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Denali Project Update

Resource Development Council

November 19, 2009

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Denali - The Alaska Gas Pipeline

What a successful project means:

- Major new revenue streams for Alaska and Canada
- Jobs and business opportunities
- Consumer, industry access to new gas supplies
- Extended economic life of North Slope resources
- New exploration and development (gas <u>and</u> oil)



• Secure, domestic natural gas supply for North America

Success depends upon addressing project risks



North Slope Oil and Gas Fields



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The Denali Project – 4 BCFD to North American consumers



Slide 4

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Significant Progress Towards Open Season

- Over \$120 million spent to date
- Core team of 80 to 90 people with Anchorage and Canadian headquarters
- Major advancement on the regulatory front
- Building the cost estimate
- Field data gathering & analysis
- Gas Treatment Plant engineering
- Pipeline and compressor station engineering
- Extensive stakeholder engagement
- Commercial preparations for open season in 2010





Cost Estimate – Putting it all together . . .



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Gas Treatment Plant (GTP)

- Removes CO2 /other impurities, dehydrates, compresses and chills gas
- Fluor/WorleyParsons supporting engineering and design work
- Largest sealift modules in history several over 8,000 tons each
- Best practices from the North Slope and around the world
- "Green" design



5,000 ton module





Flyover video of the new Denali 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
- Offtake points in Alaska (5) & Canada
- ~4 BCFD to North American consumers



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.



DENAL

the alaska gas pipeline



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







Material, labor,

equipment costs

delay/cost

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Repayment risk



US Natural Gas Wellhead Prices Shippers Take Market Risk



Source: U.S. Energy Information Association (EIA)







Summary

- Denali will have a high quality cost estimate
- Addressing project risks enhances chances for success
- Open Season is important. Our goal is a sound offer that attracts customers
- Denali is on track to hold an open season next year

