

GulfTerra



Cameron Highway Oil Pipeline

MTS Lunch Meeting

Houston, Texas

June 24, 2004

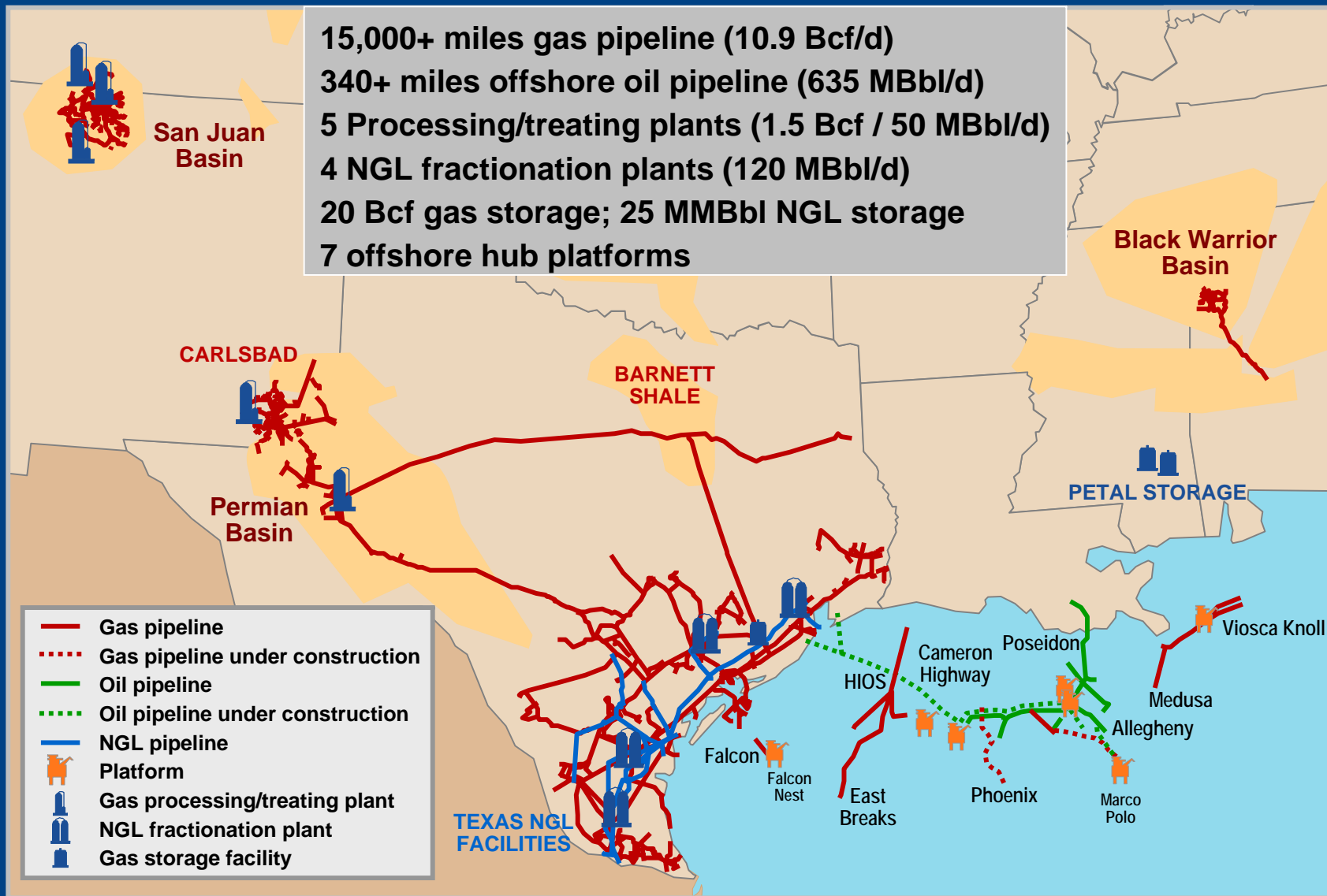
Cameron Highway: Key Facts

- * Largest offshore oil pipeline system in USA
 - 380 miles
 - 3.5 platforms
 - 650,000 BPD
 - 3 pump stations with 30,000 HP (+48,000 HP future)
- * System will bring production from the anchor fields, Holstein, Mad Dog, and Atlantis and other deepwater fields to the Texas markets
- * System should increase the net-back for deepwater producers through direct access to Texas markets
- * \$325 MM non-recourse project loan that was voted “Americas Oil & Gas Deal of the Year” by Project Finance International

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GulfTerra Asset Base



One Billion \$ of Growth Projects

2002-2004

Gulf of Mexico

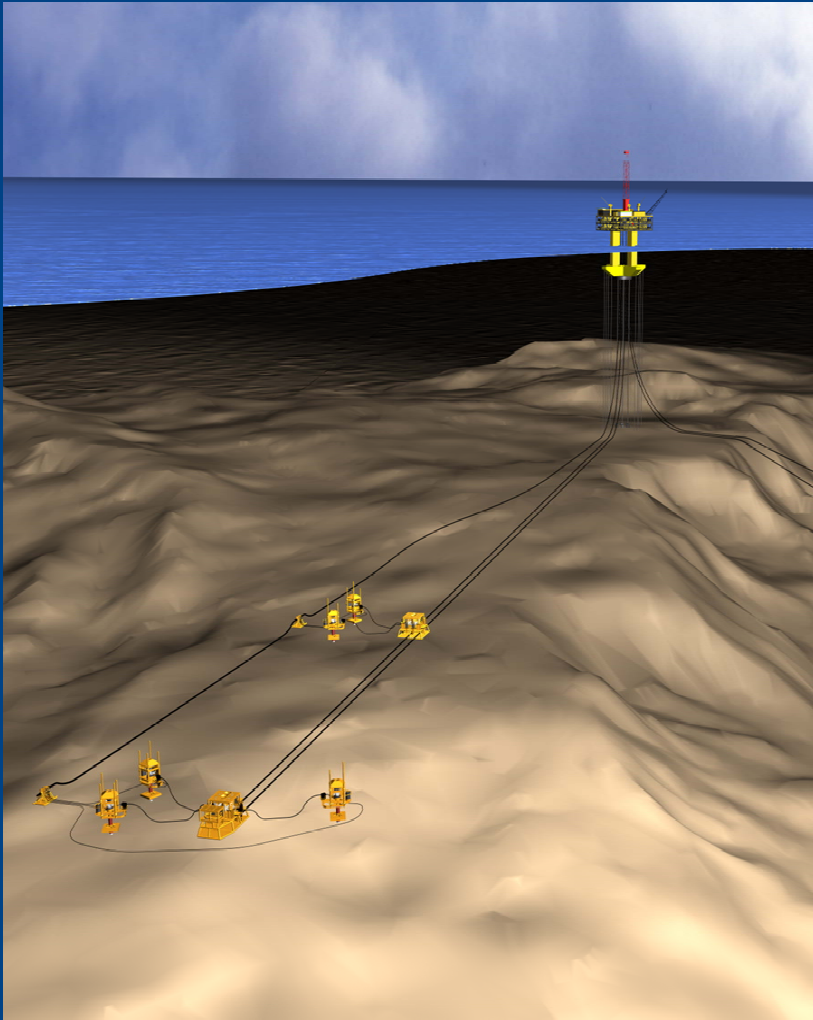


Marco Polo Platform



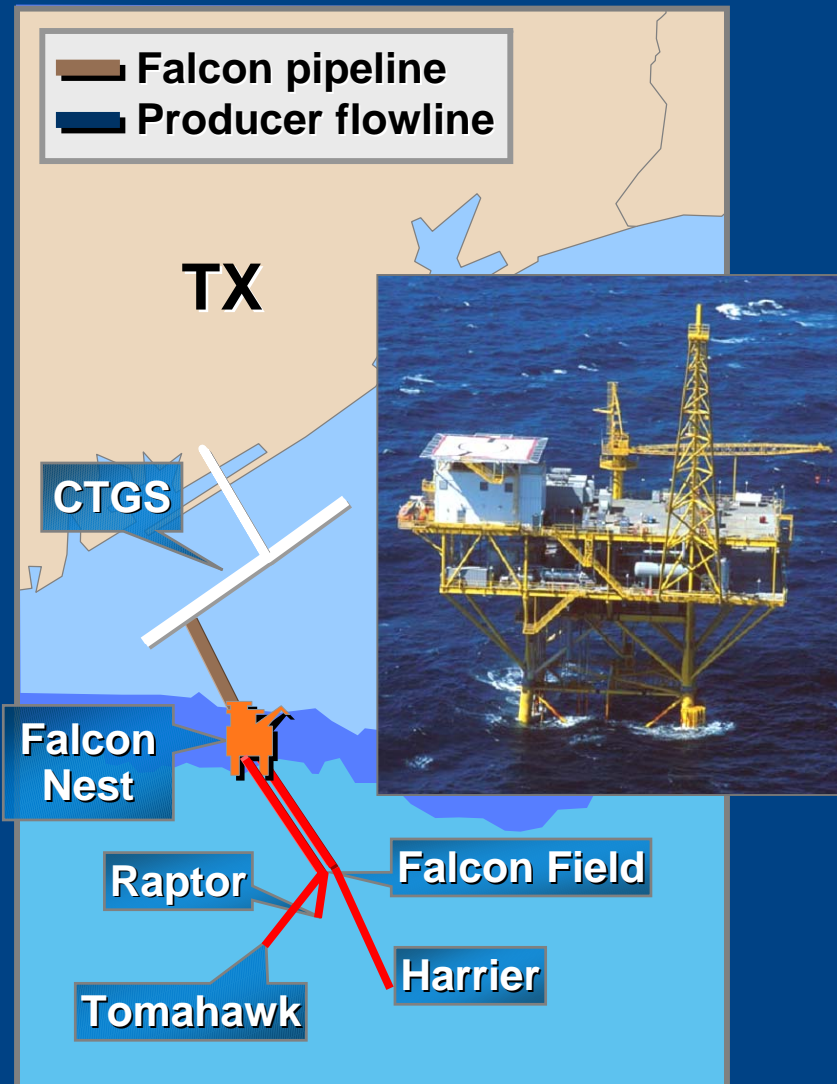
- * Moses TLP in 4,300 feet
- * Owned by Deepwater Gateway
- * Operated by Anadarko
- * Marco Polo platform design capacity
 - 120,000 BOPD
 - 300 MMcf/d
- * Designed to support 1,200 HP work-over rig
- * Six dual casing production risers with dry trees
- * Designed for total payload of 32,000 kips (includes topsides, rig, risers)
- * Expect first production July 2004

Marco Polo TLP: Hub Structure



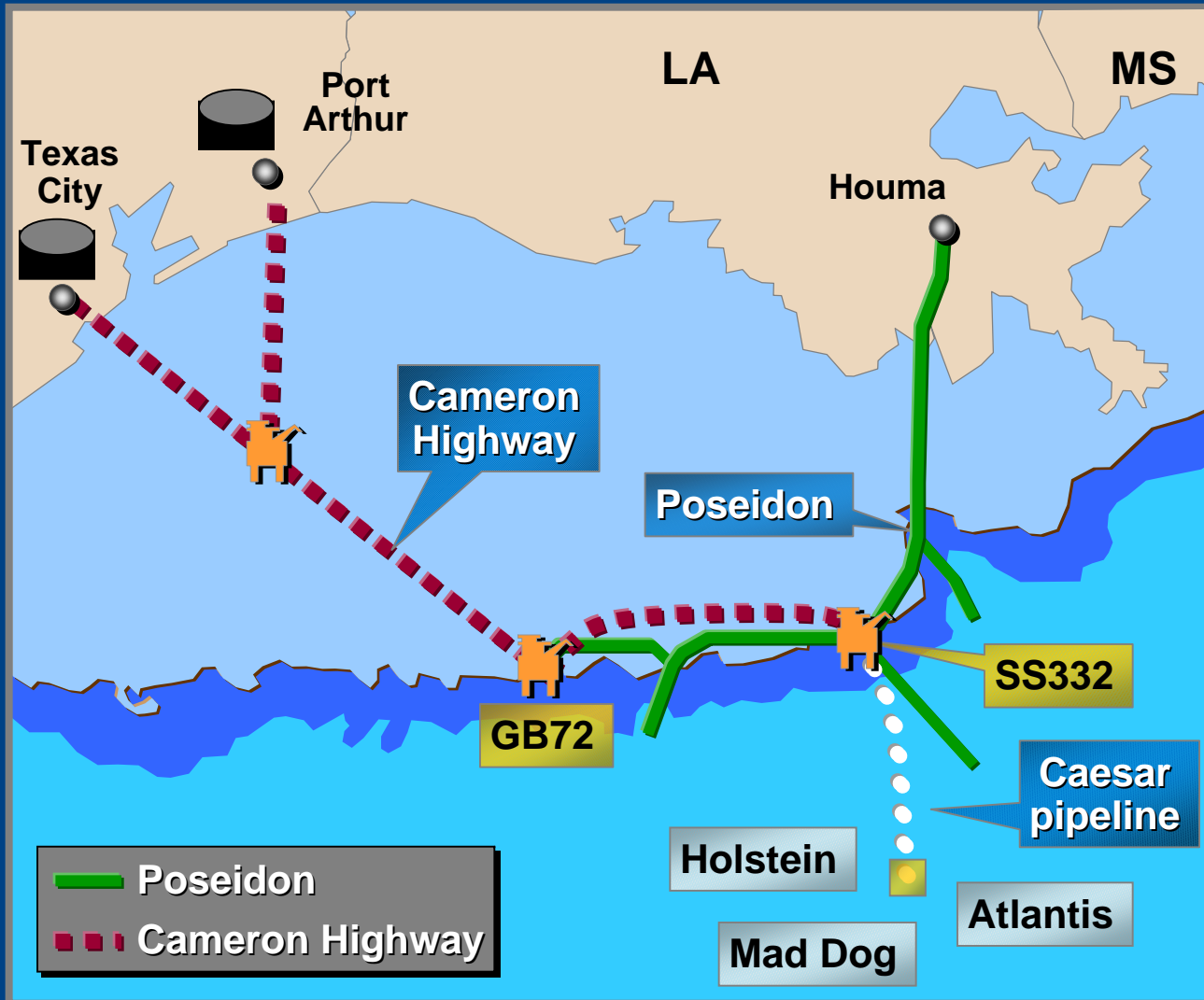
- * Production from
 - Marco Polo
 - K2
 - K2 North
- * Expect to fill 120,000 oil capacity in late 2005 / early 2006
- * Pursuing future gas tie-backs

Falcon Nest Project

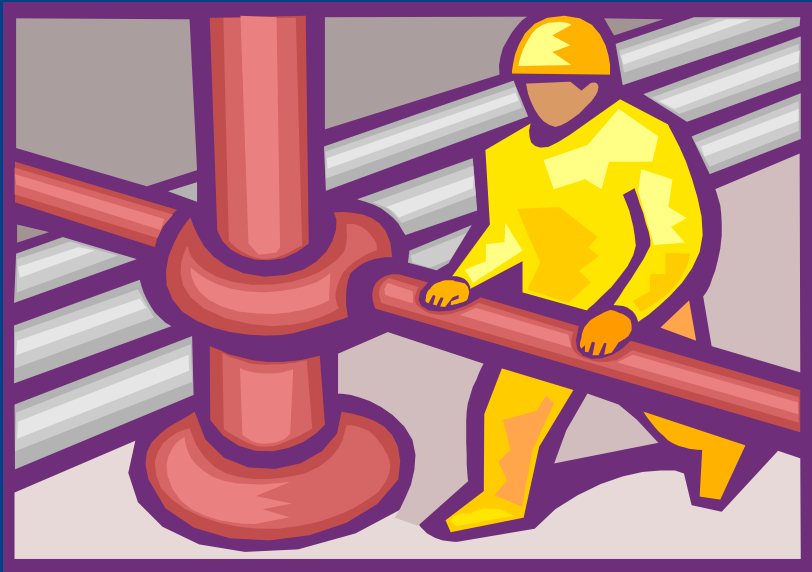


- * Shelf-based platform (400MMcf/d) installed in March 2003
- * Processes production from Pioneer's Falcon, Harrier, Raptor and Tomahawk fields
- * Current production 330 MMcf/d
- * 69,000+ acres of property dedicated to Falcon Nest for life of reserves

Cameron Highway Oil Pipeline



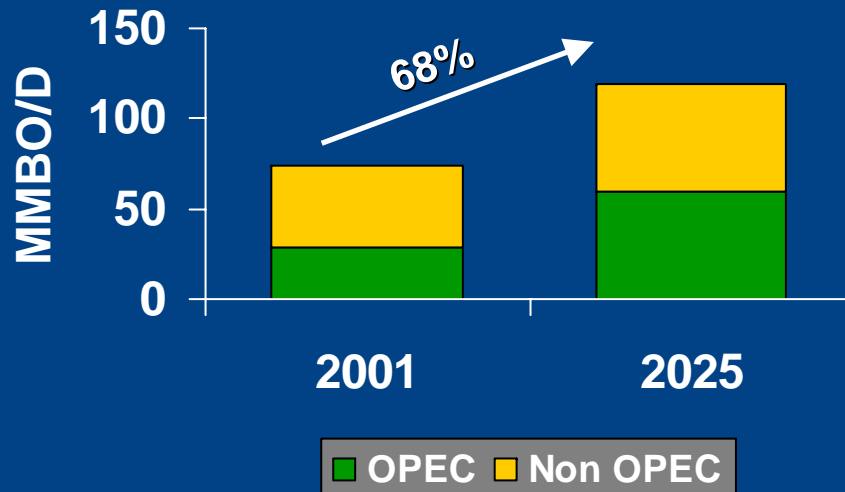
- * \$458 MM project
- * 50/50 partner with Valero
- * 380 miles of 24" and 30" pipe
- * 650,000 BOPD capacity
- * Estimated completion date 4Q 2004
- * Dedication of BP, BHP and Unocal's WI in Holstein, Mad Dog, and Atlantis (1 billion+ barrels)



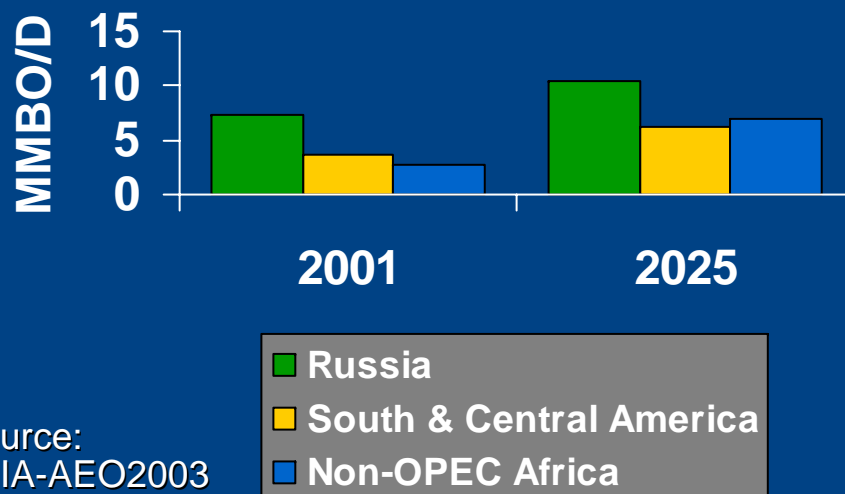
USA Oil Supply

Gulf of Mexico

World Oil Production



- * Significant Growth in:
 - Caspian Sea
 - * 1.6 → 5.0 MMBO
 - Non-OPEC Africa
 - * 2.7 → 6.9 MMBO
 - S&C America
 - * 3.7 → 6.3 MMBO



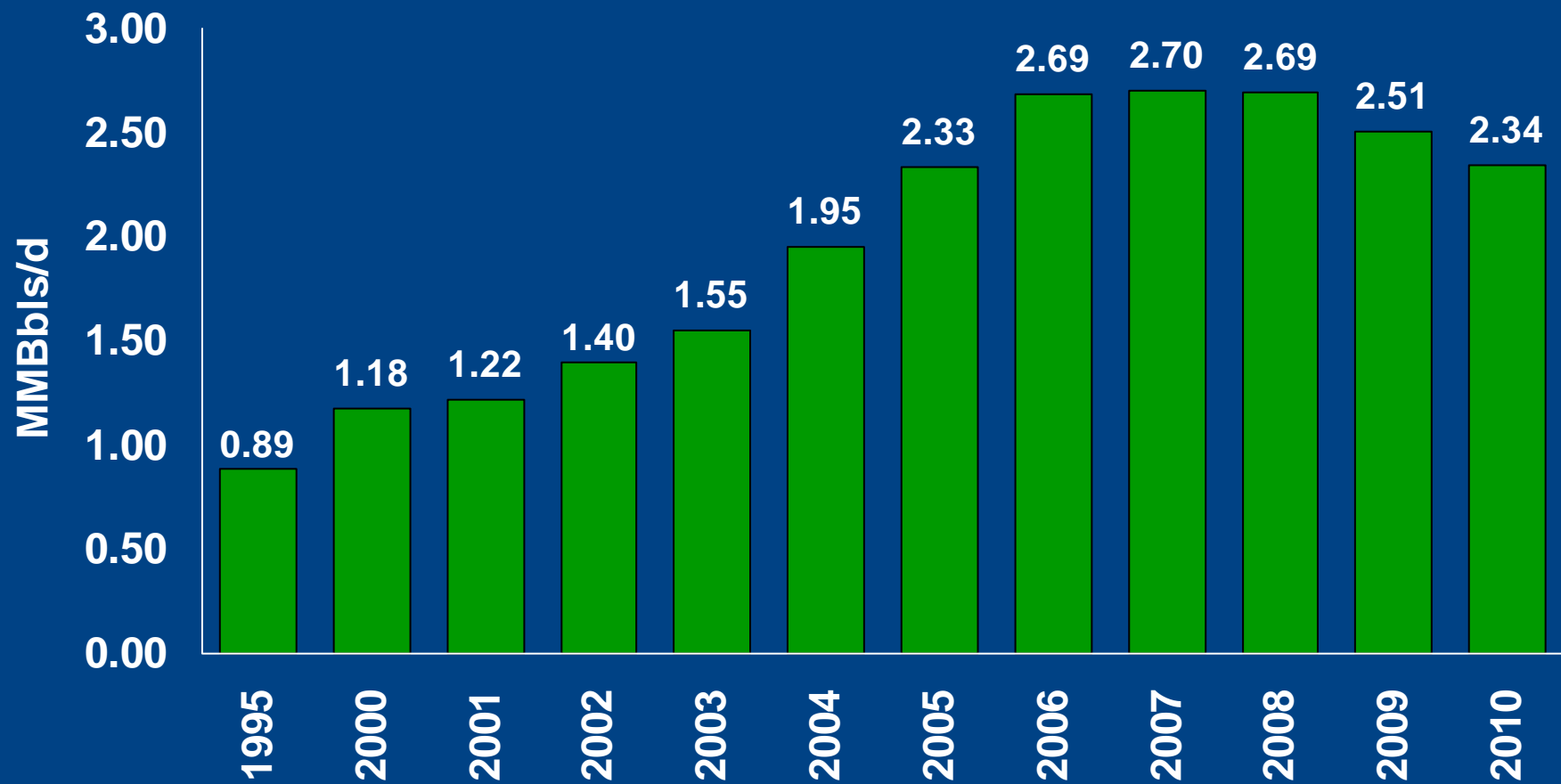
- * Decline in production from industrialized nations (USA, Canada, Mexico, Western Europe)

- * Growth in Gulf of Mexico from 1.6 MMBPD in 2002 to 2.7 MMBPD in 2007

Source:
EIA-AEO2003

Gulf of Mexico Oil Production Forecast

Excludes Condensate



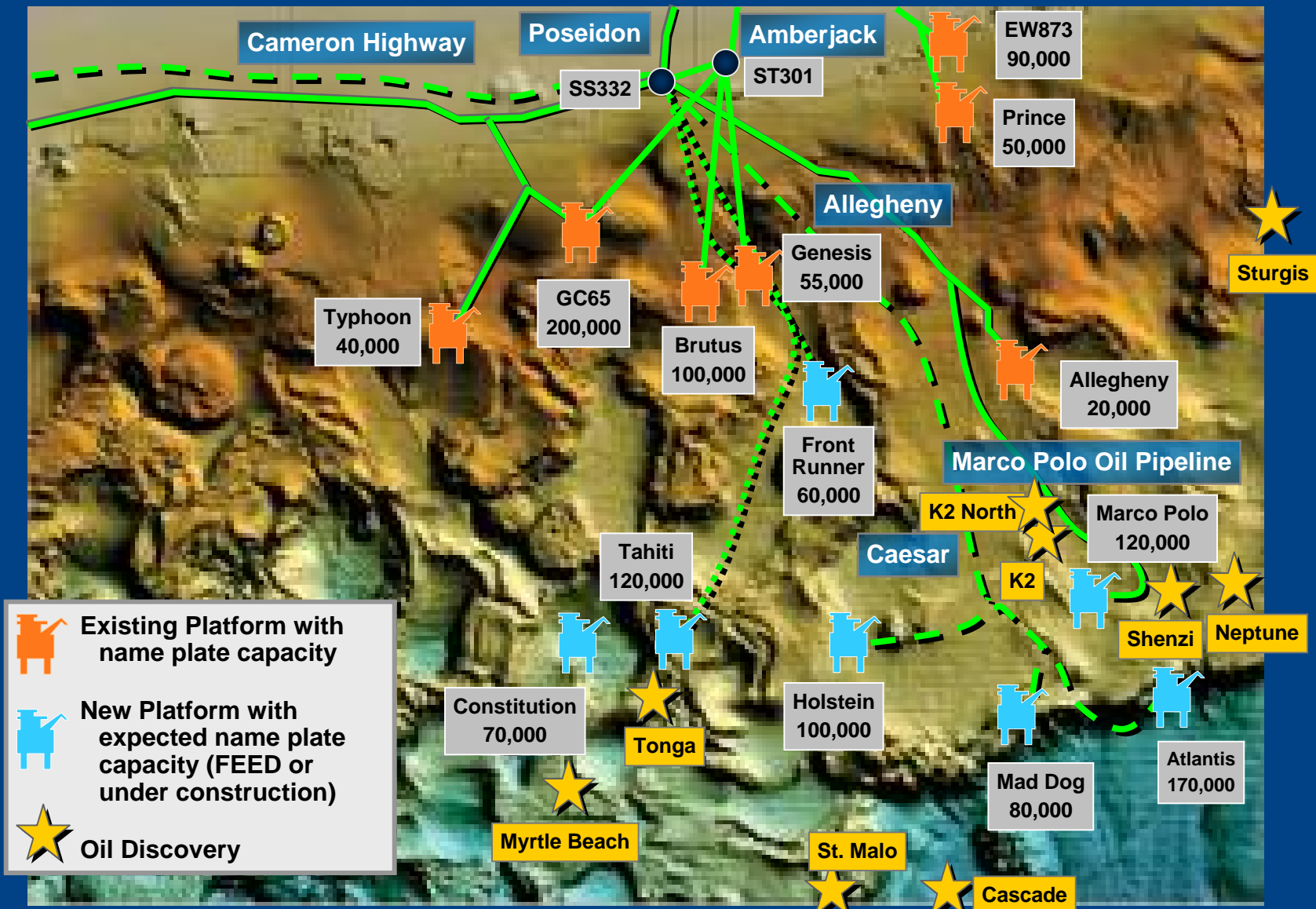
Source: EAI Gulf Coast Crude Supply, Logistics & Refining Outlook – 6/03

Project Development

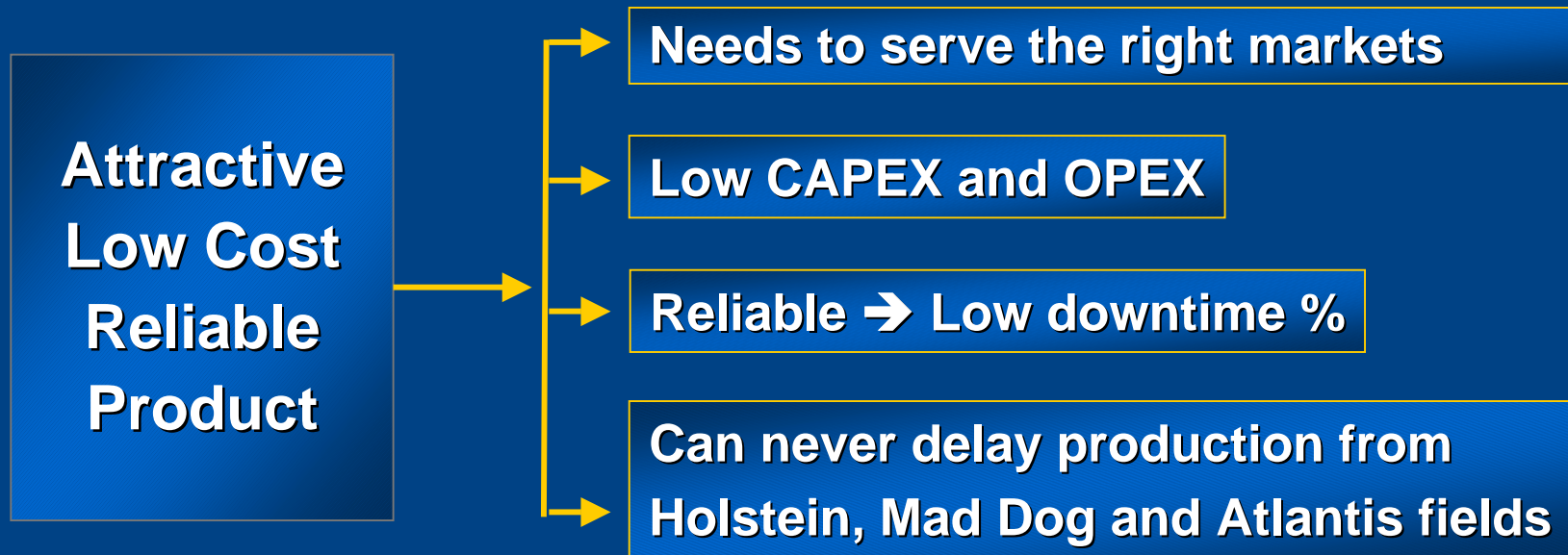


- * **South Green Canyon exploration success**
- * **GulfTerra's Value Proposition**
- * **Formation of CHOPS**
- * **Project Financing**

South Green Canyon: Exploration Success



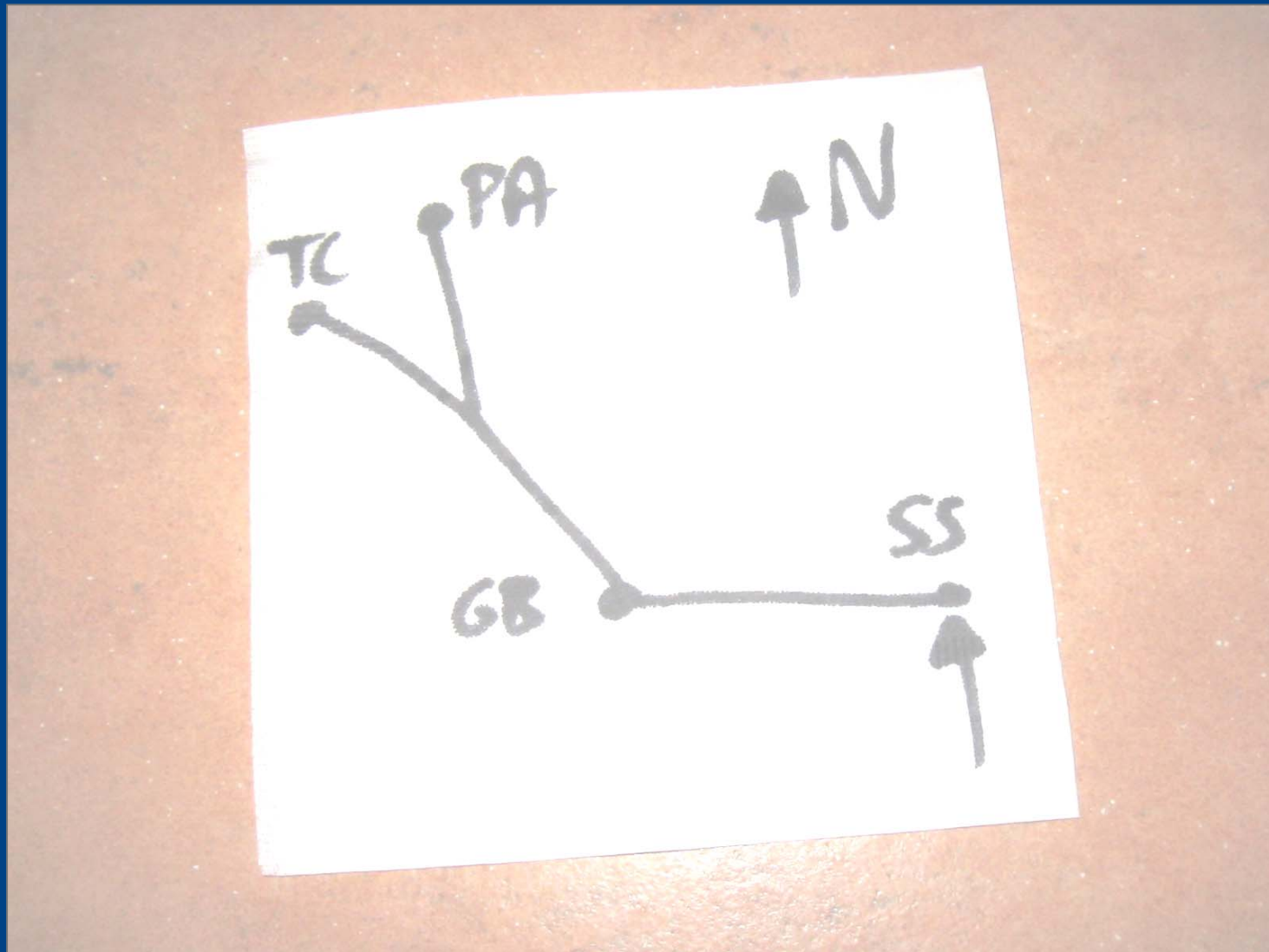
Our Value Proposition



Critical Success Factors

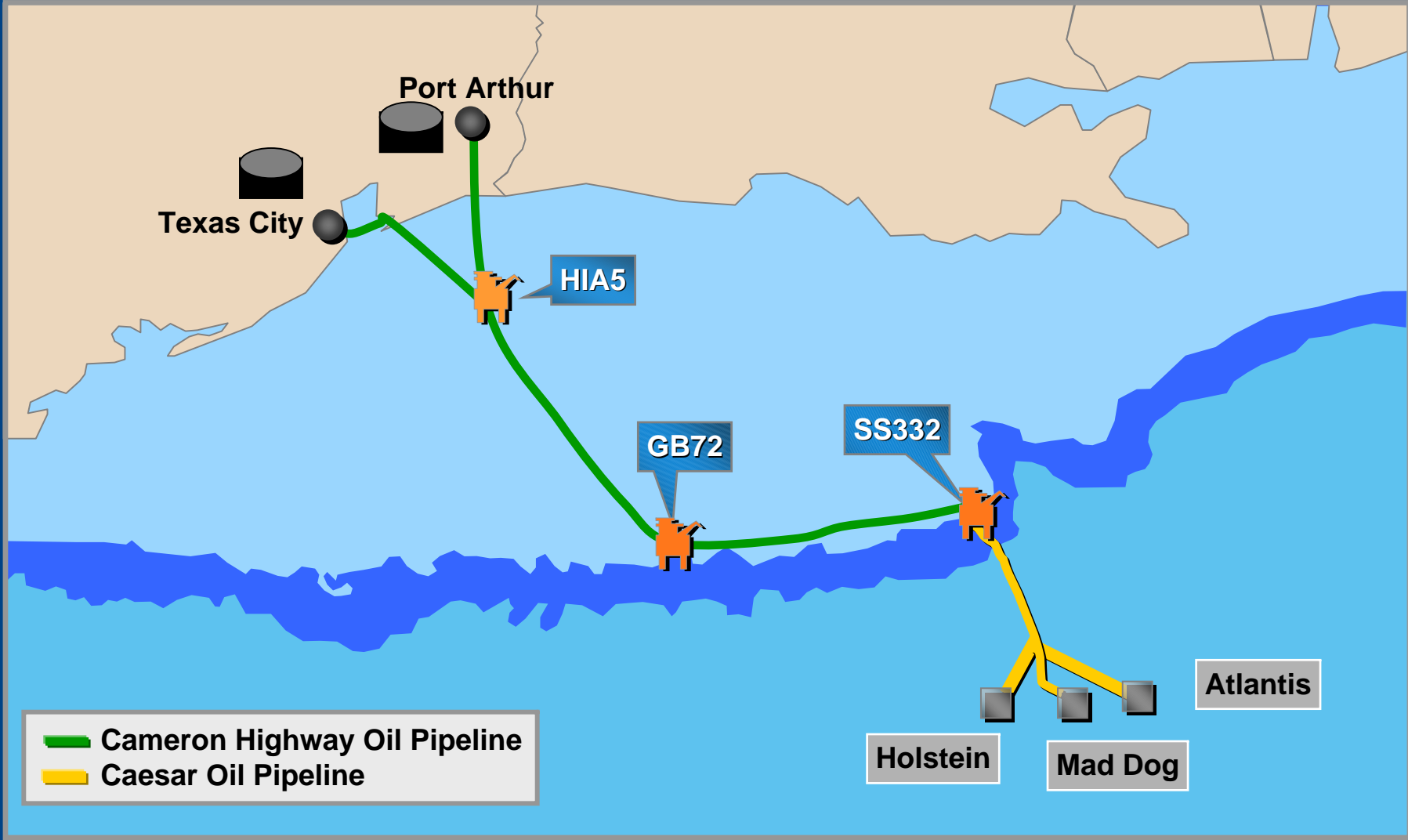
- * Customers who are driven to create shareholder value (highest return projects with E&P risk profile) and invest in core business
- * Successful contractors /suppliers
- * Build a low cost (CAPEX, OPEX) and reliable system

CHOPS Creation



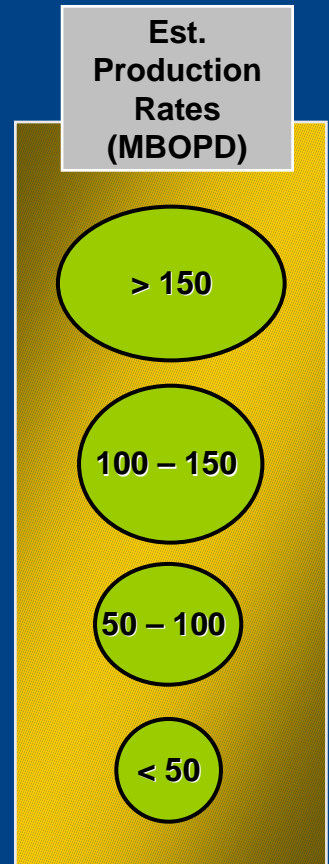
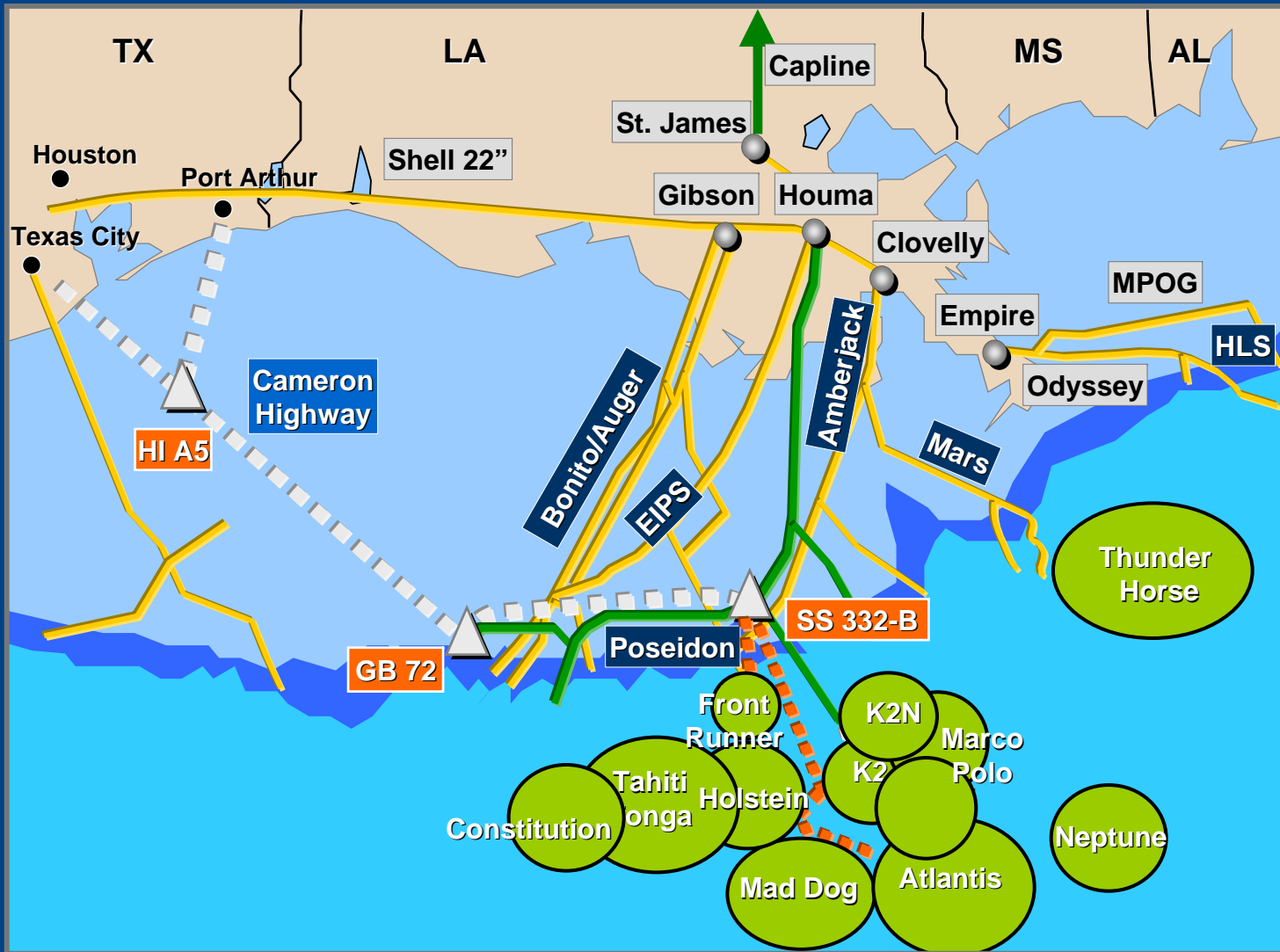
Cameron Highway Oil Pipeline

Gulf of Mexico

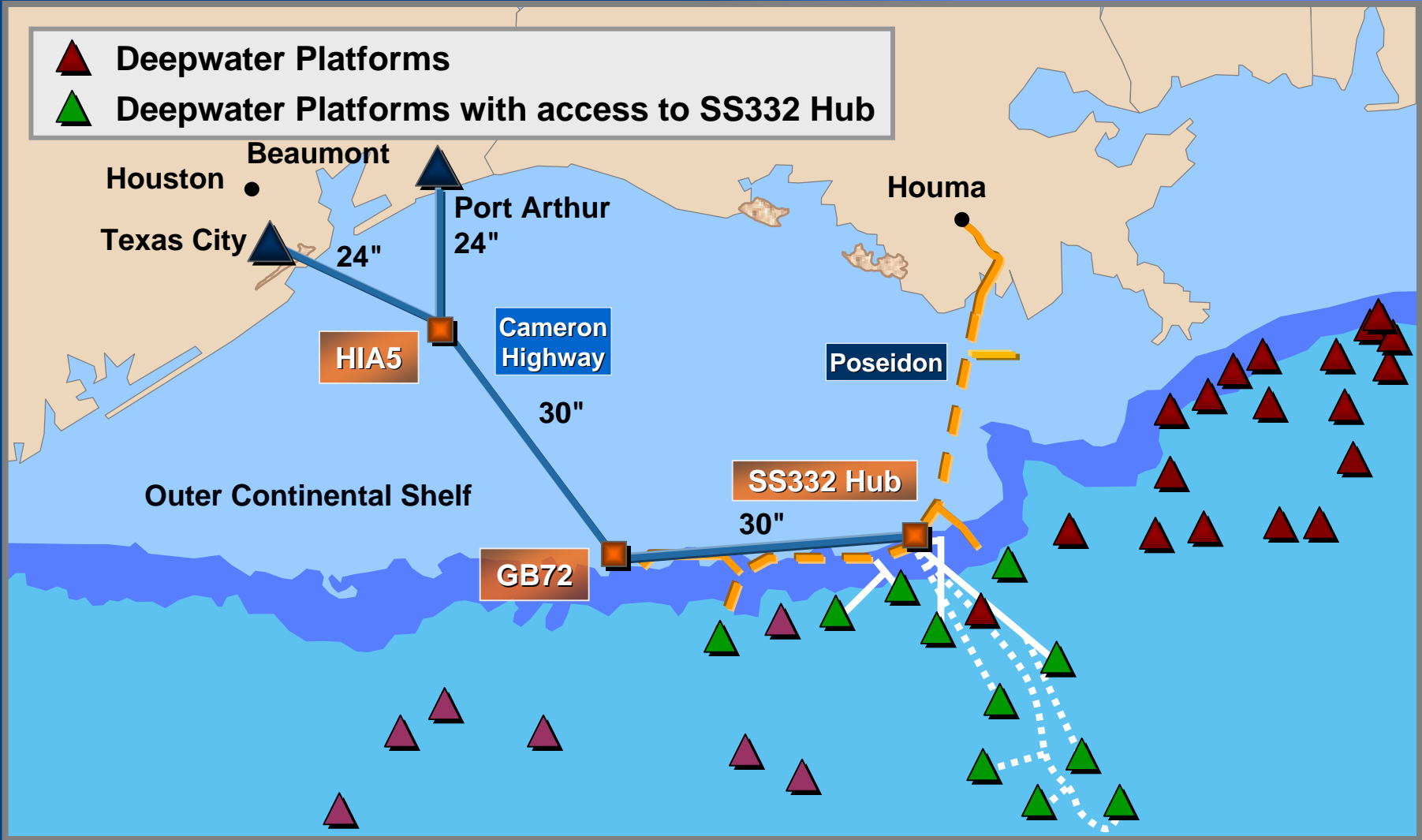


Serving the Right Markets

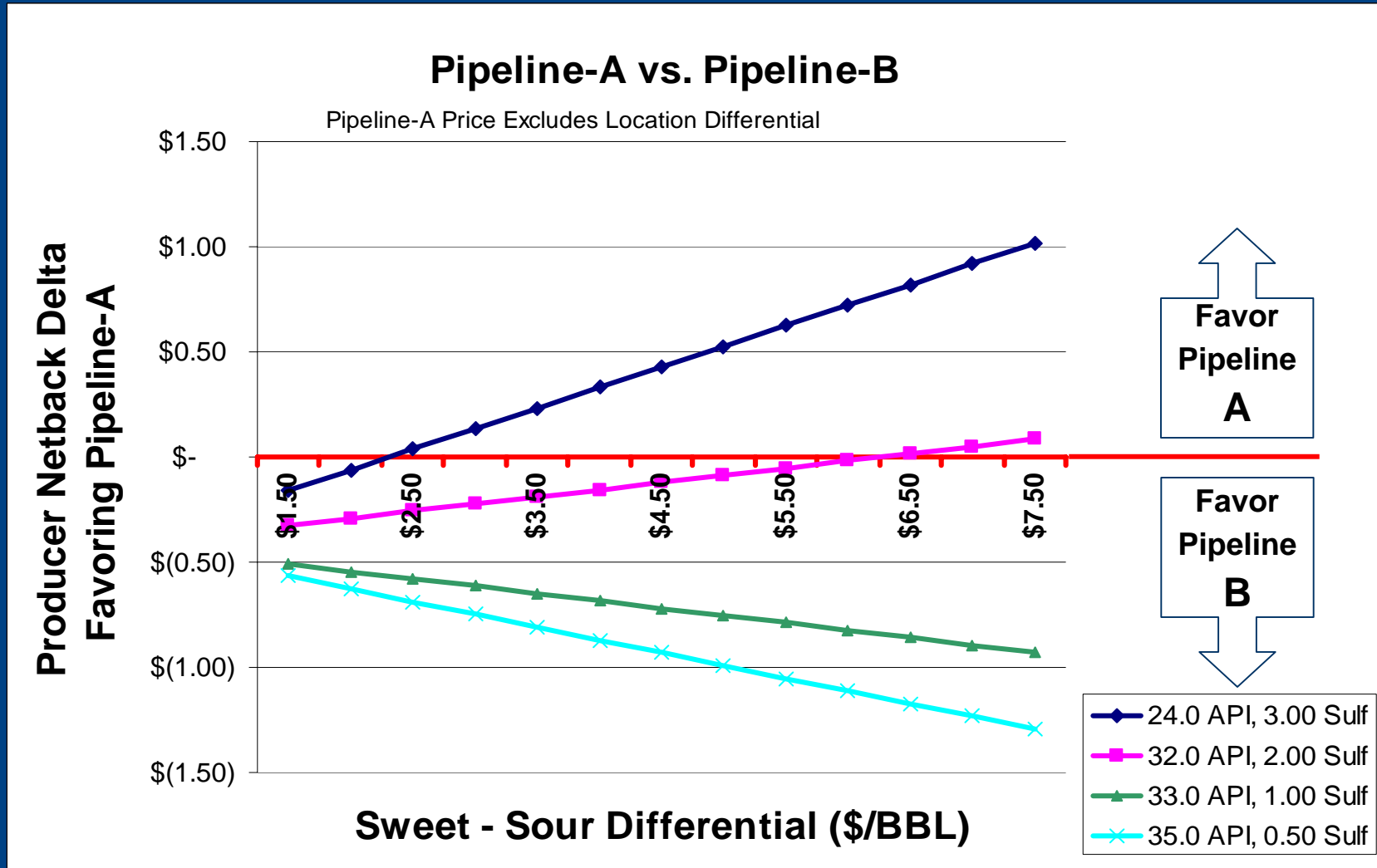
Potential Market Issues



SS332 Hub: Optionality and Liquidity



Effect of Quality Bank on Netback Example



SS332 Hub



SS332 Hub

Supply and Take-Away Capacity

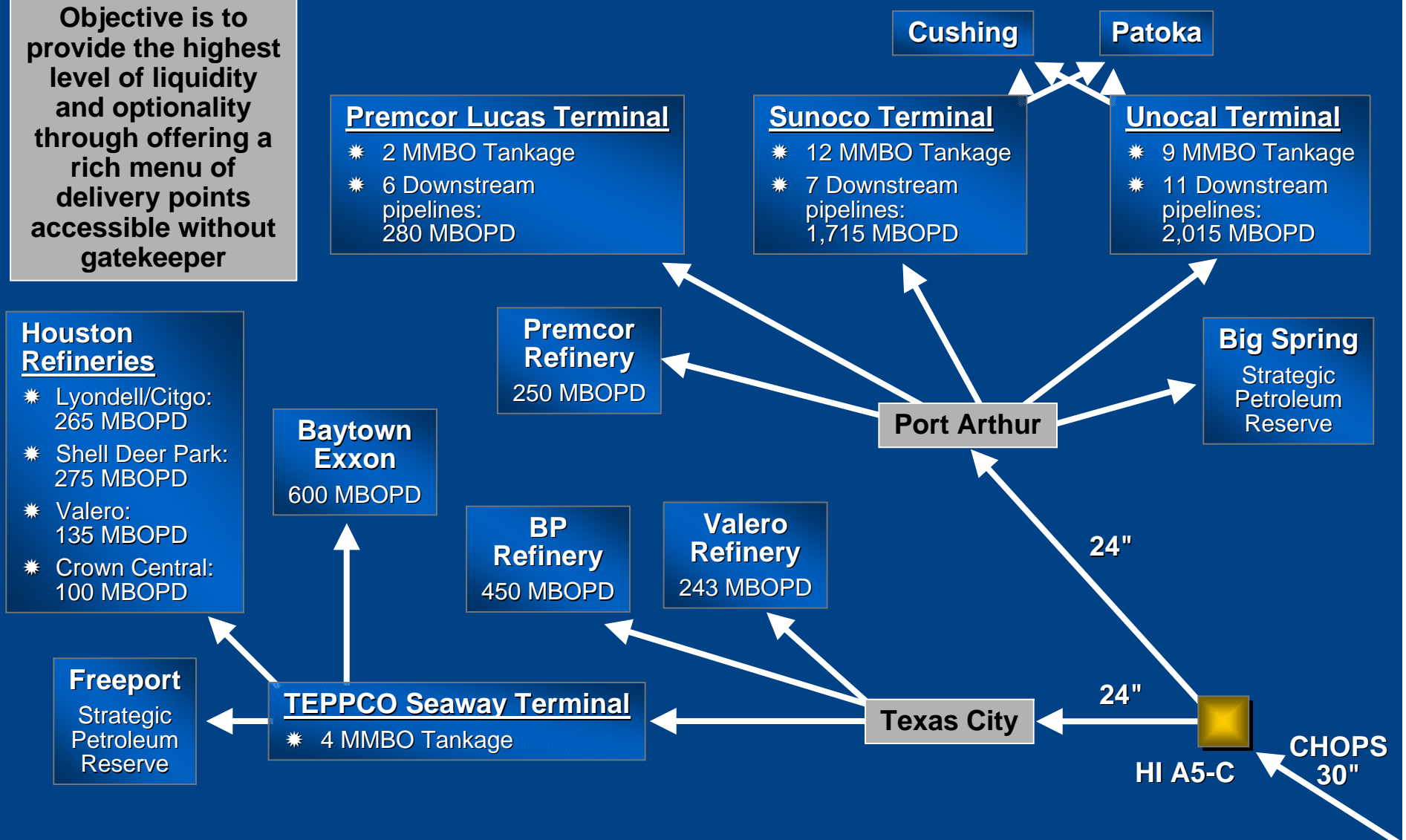
Supply	Capacity	Take-Away	Capacity
Poseidon West ⁽¹⁾	400,000	Poseidon ⁽¹⁾	400,000
Caesar	500,000	Cameron Highway	500,000
Jackalope (Brutus)	200,000		
Allegheny	150,000		
Front Runner	120,000		
Future	500,000		
Total	1,870,000	Total	900,000

Notes

1. Requires pumps
2. Jackalope pipeline interconnects ST301 with SS332A

Cameron Highway Delivery Points Overview

Objective is to provide the highest level of liquidity and optionality through offering a rich menu of delivery points accessible without gatekeeper



Project Development Timeline

- * Originated Cameron Highway plan in late 2000
- * Negotiated Anchor tenant deals in 2001
- * Announced Cameron Highway Pipeline System (“CHOPS”) in February 2002 with the simultaneous execution of binding agreements with BP, BHP, and Unocal
- * Solicited bids for ownership in Cameron Highway and secured bids in excess of \$100 MM
- * Identified Valero as best fit for partner on Cameron Highway and negotiated sale down of 50% interest in CHOPS to Valero for \$35 MM June 2002-July 2003
- * Secured \$325 MM project financing for CHOPS June 2002-July 2003
- * Formed Cameron Highway Oil Pipeline Company July 10, 2003

Project Execution

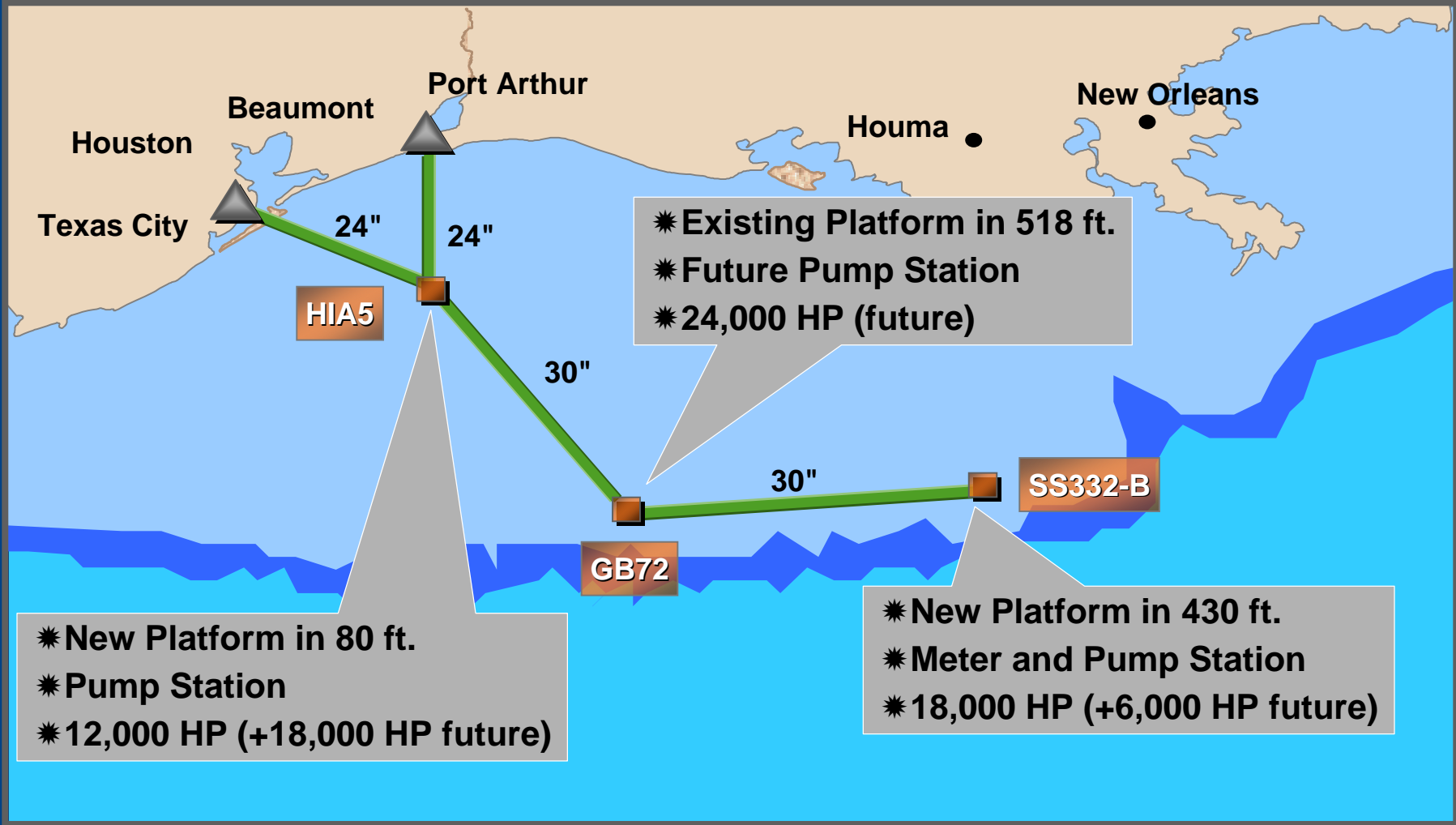


- * **System Overview**

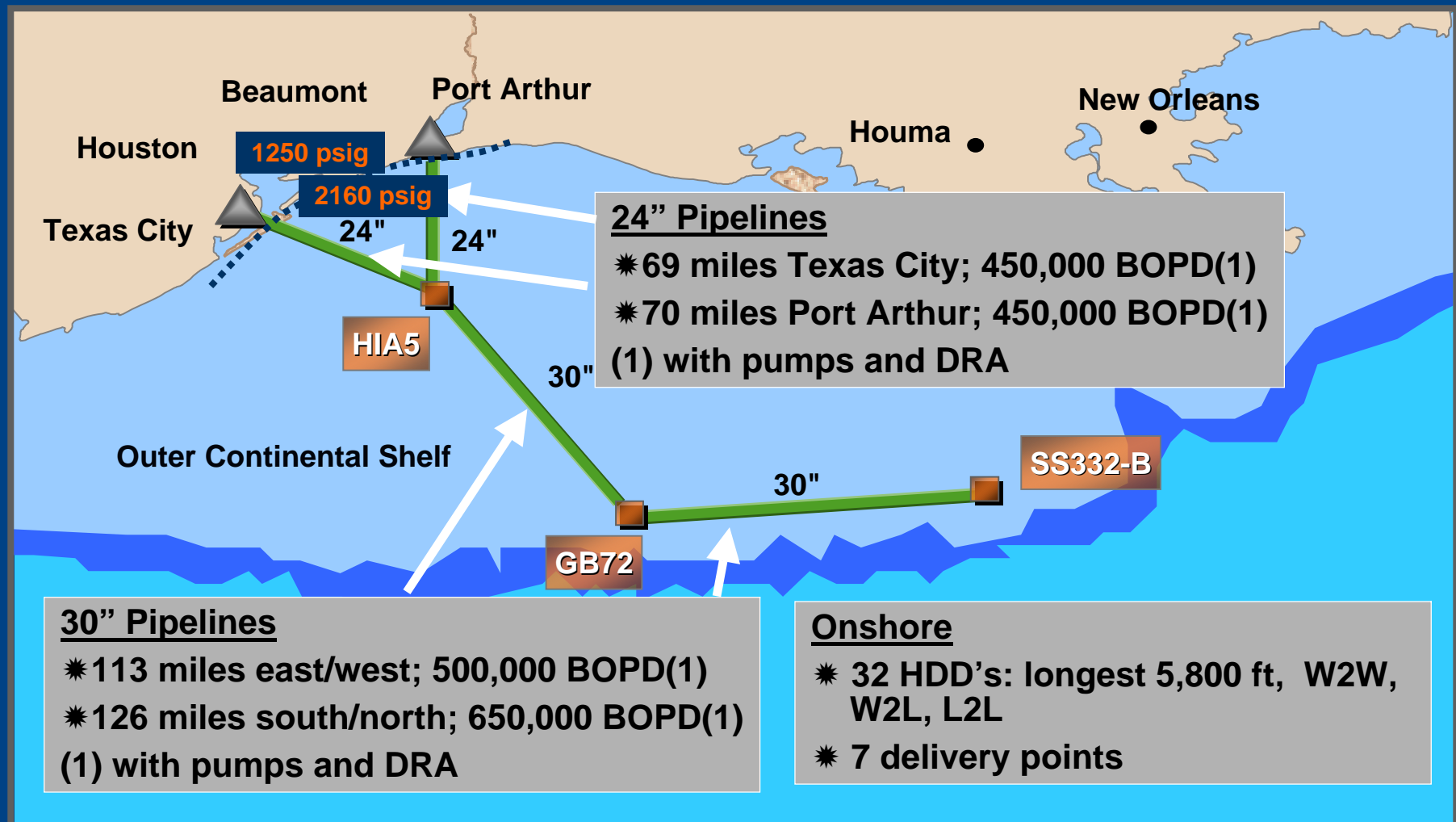
- * **Challenges**

- * **Successes**

Cameron Highway Overview: Platforms



Cameron Highway Overview: Pipelines



Cameron Highway Overview

* Leak Detection

- State of the art leak detection system designed by ATMOS, monitors CHOPS from San Antonio
- System can detect 1% leak within two hours
- Redundant communications for SCADA and leak detections through microwave and satellite offshore and land line and satellite onshore

* Operations

- 12 – 14 persons per shift at SS332A and HI-A5 platforms and onshore
- Entire system fully capable of remote operation from San Antonio control center and equipped with a hurricane evacuation remote operation (HERO) system

Project Execution: Challenges

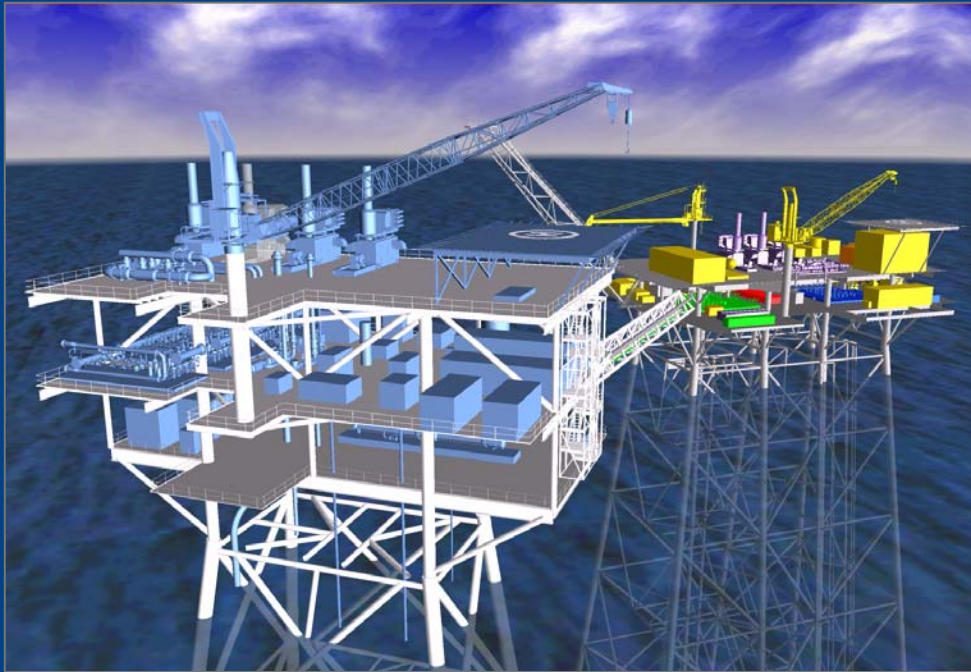
- * Balance the need to minimize pre-sanctioned expenditures (<\$ 1MM) and produce accurate cost estimates
- * Fast track schedule; 30 months from project sanctioning
- * Onshore ROW Acquisition; private pipeline without the rights of condemnation
- * Onshore environmental permitting
- * Design of 540,000 BOPD offshore meter station
- * Use of SS332A Platform

SS332A Platform



- * Base plan to install a new superdeck to host the CHOPS pump station was rejected by the MMS
- * MMS required the application of re-use (vs. re-assessment) criteria due to lifecycle change
- * Air-gap of this structure did not meet these criteria
- * New plan was to install a bridge-connected “B” platform

SS332B Platform



- * Bridge-connected to SS332A Platform
- * 7 pipelines on bridge with expansion loops on bridge
- * Fast track project due to timing of Caesar pipeline
- * Used Falcon Nest Platform jacket design
- * Provides space for future deepwater pipelines and measurement facilities

Project Execution: Successes

- * Excellent Safety record with current LTIF < 0.3 (0.23)
- * \$458 MM Budget absorbed new SS332B platform (~\$50 MM unbudgeted item)
- * Designed, procured, fabricated and installed SS332 B Platform in 13 months
- * System on track for October 2004 completion
- * Procured approximately 40 ROW agreements with private and public landowners
- * Installation in congested corridors and in environmental and wildlife sensitive areas with no environmental incidents
- * Managed over 60 construction permits for onshore installation
- * Project managed by small experienced project team with authority

Project Execution: Successes

- * Successfully implemented several cost savings initiatives:
 - Installed offshore pipeline wet → No concrete
 - Ordered (i) 25% of 30-inch line pipe and (ii) heavy wall 24" and 30-inch from Wellspun pipemill in India
 - Use of GB72 and SS332A Platforms
 - Use of 12-inch mattresses for 60 crossings
 - Contract strategy
 - Small project team
 - No EPC

Project Execution Timeline

Oct 2001	Start of preliminary engineering
Feb 2002	Began marine survey work in state waters and land survey on PN route
Mar 2002	Project AFE approved
May 2002	Audited Indian pipe mill Submitted USACE permit application for PN route
Jun 2002	Awarded pipe to 3 mills
July 2002	Awarded offshore installation contracts
Sep 2002	Applications for 24" offshore routes submitted to MMS
Oct 2002	Informed by MMS existing SS 332 structure unsatisfactory for expansion
June 2003	Galveston Bay installation commenced
Sep 2003	Commenced installation of 24" offshore pipelines
Nov 2003	SS 332 'B' jacket and piles completed and loaded out Initiated 30" pipeline installation work
April 2003	Offshore 30" pipeline installation work completed

SS332B Platform

- ✦ SS332 B Jacket 4,000 tons
- ✦ Fabricated at Gulf Island
- ✦ Jacket, cellar deck & bridge installed by Heerema Feb 04



- ✦ SS332 Deck 2,600 tons
- ✦ Fabricated by Dynamic
- ✦ Installed by McDermott May 04

SS332B Platform

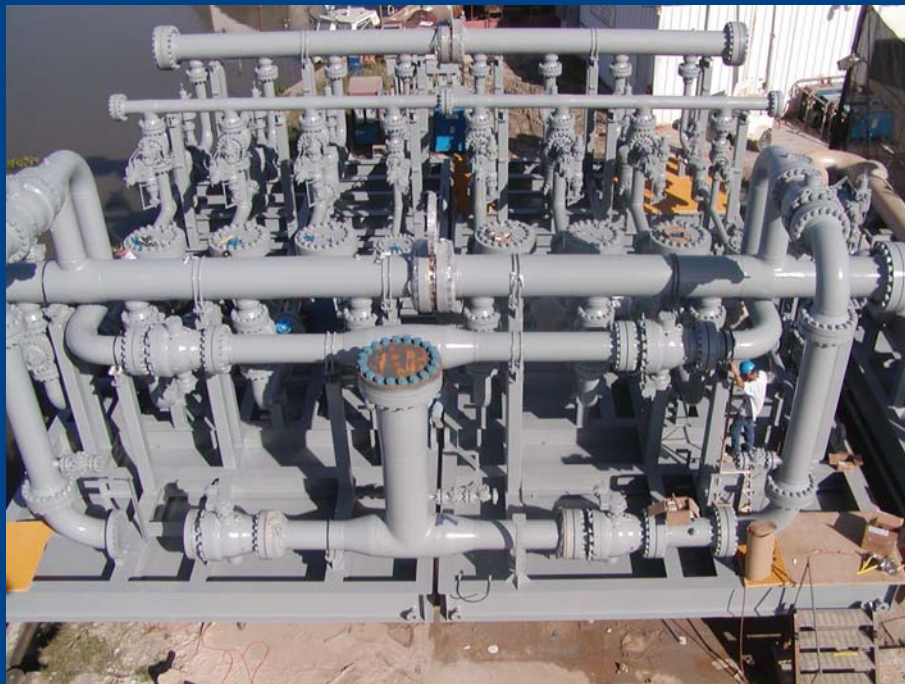
- * SS332 B Deck installation
- * Bridge to A platform 210 feet long and support 4 pipelines



- * SS332 A and B platforms
- * Water depth: 430 feet

SS332B Platform

- * SS332 B meter skid
- * Fabricated at Cajun Cutters in Houma
- * First time ANSI 900 10" PD meters have been utilized



- * SS332 B meter
- * Capacity is 6 x 10" with 540K BPD
- * 2-6" with 54K BPD as spare and future capacity

30-inch Pipelines

- * 30" pipelines installed by Allseas Solitaire
- * 240 miles / average 475 40 ft joints per day
- * Assembled double joints on the vessel



- * Pipe FBE only no weight coating
- * Pipeline was flooded during lay operations

GB72 Platform

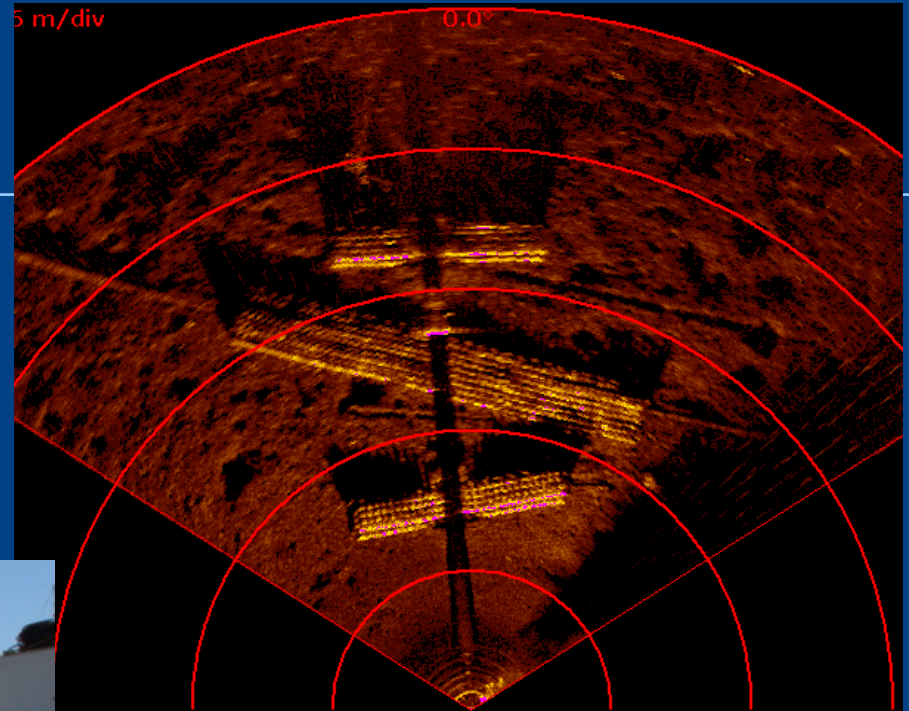
- ✦ 2 single piece 30" risers 515 feet long each
- ✦ Water depth: 520 feet



- ✦ Installation of new deck extension
- ✦ Installation of incoming and outgoing piping

Pipeline Crossings

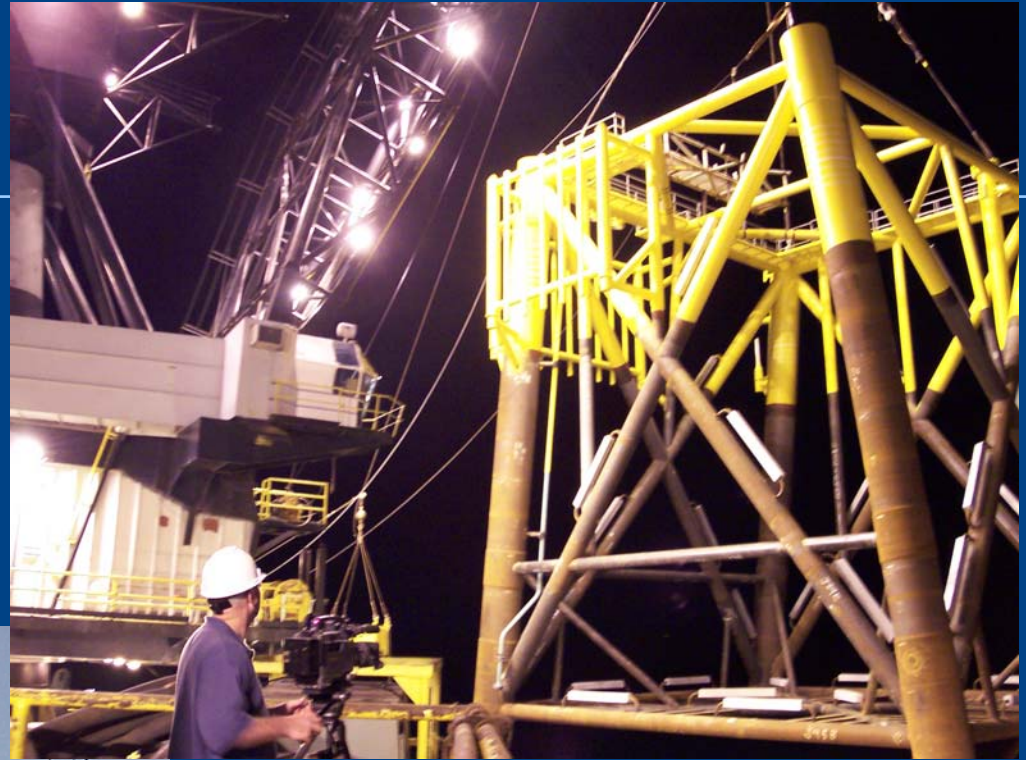
- * Over 60 specially designed crossings
- * Utilized over 2,000 concrete mattresses



- * Three subsea 30" riser to pipeline spool assemblies
- * Installed with saturation diving

HI-A5 Platform

- ✦ HI A-5 jacket fabricated at Dynamic Industries, New Iberia



- ✦ Installed by Horizon Offshore
- ✦ 4 miles of 6" pipeline connect to subsea tie-in for fuel gas supply
- ✦ Water depth: 65 feet

HI-A5 Platform

- ✦ HI A-5 jacket fabricated at Dynamic Industries



- ✦ Installation scheduled for mid-July with McDermott

HDD

- ✦ Two coastal 24" Horizontal Directional Drills
- ✦ Port Neches and Bolivar



- ✦ Four 24" Horizontal Directional Drills in Galveston Bay
- ✦ Two W2W HDD's
- ✦ Longest 5,800 feet

Bay Pipeline

- ✦ 16 miles of 24" installed by Sunland across Galveston Bay
- ✦ Included 4 directional drills



- ✦ 24" Installation across Bolivar Peninsula

Port Neches

- ✦ 24" Spec Break at the Keystone site
- ✦ Facility is approximately 2,000 feet from the beach



- ✦ System is designed to withstand a category 4 hurricane
- ✦ In approximately 1 minute pipeline can be shut-in

Texas City

- * 4 miles of 24" installed by Troy
- * Includes 4 horizontal directional drills



- * 24" at Valero terminal

Port Arthur

- ✦ 30 miles of 24" installed by RIP Port Neches to Port Arthur
- ✦ Included 22 horizontal directional drills



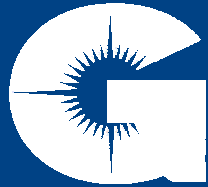
- ✦ 24" installed in marsh areas

Work Left (main items)

- * HI-A5 Deck installation
- * Complete hook-up of platform and delivery points
- * System hydrotest
- * Dewater and commence linefill (1.5 million barrels)

The End





GulfTerra



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