



EXERGY RESOURCES

Presented by:
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Pennsylvania Rail Freight Seminar
Harrisburg, PA
May 23, 2013



Summary

- ▣ Firm background and activity
- ▣ US crude oil production status
- ▣ Areas of shale activity
- ▣ Bakken rail opportunity
- ▣ WTI/Brent spread and its effect on crude by rail business model
- ▣ Key takeaways

Exergy Resources

- ▣ A crude marketing firm based in New York City with an office in North Dakota
- ▣ Firm originated from private equity and became independent in 2012
 - Backed by private equity and family offices
- ▣ Will purchase for its own book and take title as well as on behalf of third parties
- ▣ Focus on Bakken, Canada, USGC
- ▣ Transport via pipeline, rail and truck

Why are we
here?

Age of Peak Oil

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Has the World Already Passed "Peak Oil"?

New analysis pegs 2006 as highpoint of conventional crude production



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The end of oil is closer than you think

Oil production could peak next year, reports John Vidal. Just kiss your lifestyle goodbye

John Vidal

The Guardian, Thursday 21 April 2005 07.23 EDT

THE WALL STREET JOURNAL.

U.S. EDITION Wednesday, May 22, 2013 As of 3:47 AM EDT

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May 4, 2009, 12:01 PM

Peak Oil: Global Oil Production's Peaked, Analyst Says

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A A

By Keith Johnson

CLIMATEPROGRESS

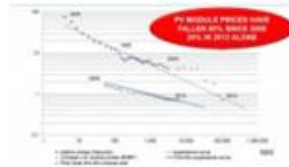
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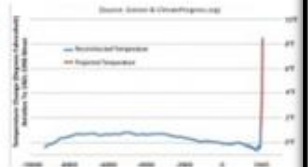
TRENDING: Climate Change Global Warming Climate Change Deniers Keystone XL Media



99 One-Liners Rebutting Climate Science Denier Talking Points



Four Must-See Charts Show Why Renewable Energy Is Disruptive



Into The Valley Of 400 PPM Rode The 7 Billion

Least surprising headline of the day: "Exxon Struggles To Find New Oil"

By Joe Romm on Feb 16, 2011 at 1:56 pm

What Peak Oil??

THE WALL STREET JOURNAL.

U.S. EDITION Monday, April 22, 2013 As of 6:15 AM EDT

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April 22, 2013, 6:15 a.m. ET

U.S. Crude-Oil Production Set to Surpass Imports in 2013, an Industrial Info News Alert

SET EDITION: U.S. | INTERNATIONAL | MÉXICO | ARABIC

TV: CNN | CNI | CNN en Español | HLN

CNN Opinion

America, the Saudi Arabia of tomorrow

By Frida Ghitis, Special to CNN
updated 11:04 AM EST, Mon January 14, 2013

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Google Joins Apple Avoiding Taxes With Stateless Income

Richemont Departure Signals Fashion Is an Accessory

U.S. Oil Output to Overtake Saudi Arabia's by 2020

By Lananh Nguyen - Nov 12, 2012 12:39 PM ET

The CHRISTIAN SCIENCE MONITOR

ENERGY VOICES INSIGHTS ON THE FUTURE OF FUEL & POWER

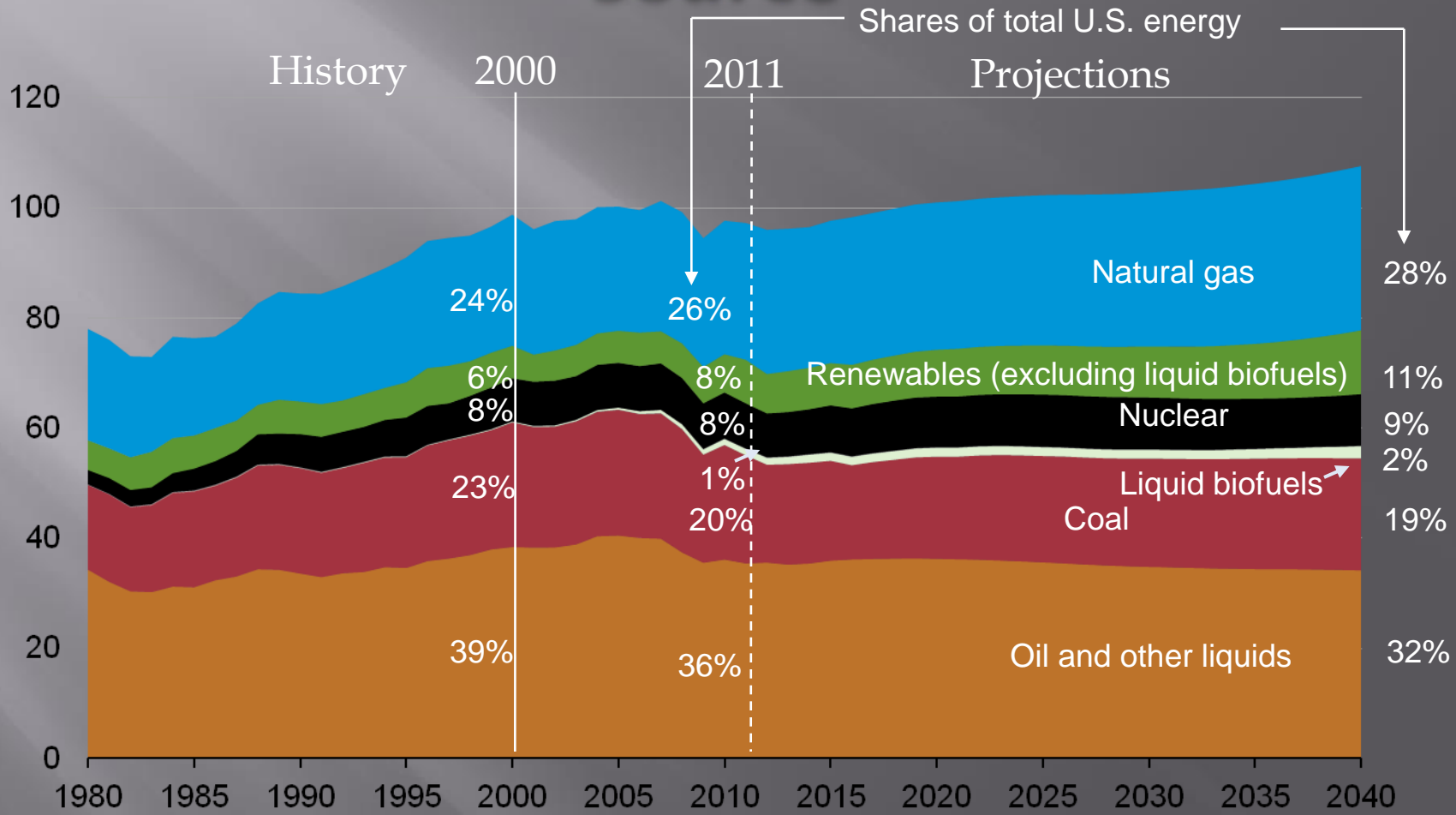
How will the US capitalize on its oil boom?

Oil production is surging in the US, sending supply shockwaves through world markets. The US could become the world leader in more ways than one, Graeber writes, but only if it opens its oil spigot.

By Daniel J. Graeber, Guest blogger / May 16, 2013

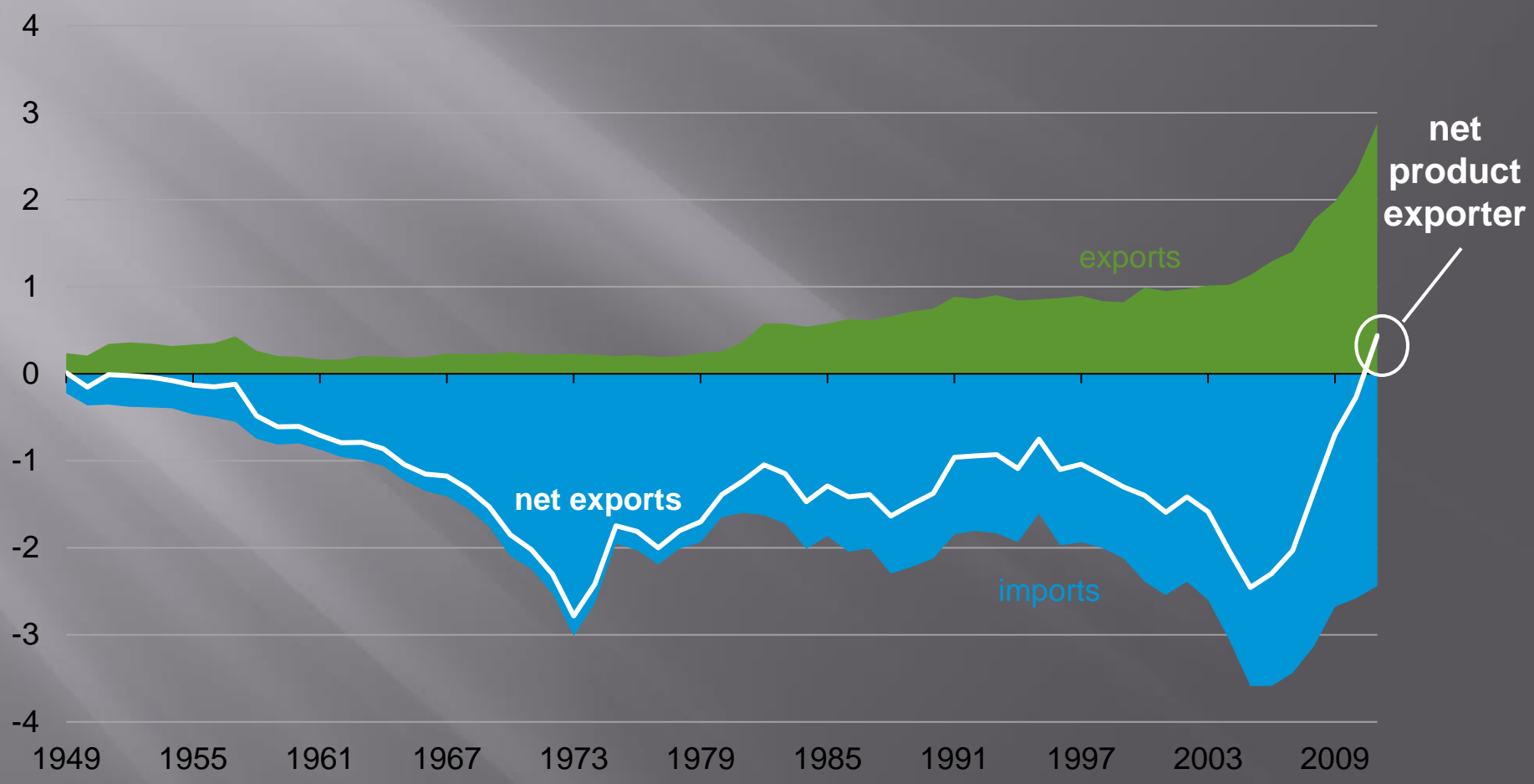
\$219 PER MONTH \$2,399 TOTAL

Importance of crude as a U.S. energy source



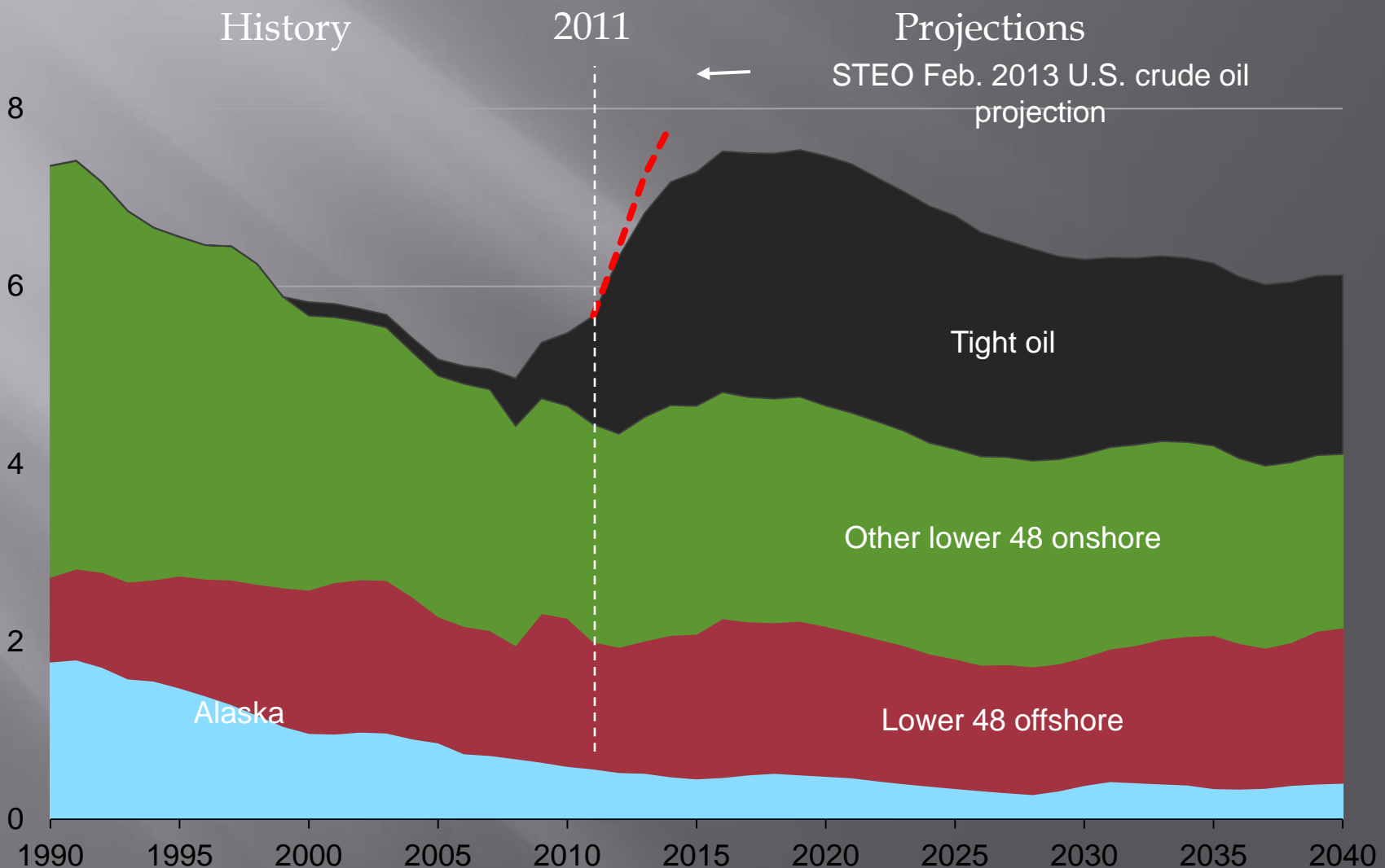
Source: EIA, Annual Energy Outlook 2013 Early Release

U.S. petroleum product exports exceeded imports in 2011 for first time in over six decades



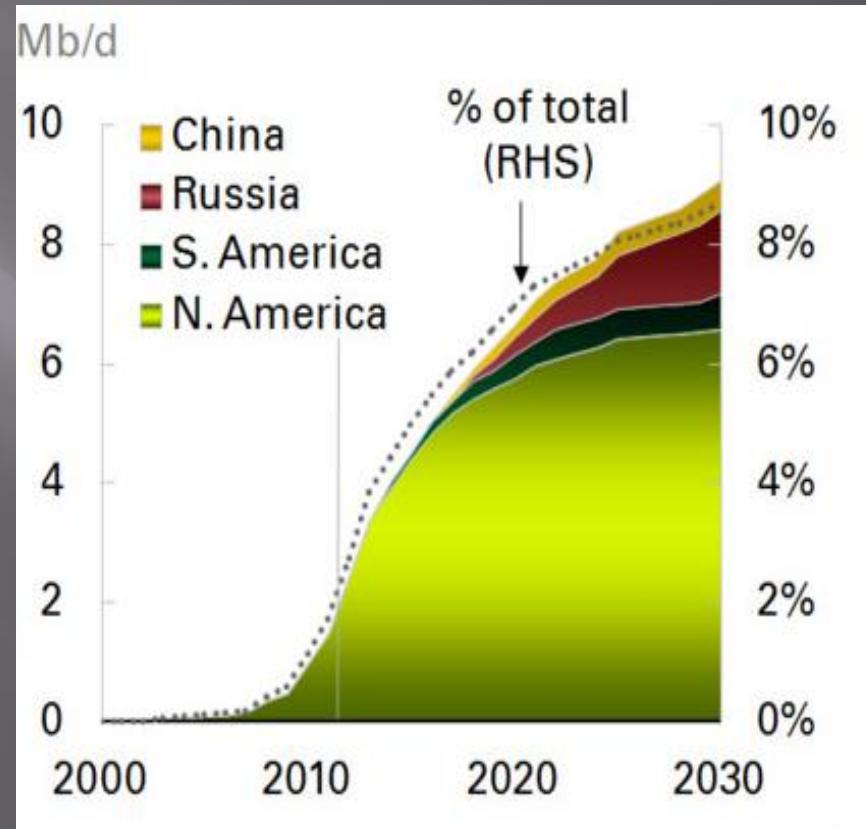
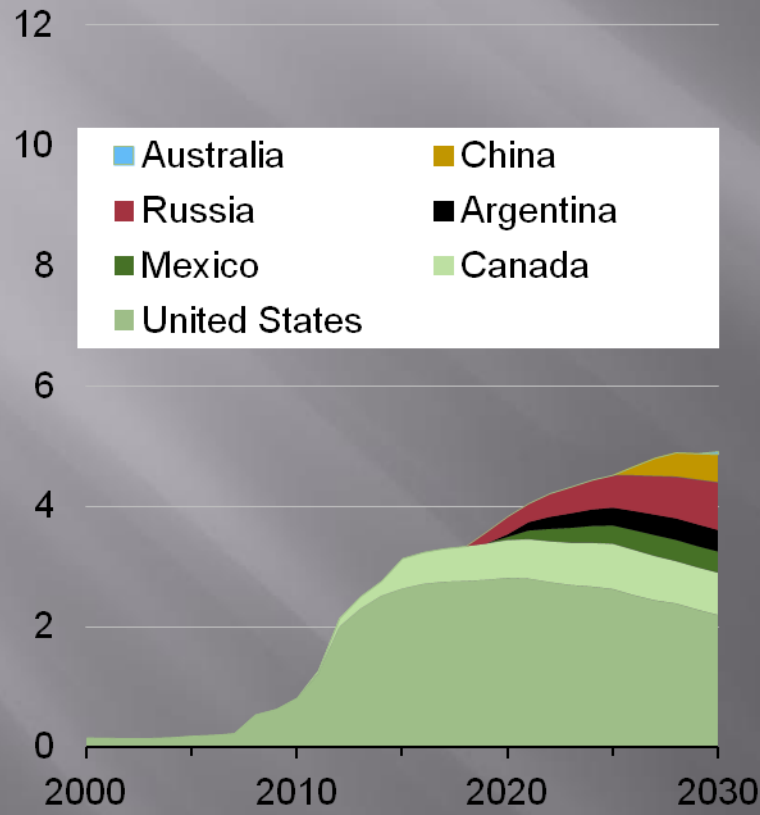
Source: EIA, Petroleum Supply Monthly

U.S. tight oil production leads a growth in domestic production of 2.6 million barrels per day between 2008 and 2019

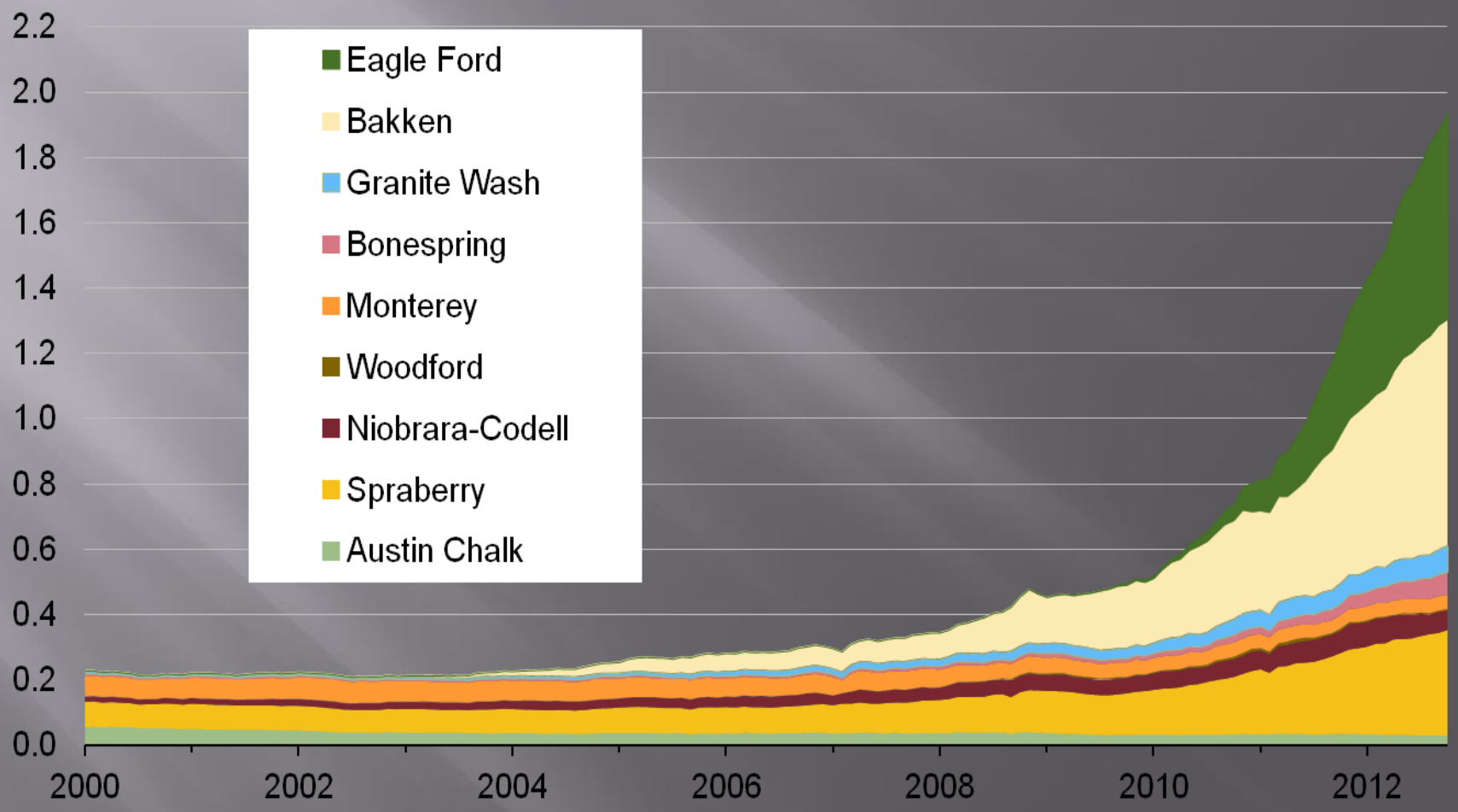


Source: EIA, Annual Energy Outlook 2013 Early Release and Short-Term Energy Outlook, February 2013

Global tight oil production comparisons



Growth of Domestic Production of Tight Oil



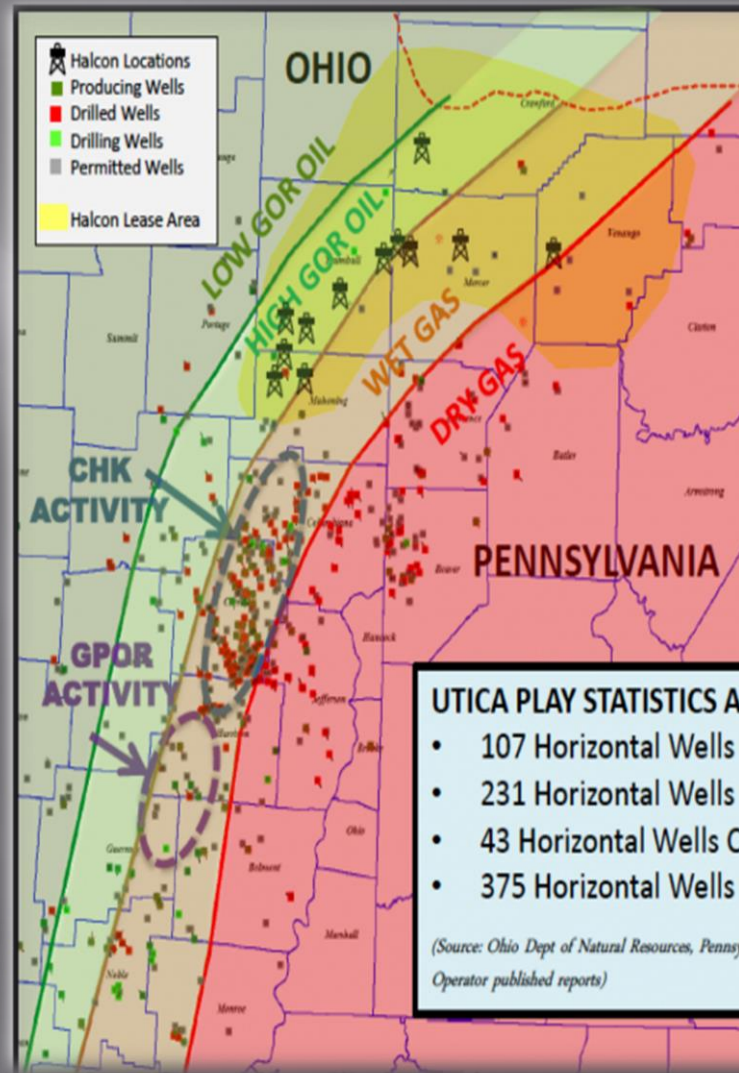
Source: Drilling Info (formerly HPDI), Texas RRC, North Dakota department of mineral resources, and EIA, through October 2012.

Texas Shale Plays

- Permian Basin (Bonespring, Spraberry) has production of 1.3MM b/d as of Q1 2013
 - Projections for 2016 are 1.9MM b/d
- Pipeline projects for Permian basin to USGC
 - By mid 2014 1.365MM b/d of capacity
- Eagle Ford
 - Current production at 700M – 800M b/d
 - Est for future production: 1.6MM b/d by end of 2016
- Total capacity of pipeline projects outpaces expected production by around 200M-400M b/d
- The success of these shale plays could force Bakken crude to move solely to the east and west coasts

Utica

- ODNR released report last month on 2012 production
 - 87 wells
 - 1,750 b/d of oil
 - 35 MM cf/d of gas
 - Considered disappointing
- To date, 660 shale well permits, 326 have been drilled and only 97 in production
- Producers waiting on infrastructure (takeaway and processing capacity)



UTICA PLAY STATISTICS AS OF 4.3.13:

- 107 Horizontal Wells Producing
- 231 Horizontal Wells Drilled
- 43 Horizontal Wells Currently Drilling
- 375 Horizontal Wells Permitted

(Source: Ohio Dept of Natural Resources, Pennsylvania Dept. of Env. Protection, IHS, Operator published reports)

Bakken

- ▣ Current production estimates are 800M b/d range
- ▣ 2013 U.S. Geological Survey estimates undiscovered volumes of 7.4 Bn barrels of oil vs 3.65 Bn barrels from 2008 survey
- ▣ Beware the decline curve
- ▣ Current Rail takeaway capacity is at 730M b/d taken from 22 terminals
 - Only 72,000 b/d went to US East coast in Dec '12
 - ▣ Will grow to 175k-235k at end of 2013
 - ▣ 64% of crude traveled via rail, 27% via pipeline

Bakken

- ▣ Rail deals on East Coast:
 - P66 announced a 5 yr contract to move 50M bpd crude by rail to Bayway, NJ facility (CSX/NS)
 - PBF Energy in Delaware City can handle 40M b/d of heavy and 70M b/d of light via rail (NS)

City	State	Company	Capacity Mb/d	Railroad	Status/Shippers
Albany	NY	Global Energy Partners	160	CP	Operating - 50 Mb/d to Phillips 66 Bayway
Albany	NY	Buckeye Partners	130	BN/CSX	Operating end 2012: Irving Contract via Barge from Albany
Yorktown	VA	Plains All American	130	CSX	Operating 1H 2013
Perth Amboy	NJ	Buckeye Partners	To be determined	CSX/NS	Project Initiated - unit rail and marine xfer facility
Westville	NJ	Eagle Point (Sunoco Logistics Partners LP)	40	NS via SMS Short Rail	Operating
Philadelphia	PA	Eddystone Rail Terminal (Enbridge & Canopy Prospecting)	80 in 2013, 160 in 2014	CSX/NS/CP	3Q 2013 Bridger Logistics = shipper, rail to barge

Growth of Bakken Rail Outlets

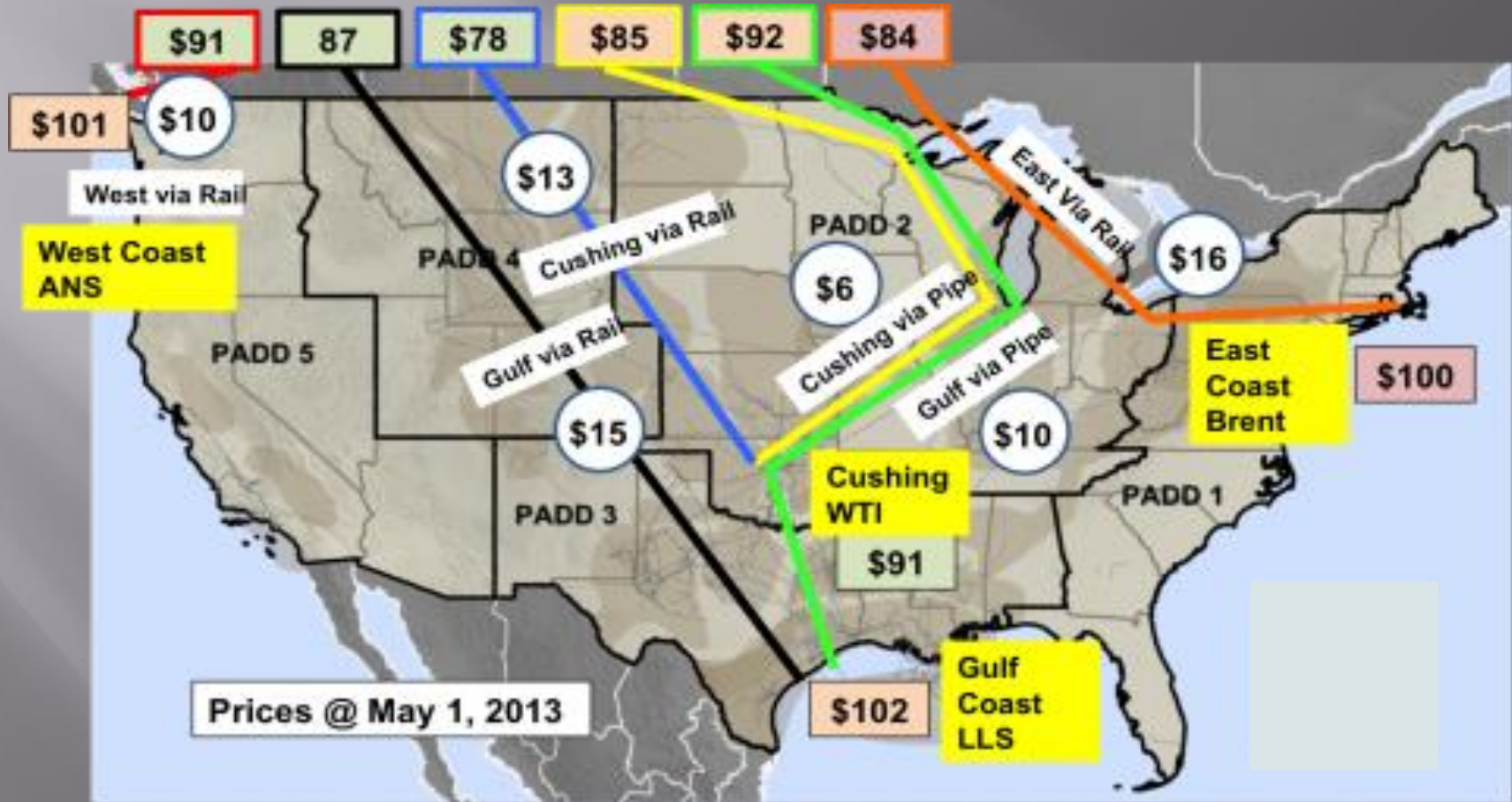
Bakken Crude Rail Terminals					
Terminal Company	Location	Year-End 2010 (b/d)	Year-End 2011 (b/d)	Year-End 2012 (b/d)	Year-End 2013 (b/d)
Exit Capacity					
Musket	Dore, ND	0	0	60,000	60,000
Hess (up to 120,000 b/d)	Tioga, ND	0	0	60,000	60,000
Eighty-Eight Oil	Guernsey, WY	0	0	0	80,000
Enbridge	Berthold, ND	0	0	10,000	80,000
Bakken Oil Express	Dickinson, ND	0	100,000	100,000	100,000
Global Partners (bought from Basin Transload)	Columbus, ND Beulah, ND	0	0	0	100,000 60,000
Rangeland (COLT)	Williams County, ND	0	0	120,000	120,000
EOG Resources (up to 90,000 b/d)	Stanley, ND	65,000	65,000	65,000	65,000
Dakota Plains	New Town, ND	20,000	40,000	40,000	40,000
Savage Services	Trenton, ND	0	0	90,000	90,000
Plains	Ross, ND		20,000	20,000	65,000
Sites in Minot, Dore, Stampede, Donnybrook, and Gascoyne	ND	30,000	30,000	30,000	30,000
Great Northern Midstream	Fryburg, ND	0	0	60,000	60,000
US Development Group	New Town, ND	0		35,000	70,000
Basin Transload	Zap, ND	0	20,000	40,000	40,000
Total		115,000	275,000	730,000	1,120,000

Source: Platts, North Dakota Pipeline Authority

Path of a Bakken Rail Barrel

1. Wellhead to Terminal Gathering System
 1. Will be a trucking or pipeline gathering fee
 2. \$2-\$3
2. Facility fee for rail
 1. \$1.50-\$2
3. Rail Freight and Fuel Surcharge
4. Tank car lease
 1. ~\$3,000/mo/car
5. Crude shrinkage cost – can run .5%-3% loss factor

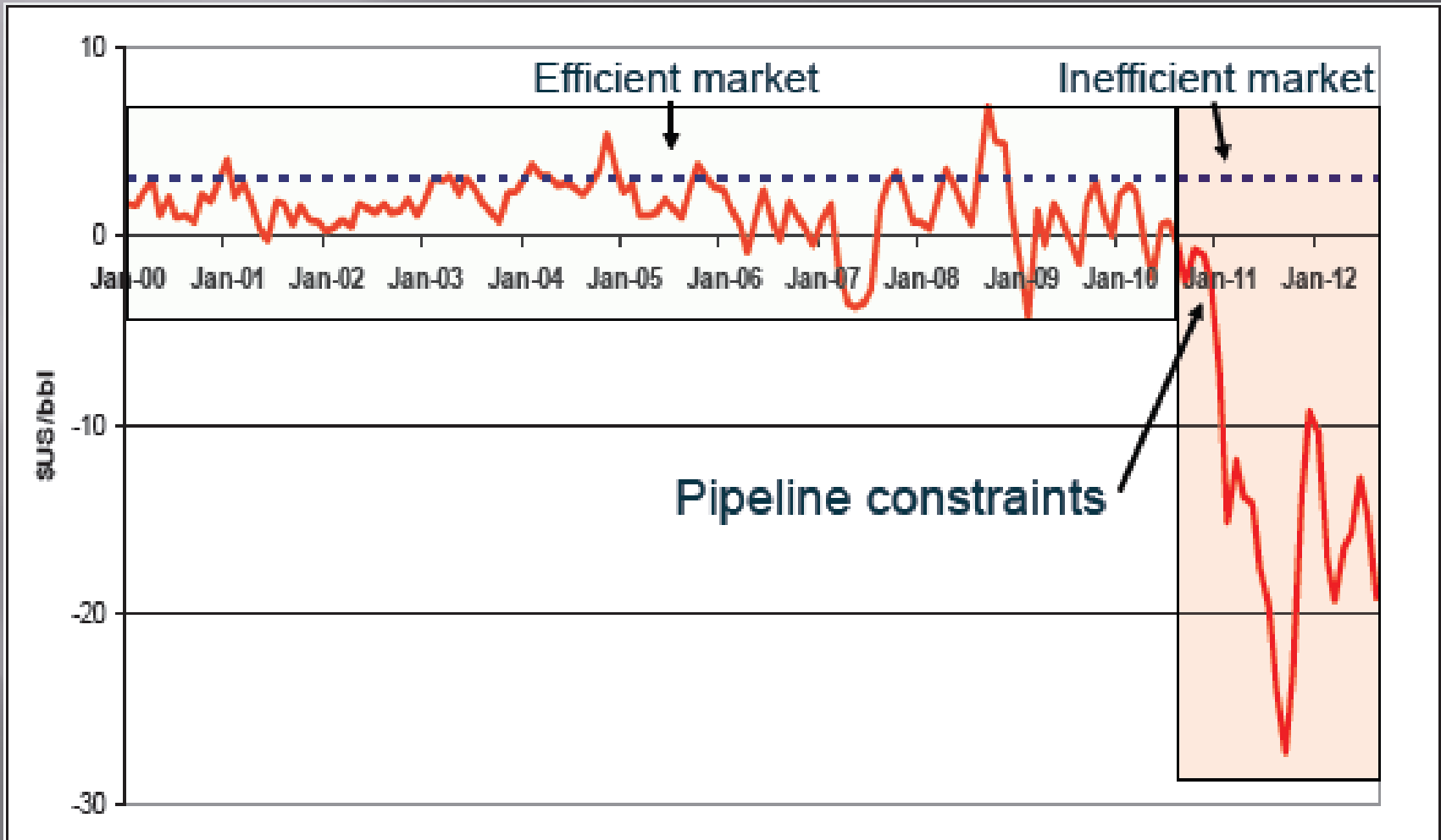
WHERE DOES THE EAST COAST RAIL OPTION RANK?



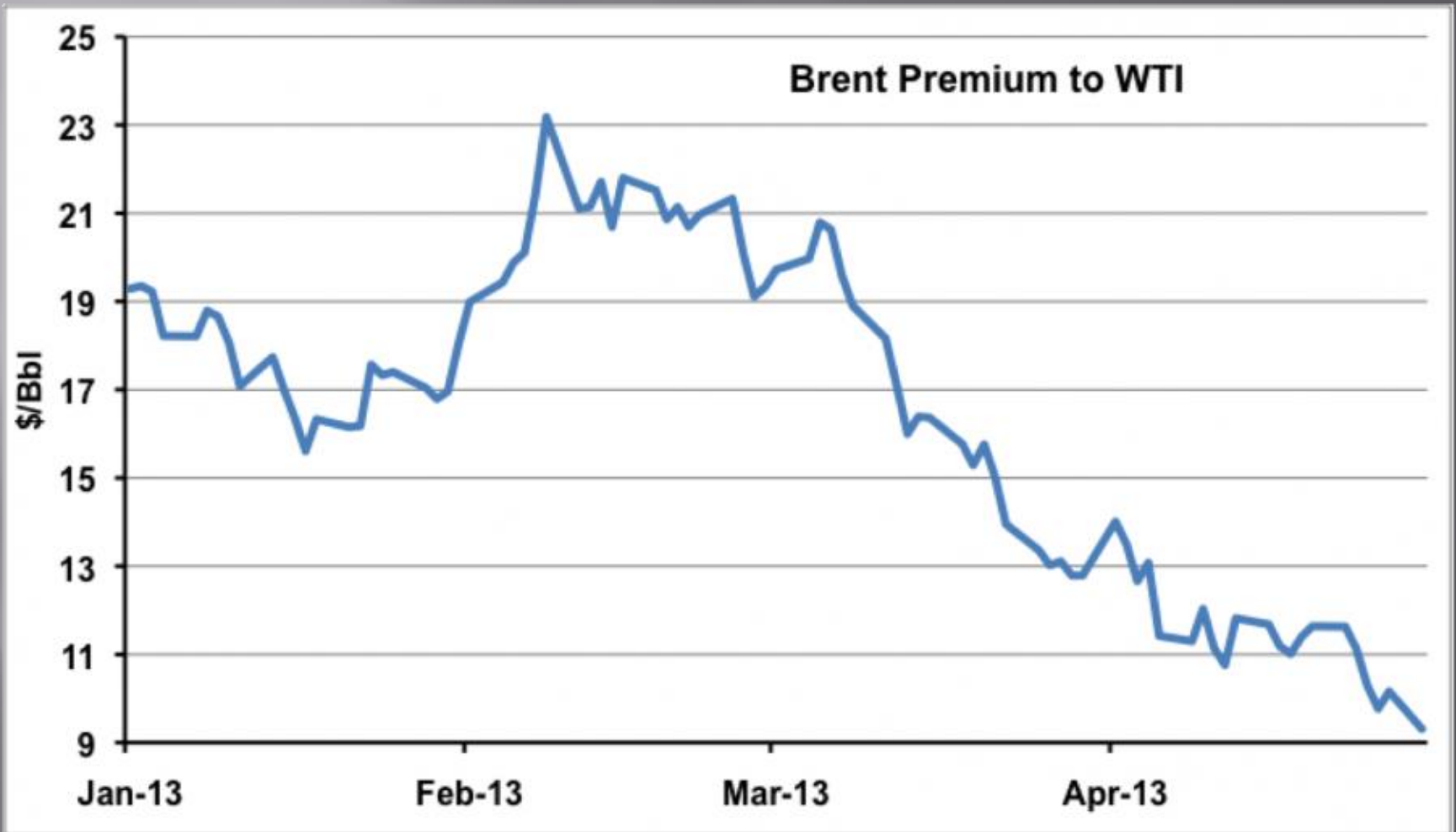
Economics of Pipeline vs. Rail



WTI/Brent – Historical Pricing



Decrease of Brent/WTI Spread



Source: CME data from [Morningstar](#)

The threat on Bakken Pricing

- Bakken producers' netback directly affected by spread compared to cost of transportation
- Pricing will depend on the availability of a pipeline alternative
- Bakken production will first look to move to the Gulf via pipeline
 - Increase in production vs increase in pipeline capacity

All Data in \$/Bbl Representative Crude Transport Costs: April 29, 2013	North Dakota to East Coast Column #1	ND to West Coast (Washington State) Column #2	North Dakota to Gulf Coast (St James) Column #3	North Dakota to Gulf Coast (Houston) Column #4	Column #5 Cushing to Gulf Coast (St James)
Rail Cost	\$16.00	\$9.75	\$15.00	\$15.00	\$8.00
Pipeline Cost			\$10.00	\$8.00	\$6.00
LLS/WTI Premium			\$10.66	\$10.66	\$10.66
Brent/WTI Premium	\$9.31				
ANS/WTI Premium		\$12.00			
Bakken Rail Advantage	(\$6.69)	\$2.25	(\$4.34)	(\$4.34)	
Bakken Pipe Advantage			\$0.66	\$2.66	
Cushing Rail Advantage					\$2.66
Cushing Pipe Advantage					\$4.66

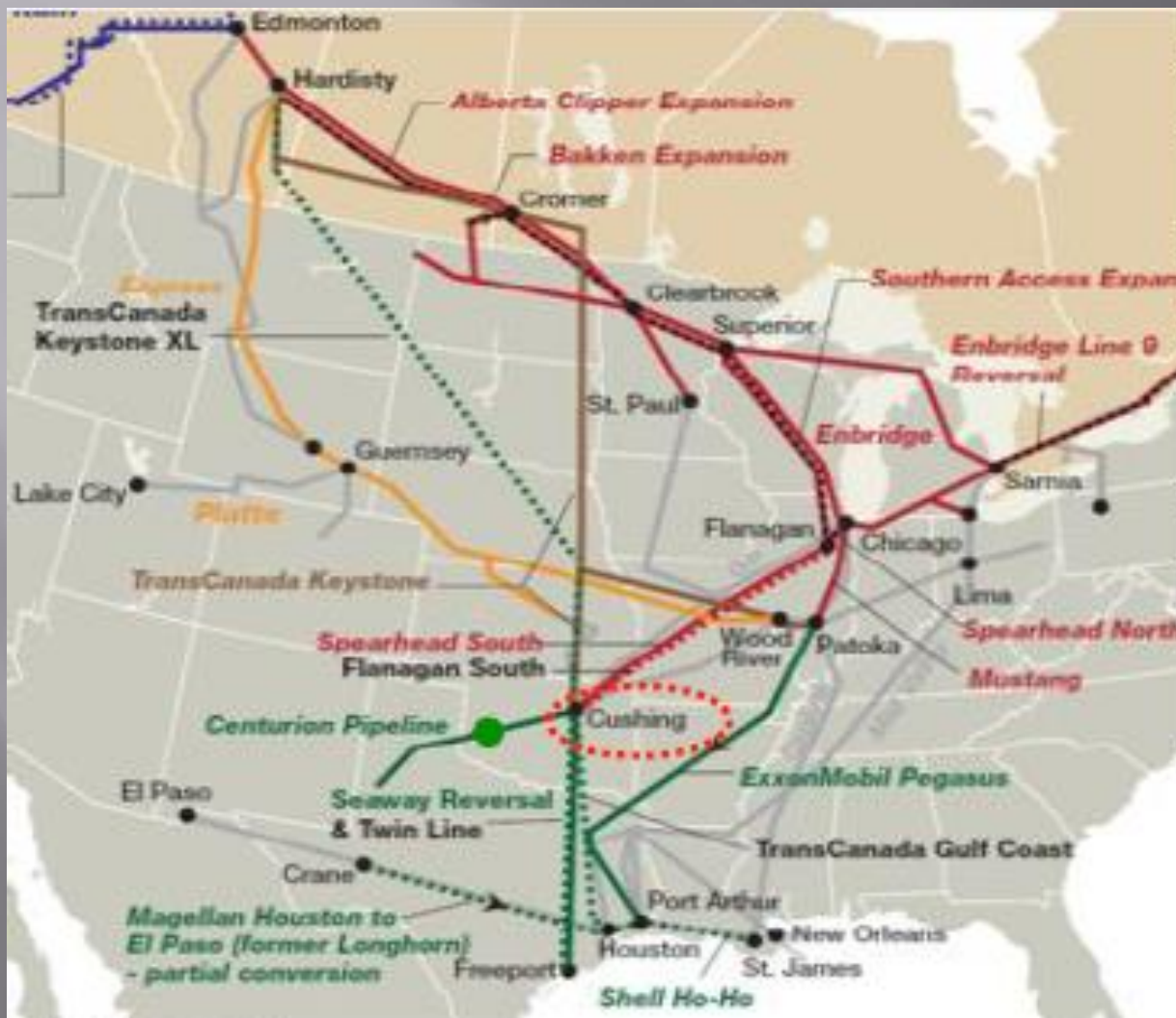
Its about Cushing Volumes

- Bakken and other shale crudes have nowhere else to go
 - Bottleneck and glut leads to decline in price
- Prior to the Seaway reversal, Exxon’s Pegasus pipeline was the only route to clear the Midwest
 - As more pipelines come online, bottleneck is removed, increasing demand for this crude

Proposed projects for US Midcontinent to US Gulf Coast			
	New capacity (b/d)	Completion date	Status
Enterprise Seaway Pipeline	850,000	Q2 2014	Phase 1 Completed
TransCanada Gulf Coast Project	700,000	4Q 2013	Under Construction
Energy Partners Trunkline	400,000	2Q 2014	Regulatory Review
US Midcontinent to US Gulf Coast	1,950,000		

Source: Platts

Cushing flows - Accessing the USGC

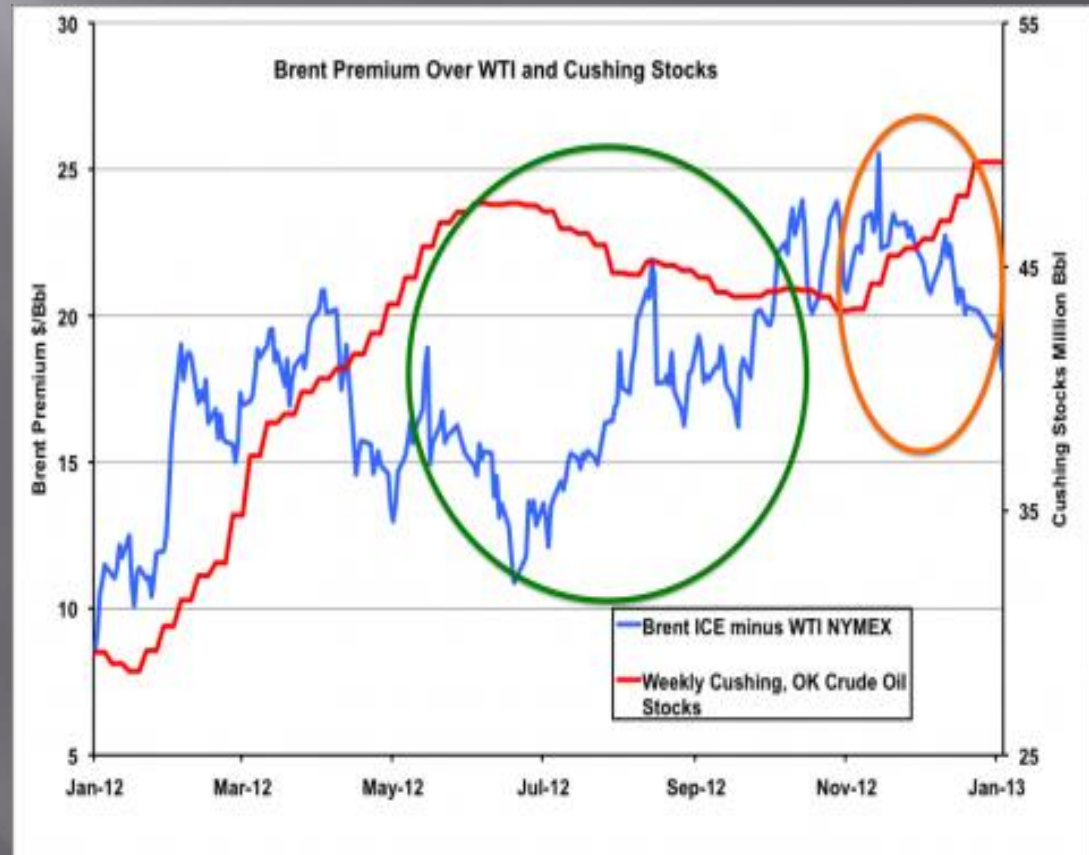


	(000's bpd)
Flows in to Cushing	
assume KS @ <50k bpd	1,073
Plus: area production	230
	1,303
Flows out of Cushing	
Less: area refining	450
	713
Potential Cushing supply overhang	140
Post 2013 Cushing relief	
Seaway Reversal -	400
	↓
Net Cushing flows	Balanced/Drawing
TransCanada GC -	550
	↓
Net Cushing flows	Drawing

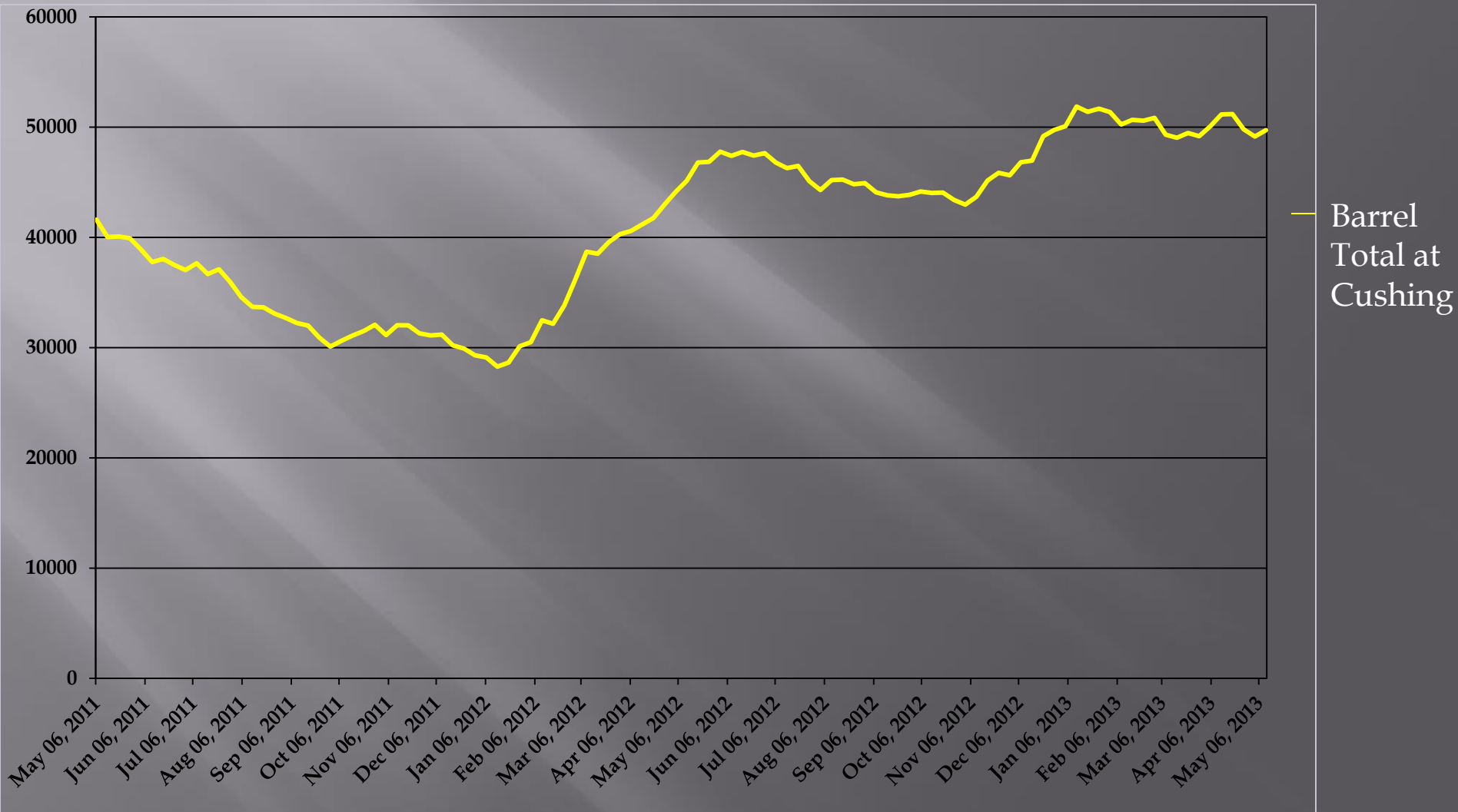
Its not about Cushing Volumes

- ▣ Movements in spread haven't matched changes at Cushing

- Other influences of crude price:
 - Midwest refinery demand
 - Production from Texas
 - Will Seaway ship light or heavy crude
 - Glut in the Gulf
 - Exports???



Cushing Inventory



Key Takeaways

- ▣ In the short term difficult to say how the spreads will look
- ▣ Longer term, price spreads will match cost of transportation to market
 - Production will need to
- ▣ Watch production growth, decline curves as production will need to match or exceed growth in pipeline capacity
- ▣ If spreads remain low, inland crudes that are more reliant on rail to get to market will increasingly trade at a discount to WTI
 - ▣ At start of May Bakken crude was \$1 below WTI, mid May -\$4
- ▣ Aside from pricing, relationships and customer service are key!



For Further Information or Questions, Please Contact:

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