

# Denali Project Update

Alaska Miners Association

Fairbanks, Alaska

October 2<sup>nd</sup>, 2009

together. moving. energy.



# Denali - The Alaska Gas Pipeline

What a successful project means:

- Jobs and business opportunities
- Consumer, industry access to new gas supplies
- New exploration and development (gas and oil)
- Extended economic life of North Slope resources
- Major new revenue streams for Alaska and Canada
- Secure, domestic natural gas supply for North America



# Denali - The Alaska Gas Pipeline



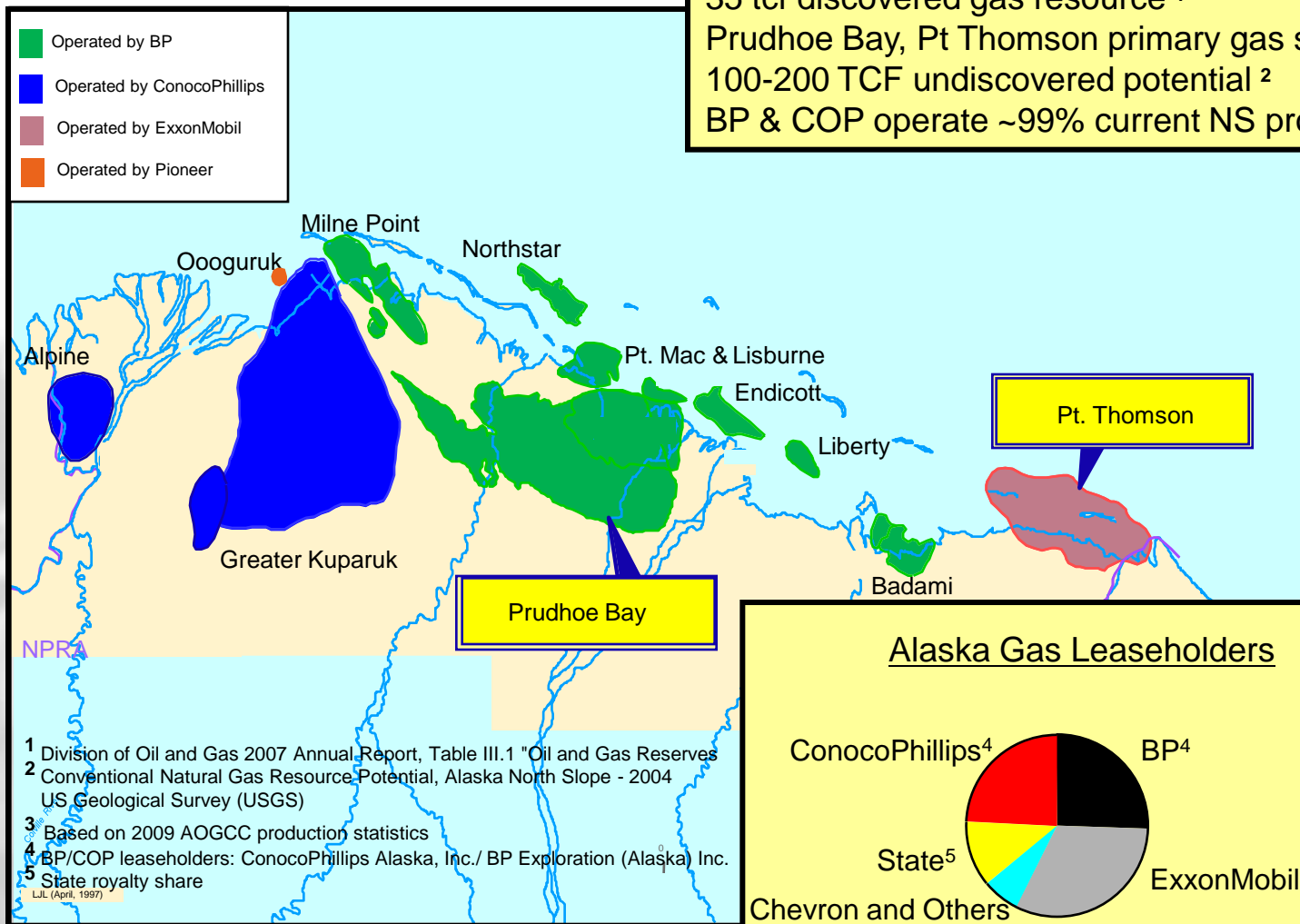
## Who are we?

- BP and ConocoPhillips have joined to start “Denali – The Alaska Gas Pipeline”
- New company with legal entities in Alaska and Canada
- Project headquarters in Anchorage and Calgary

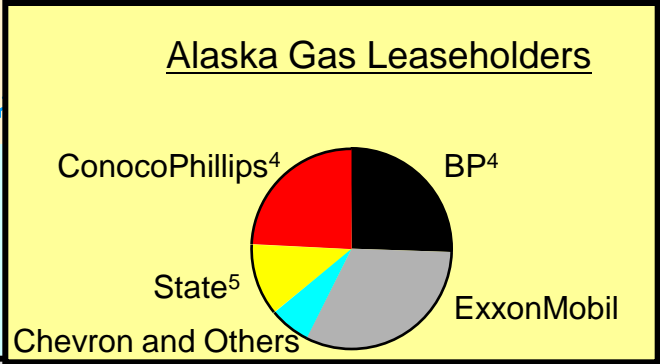
## Why were we formed?

- Large, known North Slope gas resource
- Gigantic, complex project to bring it to market
- Manage costs and schedule – must be cost competitive
- Strong balance sheet required

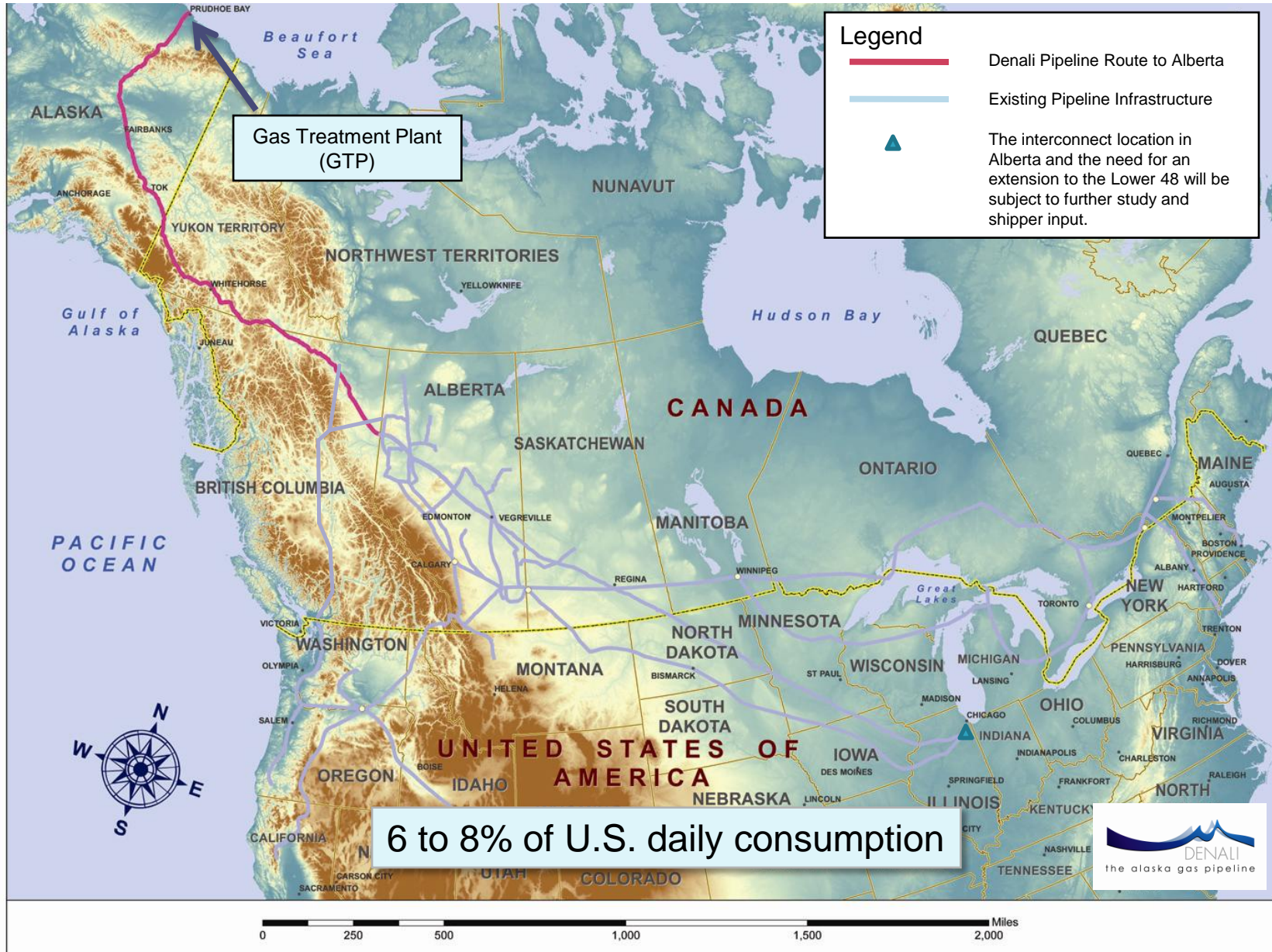
# North Slope Oil and Gas Fields



35 tcf discovered gas resource <sup>1</sup>  
 Prudhoe Bay, Pt Thomson primary gas sources  
 100-200 TCF undiscovered potential <sup>2</sup>  
 BP & COP operate ~99% current NS production<sup>3</sup>



# The Denali Project – 4 BCFD to North American consumers



# Significant Progress Towards Open Season

- Over \$100 million spent to date
- Core team of 80 to 90 people with Anchorage and Canadian headquarters
- Major advancement on the regulatory front
- Field data gathering, analysis and integration
- Gas Treatment Plant engineering
- Pipeline and compressor station engineering
- Extensive stakeholder engagement
- Building the cost estimate
- Commercial preparations for open season
- Planning for open season in 2010



## Regulatory Frameworks – U.S. and Canada

*No proponent has an exclusive right to build the pipeline*

### U.S.

- Federal Energy Regulatory Commission (FERC) is responsible for authorizing and regulating the project
- Alaska Gasline Inducement Act (AGIA) is not a license to build a pipeline. Denali can proceed outside of AGIA

### Canada

- National Energy Board (NEB) will authorize/regulate the Denali project.
- NEB process incorporates modern environmental regulations and is open to any project proponent
- Major Projects Management Office (MPMO) to act as single window for coordinating the federal government regulatory input for Denali

*NEB and FERC have a history of working together to approve cross-border energy projects*

# FERC Pre-filing and BLM Right of Way Application

## FERC Pre-filing:

- Enables Denali and FERC to exchange information and coordinate work activities cooperatively and efficiently
- Ensures timely application development and review process
- Argonne National Laboratories selected as the FERC contractor

## BLM Right of Way Application:

- Initiated formal ROW process with Bureau of Land Management (BLM)
- Enables direct BLM involvement in Denali's planning process
- One third of Denali's 730 mile pipeline route in Alaska crosses land under BLM jurisdiction



# Field data gathering

## Alaska

- Outstanding safety record
- Tok field office
- Surveyed over 200 miles of wetlands
- Investigated 70 archeological sites
- Ortho-photography
- Shot 730 miles of “immersive” video
- Investigated 538 potential stream/river crossings
- Performed route reconnaissance
- Identified contaminated sites



## Canada

- Outstanding safety record
- Hydrology data
- Geotechnical data
- Ortho-photography
- Route reconnaissance

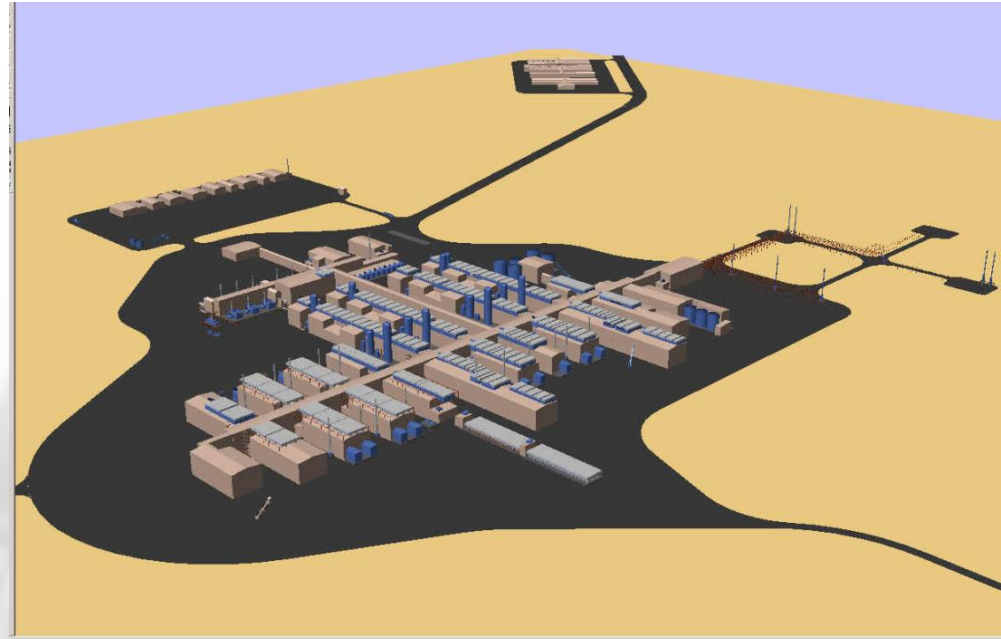
# Gas Treatment Plant (GTP)

## What will it do?

- Remove CO<sub>2</sub> & other impurities
- Dehydrate gas
- Compress gas
- Chill gas

## Mega-project in its own right

- The largest Gas Treatment Plant of its kind in the world
- Requires world-class project execution skills



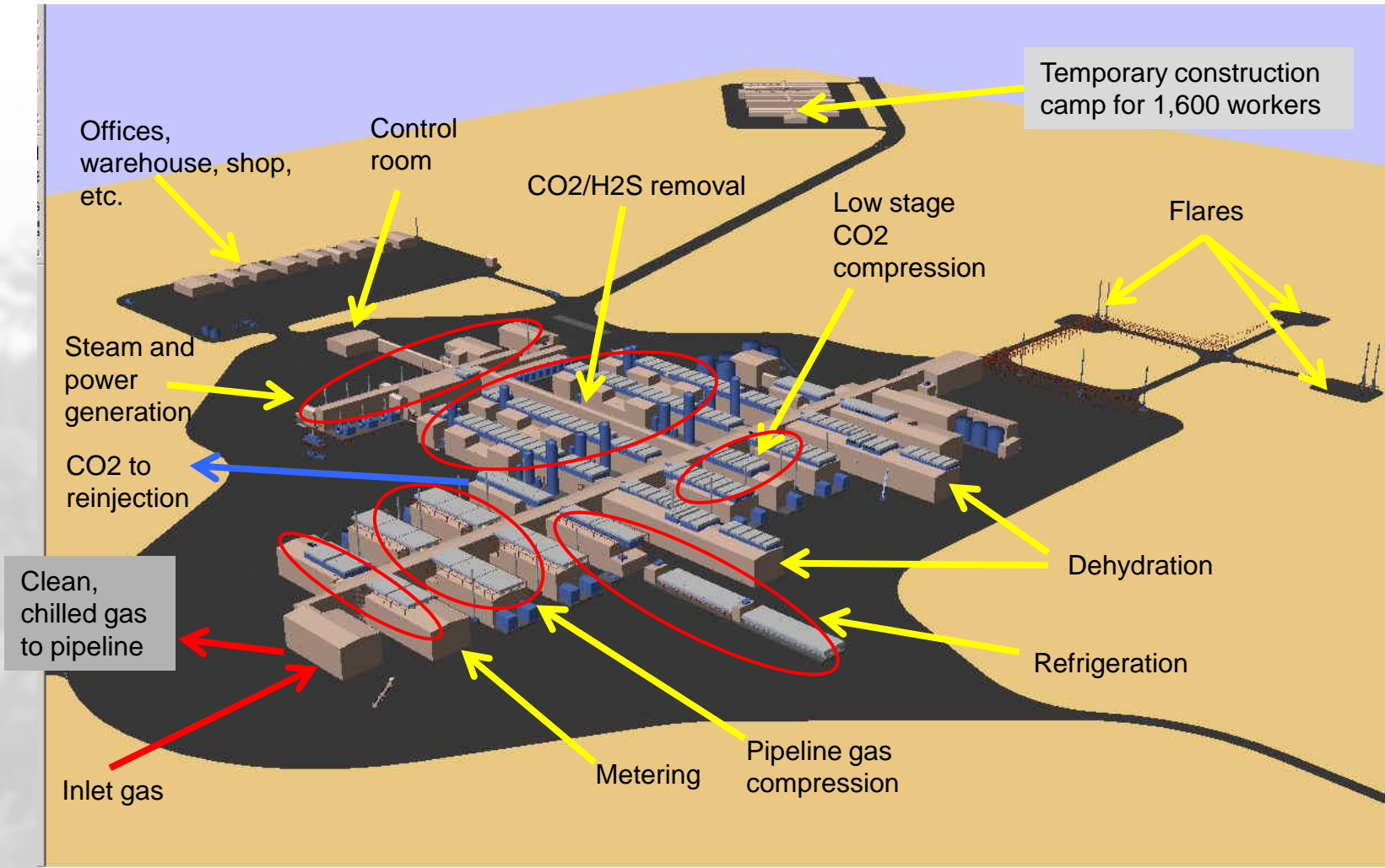
# Gas Treatment Plant (GTP)

- Fluor/WorleyParsons supporting engineering and design work
  - Technical studies, design, cost estimating, and schedule development
  - Significant arctic and North Slope experience, with design and construction of mega projects in Alaska.
- Largest searift modules in history – over 8,000 tons
  - Initial screening suggests U.S. fabrication is cost competitive
  - Alaska fabrication yards expected to be fully utilized for pipeline and compressor station construction
- Best practices from the North Slope and around the world
  - Winter dredging
  - Improved plant operability and layout
- “Green” design
  - CO<sub>2</sub> will be re-injected, not vented
  - Potential for smaller CO<sub>2</sub> footprint on North Slope



*5,000 ton module*

# Gas Treatment Plant (GTP)



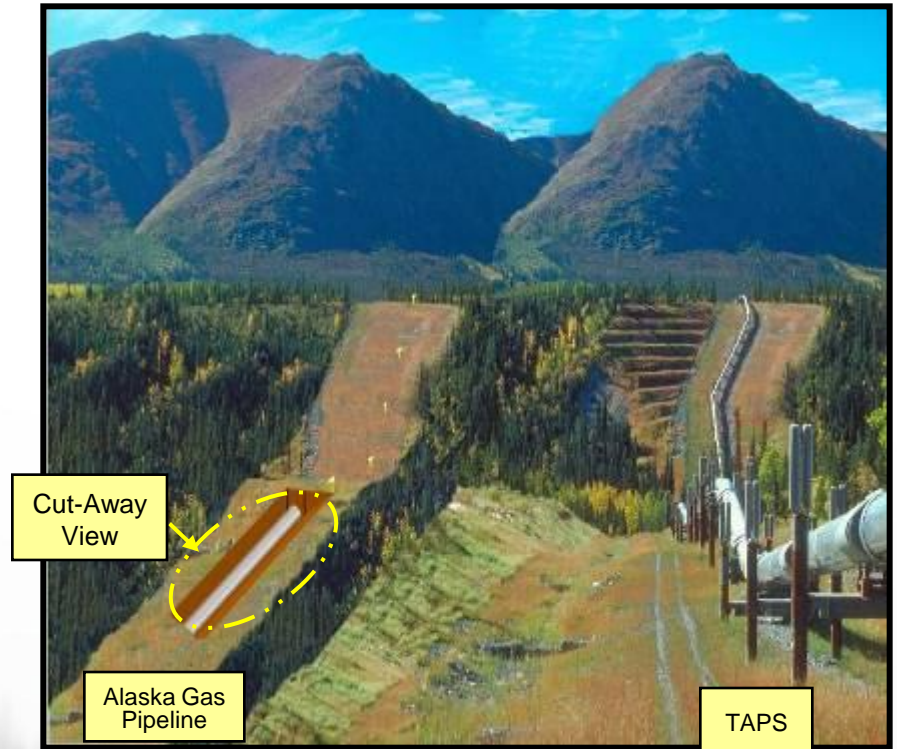
# The Pipeline

## What is it?

- Buried large diameter pipeline
- Operates at ~ 2,500 psi
- Compressor stations every 100 to 200 miles at >40,000 hp each
- ~4bcfd to North American consumers  
(6-8% US daily consumption)

## How big is it?

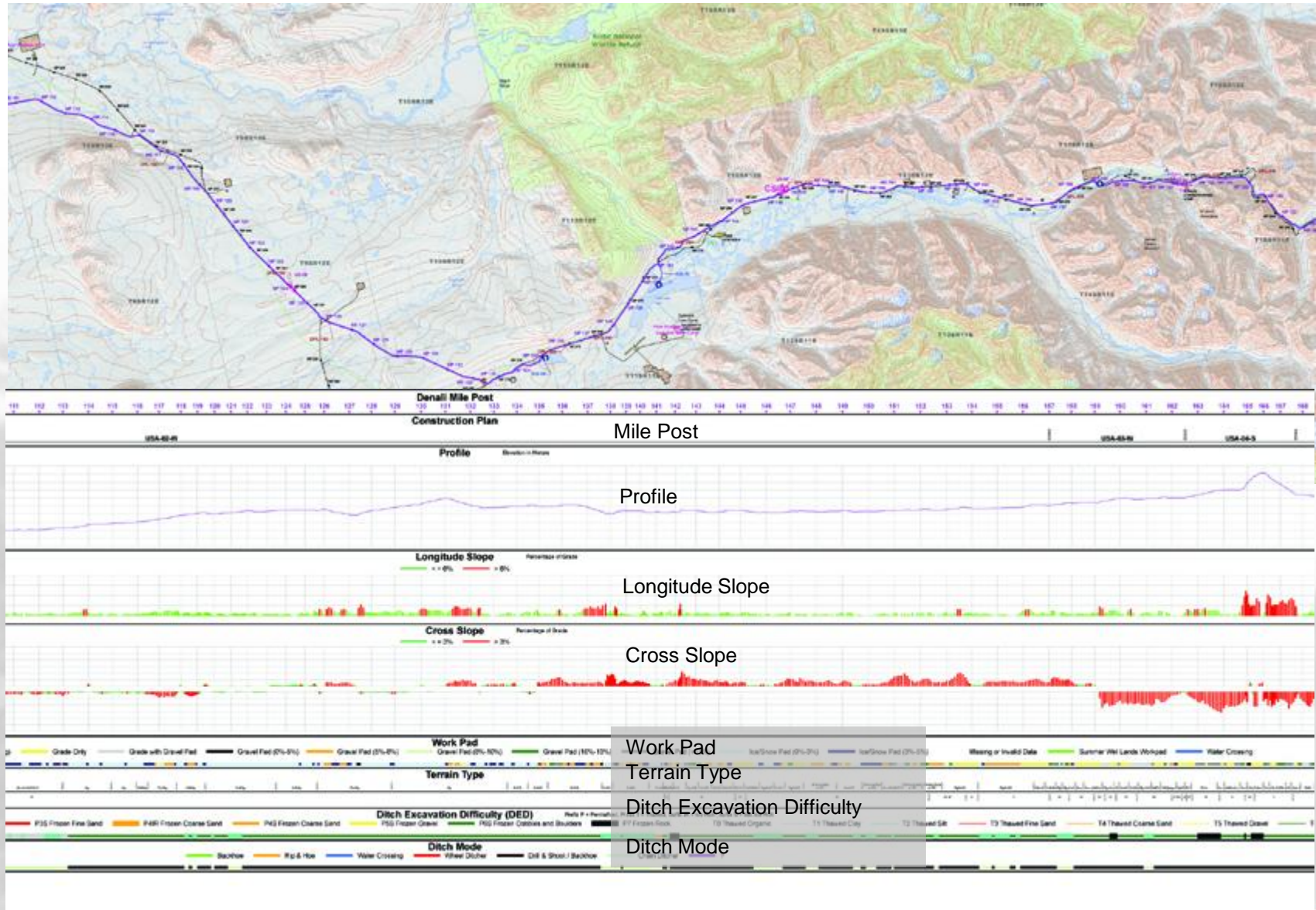
- About 2,000 miles to Alberta
  - ~2-3 million tons of steel
- Possibly another 1,500 miles to US markets
  - ~2 million tons of steel

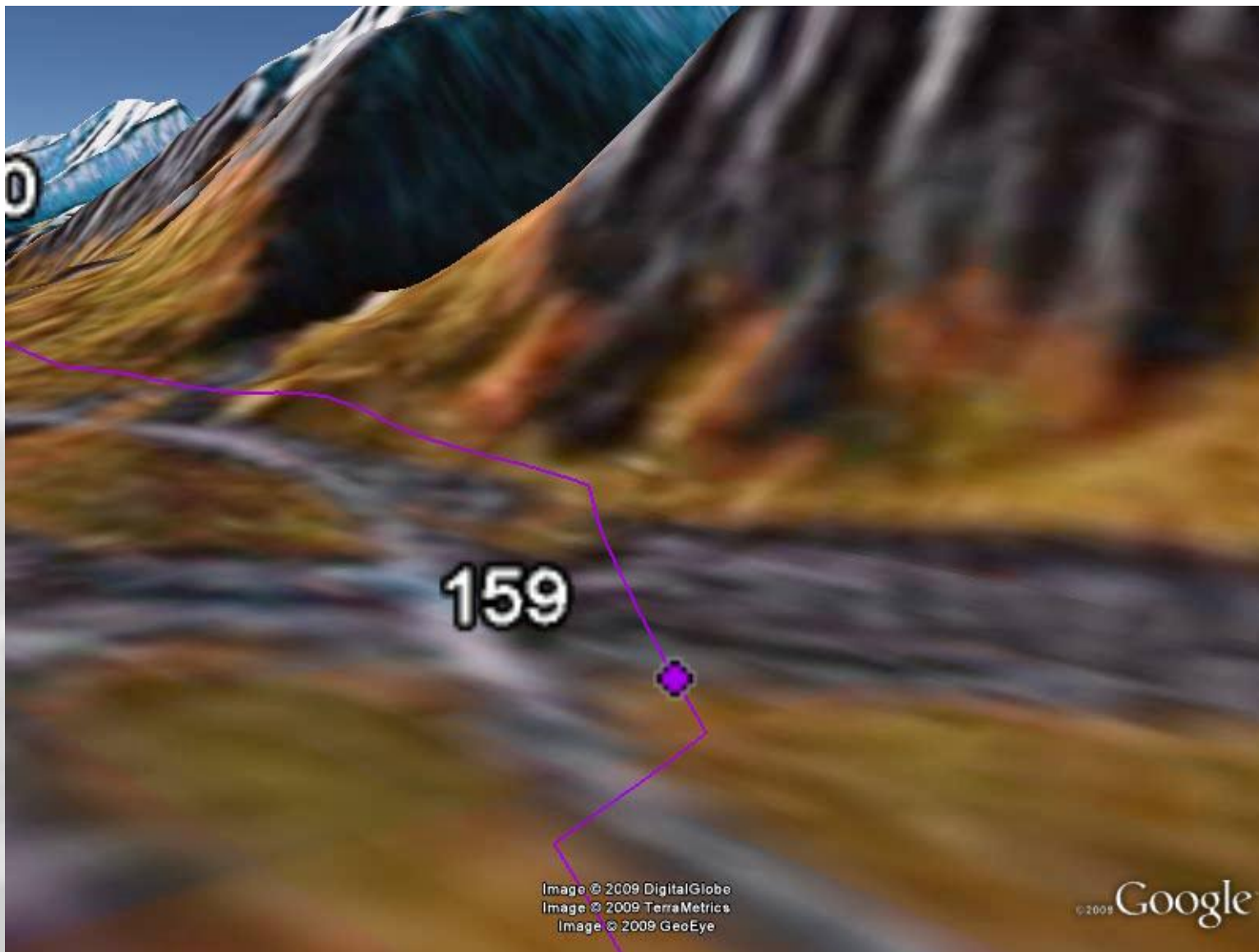


## Bechtel – Supporting the pipeline and compressor station design

- Engineering, cost estimating, scheduling
- Extensive experience designing and constructing major pipelines and megaprojects worldwide.

# Pipeline Engineering Design



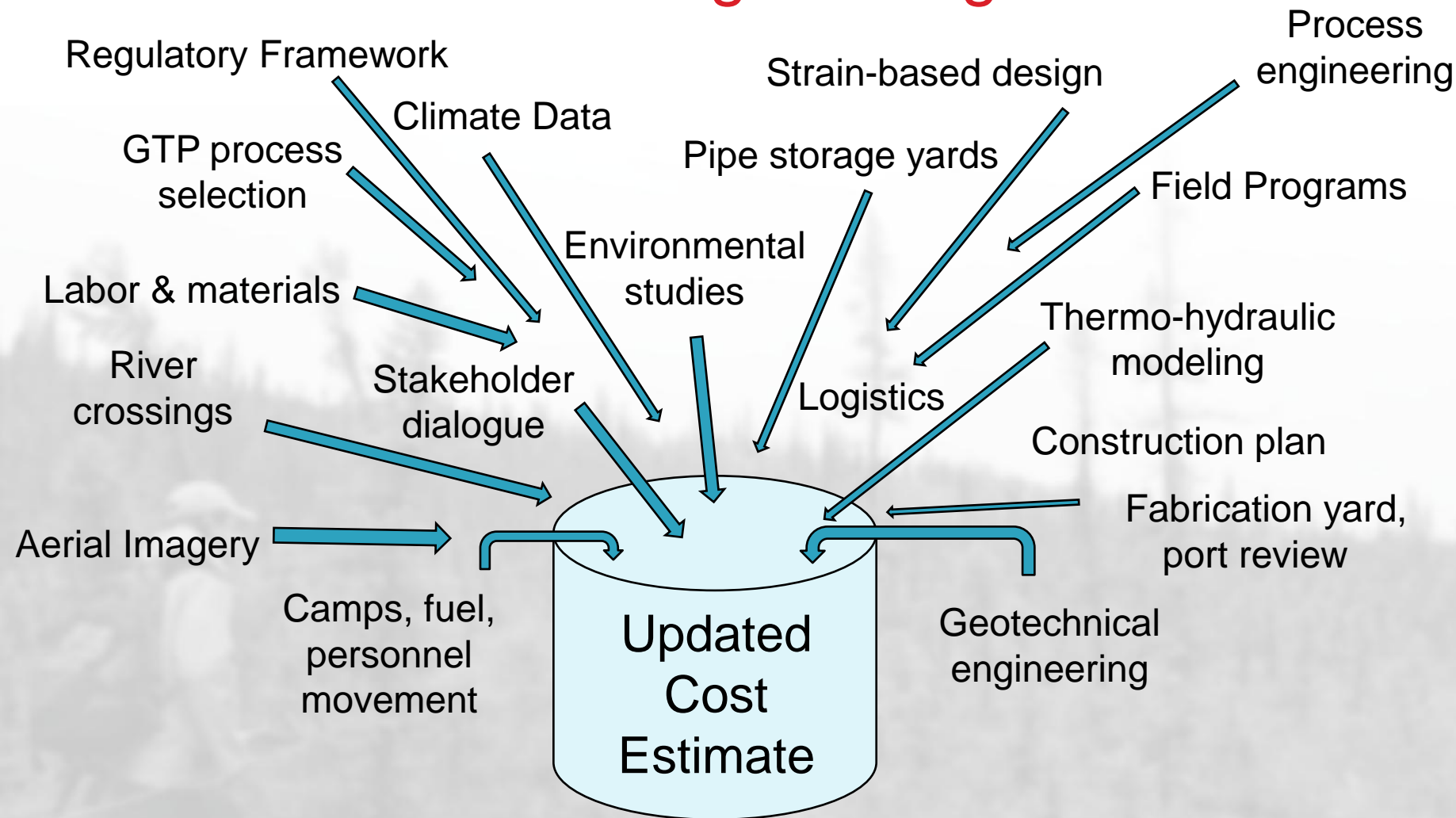


# Stakeholder Engagement

- Community outreach meetings in Alaska and Canada
  - Met with all Alaska Native and Canadian Aboriginal groups along the pipeline route
  - Cooperation Agreements signed with several Aboriginal groups; negotiating with others
  - Over 200 public meetings
- Advanced workforce development
  - Archeology technician training
  - Surveyor apprentice training
- Established working relationships with Alaska, U.S. and Canadian government officials
  - Met with Canadian federal, provincial and territorial officials
  - Met with numerous U.S. federal officials
  - Ongoing dialogue with state of Alaska
  - Outreach to borough, community, and city officials
- Ongoing discussions with the NEB, CEAA, YESAB, MPMO, FERC, OFC, BLM, DNR and other regulatory agencies



# Cost Estimate - Putting it all together . . .



. . . plus many other important pieces!

# Denali has a core team of 80-90 people and dozens of contractor companies supporting its work



# Denali's Planned Terms of Service

- Denali is an Open Access pipeline – *It's the law*
  - *“People have open access to the pipeline, not just the producers.”*  
(FERC testimony to Joint AGIA Committee, June 16, 2008)
- Distance sensitive transportation rates for local use
- Design will provide for efficient expandability
- Solicit shippers every two years for expansion
- Rolled in rates per FERC and NEB
- Will provide at least five offtake points in Alaska; offtake points in Canada as market dictates

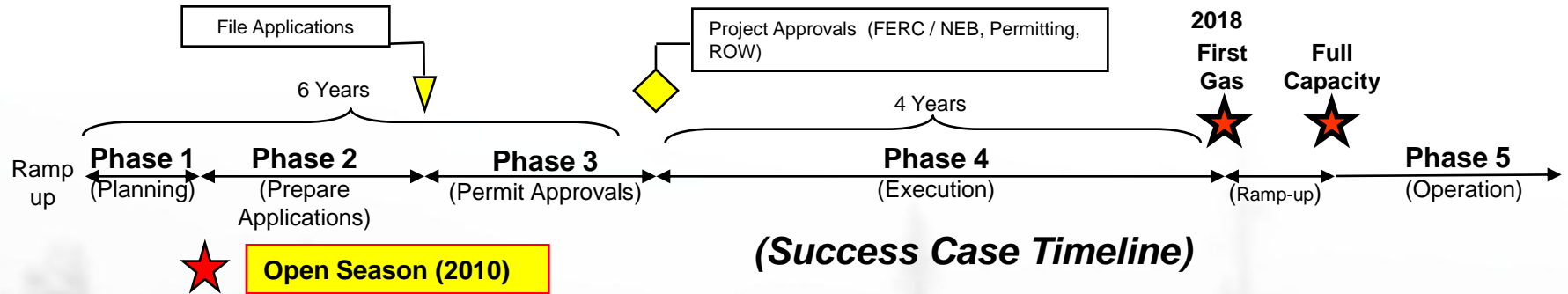


## The Denali Advantage

- Greater flexibility negotiating terms and conditions with shippers
- Greater financing capability
- Multiple options for direct access to the North American gas grid
- No reliance upon State funding
- Terms that attract initial and future shippers
- Unmatched North Slope operating and construction experience
- High quality cost estimate



# Denali – On track for success



- Denali organization in place. Open season in 2010
- Denali is uniquely qualified to deliver this project
- Denali positioned for a high quality cost estimate and superior commercial offering
- The economy has not changed Denali's focus

For additional information, please visit:

[www.denalipipeline.com](http://www.denalipipeline.com)

. . . and sign up to receive email updates