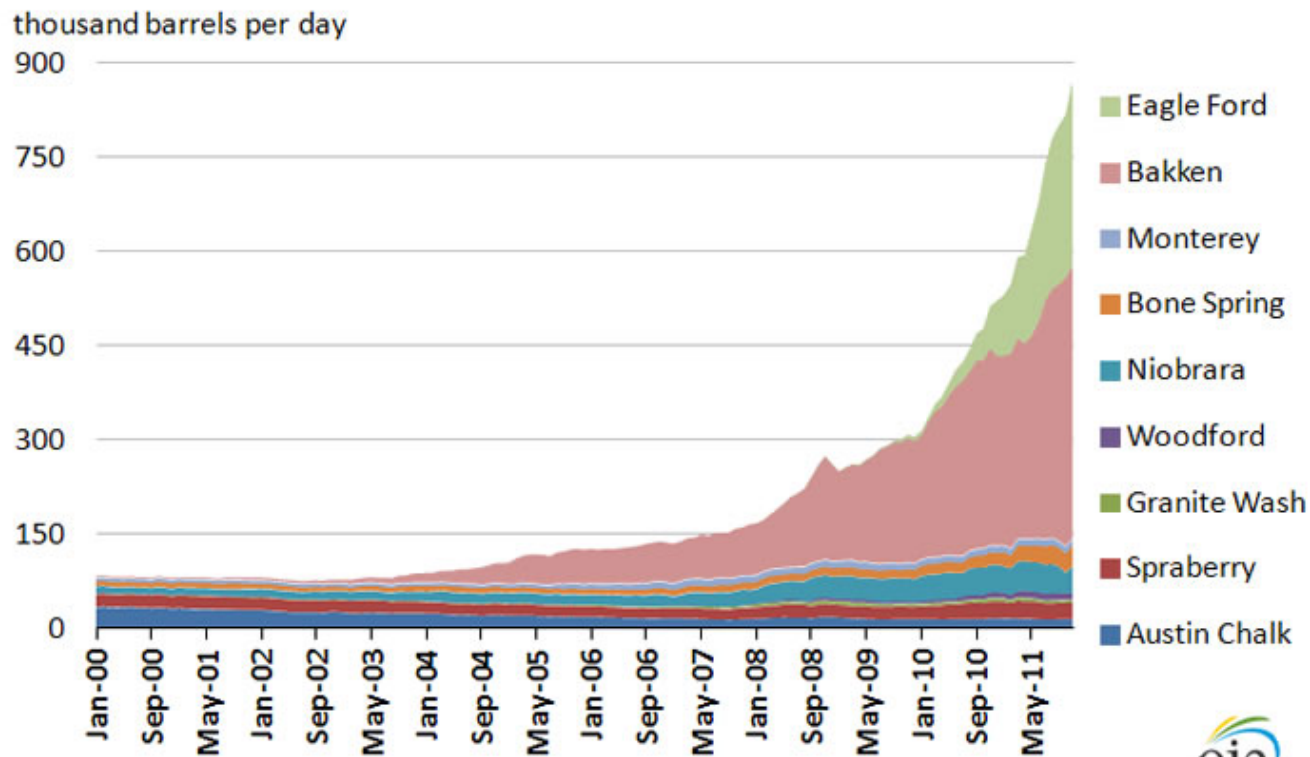
EXPANDING DOMESTIC CRUDE PRODUCTION

Figure 1. Annual U.S. oil production



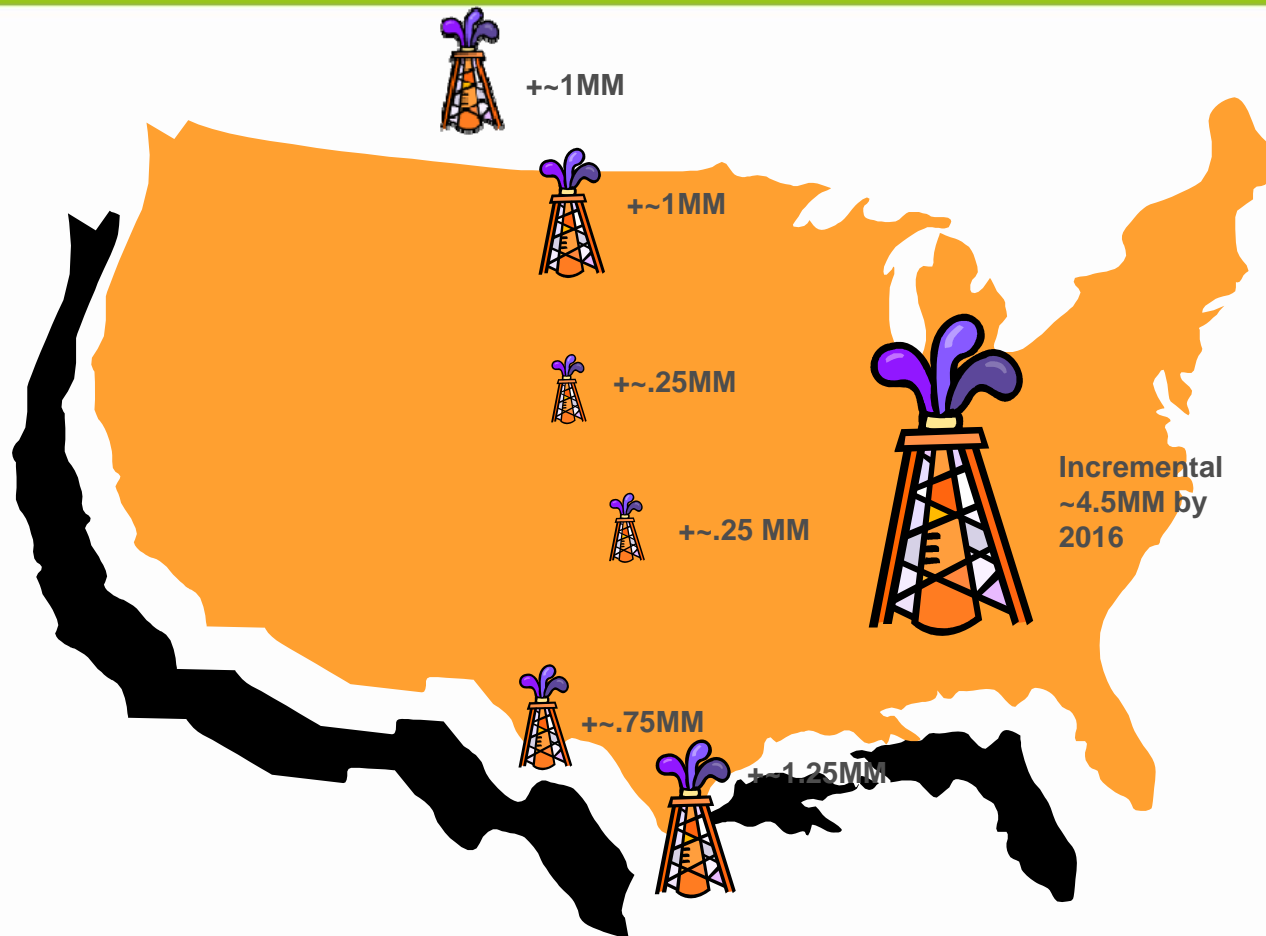
SHALE FORMATIONS DRIVING GROWTH

Figure 2. Tight oil production for selected plays



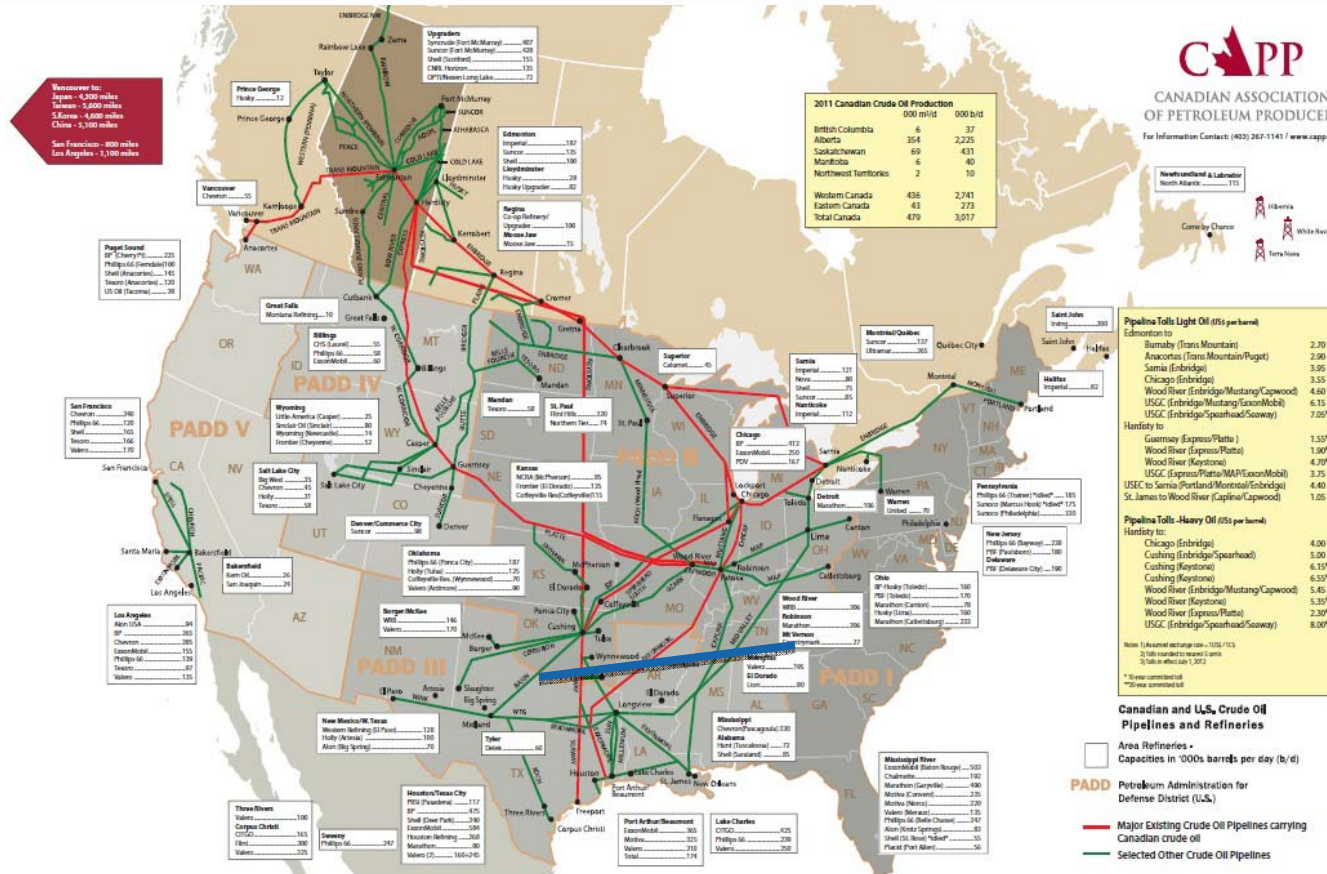
Source: U.S. Energy Information Administration based on HPDI, LLC; 2011 is through November

PROJECTED CRUDE PRODUCTION GROWTH



Source: Petroplex International

NORTH AMERICAN CRUDE PIPELINES



Source: Canadian Association of Petroleum Producers

NEW OIL PRODUCTION IS CHALLENGING HISTORIC LOGISTICS MODELS



New and abundant supplies are challenging logistics providers:

- North Dakota, Colorado, South/West Texas, Ohio, Alberta

Fast changing supply patterns - presents opportunity for solutions to get these supplies to market

Crude by rail has become quick solution:

- More than 800,000 barrels per day (bpd) is railed out of North Dakota (Bakken), Eagle Ford, Niobrara, and Western Canadian fields.

Crude by Rail provides maximum flexibility to take advantage of moving arbitrage opportunities.

Source: Petroplex International

CRUDE VIA RAIL IN THE NEWS

“Crude on the rails: in for the long haul”

[Financial Times, August 24th 2012](#)

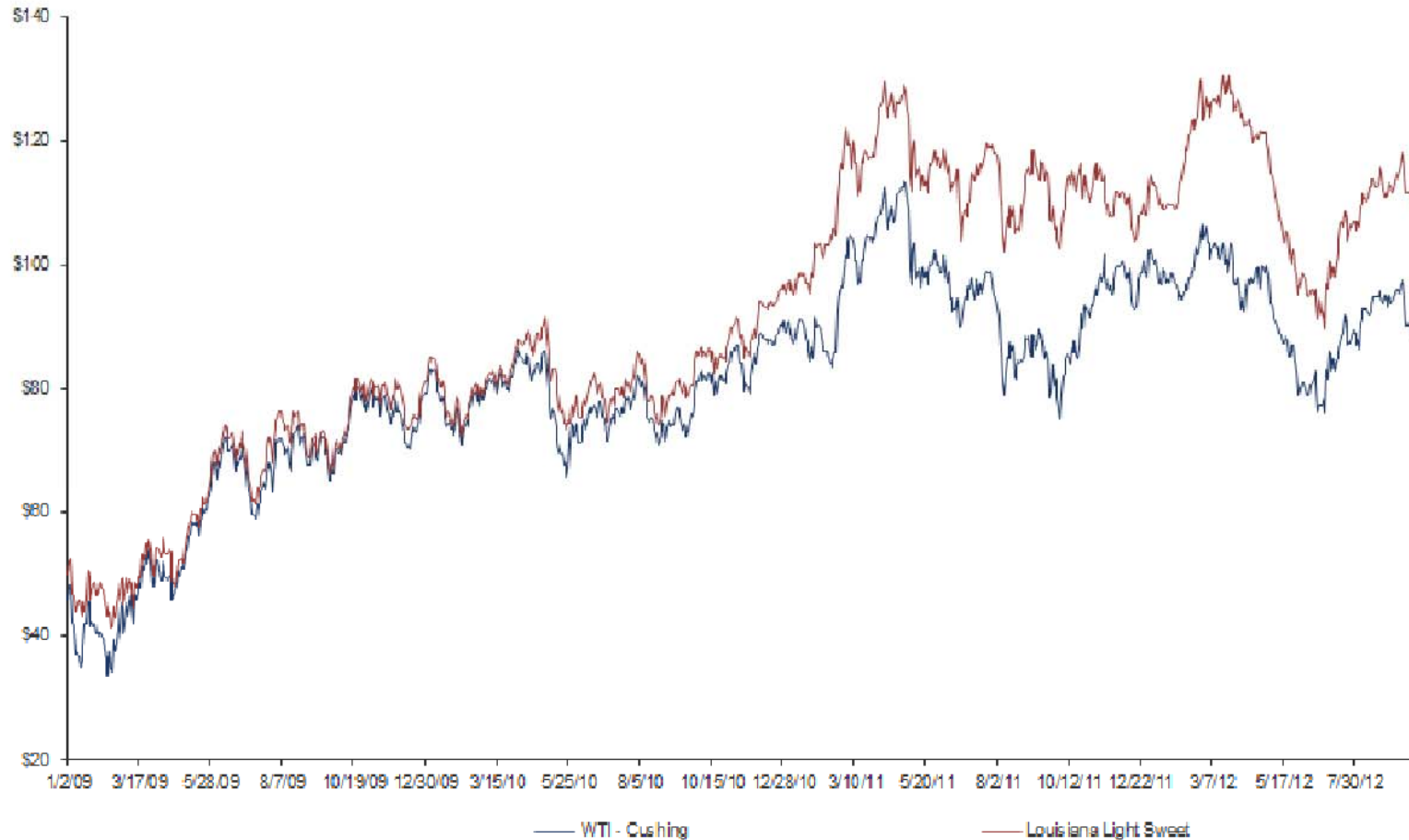
“The reason why the rail market exists for crude oil is not that rail is cheaper than pipeline — it’s because of the spread in the crude market between Brent-based pricing and WTI pricing,” says Mark Hallman, a CN spokesman. “For light crudes, rail helps producers access markets that are not pipeline-connected and provides them with waterborne (Brent) netbacks.”

CN and Tundra Energy Marketing to construct crude oil rail car loading terminal in Manitoba

CALGARY, Alta., Oct. 18, 2012 — CN (TSX: CNR) (NYSE:CNI) and Tundra Energy Marketing Limited announced today they have signed a memorandum of understanding to construct a crude oil rail car loading terminal near Cromer, Man., to meet the needs of Bakken crude oil producers in Manitoba and Saskatchewan.

The terminal will initially load 30,000 barrels of crude oil per day into rail cars – the equivalent of more than 50 tank cars worth – starting in the second quarter of 2013. The facility will have the potential to accommodate a unit train of 100 tank cars, with each train carrying approximately 60,000 barrels per day of crude oil.

LLS TO WTI SPREADS



Source: Bloomberg

LONG TERM CONSIDERATIONS



US pipelines are moving to market based rates

Cost of pipeline moves are trending up towards cost of rail move:

Example:

Patoka to GC on Pegasus used to cost ~\$1.50 pB

Patoka to GC on Pegasus now costs ~\$5.00 pB

Total cost of pipe moves from Edmonton to the GC now exceed \$10 pB

Railroads have price making authority:

Currently manifest from Edmonton to GC ~\$15 pB

Currently unit train from Edmonton to GC ~\$10 pB

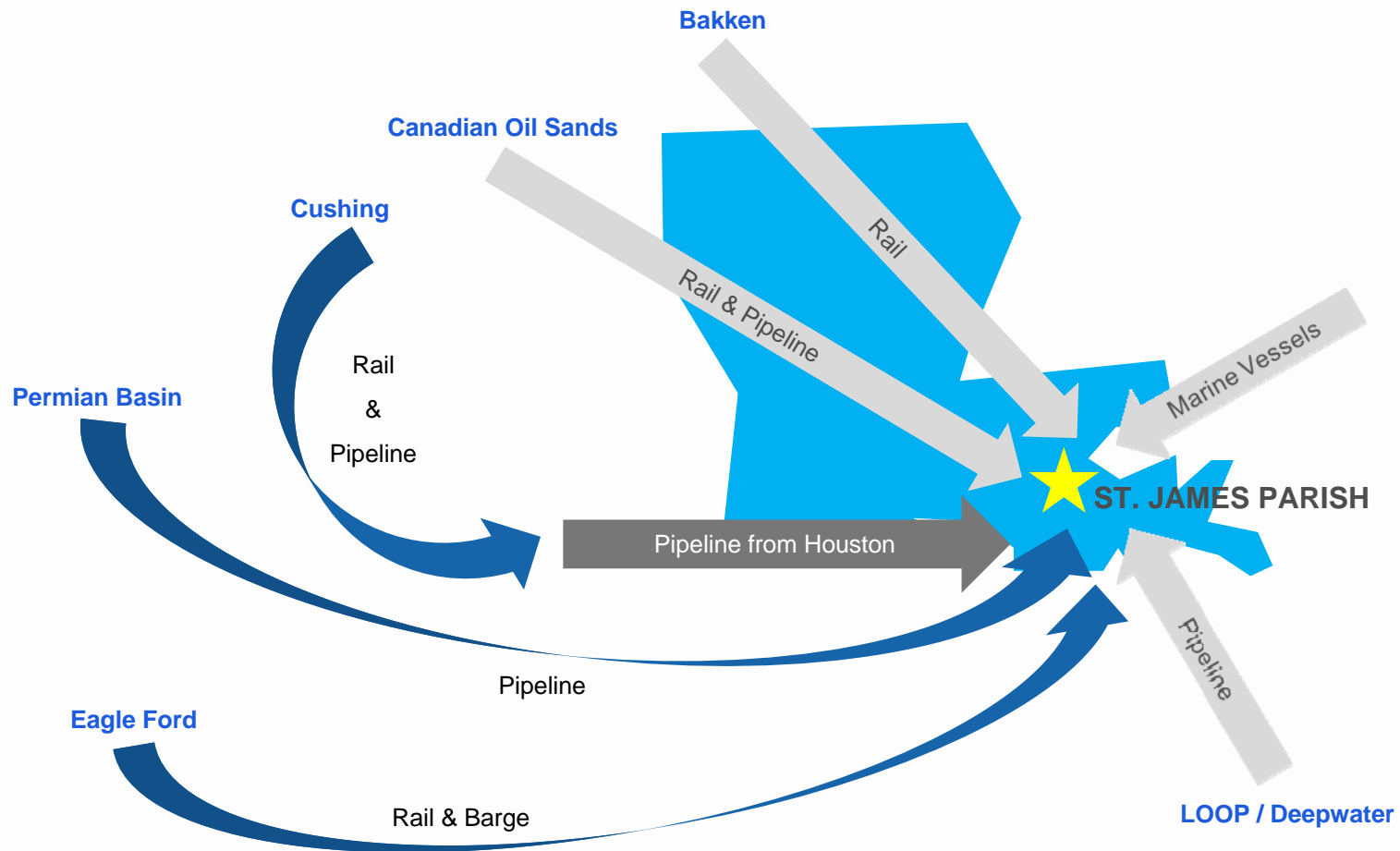
As the pipe haul prices escalate, and as there continue to be bottle necks, rail will become increasingly competitive... and at times preferred due to its inherent optionality

A prudent logistics strategy would incorporate all modes of transportation, thus diversifying risks

Source: Petroplex International

THE FLOW OF CRUDE TO ST. JAMES

Current product movements into St. James Parish



Source: Petroplex International

PETROPLEX OVERVIEW



Attractive Asset in a Strategic Location	<ul style="list-style-type: none">— Substantial contiguous landholdings with extensive river frontage and access to rail and pipeline infrastructure— Air permit in place, which accommodates an expansion to 10m bbl of capacity— Close proximity to major pipelines, refineries, and rail lines
Positive Industry Dynamics to Facilitate Growth	<ul style="list-style-type: none">— Storage demand driven by structural arbitrage in crude markets, value-added blending opportunities, inefficient transportation systems, pipeline reversals and new pipeline builds in Gulf Coast— St. James developing a position as a strategic crude oil delivery and storage point
State-of-the-art Project Design	<ul style="list-style-type: none">— The facility will have connectivity via road, rail, barge, and pipeline, giving customers the greatest degree of transportation flexibility— The project will utilize state of the art technology, allowing for decreased loading/unloading times, and optimized blending and tank-to-tank transfers— Facility will be able to adapt to customer specific needs and store a large variety of products
Strong Sponsor Support	<ul style="list-style-type: none">— Macquarie Capital is the third largest bulk liquids tank terminal investor in the world— Quanta Services has constructed over \$1.2bn of liquid storage facilities worldwide

Source: Petroplex International

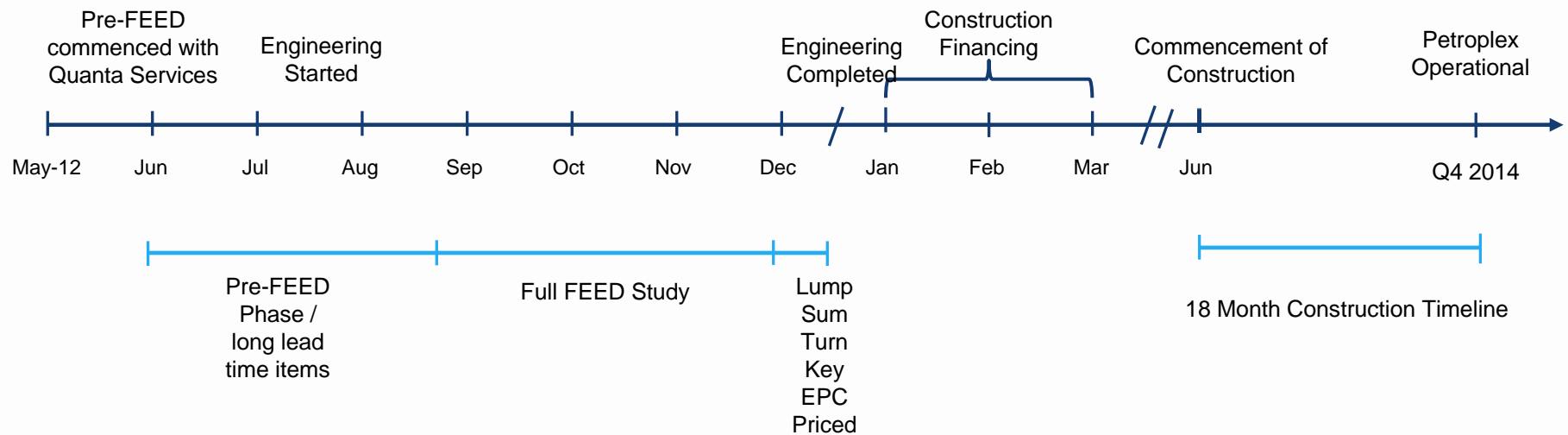
PROJECT TIMELINE

The FEED study has commenced with Quanta Services; Petroplex is forecast to be operational 18-20 months post construction commencement in Q2 2013

■ **Key Petroplex development achievements to date:**

- ✓ Petroplex Air Permit (minor source) issued in 2009
- ✓ Full 1,700-acre project site acquired in 2011
- ✓ Water Discharge Permit issued in 2011
- ✓ Dock Permit issued by Corp of Engineers June 2012

■ **Engineering, design and construction timeline:**



Source: Petroplex International