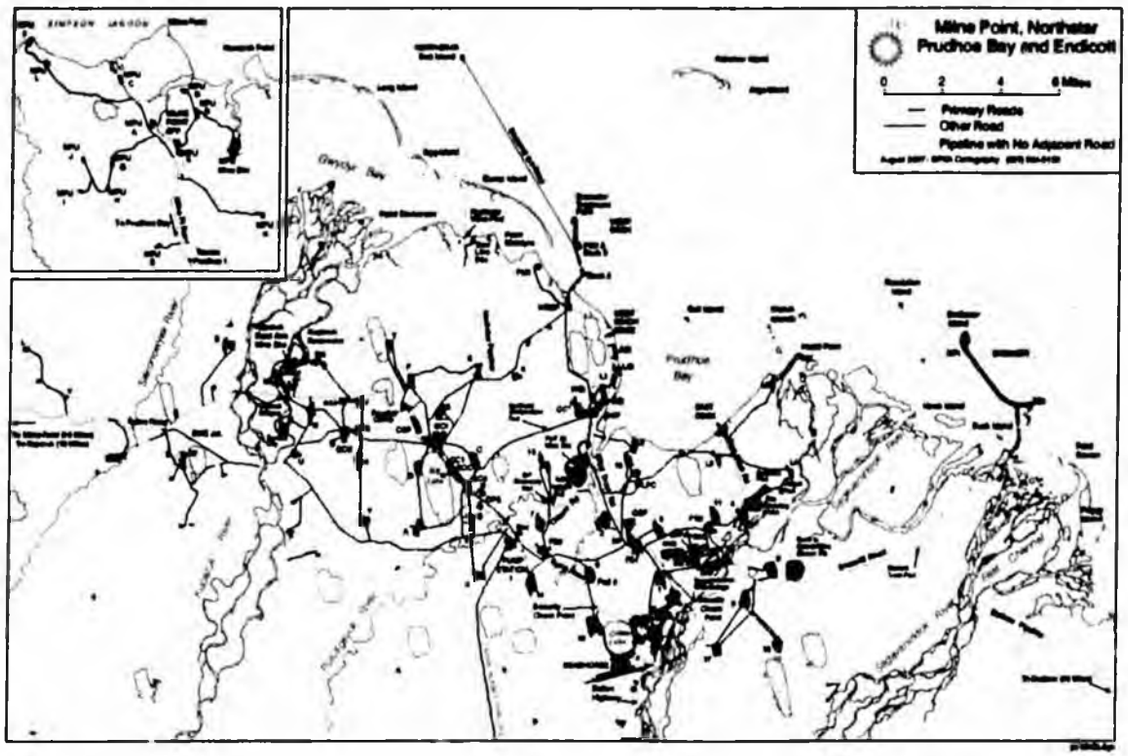
Prudhoe Bay

2500 holes drilled. 1200 active.

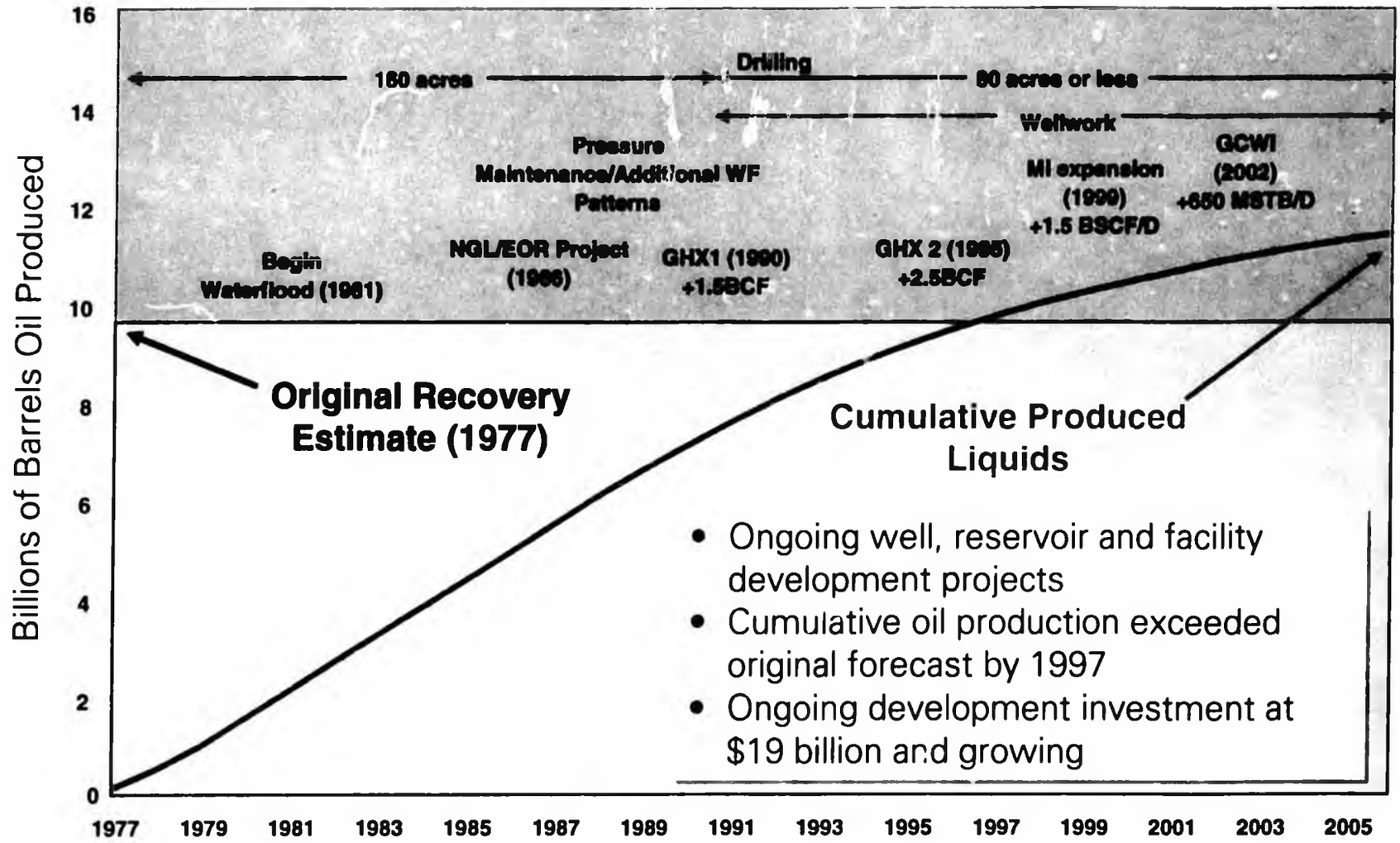
- Largest Oil Field in North America

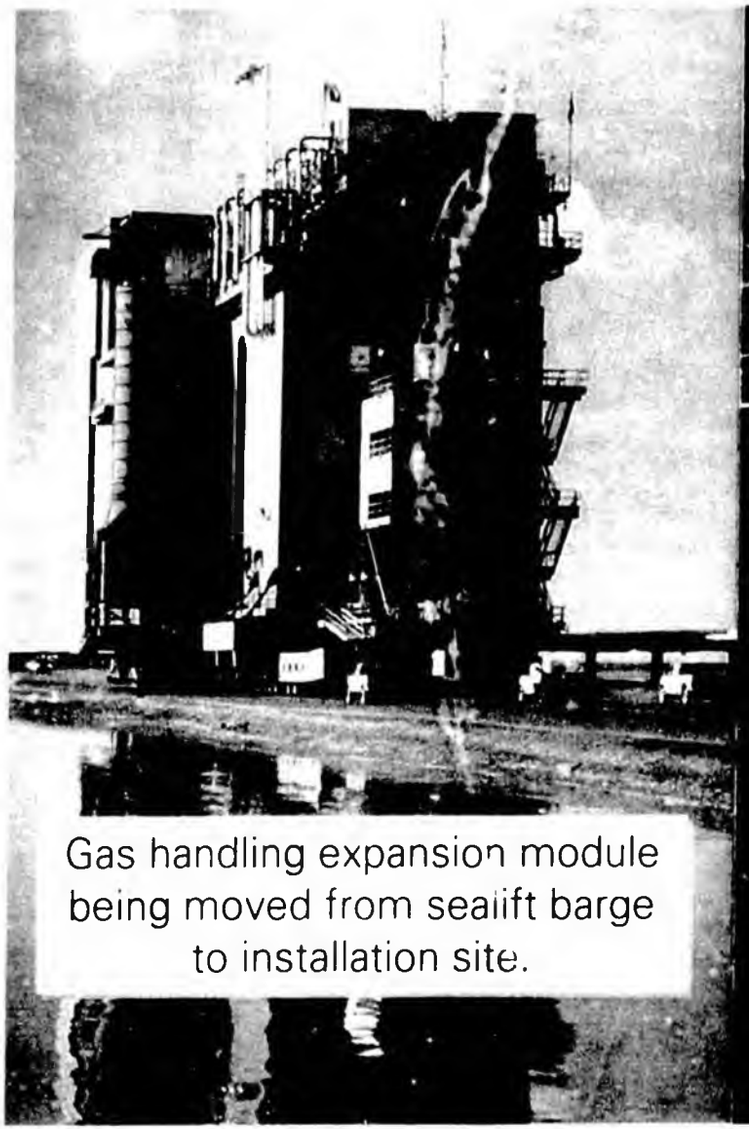
1 in 10 wells is a good success rate in exploration.
80% success rate in Prudhoe infield drilling

- Extensive and successful development
  - 60 square miles
  - 11 major facility locations
  - 42 Drill sites
  - 1200 active wells
- Future challenges
  - Managing declining oil rate, and increasing water and gas rates
  - Ongoing developments, light and heavy oil, to offset steep natural decline
- Technology development and deployment is key
  - Arctic specific
  - Advanced reservoir processes
  - World class drilling and workover
  - Facility upgrades

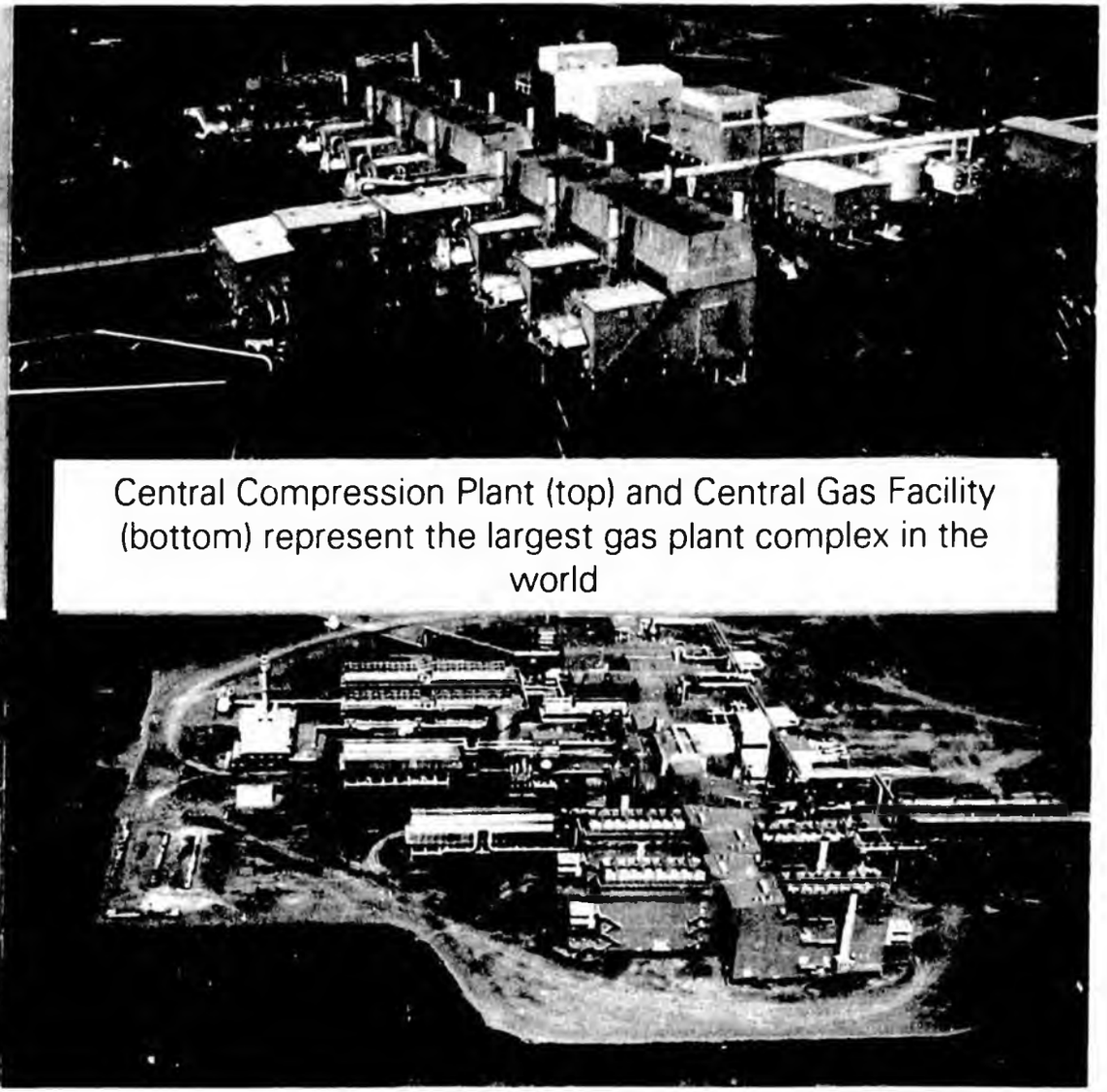


Prudhoe Bay Development History

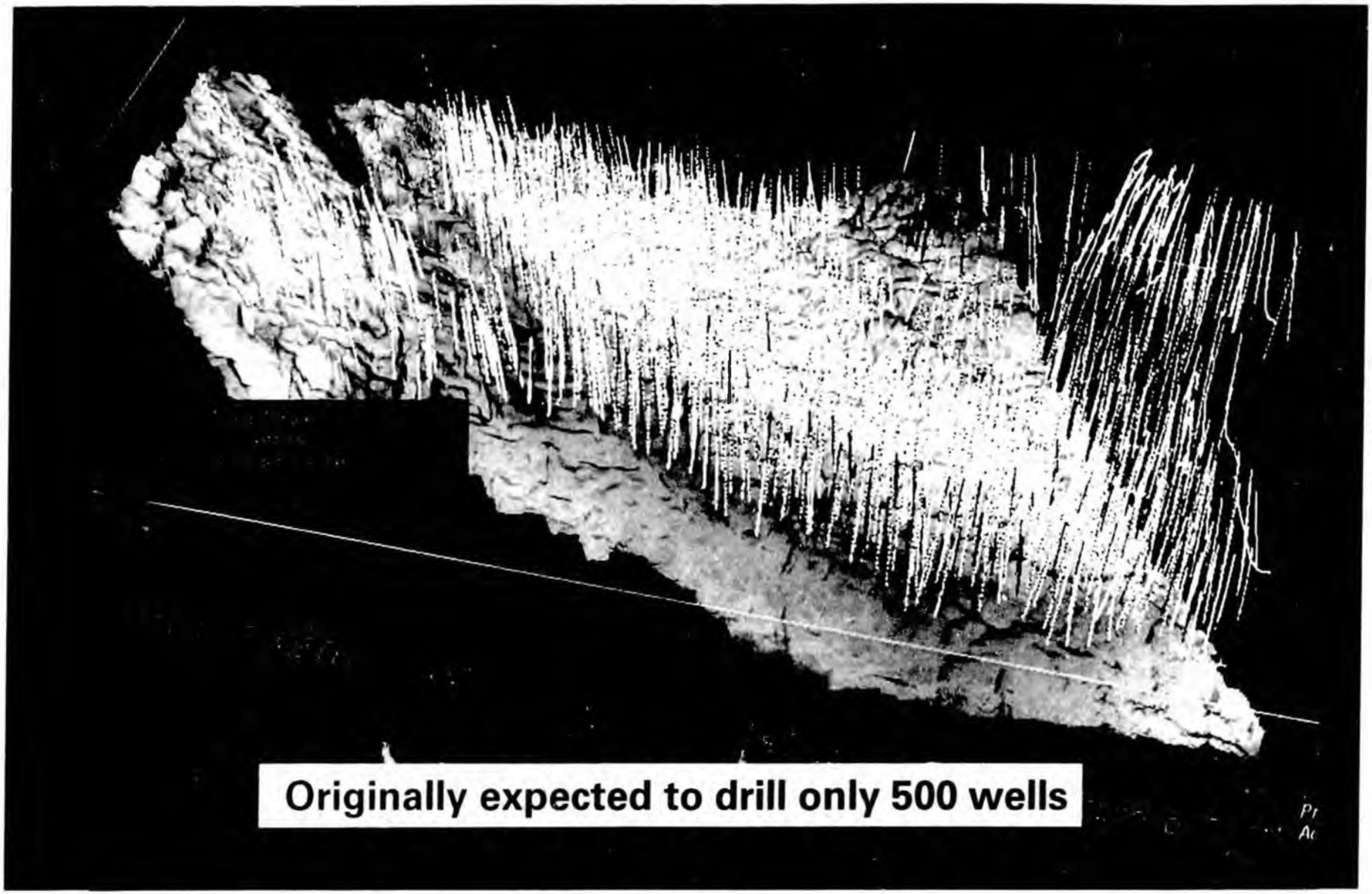




Gas handling expansion module being moved from sealift barge to installation site.



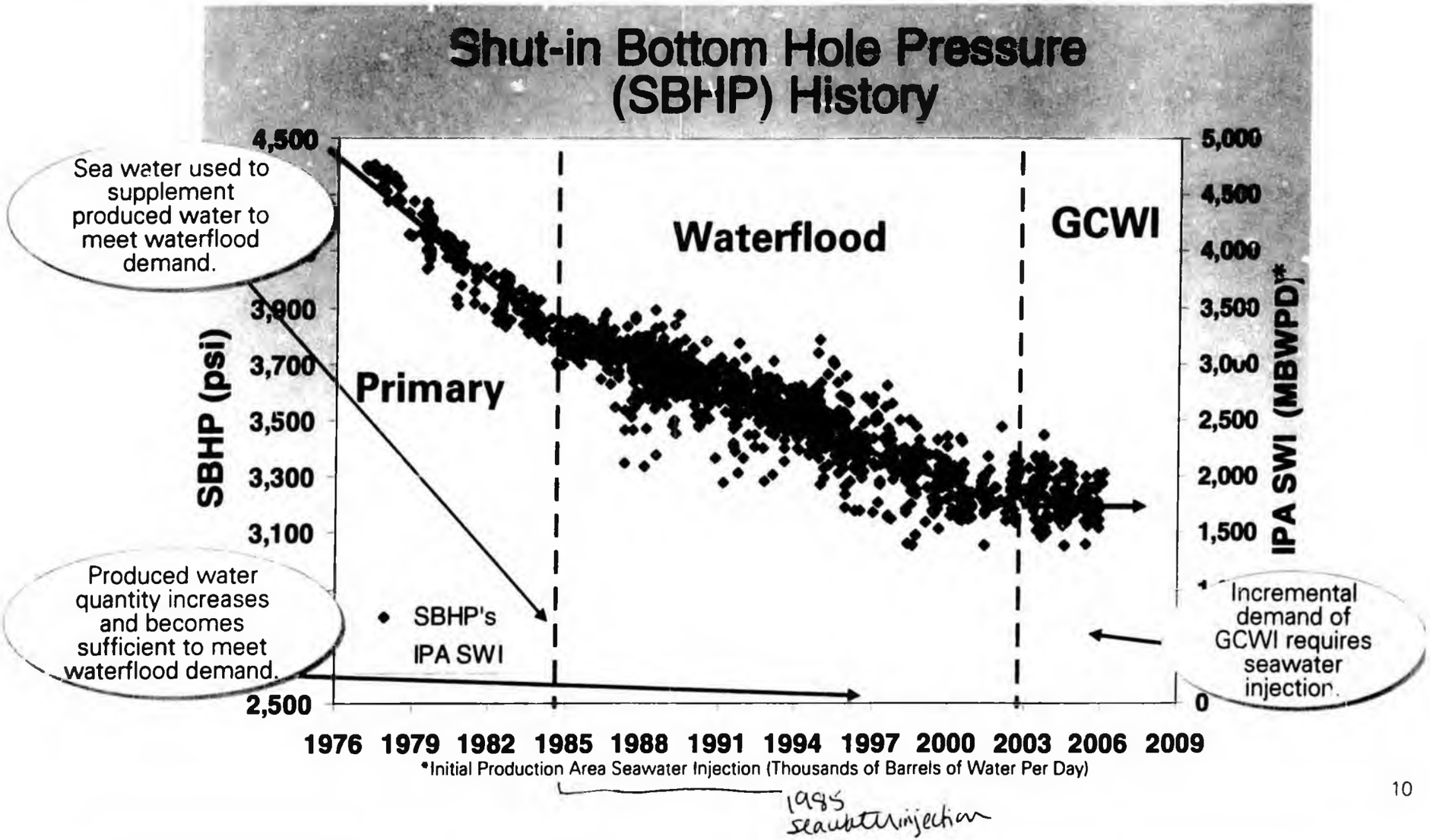
Central Compression Plant (top) and Central Gas Facility (bottom) represent the largest gas plant complex in the world


Originally expected to drill only 500 wells

Water Injection Projects

bp

Water injection into the oil reservoir (i.e., waterflood) to maintain field pressure followed by new Gas Cap Water Injection (GCWI) technology



Projects: Bright Water ™

Objective

- Increase Oil recovery through improved sweep efficiency
- Reduce produced water

Concept:

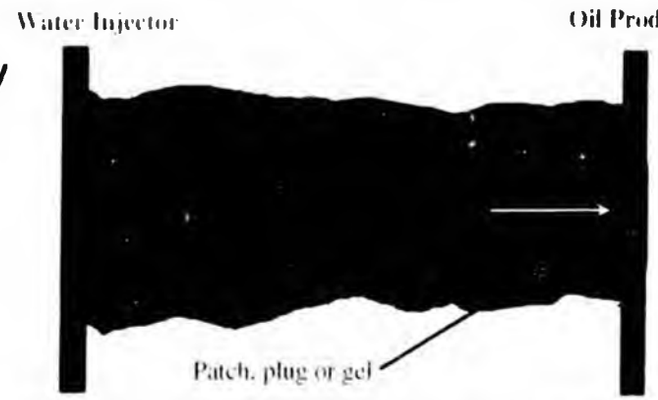
Polymer expands after deep penetration into reservoir, effectively blocking the swept zones and forcing the water into unswept oil zones. Timing for expansion and change in sweep is 9 months. Lab testing shows 2%-20% additional recovery.

2006 Highlights:

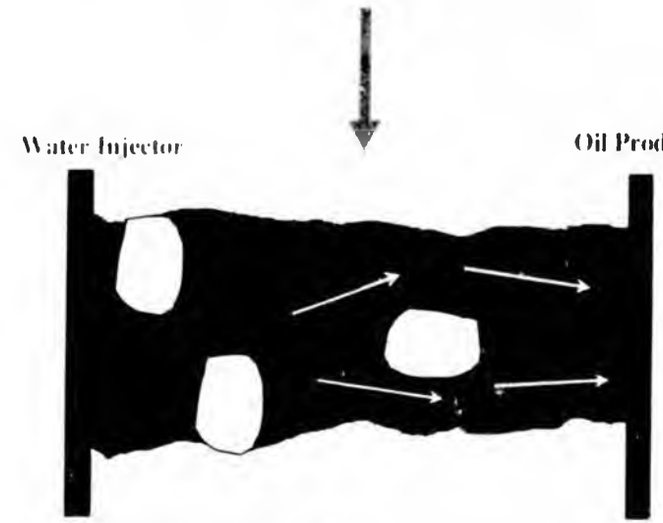
- NWFB Trial: limited response due to design and operational difficulties
- FS2 Trial: measurable response in 7 offsets

2007 Plan:

- Continued monitoring of FS2 and NWFB trials
- Pursuing additional treatments



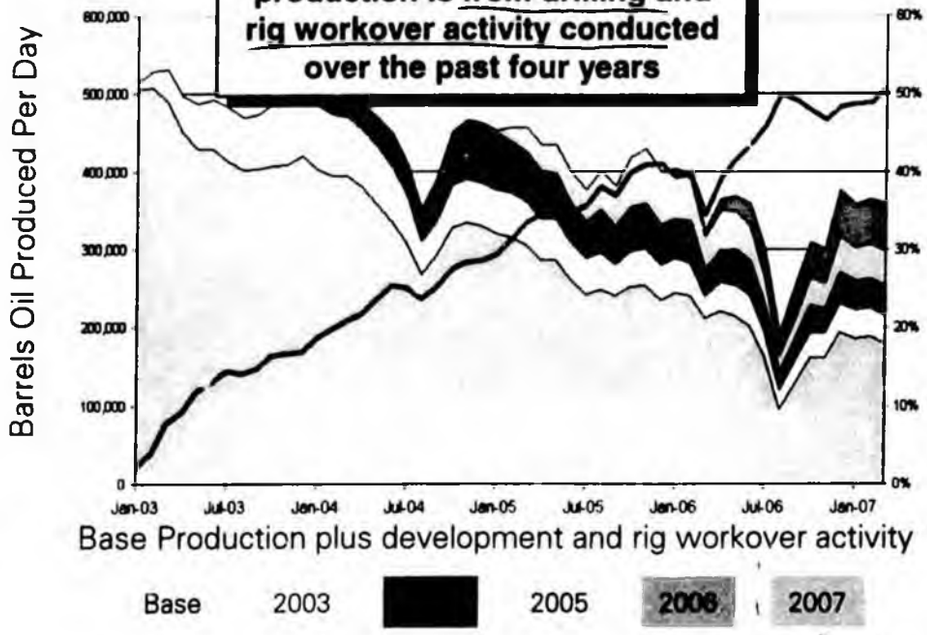
If barriers to vertical flow are partial or absent, water bypasses the block



The advantage to BW treatment is that it goes where water is going.

New Wells and Wellwork Deliver Barrels

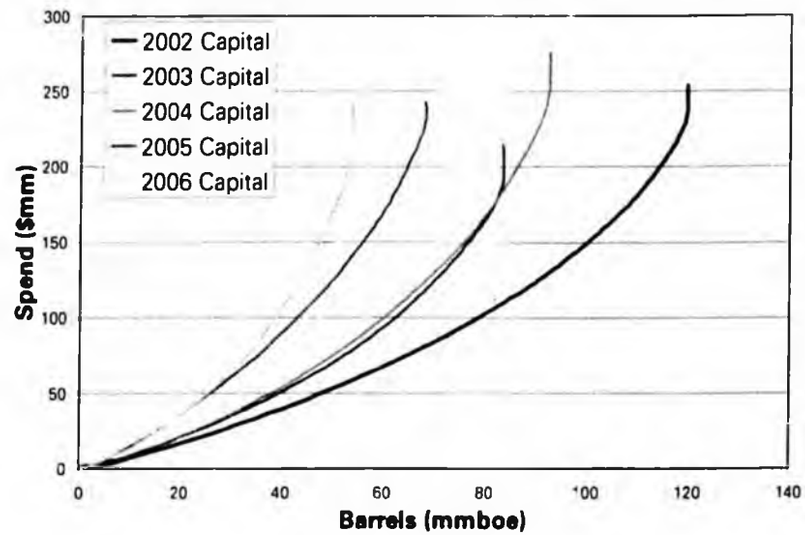
50% Of GPB's current oil production is from drilling and rig workover activity conducted over the past four years



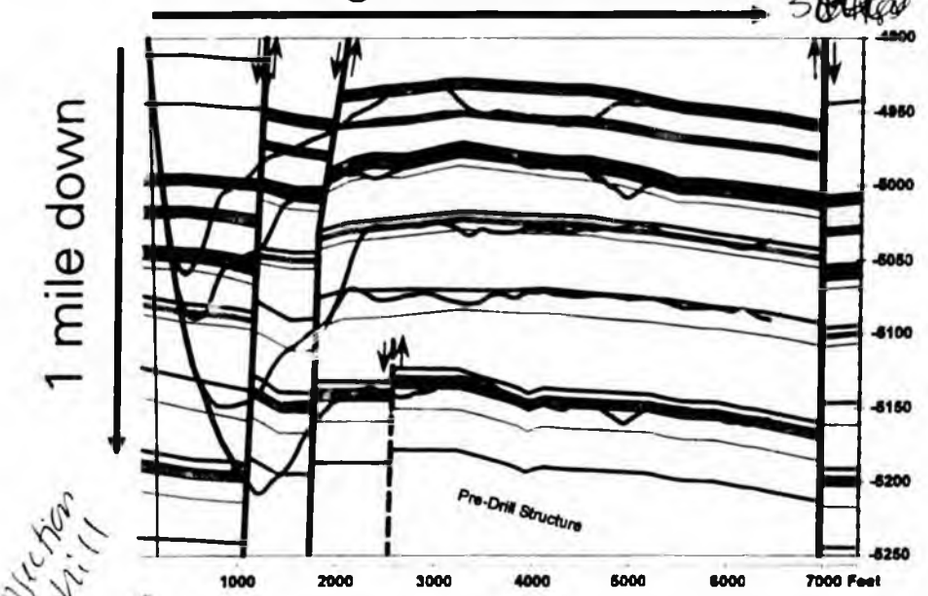
Partial Shutdown on Prudhoe Bay

Each year, the challenge to delivering more barrels becomes greater

GPB Well Investments 2002-2006

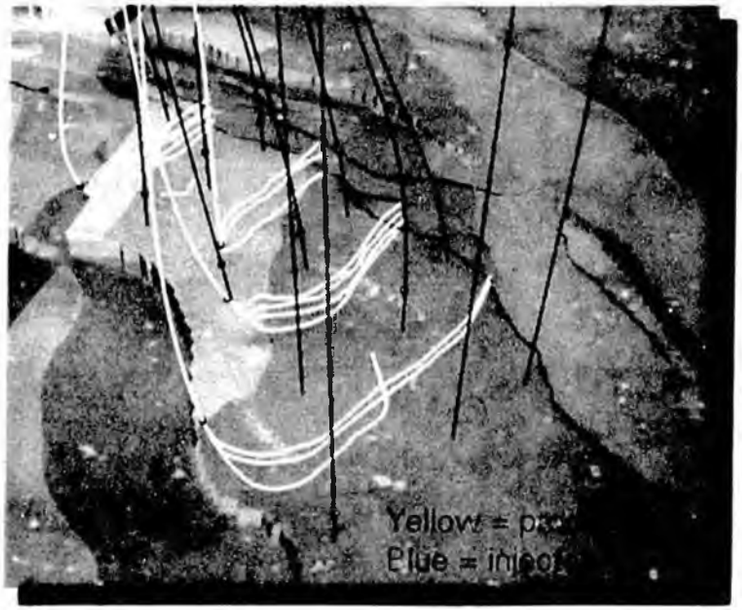


Seismic Imaging and Directional Drilling Enable Development



Technologies required to drill and operate these multi-lateral well did not exist eight years ago

Now 15 are producing and over 20 more are planned, but not all are approved



Western Region Prudhoe Bay

bp

4 new "satellite" oil pools developed since ~2000 in Western Prudhoe Bay

Milne Point

Northstar

Pt. McIntyre Niakuk

Kuparuk

Prudhoe Bay

Lisburne

Liberty

Pt. Thomson

Endicott

Badami

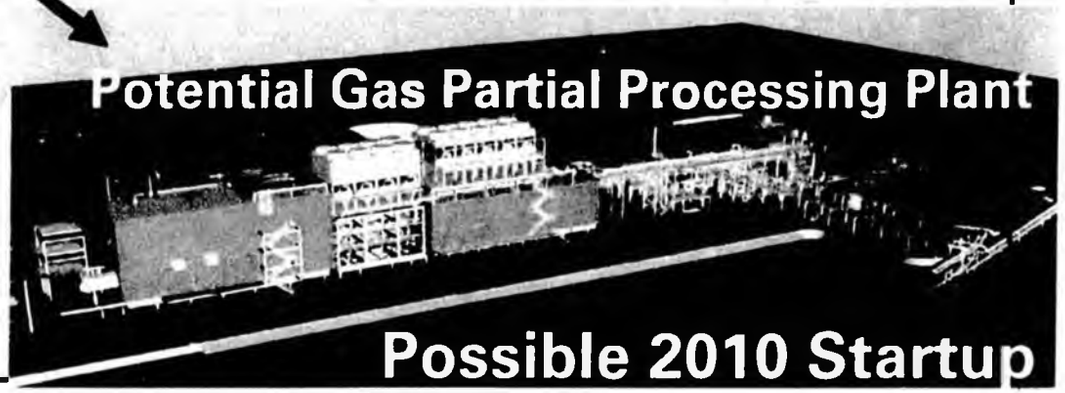
NPRA

viscous oil

TAPS

PS1

Western Region Development Covers Prudhoe Bay Unit West of Kuparuk River

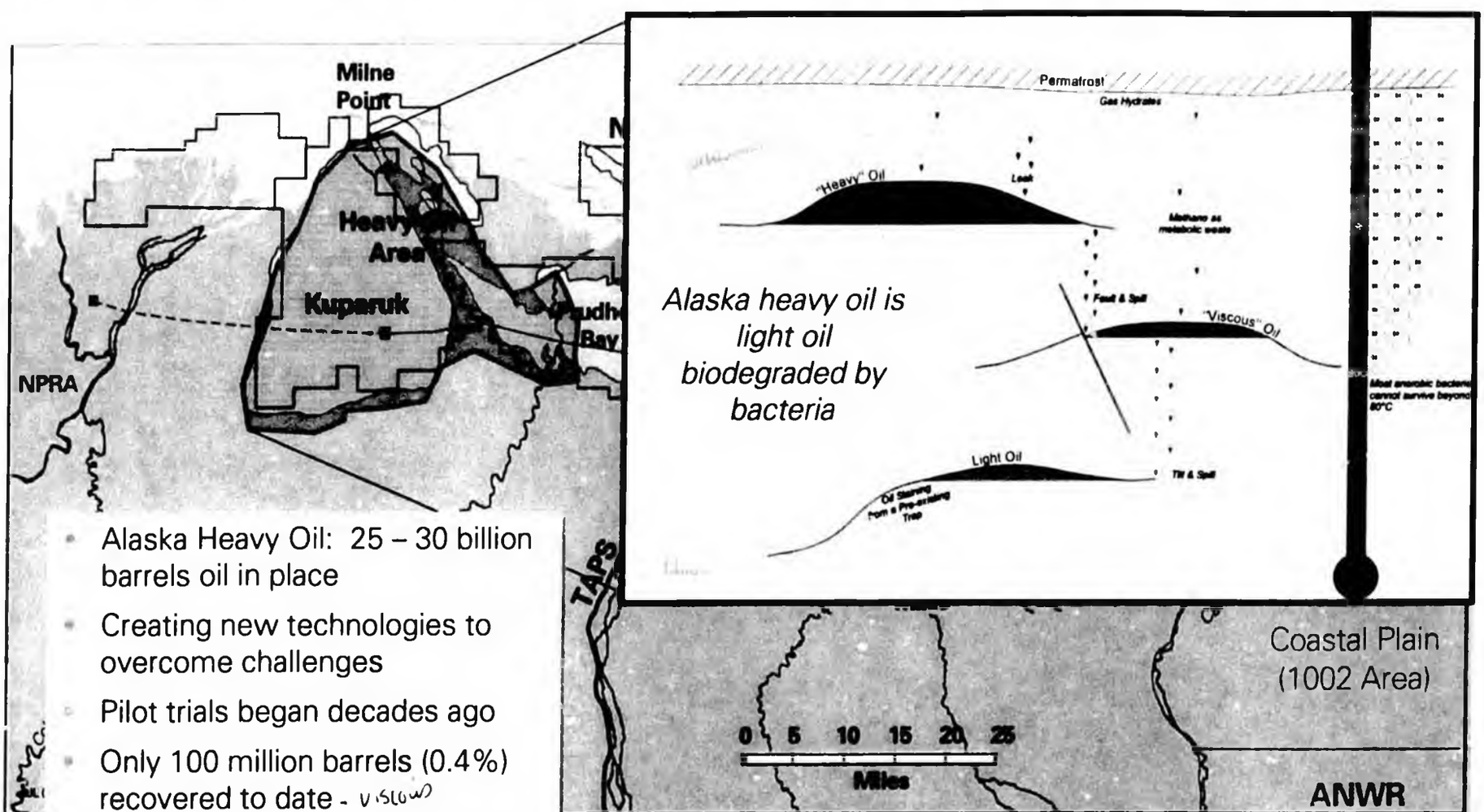


Potential Gas Partial Processing Plant

Possible 2010 Startup

LJL (April, 1997)

North Slope Heavy Oil



- Alaska Heavy Oil: 25 – 30 billion barrels oil in place
- Creating new technologies to overcome challenges
- Pilot trials began decades ago
- Only 100 million barrels (0.4%) recovered to date - viscous
- Heavy Oil Fields are within the existing oil fields

1300 to 3000 ft deep
Just below the permafrost

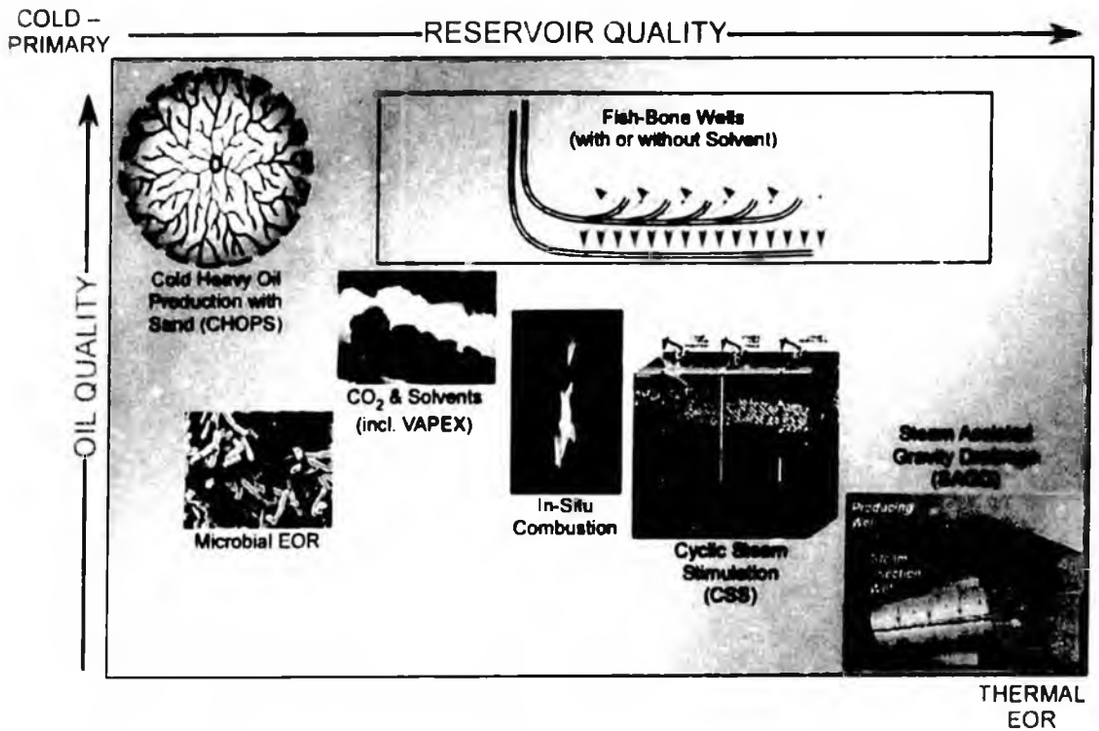
Heavy Oil Challenges

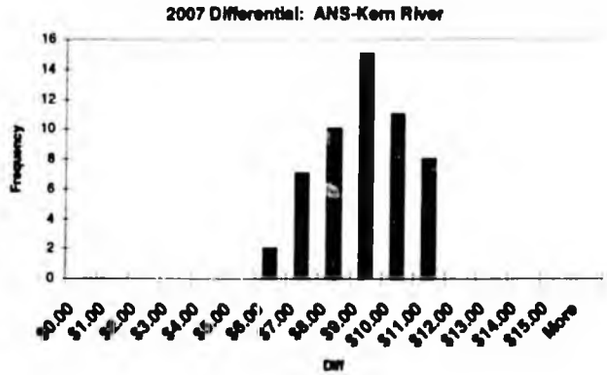
Heavy oil will always be disadvantaged relative to light oil on the basis of development cost and commodity price

bp

PROPERTIES		BUSINESS IMPACT		
• Chemical – Hydrogen depleted relative to light oil	=	• Retool refineries • Take a lower price on market	=	Revenue
• Physical High viscosity	=	• High well density • Add heat to reservoir & transit lines • Add diluent to major pipelines • Upgrading (partial refining) • Environmental Mitigation (e.g. CO_2 sequestration) • Water treatment • Sand Disposal • Wellwork	=	Costs

Ouch!

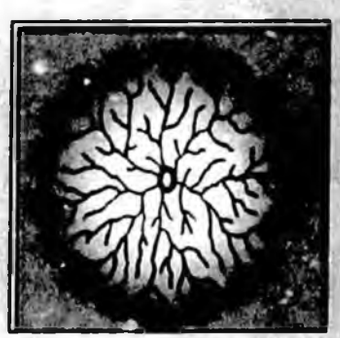




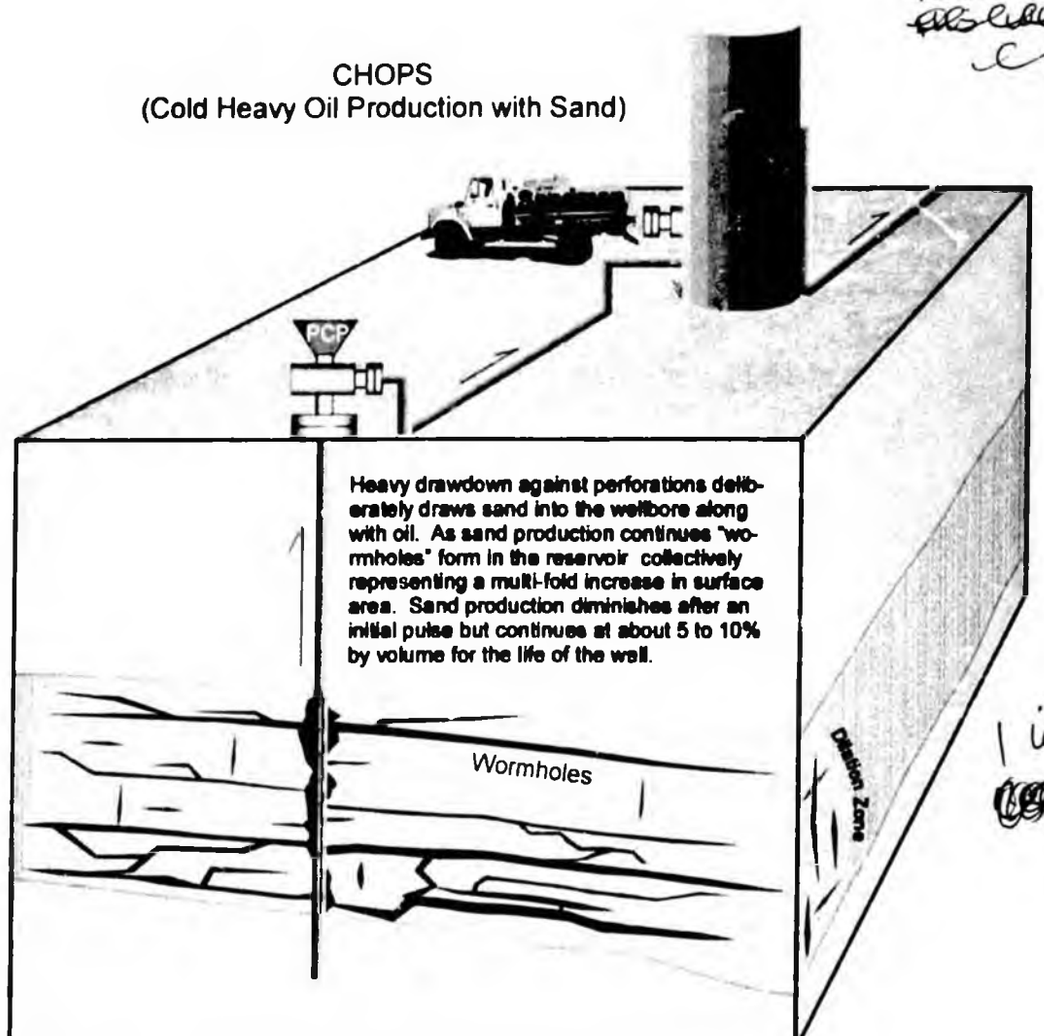
CHOPS
Cold Heavy Oil Production with Sand

bp

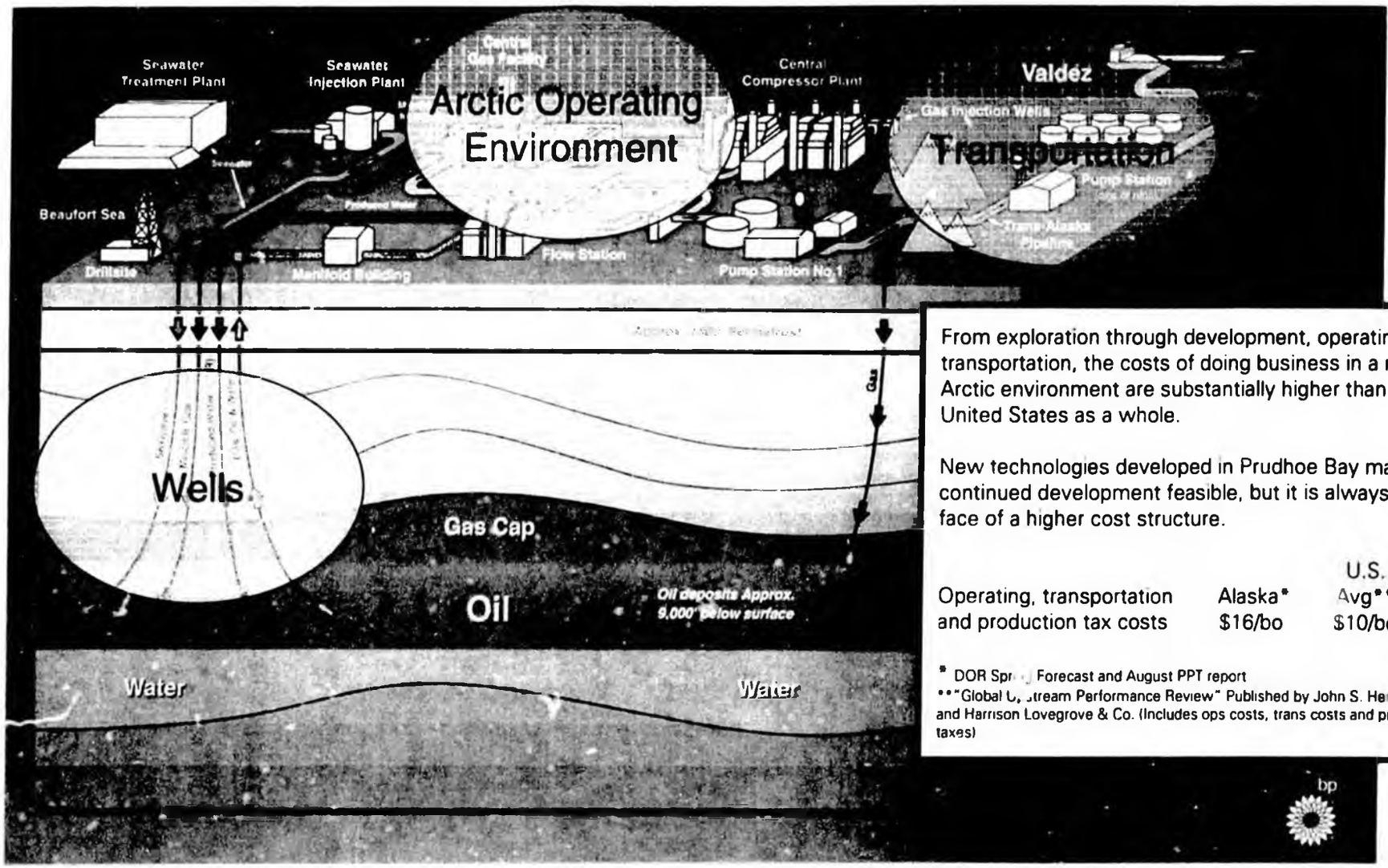
Vertical View of Reservoir



CHOPS
(Cold Heavy Oil Production with Sand)



Alaska vs. Average U.S. Cost Structure



From exploration through development, operating and transportation, the costs of doing business in a remote Arctic environment are substantially higher than the United States as a whole.

New technologies developed in Prudhoe Bay make continued development feasible, but it is always in the face of a higher cost structure.

	Alaska*	U.S. Avg**
Operating, transportation and production tax costs	$16/bo	$10/bo

* DOR Spring Forecast and August PPT report

** "Global Upstream Performance Review" Published by John S. Herold, Inc and Harrison Lovegrove & Co. (Includes ops costs, trans costs and production taxes)

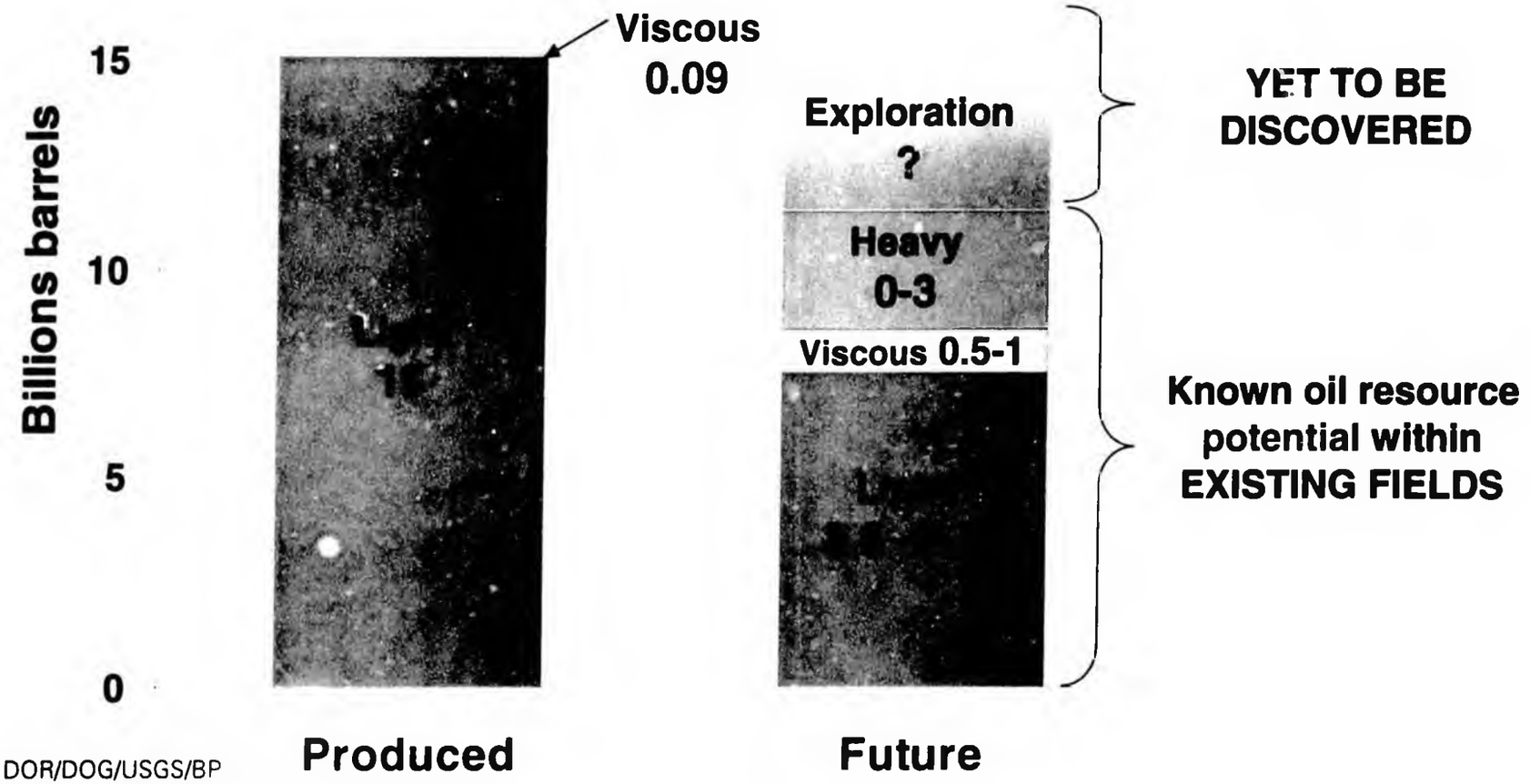
Prudhoe Bay Development Summary

bp

- Technology is Critical to Optimize Recovery:
  - Developing and applying new technology at scale
  - Arctic Technology
  - Major Facility Projects
  - Advanced Reservoir Processes Technology
  - Drilling/Workover Technology
- Development has been extensive and very successful
- Oil production is mature with over 11 billion barrels recovered
  - 1200 active wells
  - Declining oil rate and increasing water and gas rates
- Ongoing Projects Are Needed to Offset Steep Natural Decline
- Prudhoe Bay has a large part of Alaska's Future Opportunities

The future of North Slope oil still tied to existing

Sustained investment in light oil development is critical to developing heavy oil and new fields

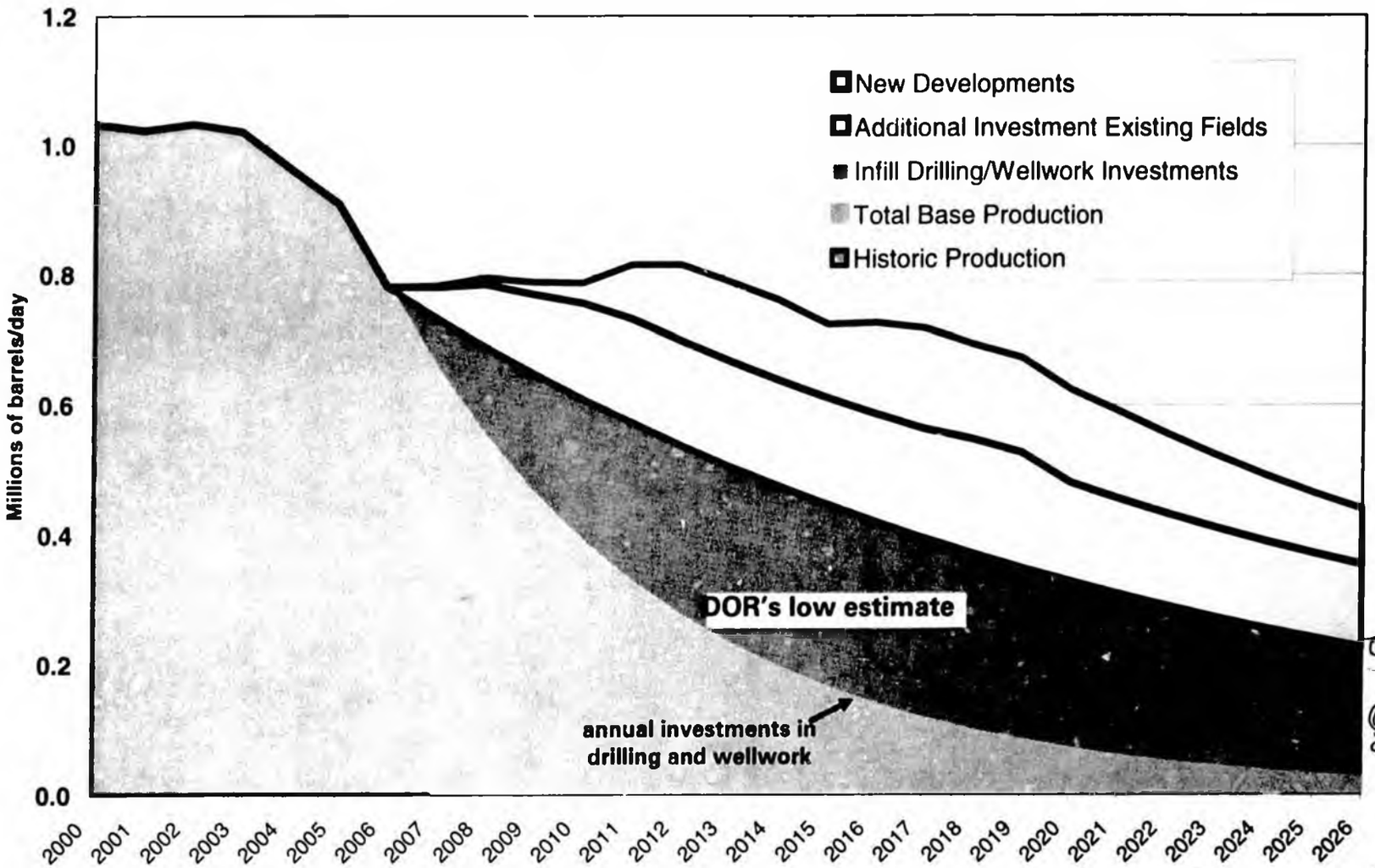


Source: DOR/DOG/USGS/BP

Future of oil production is critically dependent on existing large fields, additional investments

bp

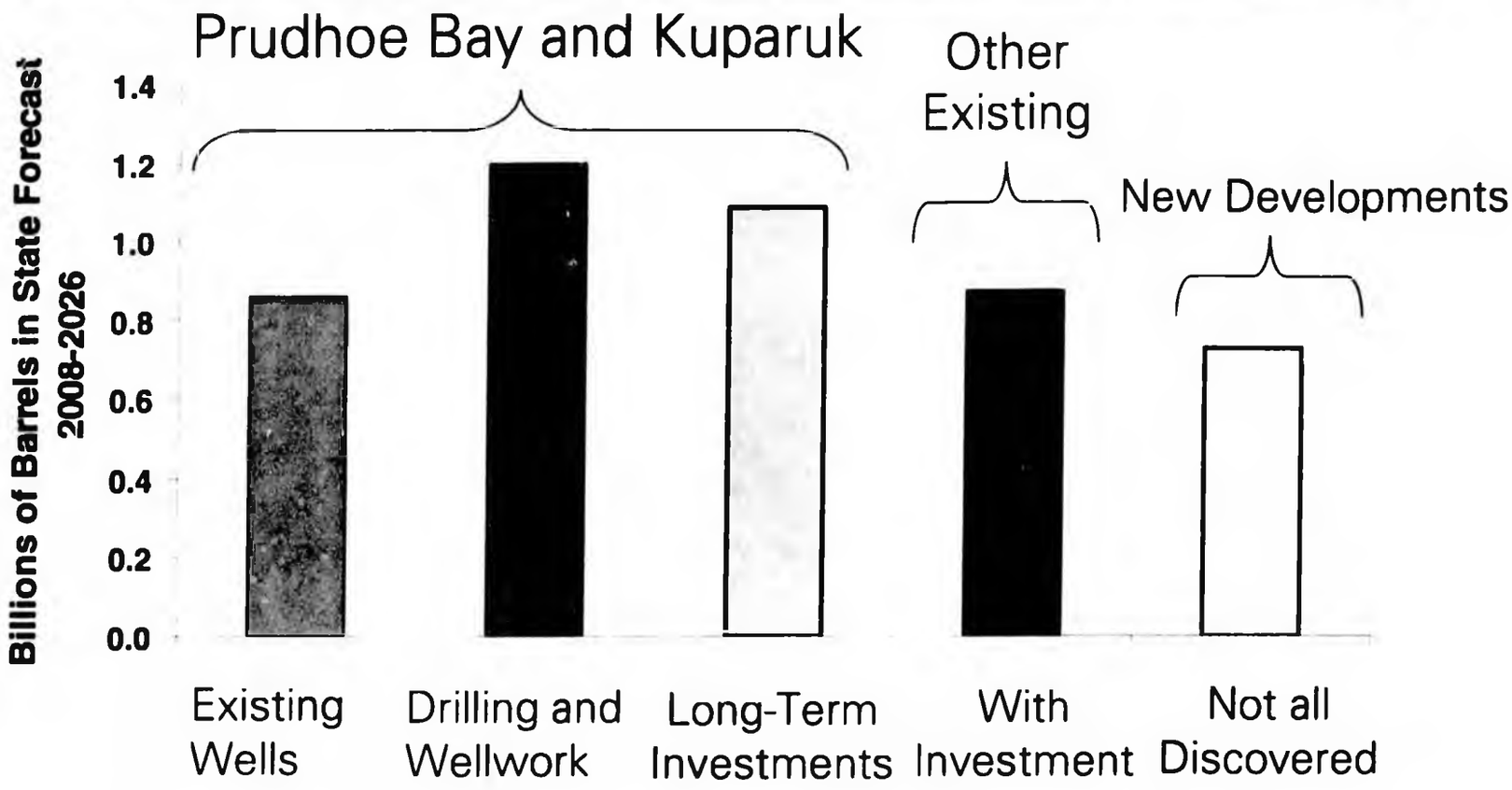
DOR Production History and Forecast



·1z heavy
·1z Light oil
6% decline

Keys { new technology
new investments

Alaska needs a world scale level of ALL types of investment to sustain the future of oil production



State Revenue, $billion*	13	18	16	11	9

*assuming PPT terms and state revenue of $15/bbl at $60/bbl ANS

Sector inflation triggered by high oil prices is real and substantial – example measures

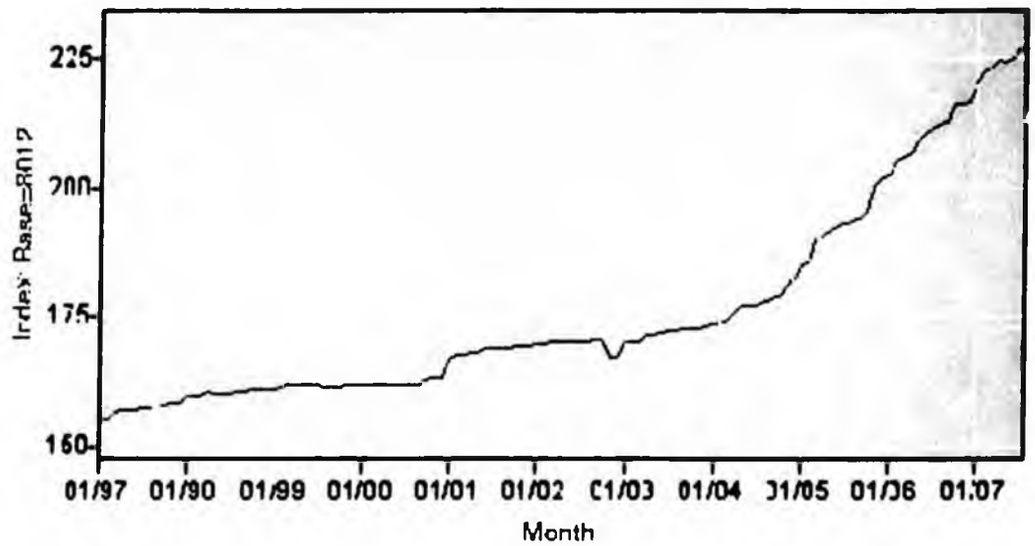
"The Upstream Capital Costs Index, developed by Cambridge Energy Research Associates (CERA), shows that costs for oil and gas production equipment, facilities, construction, materials and personnel have increased 53% since 2005." (Source: PPT Implementation Status Report, August 2007)

2004-2006 U.S. Average Cost Increases per barrel

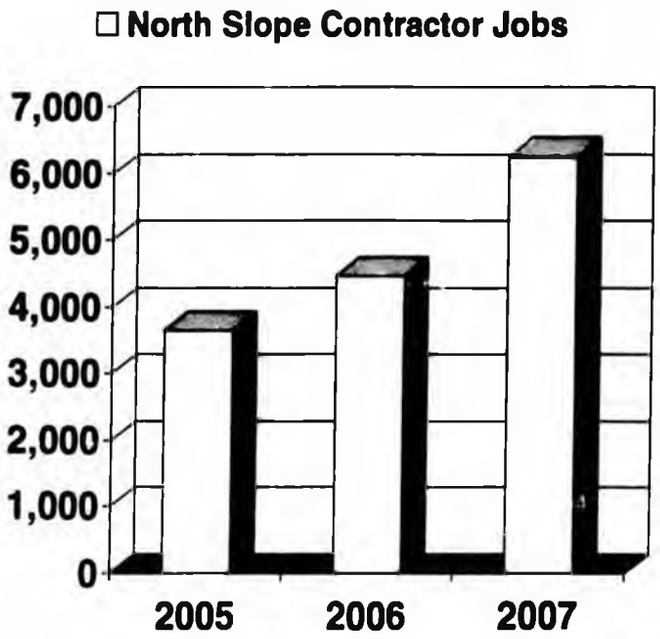
- 153% on Finding and Development costs (Capital)
- 58% Lifting costs (Expense)

(Source: "Global Upstream Performance Review" published by: John S. Herold /Harrison Lovegrove)

Oil and Gas Field Machinery and Equipment PPI
Source: U.S. Department of Labor



Investment activity is also causing a large part of the increase



- Since late 2004, BPXA staff has grown from 1300 to approaching 2000 employees
- Active drilling rig count on contract for BP has gone from 9 in 2004 to 10 in 2007
- BP commissioned a new camp this summer and rented 4 more, increasing our camp capacity by 30%
- Seismic acquisition activity brought in additional 100+ contractors to the Slope for the winter season
- Pickup truck rentals in support of NS operations has gone up approximately 60%
- Preventative maintenance and inspection programs on the 30-year old infrastructure are at an all-time high

Economic impact of proposed bill on new investments

- About 70% of future investment decisions are within Prudhoe Bay and Kuparuk

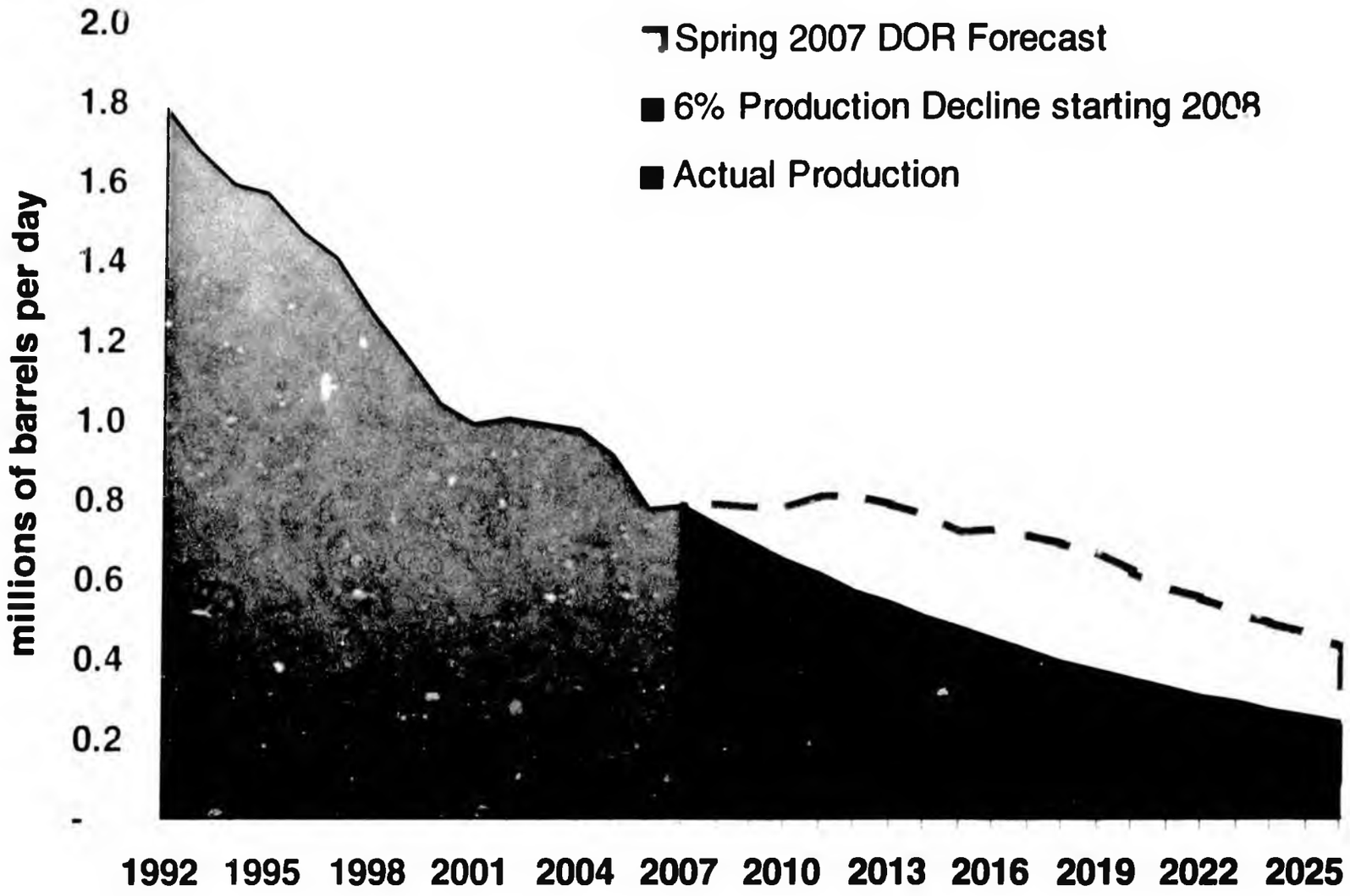
- Minimum tax imposed on these fields causes a progressive deterioration of economics at medium to low prices

- A significant number of investment opportunities in Prudhoe Bay and Kuparuk will cross into marginal or non-economic territory, raising costs and lowering netbacks for the rest of the North slope production.

Key Messages

- Production, not tax rate, is the major factor in determining state revenue for the future years
- Delivering the production forecast will require tens of billions of investment
- Investment decisions are made on the basis of strategy, resources, technology, economics, and risk, including fiscal stability
- SB/HB2001 significantly deteriorates economics on 70% of investment options in the next 20 years
- Higher prices and developing technology could give the Alaska fields a new lease on life, but huge investments are needed
- The focus of the tax policy should be on encouraging large investments in existing fields as well as exploration
- The proposed bill creates **uncertainty** for taxpayers and potentially distorts business decision making

The time to influence the future outcome for the state is now



SB

2001

(FILE 24)

CHEVRON

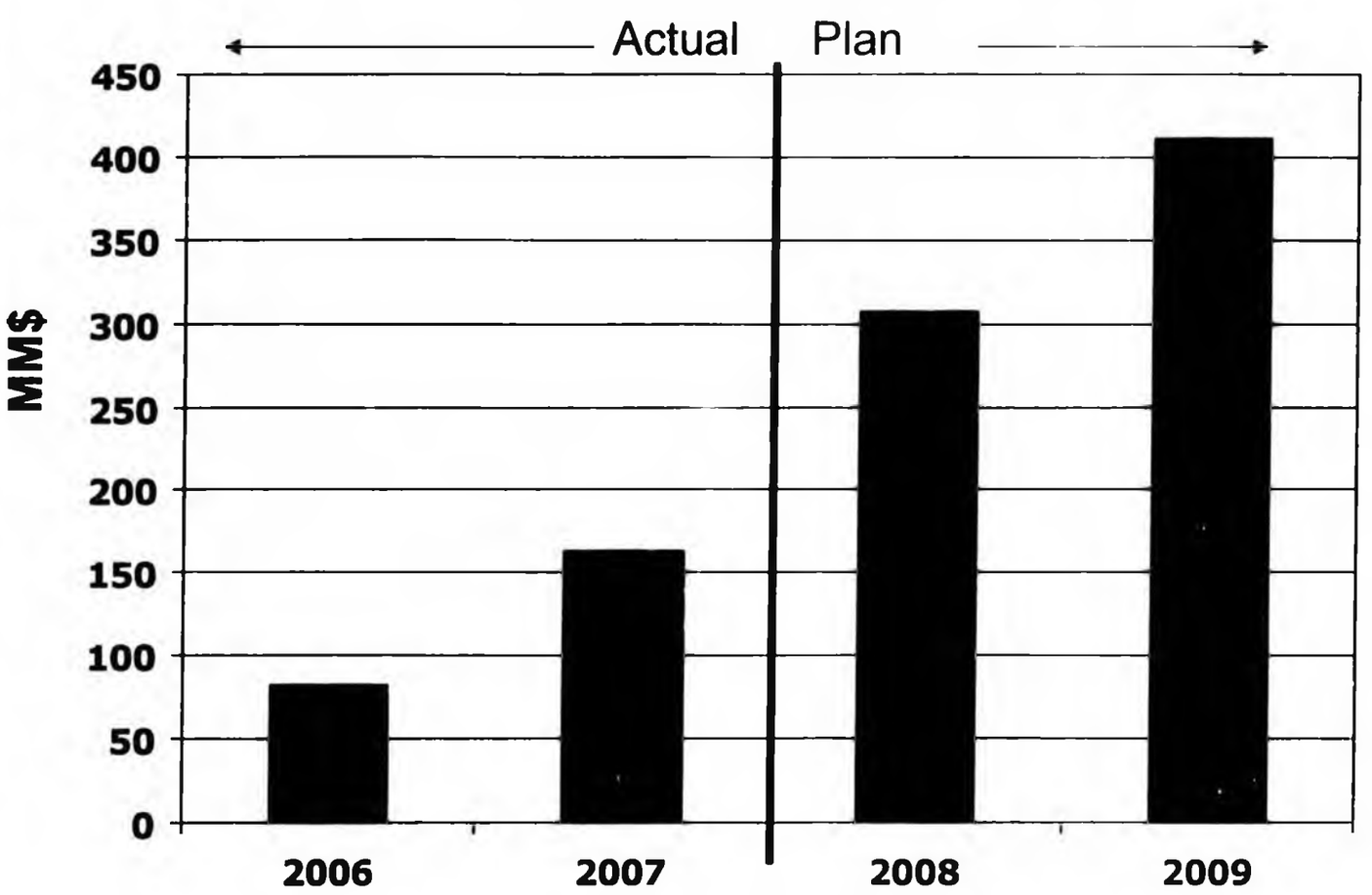
Chevron

Juneau, Alaska
October 23, 2007

Chevron's Alaska Presence

- 4th largest producer in state
- 3rd largest operator
- ~500 employees or full time contractors
  - >300 on the Kenai Peninsula
- Chevron is the only producer in the state with a relative balance of assets in the Cook Inlet and on the North Slope
  - Cook Inlet production – 23M BOPD
    - Old oil production, very high lifting cost
  - North Slope production – 15M BOPD
  - In early stages of increased capital program
    - Extend life of Cook Inlet O&G production
    - North Slope exploration on state lands
    - Investment decisions made under PPT

Chevron is increasing investment under PPT



Introductory Comments

- We do have a common enemy – decline

- Disappointing to be back so soon after passage of PPT
  - Lack of actual PPT results to revise tax policy
  - Review scheduled for 2011
  - Too soon for a change

- Need to strike a balance between tax rate and investment climate

Factors that affect investment decisions

- Corporations have a responsibility to operate safely, seek returns, and increase shareholder value
- Corporate Cash Flow Management
  - Corporate uses of cash:
    - Operating Costs
    - Investment: upstream, downstream, technology, acquisitions
    - Pay down debt, build cash
    - Pay dividends to shareholders
    - Buy back stock

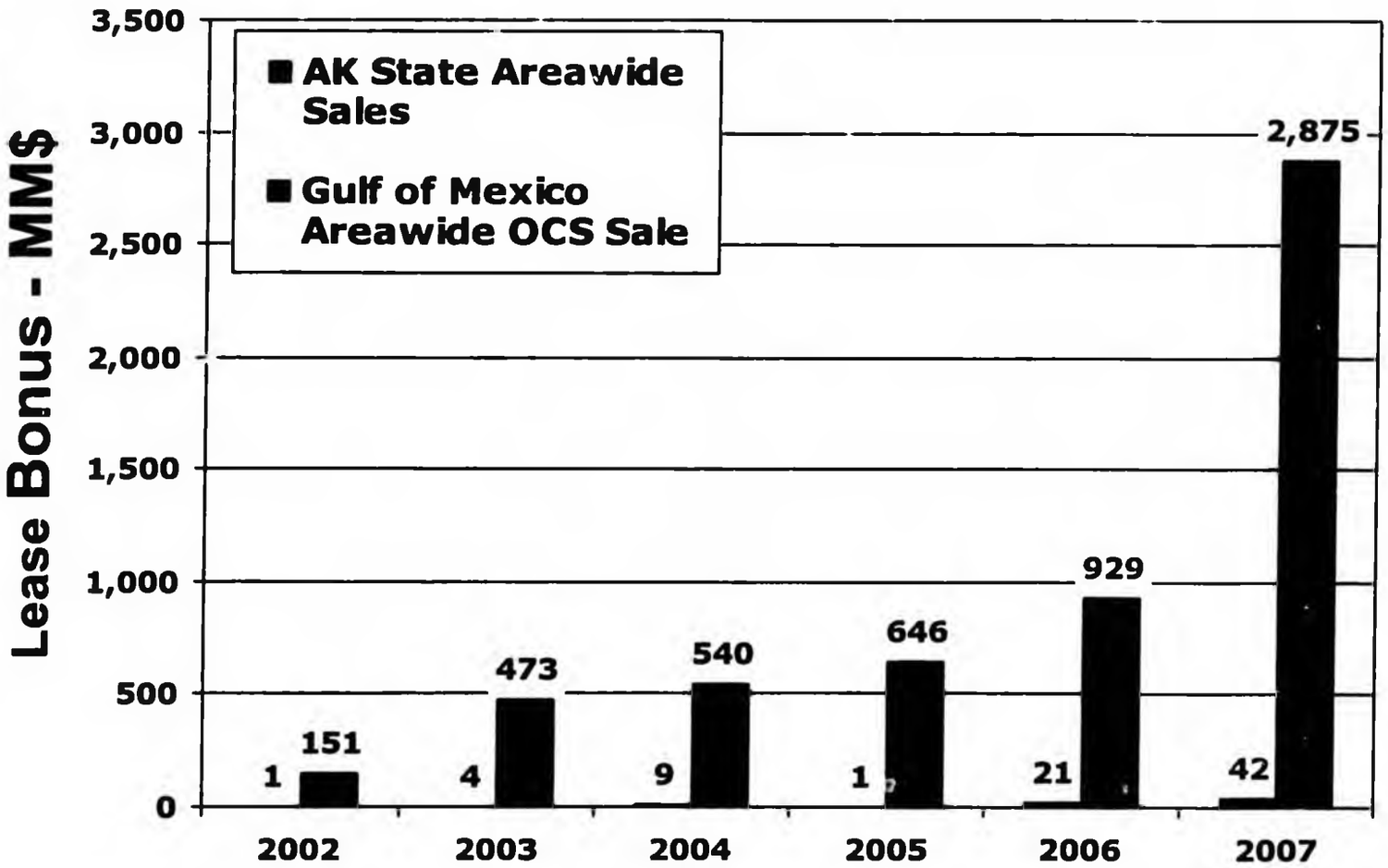
Upstream Investment Decisions

- Always more opportunities than can be funded or staffed
- Key Factors – How do Alaska state lands stack up?
  - Rocks – What is the reserve and production potential?
  - Cost – How much will it cost to find, develop, and produce?
  - Time – How long will it take to realize revenue?
  - Risk - What is the probability of success?
  - Fiscal regime – How much revenue does the investor get to keep?
- Economic models are developed, opportunities ranked, and investment decisions are made on an After-Tax Net Present Value (NPV) basis
  - Does the investor get enough to justify the investment?
    - Great rocks can trump poor fiscal terms

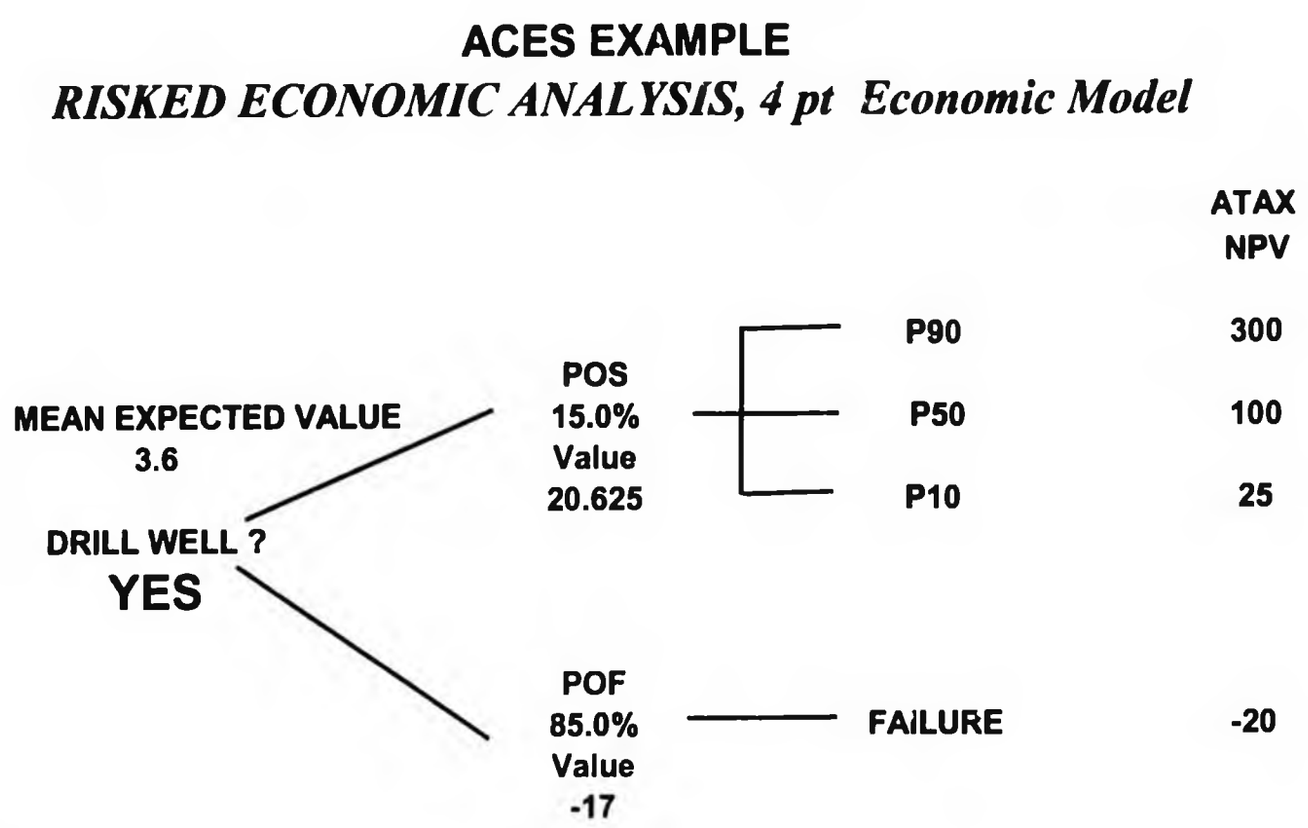
How does Alaska stack up? Let's look at a real data point!

How attractive is Alaska as an investment?

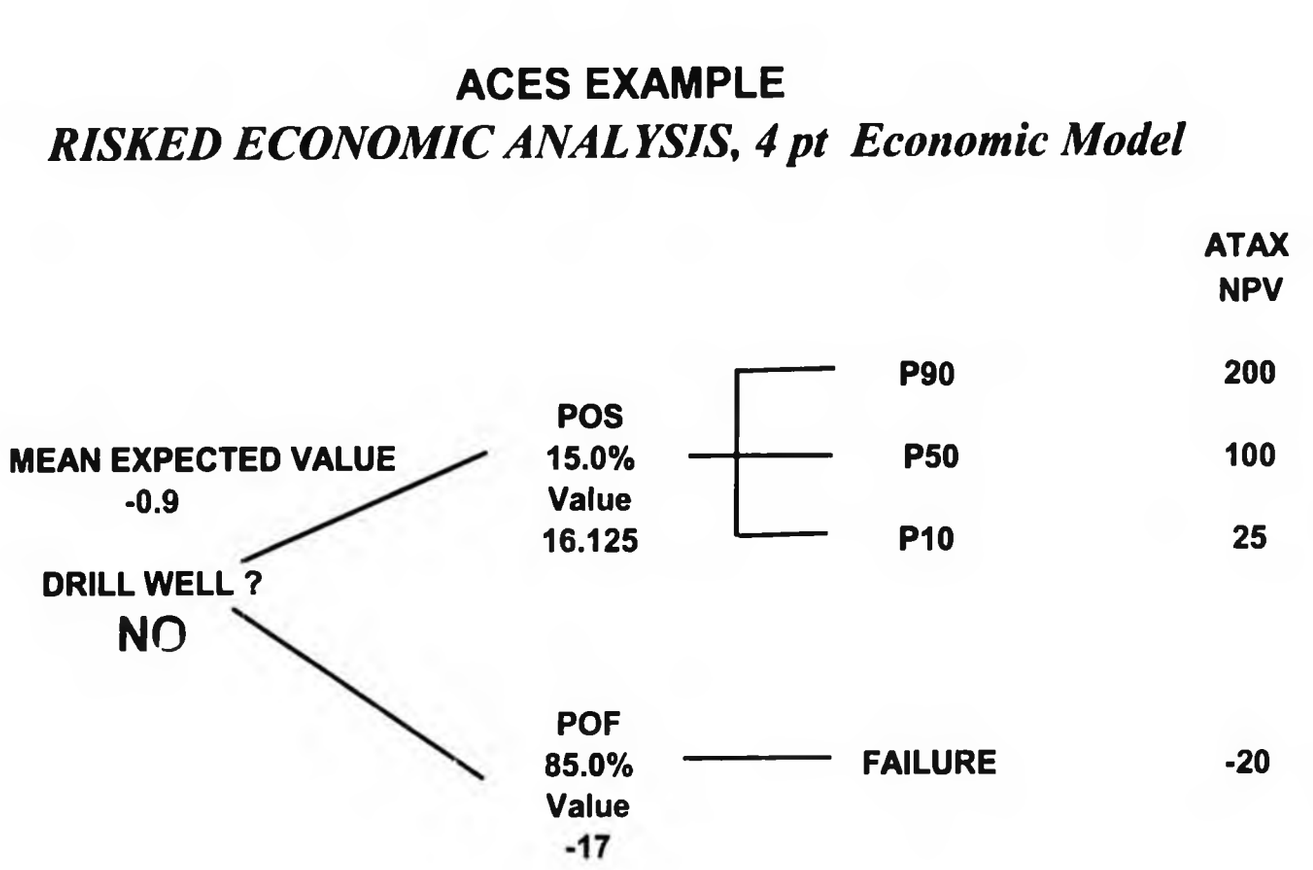
Let's look at results of recent lease sales as a scorecard: This is industry voting with their dollars



Exploration – How taxing the upside can deter investment decision



Exploration – How taxing the upside can deter investment decision



Investment is Needed to Maintain Production at Reasonable Levels

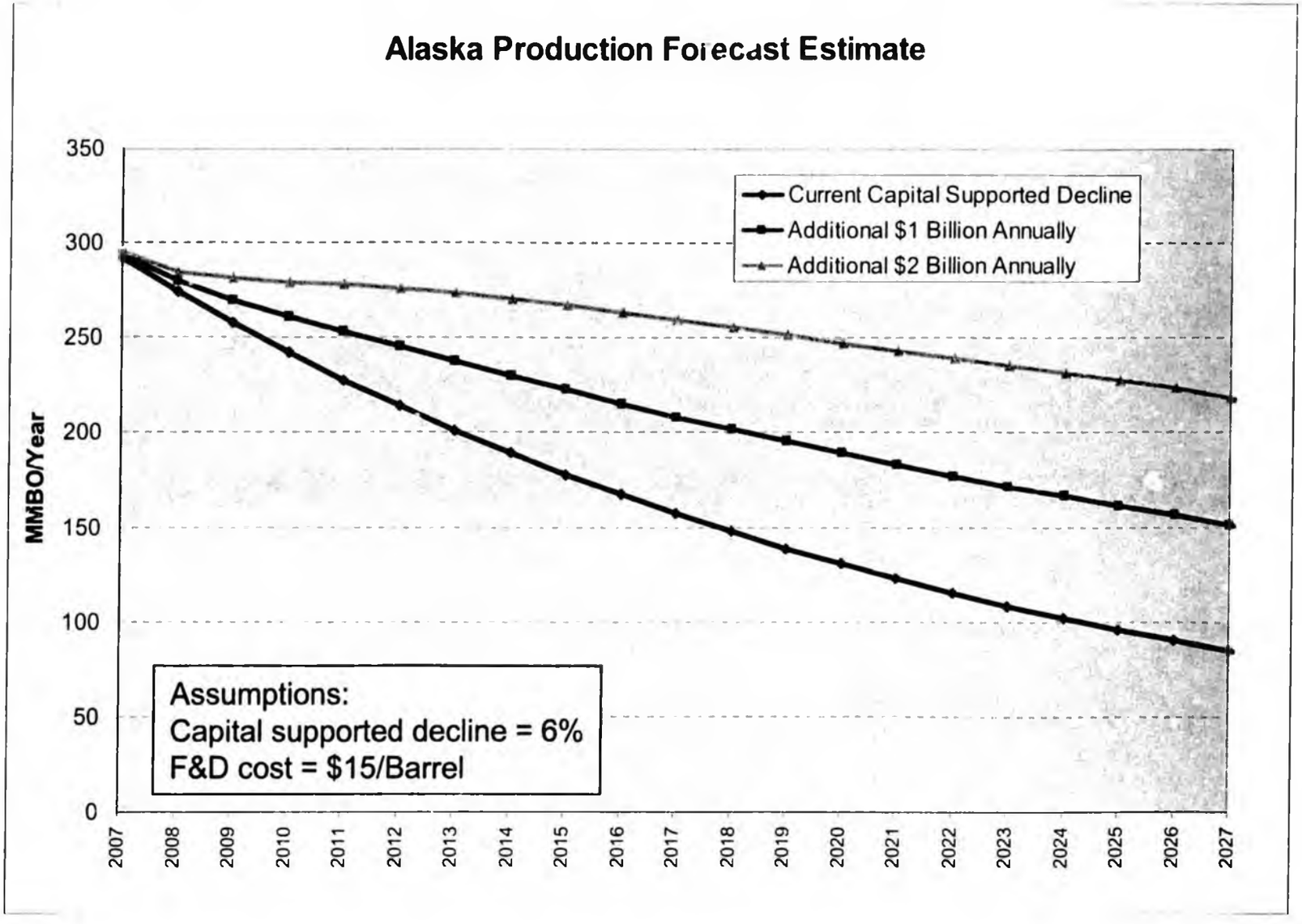
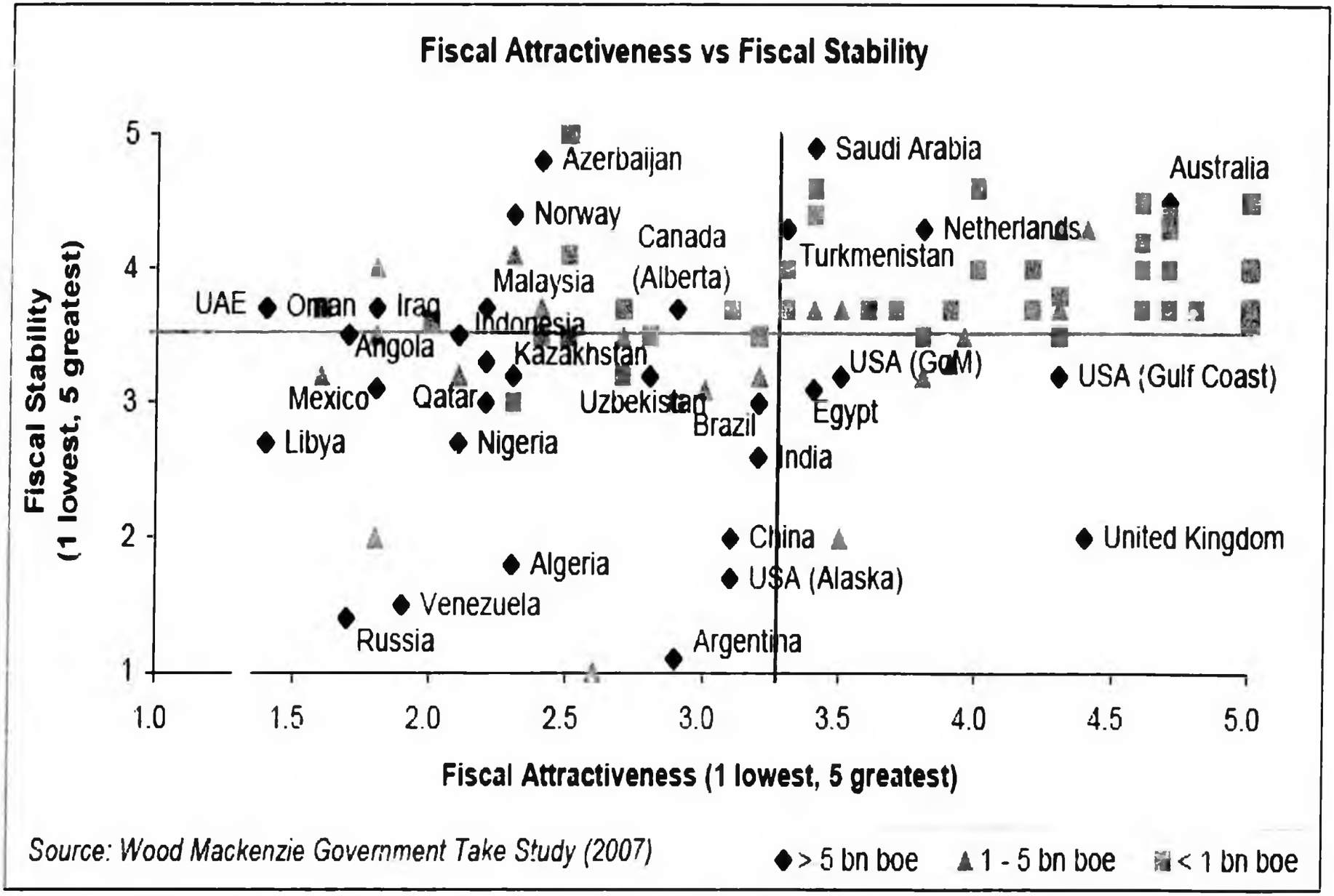


Chart 14 – Fiscal Attractiveness Rating versus Fiscal Stability Rating



Summary Comments

- You have the power to increase short term state revenue through raising taxes
- Energy companies have the responsibility to invest where they see the best risk/reward ratio
- The common enemy is decline,
- Investment is the only way to stem decline
- How do you price Alaska's product ?
  - Lowest possible taxes and stability will encourage investment
- Chevron intends to invest and grow in Alaska, but ACES makes investing in Alaska more difficult

SB

2001

(FILE 25)

CONOCO PHILLIPS

SB2001 Testimony

October 24, 2007

ConocoPhillips Alaska

Kevin Mitchell

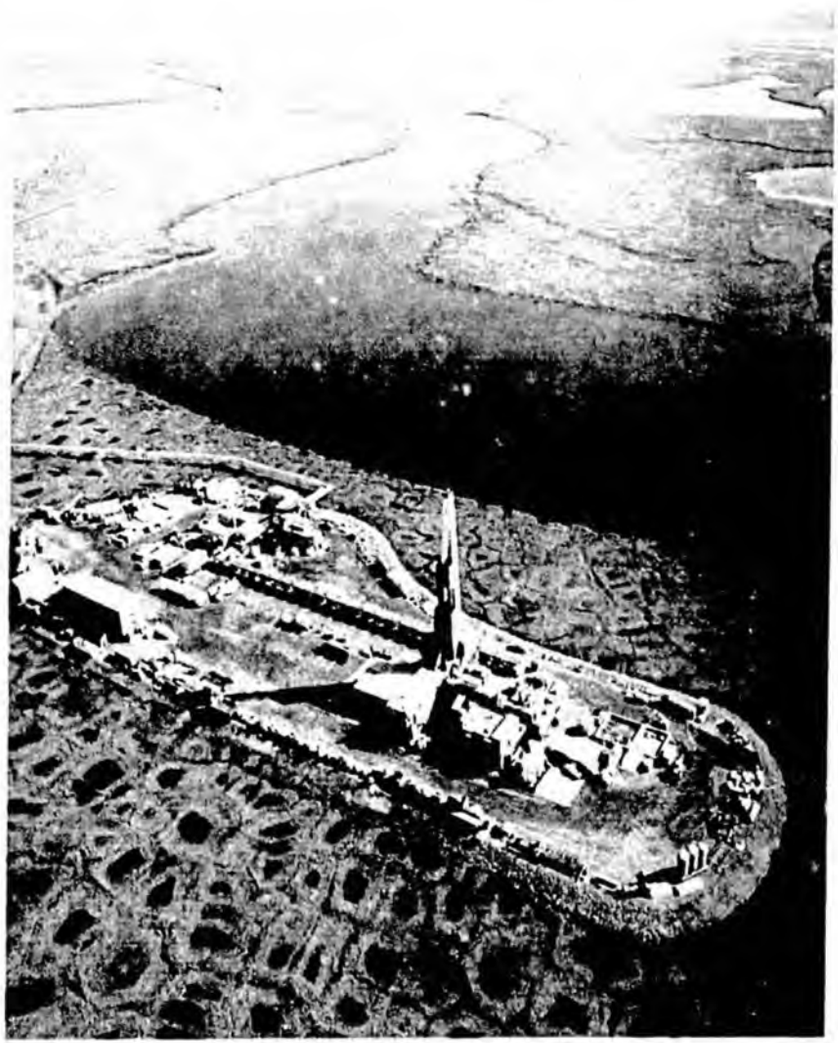
Vice President, Finance & Administration

Jim Taylor

Vice President, Commercial Assets

ConocoPhillips

ConocoPhillips in Alaska Today



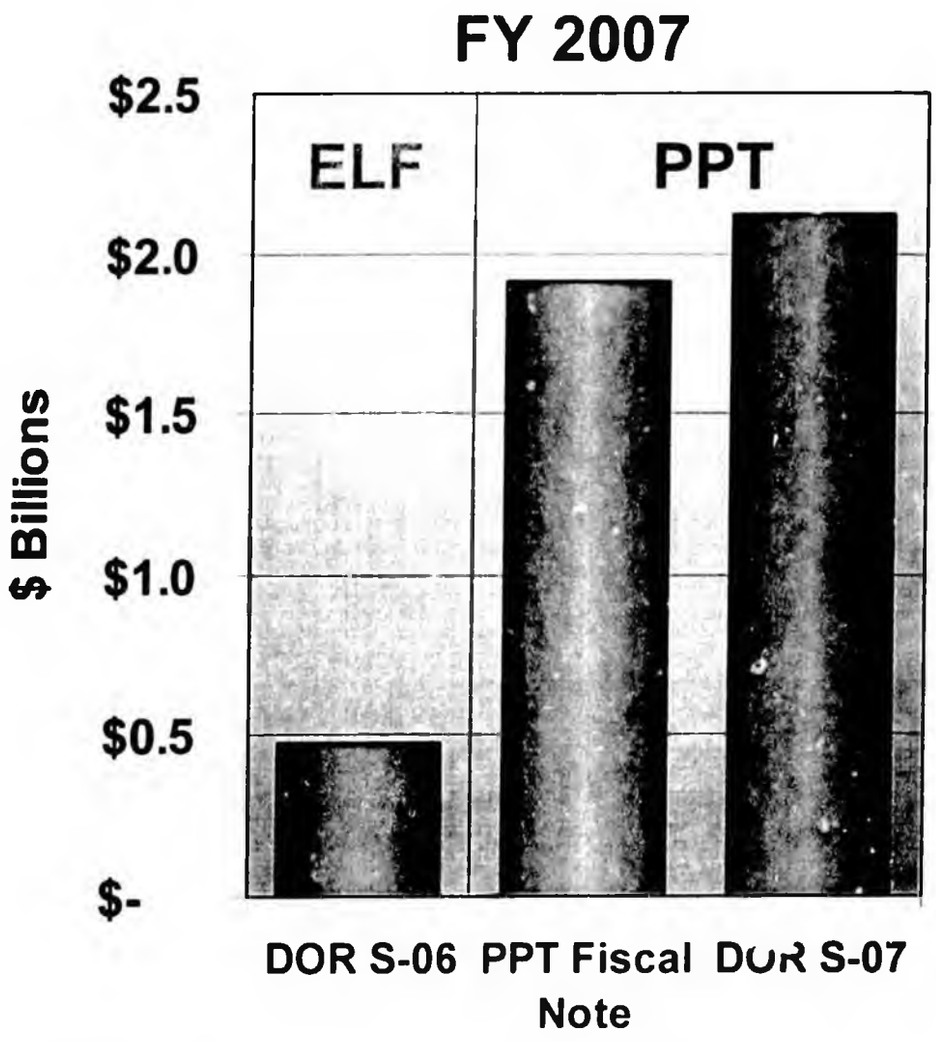
- **Alaska's Largest Producer**
  - 2006 oil production: 280,000 barrels of oil per day
  - 2006 gas production: 145 million cubic feet per day
- **Alaska's Largest Lease Holder**
  - Interest in 1.7 million gross (federal) acres in the NPRA
  - Nearly 2.6 million gross undeveloped acres in total outside of producing fields
- **Alaska's Leading Explorer**
  - 60 exploration wells since 1999, including 17 wells in NPRA
- **Alaska's Largest Industry Community Supporter**
  - 2006 > $12 Million Contributions
  - 2007 > $14 million (projected)
- **Alaska's Largest Royalty and Taxpayer**
  - 2006 taxes paid to government: $2.3 billion
  - 2006 royalties: $730 million

ConocoPhillips

Summary Comment

- Interest between state and industry should be aligned
- Too early to change PPT
- Tax changes will impact investment
  - Increased tax take
  - Effect of 10% legacy floor
  - Uncertainty with frequent tax changes

Revenue Forecasts



Revenues meeting targets despite forecasting uncertainty associated with:

- Price
- Production
- Operating costs
- Capital costs

Too early to change

ConocoPhillips

Impact of the 10% Legacy Floor

- The 10% minimum gross on the legacy fields can have a broader impact than simply downside price protection

- Minimum tax can be triggered by:
  - Low prices
  - Investment

Base Rate vs 10% Legacy Floor

Level of Investment

Low

Base Tax Calculations

Wellhead Revenue	$ 50.00	
- Opex	$ (10.00)	
- Capex	**$ (10.00)**	
= Net Profit	$ 30.00	
25% Net Profit Tax	$ 7.50	= 25% * $30
- 20% Capital Credits	$ (2.00)	= 20% * $10
= **Net Tax After Credits**	**$ 5.50**	

Min Tax Calculations

Wellhead Revenue	$ 50.00	
x Gross Tax Rate	10%	
= **Min Tax ($)**	**$ 5.00**	

Net Exceeds Min:

Tax Due = $5.50

ConocoPhillips

Investment Can Trigger Legacy Floor

	Level of Investment	
	Low	Potential
Base Tax Calculations		
Wellhead Revenue	$ 50.00	$ 50.00
- Opex	$ (10.00)	$ (10.00)
- Capex	**$ (10.00)**	**$ (20.00)**
= Net Profit	$ 30.00	$ 20.00
25% Net Profit Tax	$ 7.50	$ 5.00
- 20% Capital Credits	$ (2.00)	$ (4.00)
= Net Tax After Credits	**$ 5.50**	**$ 1.00**
Min Tax Calculations		
Wellhead Revenue	$ 50.00	$ 50.00
x Gross Tax Rate	10%	10%
= Min Tax ($)	**$ 5.00**	**$ 5.00**

Min Exceeds Net:

Tax Due = $5.00

ConocoPhillips

Potential Kuparuk Tax Calculation

	Level of Investment	
	DOR	Potential
Base Tax Calculations		
Wellhead Revenue	$ 2,800	$ 2,800
- Opex	$ (450)	$ (450)
- Capex	**$ (400)**	**$ (800)**
= Net Profit	$ 1,950	$ 1,550
25% Net Profit Tax	$ 488	$ 388
- 20% Capital Credits	$ (80)	$ (160)
= **Net Tax After Credits**	**$ 408**	**$ 228**
Min Tax Calculations		
Wellhead Revenue	$ 2,800	$ 2,800
x Gross Tax Rate	10%	10%
= **Min Tax ($)**	**$ 280**	**$ 280**

Data based on State DOR Spring Revenue Forecast 2007 for Kuparuk 2009 production and wellhead price
Opex of $7.75/bbl and capex of $6.81/bbl based on Aug 3, 2007 PPT Status Report

ConocoPhillips