

Usibelli Coal Mine, Inc.  
New Frontiers, Expanding Opportunities  
Interior Alaska

Resource Development Council  
November 21, 2003



# Recent Developments

- Resumption of Exports to Korea
- Move to Two Bull Ridge
- 60<sup>th</sup> Anniversary Celebration
- Completion of Northern Intertie, Healy to Fairbanks
- Rosalie Mine Permit



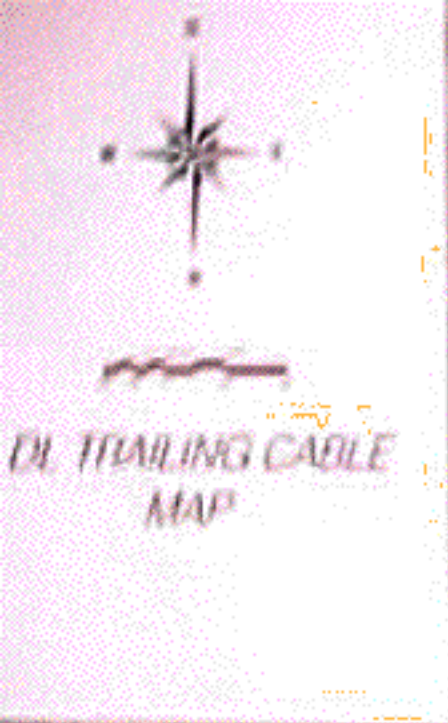
# Korean Export Business

- 2 Year Contract
- 400,000 metric tons per year.
- October through April shipments.
- Alaska Railroad ownership of Seward Coal Terminal.
- Terminal preserved for bulk exports.

# Move to Two Bull Ridge

- **November 18, 2002**
- **10,000 feet of cable**
- **In 10 different cable sections**
- **2015 steps**
- **It took 29.3 hours of walking to complete the move.**





# The route





**The beginning of a well planned and executed trip!**











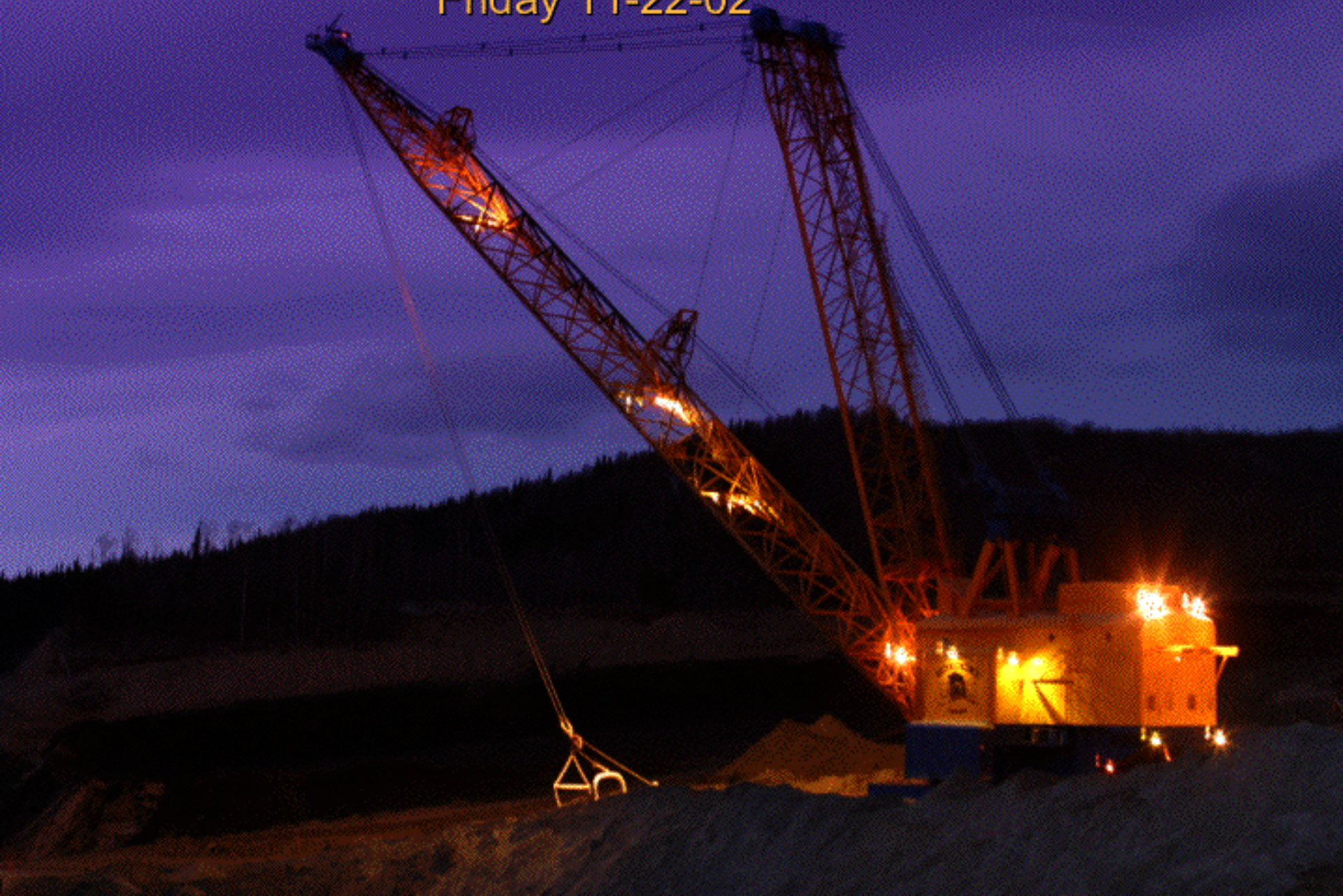




Wayne considers  
the merits of our  
plan to drop cable  
as we get closer to  
the pit!



Setting Pretty in Two Bull Ridge!  
Friday 11-22-02





# COAL

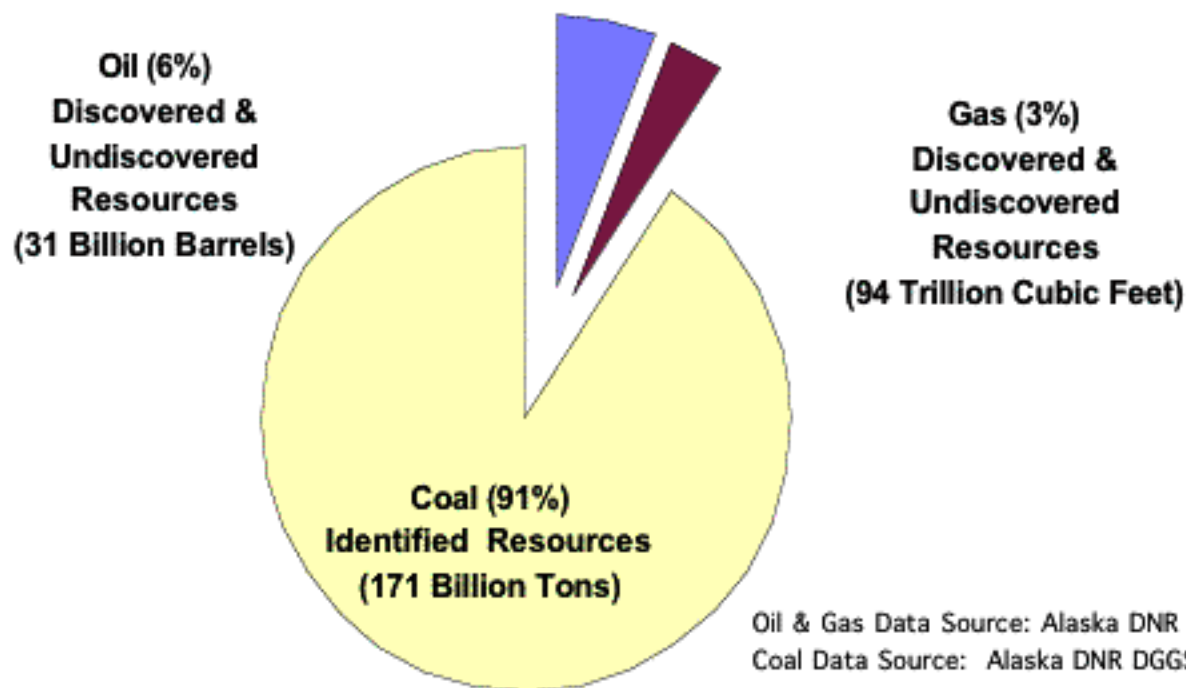
Alaska's Most Abundant  
Energy Resource



# Alaska's Energy Resources

## Alaska Fossil Fuel Energy Resources

(Based on contained energy)





### Northern Alaska Basin

Hypothetical Resource (10 <sup>6</sup> tonnes)	Identified Resource (10 <sup>6</sup> tonnes)	Measured Reserves (10 <sup>6</sup> tonnes)
3,630,000	136,100	73

### Nenana Province

Hypothetical Resource (10 <sup>6</sup> tonnes)	Identified Resource (10 <sup>6</sup> tonnes)	Measured Reserves (10 <sup>6</sup> tonnes)
13,320	7,800	227

# Alaska's Coal Widely Distributed

BERING SEA

### Key to Coal Rank

	Bituminous
	Subbituminous
	Lignite

Major Basin Margins

ARCTIC OCEAN

Deadfall  
Syncline

Barrow

Peterson

USIBELLI  
HEALY MINE

Little Tonzona

Wishbone Hill

Beluga Coal Co.

North Foreland  
(prospective)

Anchorage

Dillingham

Seward  
Coal Terminal

Valdez Oil Terminal

Bering River

GULF OF ALASKA

Skagway

Sitka

Petersburg

Ketchikan

### Cook Inlet-Susitna Basin

Hypothetical Resource (10 <sup>6</sup> tonnes)	Identified Resource (10 <sup>6</sup> tonnes)	Measured Reserves (10 <sup>6</sup> tonnes)
64,230	10,550	1,400

### All Other Areas

Hypothetical Resource (10 <sup>6</sup> tonnes)	Identified Resource (10 <sup>6</sup> tonnes)	Measured Reserves (10 <sup>6</sup> tonnes)
8,660	520	0

- Exploration Phase
- Development Phase
- PRODUCING MINE
- Major Port
- Alaska Railroad

CANADA

JUNEAU





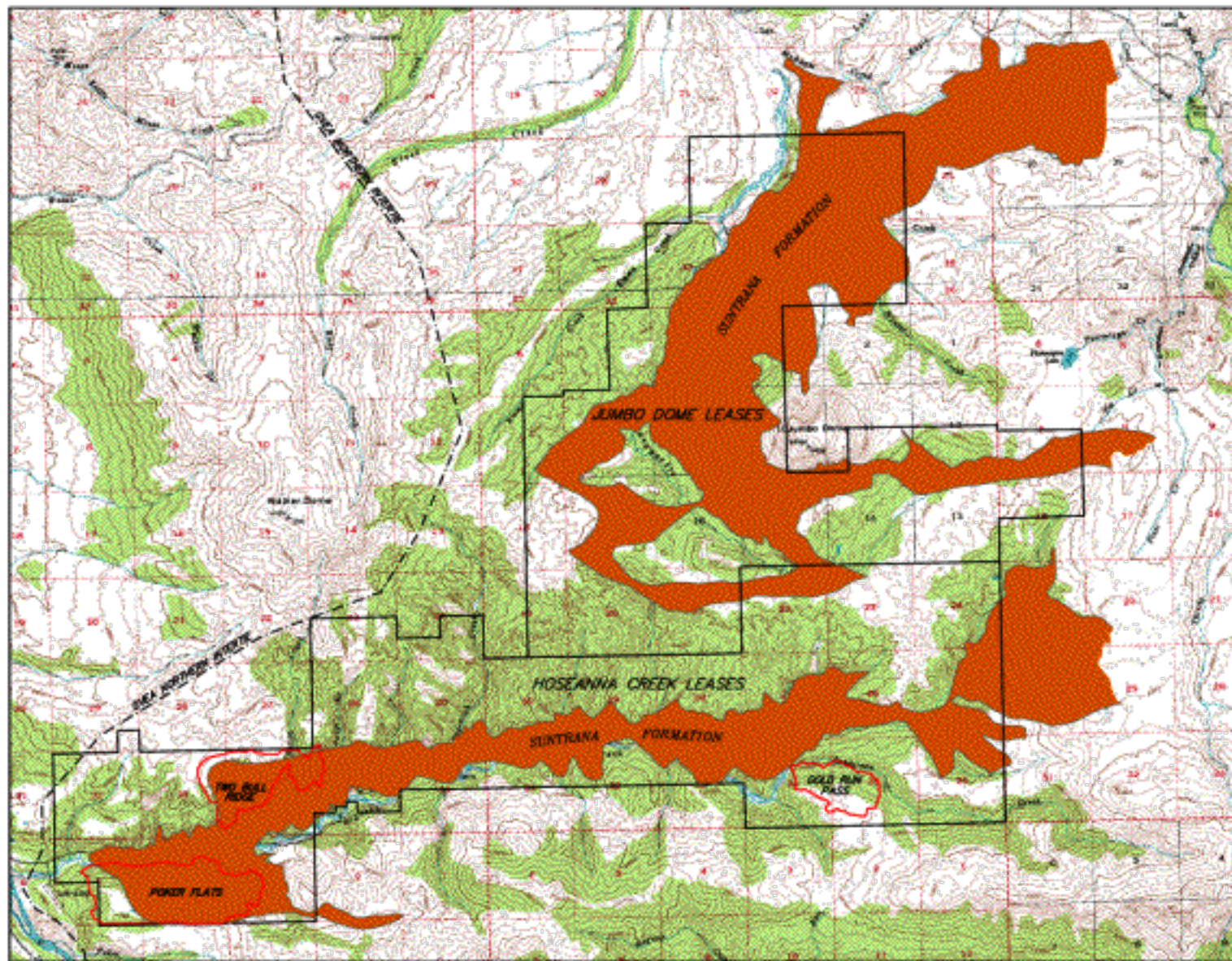
# Emma Creek Energy Project



# JUMBO DOME LEASES



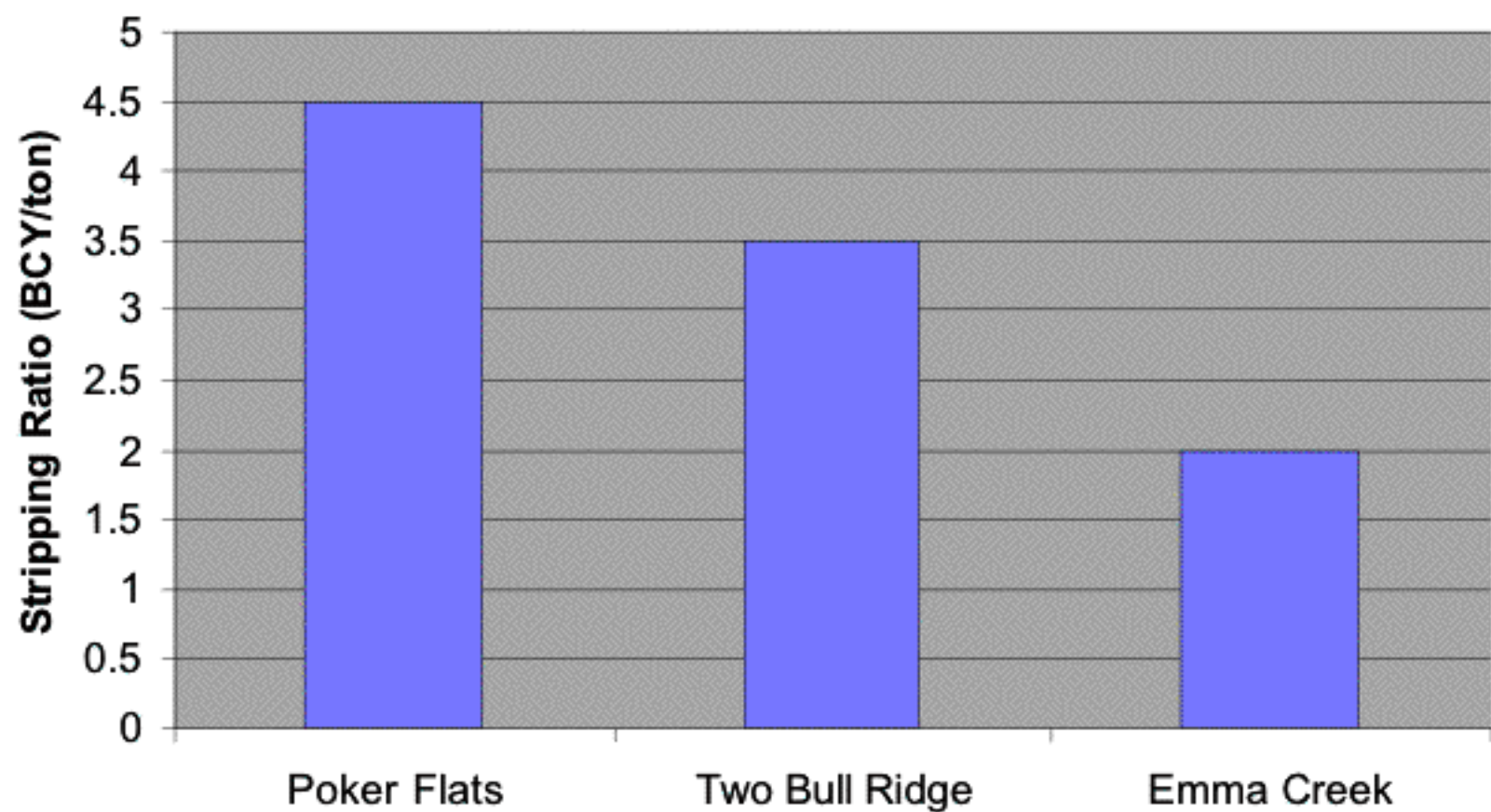




## UCM Leases and Suntrana Formation Exposure



## Usibelli Coal Mine, Inc. Comparative Stripping Ratios

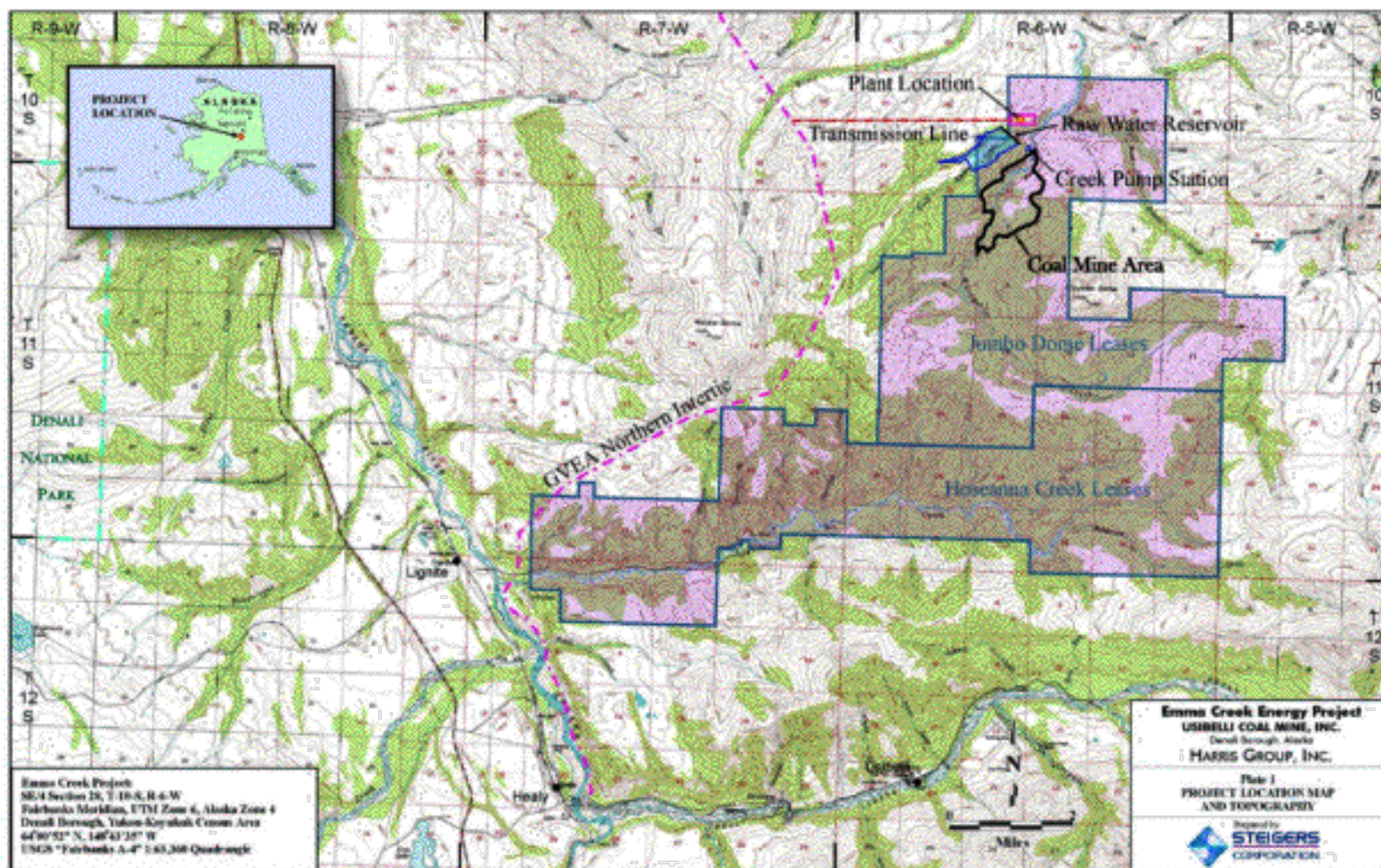




# Suntrana Formation Typical As Received Coal Quality

- Moisture 26 %
- Ash 9 %
- Volatile matter 36 %
- Fixed carbon 29 %
- Sulfur 0.17 %
- Heat Value 7,800 Btu/lb







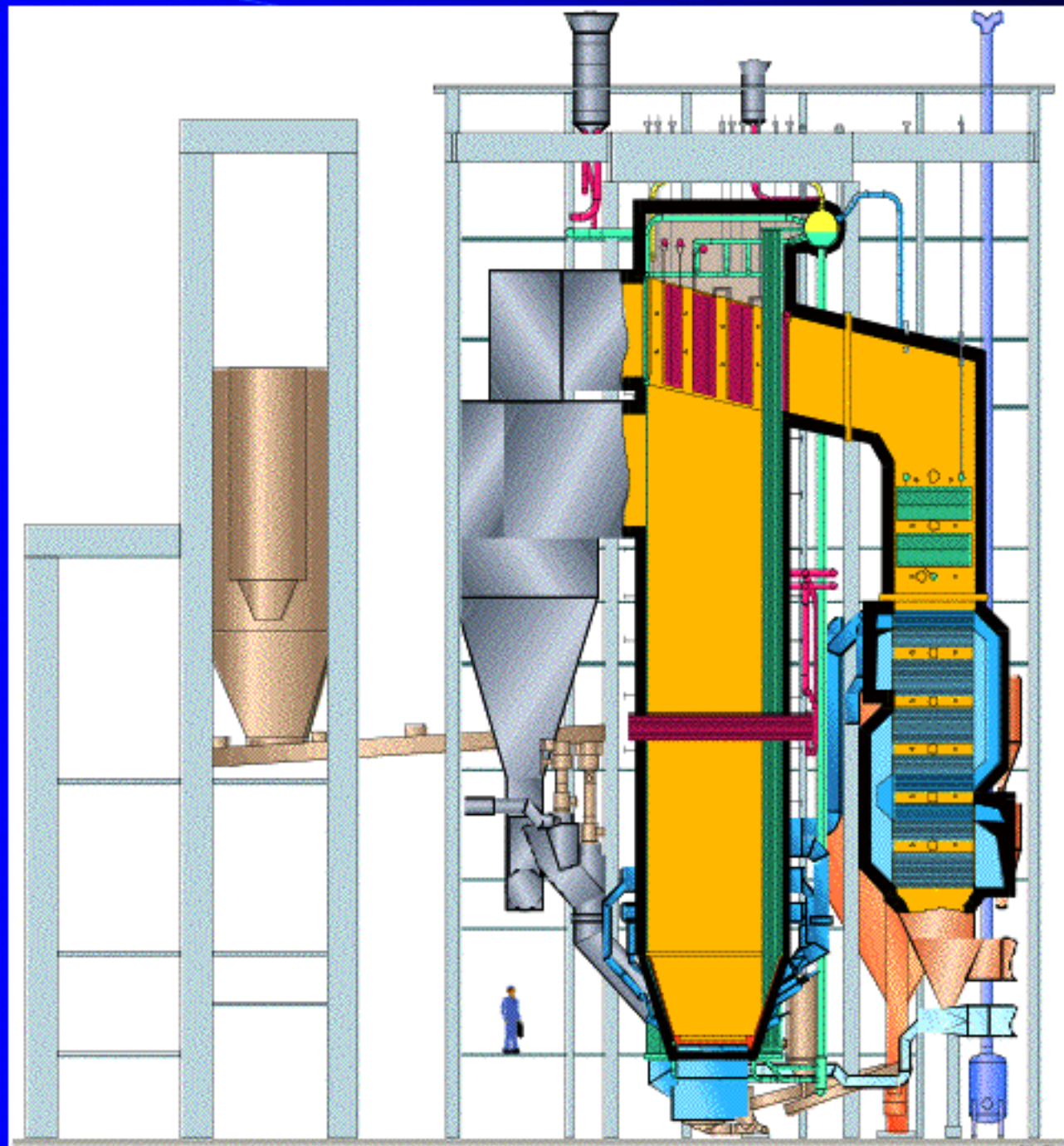
# Emma Creek Energy Project

## Key Attributes

- 200 megawatt net output.
- Circulating Fluid Bed (CFB) technology.
- Capital cost \$421 million.
- Electricity cost \$41 per megawatt-hour (mWh)
  - \$20.5 per mWh debt service
  - \$20.5 per mWh operating cost
- 7.5 years to permit, design and construct.
- 1.5 million tons per year coal consumption.



# Circulating Fluidized Bed Boiler



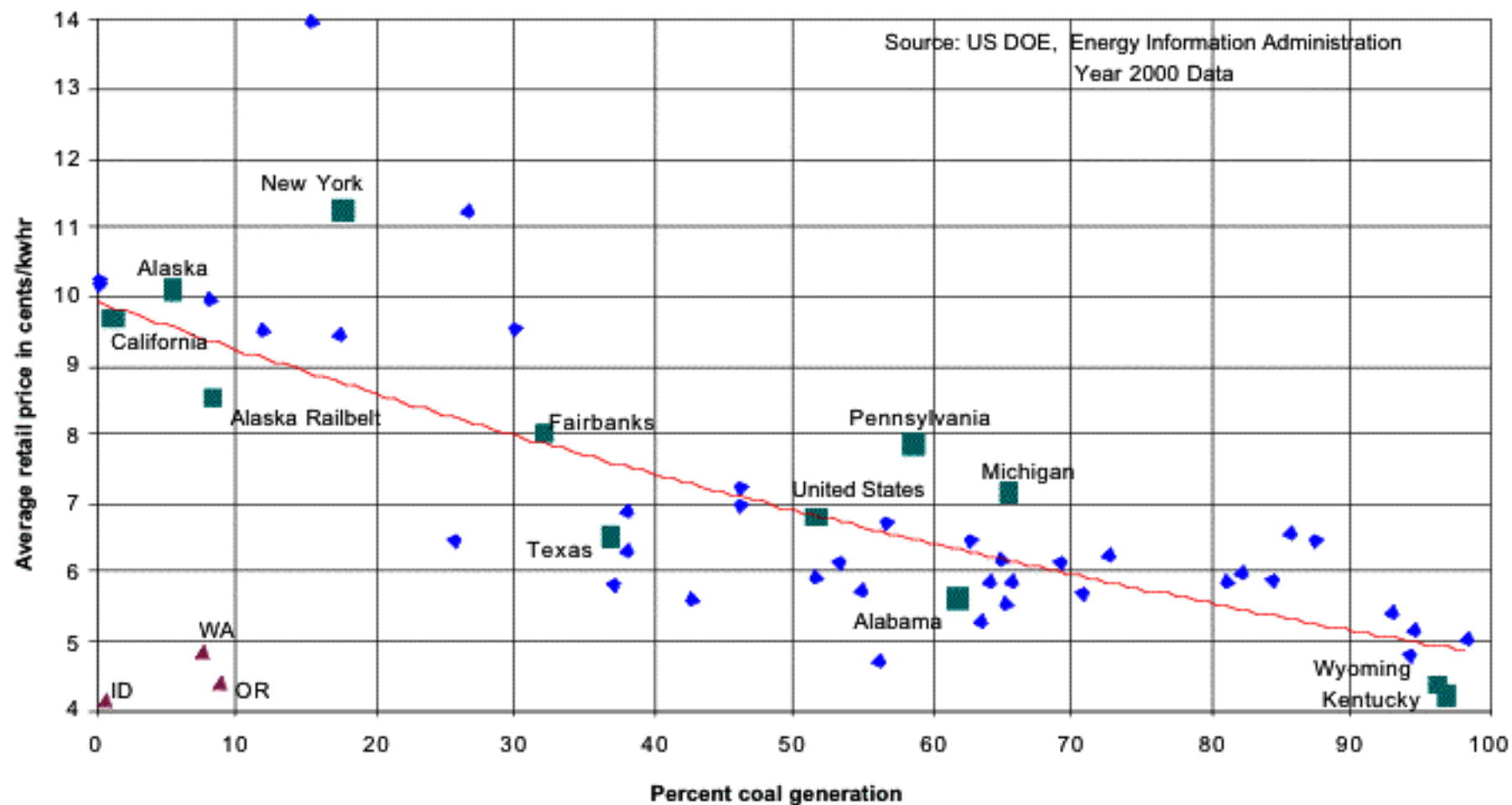


# Emma Creek Energy Project Challenges

- Permitting, within 15 miles of Denali Park.
- Financing, large capital requirement.
- Size, would be largest single unit on system.
- Market share, would produce about 25% of Railbelt electricity needs.
- Transmission capability.
- Cooperation and buy-in of Railbelt utilities.

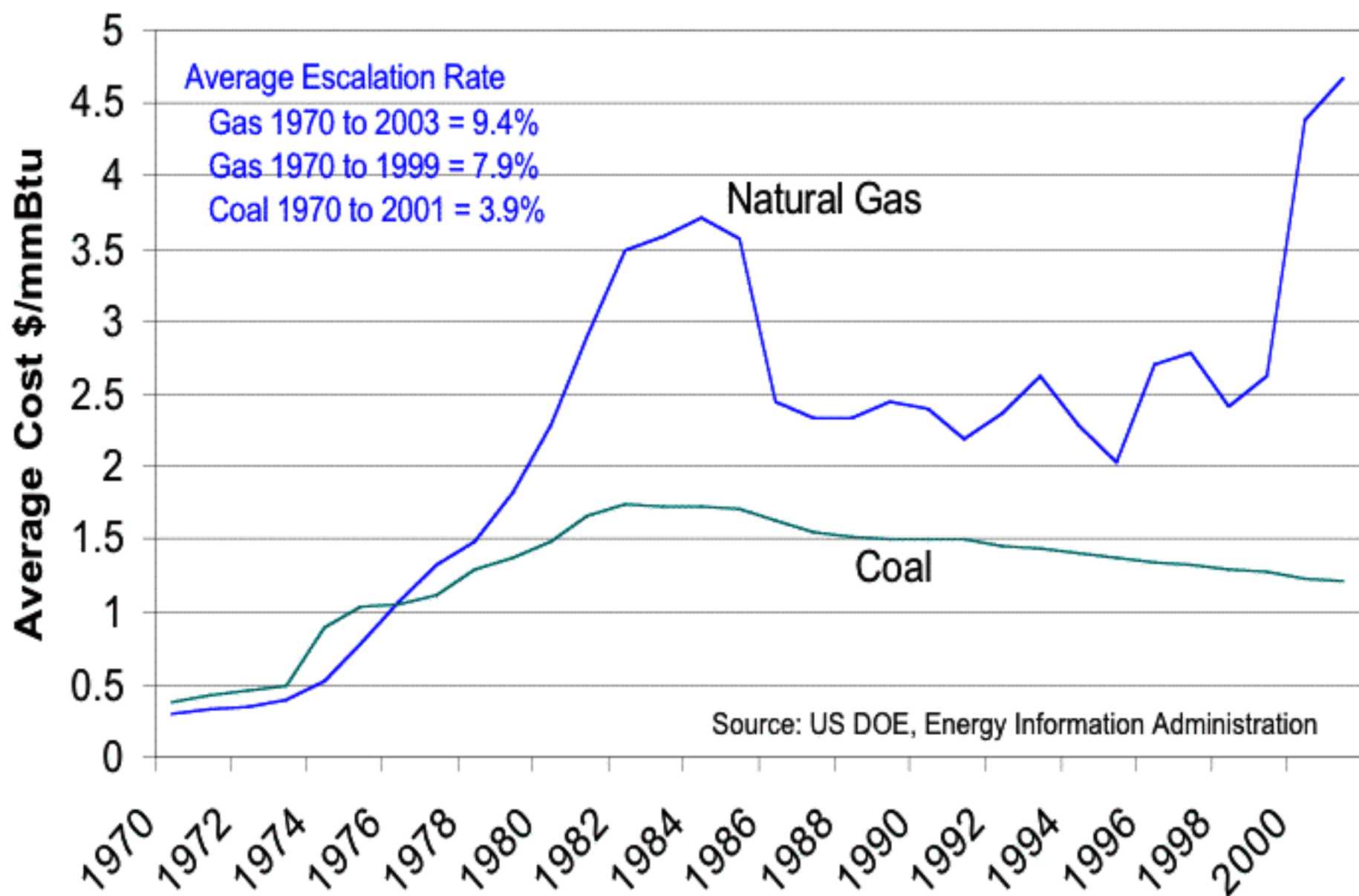


## Coal Effect on Electricity Rates





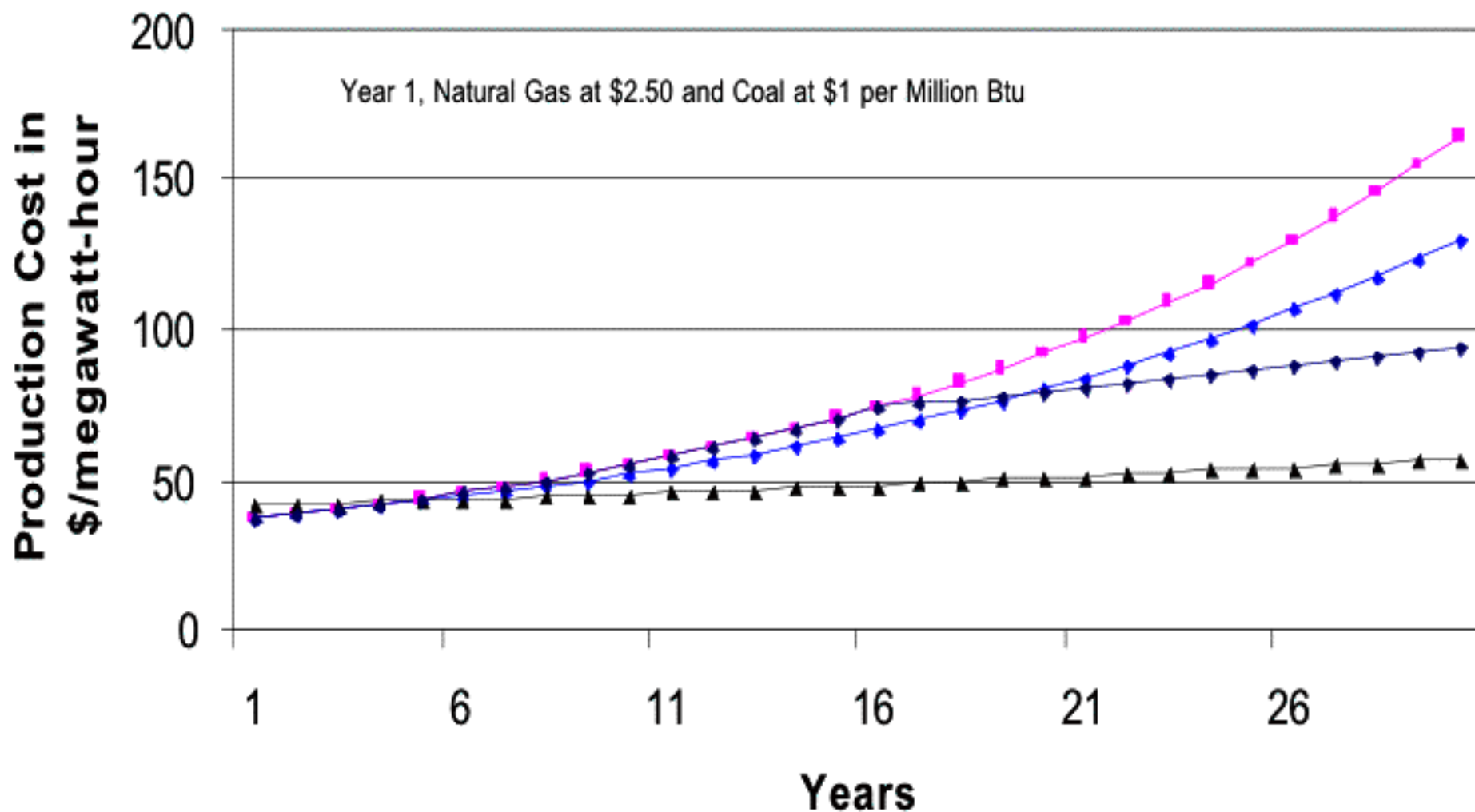
# Historical Electric Utility Fuel Prices





# Comparative Electricity Production Cost

—■— NG at 7% Escalation —◆— NG at 6% Escalation —▲— Coal at 2% Escalation —◆— NG at 2% Esc. post year 16





# Emma Creek Energy Project

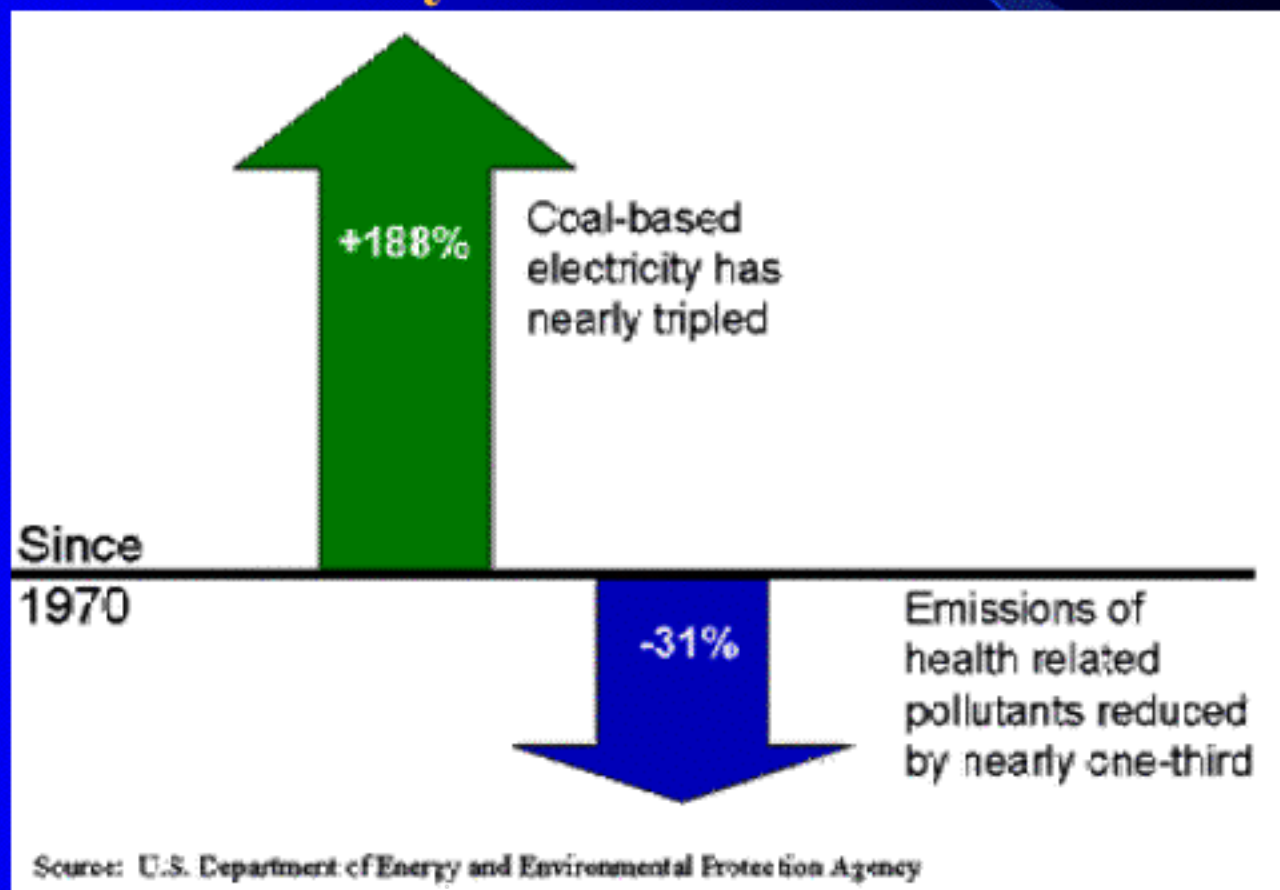
## A Key Component of Alaska's Economic Well Being

- Long term stability for electricity rates.
- Attract new industrial development.
- Present value savings over natural gas option of \$300 to \$500 million.
- Proven fuel resources for life of the project.
- Approx. 100 new high paying jobs.
- Save oil and gas resources for value added industry and export.
- Basis for expansion of Railbelt power grid.



# Electricity from Coal is Increasingly Clean Across America Due to Better Technology

## Coal Currently Generates Half of All the Electricity in the United States





# Healy Clean Coal Project





# Healy Clean Coal Project

- Completed demonstration testing Dec. 1999
- Currently idle due to disagreement over results of testing program.
- CCPI proposal rejected by DOE
- AIDEA and GVEA form joint committee to develop start-up plan.
- Funding for full retrofit not likely.
- Start-up probably based on use of new technology.



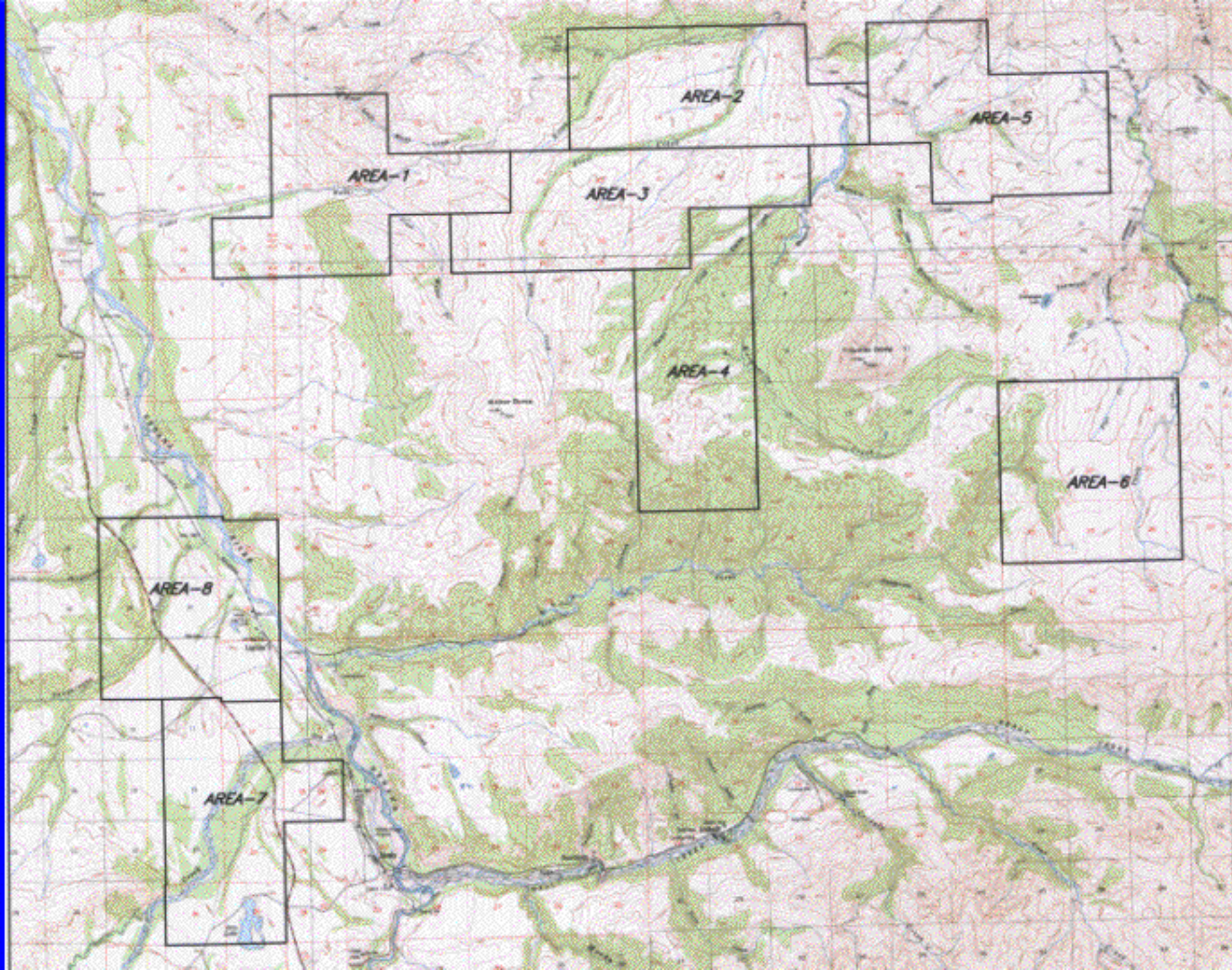
Coal Bed Methane  
a.k.a. Shallow Gas  
a.k.a. Natural Gas  
Potential



# Shallow Gas Status

- State of Alaska shallow gas lease program currently under suspension.
- Usibelli has approx. 45,000 acres of pending leases in Healy Area
- No Alaska production to date.
- Resource, costs and production potential unknown at this time.







# Development Scenarios

- Low Volume Case, internal UCM use.
  - About 0.4 BCF /year required.
  - 5 Megawatt cogeneration plant.
- High Volume Case, supply gas to Fairbanks
  - 10 BCF/year required.
  - Pipeline or LNG/truck transport.
  - Heating and diesel generation market.



# Gold

## A Rebirth of the Soul of Interior Alaska

- Fort Knox Mine, Fairbanks
- Pogo Project near Delta
- Denali Highway Area
- Forty Mile Country
- Ester Dome, Fairbanks
- Donlin Creek, Western Alaska















