

ALASKA LEGISLATURE SPECIAL COMMITTEE/SUBJECT FILES 8672

2951 SCOMM 129: JOINT COMMITTEE ON NATURAL GAS PIPELINE, 2001-02

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**Alaska State Legislature
Joint Committee on Natural Gas Pipelines
November 8, 2001, 2 PM**

**Testimony by Mark S. Sexton, President & CEO
Evergreen Resources, Inc.**

1. INTRODUCTION TESTIMONY

Thank you for the invitation to testify before you today. I regret being unable to do so in person, but please believe if it were possible to be with you, I would do so.

Please allow me several minutes to provide you with an overview of my company, Evergreen Resources. Evergreen is a public independent oil and gas company traded on the New York Stock Exchange under the symbol EVG.

We have provided each of you with an information packet on Evergreen, so if you want further information you can refer to them. Our purpose here is not to do a financial or investment presentation, but if any of you wish to invest, we certainly won't object!

Our operations involve extraction of natural gas from coal beds, primarily from our leases in the Raton Basin of southern Colorado. There are other coal bed methane operations in the Lower 48, some larger, and some not as extensive as Evergreen's.

But there are none executed with more care for the environment and for the communities in which we operate. To that point, the Colorado Oil & Gas Commission has recognized us for excellence – in 1996 and in 2000 as Outstanding Operator for Community Relations and in 1997 for Production Enhancement. In May 2001, Governor Tony Knowles gave Evergreen the Environmental Stewardship Award at the Annual Interstate Oil and Gas Compact Commission Meeting in Anchorage.

We have added jobs to a depressed region, bringing prosperity and vitality where previously the Southern Colorado economy was stagnating.

In the following discussion, you will hear the term "coal bed methane". Please understand that coal bed methane is another word for natural gas. They are the same, except in this case, it is natural gas that comes from coal.

Here's a quick look at the concept behind coal bed methane, our prospects in Alaska, and then we'll show you some examples of our work on our Raton Basin properties.

2. POWERPOINT SLIDES

Topics: **What is Coal bed Methane**
 Description of Evergreen's Pioneer Unit
 Here is what CBM looks like – EVG's Raton Basin

in place ensures that wells are drilled, cemented, completed and produced in a way that maximizes the resource.

As to our exploration plans, we also have shallow gas leases applications, pending with the state.

Evergreen and along with several other parties, applied for shallow gas leases in the vicinity of the Pioneer Unit in February 2000. Pending the granting of these leases, hopefully by the end of this year, Evergreen will negotiate with the successful lessees and then unitize the acreage. If unitization can be established in 2002, then permitting and exploration activities could also begin that year and new wells could be drilled as early as 2003 or 2004.

4. What is your proposed south-central drilling budget for the next 5 years?

Our proposed budget for 2002 is roughly \$5 million dollars. If successful, we expect our pace to accelerate prudently each year thereafter, like we have in the Raton Basin. As an illustration, this year, we will drill, complete and place on line 140 wells in the Raton Basin. This requires in excess of \$75 million dollars this year alone. To date, Evergreen's investment in the Raton Basin exceeds one quarter of one billion dollars.

5. What is your current assessment of south-central demand for gas over the next ten to twenty years? If you have pessimistic, optimistic and best cases, please generally describe each case.

Our view of South-Central gas demand calls for a continuation of the slow growth that we have seen for the last 30 years. During that time, yearly demand has slowly climbed from 145 BCF to about 210 BCF, an increase of about two BCF per year. Barring major changes in supplies, consumption, or pricing, we expect this trend to continue.

6. We have heard that "deliverability," the ability to meet peak winter demand, may be a problem soon. Please discuss whether you see deliverability constraints in the next ten years. Please discuss what can be done to reduce any deliverability problem.

As proven producing gas reserves dwindle, delivering peak volumes on the coldest winter day becomes more difficult. Short-term solutions include additional compression, recompletion of existing wells, or drilling new wells in established fields could increase peak delivery.

The long-term solution is to develop new gas supplies like coal bed methane.

7. Finally, do you have any recommended state legislation the committee should consider to advance the development of natural gas within the state?

Yes, there is legislation that could advance the development of coal bed natural gas.

You probably noticed that throughout my testimony, that I have prefaced my conversations with the word "IF" as in "if coal bed methane is successful, then this is what it can provide for Alaska". Here, I stress the word "IF". <pause> I am confident that if coal gas can be produced in Alaska, then Evergreen is the company to do it. We have the technical expertise and the state of the art equipment required to make CBM a technical success. So we can get gas out of the ground; whether or not we can do it economically, in many ways, rests with the decisions of the legislators in this room.

Friends of ANWR:

After 15 years of trying to open ANWR, maybe a different strategy is in order.

What is missing in the debate over ANWR - **A viable national energy program that WILL have a effect on reducing US imports with the most amount of States (people) participating.**

All you hear today in Alaska is talk about ANWR. While ANWR will have a benefit for the US, it is doubtful that it would be producing by the end of this decade. Most Americans see little benefit for them, only "rich" Alaskans with their PFD's getting richer while we destroy "their" wilderness.

There is a viable program that should be included in the ANWR debate that would have a tremendous benefit for Alaska and more importantly, the rest of the US. Maybe a little "sugar" for the rest of the US will slow or end the resistance in the lower 48 against ANWR, because we know few in Alaska are opposed.

A North Slope gas to liquids (GTL's) program followed by a lower 48 coal based gas to liquids program can work in 38 different states. Think of the support you may get for an Alaska program when there could be jobs, energy production, tax base and valued added industries across the US.

Also, the debate on ANWR does not include a viable way to develop the extensive gas reserves of Alaska, dramatically reduce US dependence on foreign crude and improve the US environment that WILL play to all sides of this very contentious issue.

I have long been a proponent of GTL's as one solution for Alaska's stranded natural gas and lower 48 coal based GTL's as one answer for reducing US dependence on foreign crude imports. It could also help the ANWR issue and GTL's are the **ONLY** viable option on the horizon that can significantly reduce US dependence on foreign crude oil and products.

If the US wants a National Energy Policy to reduce its dependence on foreign crude oil it can to look to the example of the South African's. South Africa pioneered coal gasification - gas to liquids in the 50's and expanded the program in the 70's when OPEC boycotted the US in order to reduce its imports of foreign crude.

Today with advances in GTL technology, the US can build more efficient gasification - GTL plants for far less than what it cost South Africa.

The Alaskan North Slope contains enough natural gas to make approximately 1 million barrels per day of synthetic fuels that can be transported down the existing crude oil line to Valdez for shipment to the lower 48, still leaving room for development of ANWR.

GTL's from Alaska's North Slope can start the process TODAY, educating American's with the possibilities of GTL's and the real promise of reducing US imports of crude oil and products. Coal based GTL's can produce not only the cleanest motor fuels know to man, the gasification program can also produce electricity as efficiently and environmentally effectively as natural gas.

The US has enough coal reserves in 38 states across the nation to make over 10 million barrels per day of synthetic motor fuels (gasoline and diesel) for at least 200 years. Now this is a reduction in US imports worth talking about.

Reliable, Affordable and Environmental Sound Energy for America's Future, GTL's Gas to Liquids. The President's "Energy Policy" with a little kicker.

One solution that can happen TODAY in Alaska and in 38 + states across America in the near future.

GTL technology is proven and cost effective.

A North Slope GTL proposal can result in the US, replacing up to 25% of its "dirty" diesel with this new clean burning fuel.

Fischer-Tropsch (F-T) produced GTL's are odorless, non-toxic and completely biodegradable on land or water according to the US EPA.

Over 36 billion gallons of these ultra clean fuels have been produced in South Africa and other locations around the world.

Alaska can become a major producer of these ultra clean fuels if it so chooses, but it will take tremendous pressure from the people and environmental community to make it happen. Alaska has enough existing natural gas to make upwards of 1 million barrels per day of these ultra clean fuels and enough capacity in the existing oil pipeline to transport these fuels; plus develop ANWR.

America is not as short of clean energy as we are critically short of a comprehensive energy policy that can wean us off foreign crude and products.

It could be that by marrying ANWR with an energy program that can benefit all Americans and physically be located in upwards of 38 States, Alaskan's can finally achieve their goal of developing ANWR.

To learn more about GTL's see our web site at www.angtl.com

Respectively,

Richard Peterson

A friend of ANWR and GTL's for a stronger Alaska and US.



Natural Gas Company

ALASKA STATE LEGISLATURE

Joint Committee on Natural Gas Pipelines

November 8, 2001

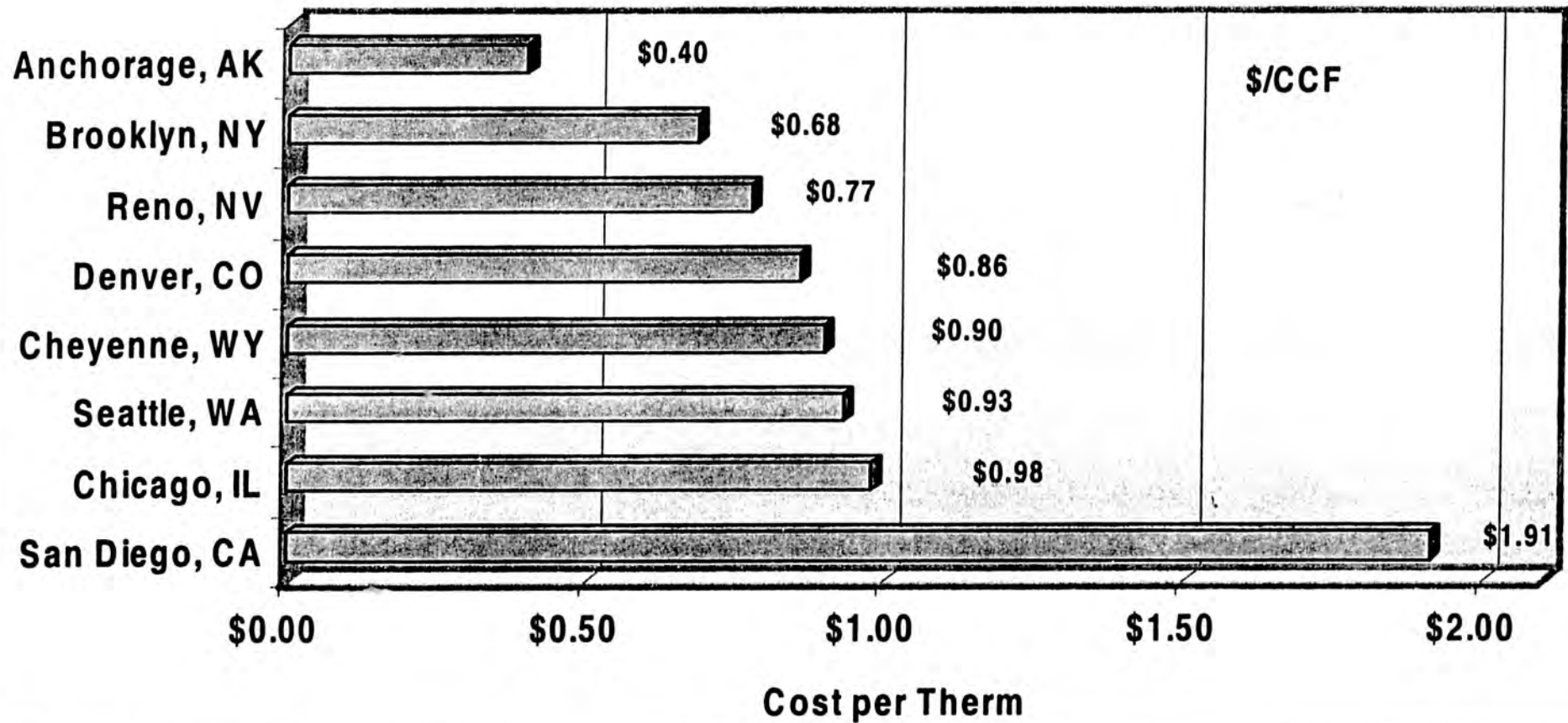


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- **Company Overview**
 - **Projected Gas Usage**
 - **South-central demand & deliverability**

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- Local Distribution Company based in Anchorage
 - Commenced operation in August 1961
 - Currently serve 106,800 customers
 - Some of the lowest gas rates in the country
 - Highest gas usage per residential customer among investor-owned utilities in U.S.

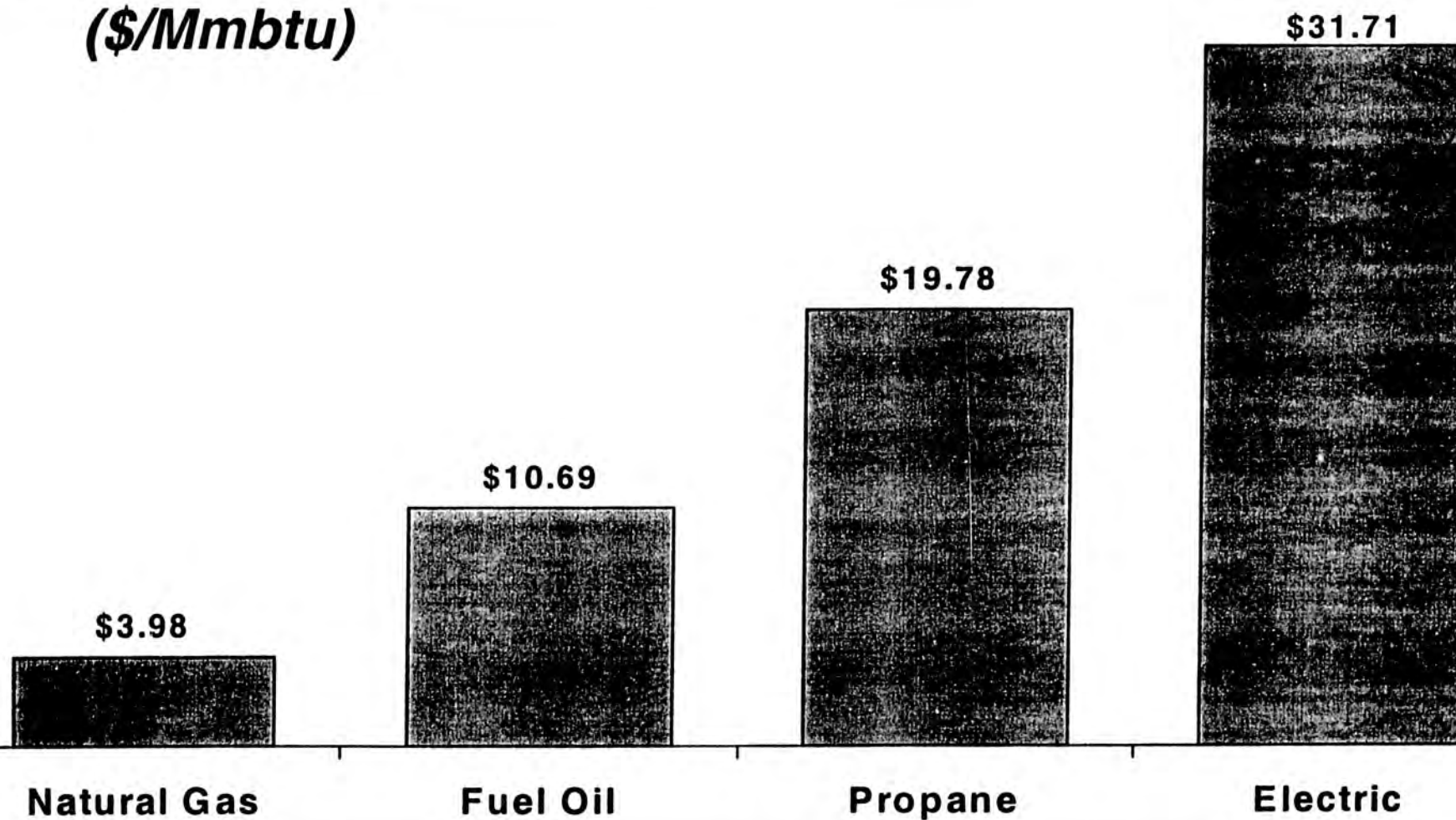


Residential Natural Gas Costs



1 CCF is equal to 100,000 BTUs

(\$/Mmbtu)

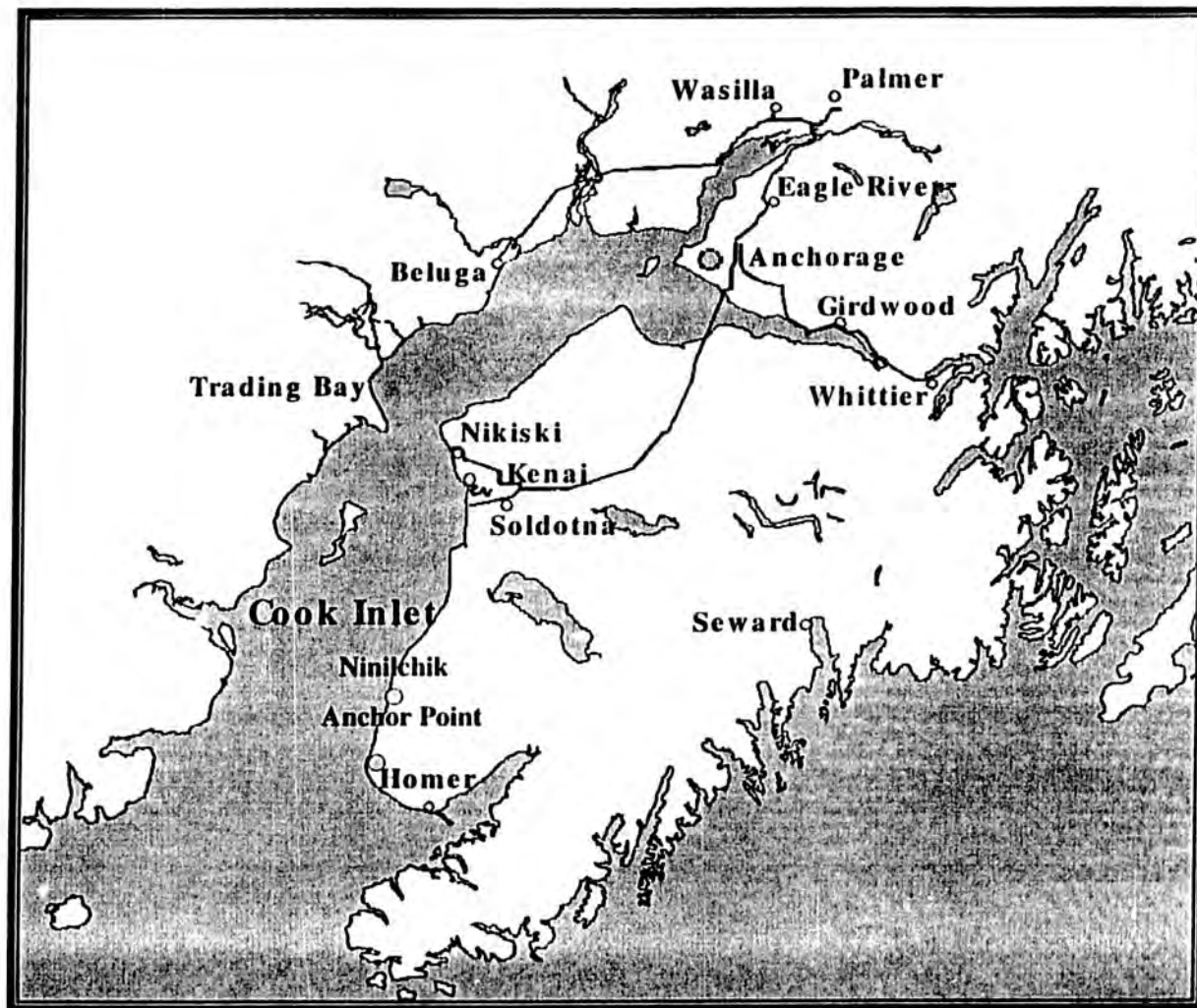




Expansion Plans

- Future plans to expand our system to Ninilchik, Anchor Point, and Homer
- ENSTAR owns and operates over 2,700 miles of Distribution and Transmission Pipeline







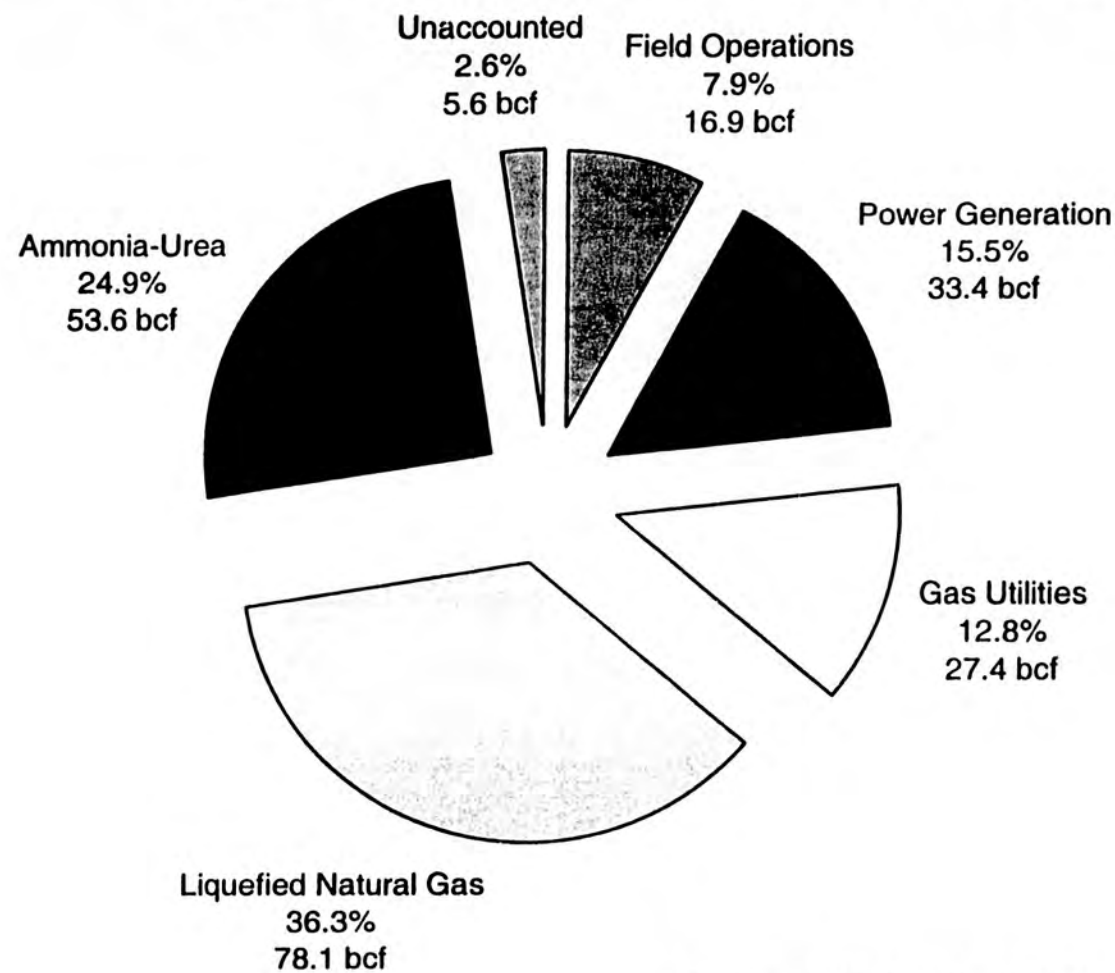
➤ Company Overview

➤ **Projected Gas Usage**

➤ South-central demand & deliverability

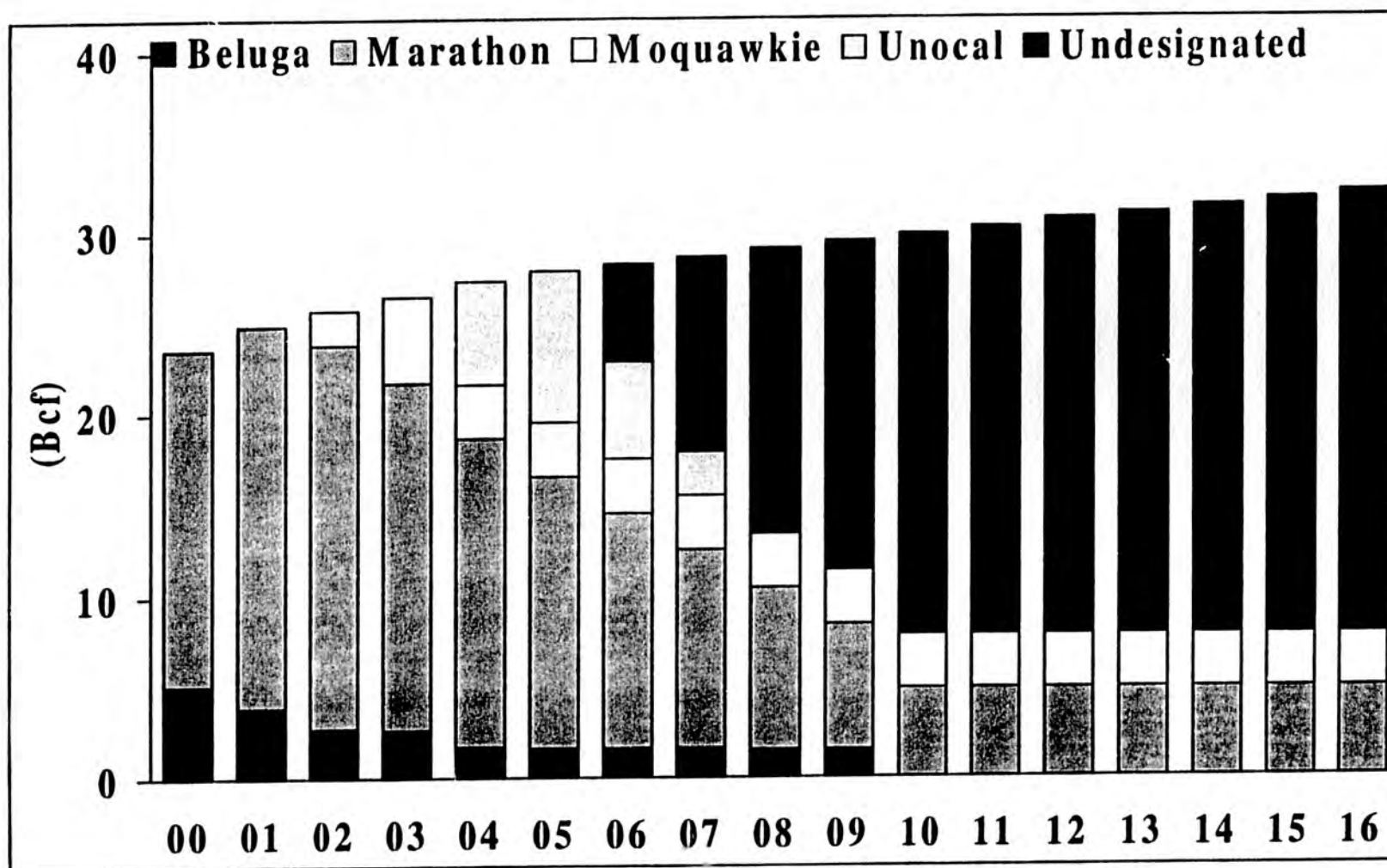


Cook Inlet Historical Gas Consumption by Type, 1998



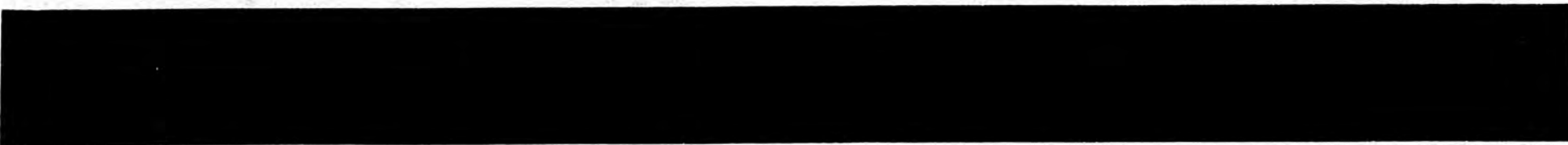
Source: DNR, Division of Oil and Gas, 2001a





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- Gas is purchased under long-term contracts with Marathon, Chevron, ML&P, & Phillips
 - Gas is indexed to changes in the price of crude oil
 - Gas supply costs passed through to customers
 - No take-or-pay liability
 - Two new Supply Contracts
 - Moquawkie (Anadarko & Phillips) deliveries start 1/1/02
 - Unocal – deliveries scheduled to start 1/1/04
 - Currently talking with producers for future supplies





➤ Company Overview

➤ Projected Gas Usage

➤ **South-central demand & deliverability**



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- **The Near Term [2001-2008]**
 - **The Medium Term [2009-2019]**
 - **The Long Term [After 2019]**



The Near Term [2001-2008]

- By the middle of this decade, it may become difficult to meet winter peak demands without new discoveries or development of peaking facilities.
- Industrial usage reduction may be needed to meet winter peak demand.
- ENSTAR has entered into new supply contracts at higher prices in an effort to spur exploration and increase reserves.
- ENSTAR's new Gas Supply Contract with Unocal contemplates that gas storage will be developed.



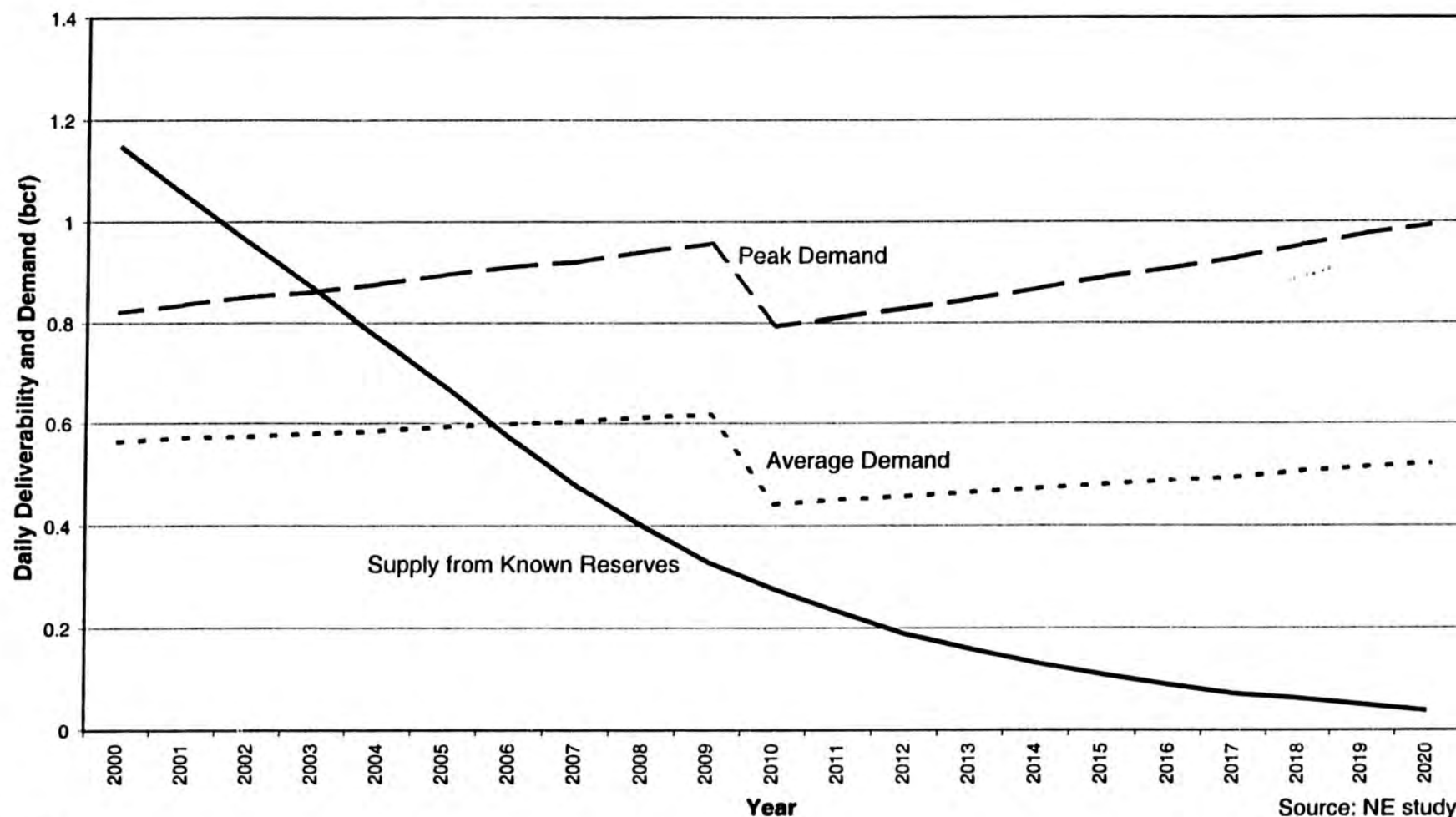


The Medium Term [2009-2019]

- Peak and daily deliverability become more difficult if –
 - Approximately 2 TCF of additional reserves are not added
 - Industrial use continues after 2009
- Federal LNG license may be at risk



Estimated Deliverability Timeline Assuming that Industrial Use is Reduced by Half in 2010





The Long Term [After 2019]

- Current natural gas reserves in Cook Inlet will most likely be unable to meet the demand of the Cook Inlet region unless –
 - 2 TCF of reserves are added
 - Industrial use is discontinued after 2009
- After 2020 significant new reserves or North Slope Gas is necessary



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- Cook Inlet natural gas reserves are sufficient to meet residential and commercial needs in the near term. New reserves and/or storage will improve near-term deliverability during peak demand.
 - ENSTAR is optimistic about future growth (Ninilchik, Anchor Point, & Homer).
 - ENSTAR supports an in-state route for North Slope Gas to ensure access to reliable low cost energy for future generations of Alaskans.





**Providing Alaskans with safe, clean,
economical natural gas for 40 years.**





Natural Gas Company

ALASKA STATE LEGISLATURE
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ENSTAR Natural Gas Company

- Company Overview
- Projected Gas Usage
- South-central demand & deliverability

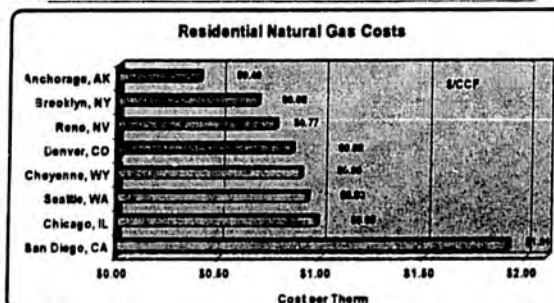


ENSTAR Overview

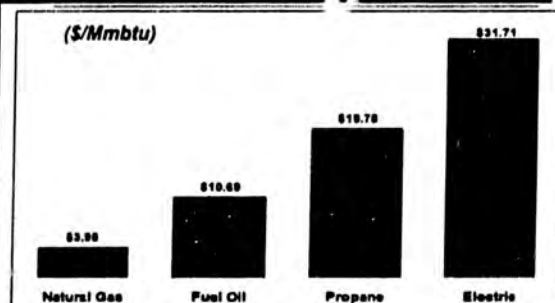
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Low Residential Natural Gas Rates



Lowest Average Residential Energy Costs



ENSTAR Overview

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ENSTAR Transmission Pipelines



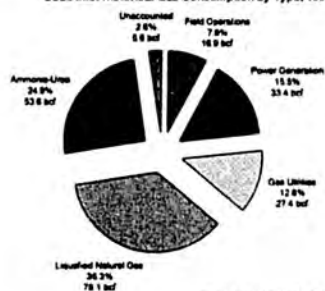
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Cook Inlet Consumption

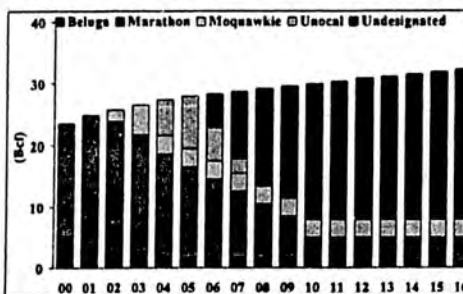
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ENSTAR Projected Gas Use



Gas Supply Considerations

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Demand and Deliverability

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- The Medium Term [2009-2019]
- The Long Term [After 2019]



Demand and Deliverability

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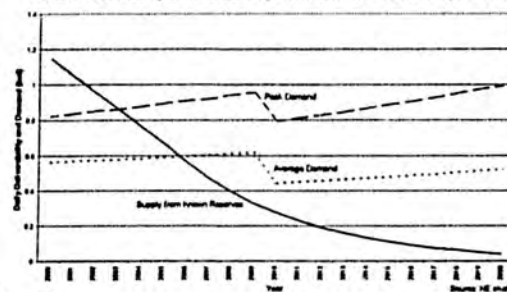
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Deliverability

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Demand and Deliverability

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In summary

- Cook Inlet natural gas reserves are sufficient to meet residential and commercial needs in the near term. New reserves and/or storage will improve near-term deliverability during peak demand.
- ENSTAR is optimistic about future growth (Ninilchik, Anchor Point, & Homer).
- ENSTAR supports an in-state route for North Slope Gas to ensure access to reliable low cost energy for future generations of Alaskans.





Providing Alaskans with safe, clean,
economical natural gas for 40 years.



ALASKA STATE LEGISLATURE
JOINT COMMITTEE ON NATURAL GAS PIPELINES

TESTIMONY of JOHN ELLWOOD
EXECUTIVE VICE PRESIDENT AND
CHIEF OPERATING OFFICER

FOOTHILLS PIPE LINES LTD.

KENAI, ALASKA NOVEMBER 7-8, 2001

Alaska State Legislature Joint Committee on Natural Gas Pipelines

Mr. Chairman:

Thank you for the invitation to appear before your committee and to report on the progress of the ANNGTC/Foothills (ANGTS) Alaska Highway Pipeline project.

Foothills appeared before your committee on July 18, August 15 and September 19, 2001. During the earlier appearances we spoke to issues of the ANGTS advantages, Alaska benefits, pipeline access, status of the pipeline and the various permits. The later appearance focused on our position regarding the federal legislation proposed by the Alaska producer group.

Since that time, U.S. Senate hearings on Alaska natural gas were held in Washington and the Alaska Highway Natural Gas Policy Council forwarded its recommendations to the Governor. Foothills appreciates the efforts of policy makers involved in both of these proceedings.

Mr. Chairman, I would like at this time to express our appreciation to you and to the committee for your words and contribution to the US Senate Energy Committee hearings.

Today I would propose to report progress by Foothills on three fronts:

- The Alaska Northwest Natural Gas Transportation Company (ANNGTC) partnership.
- Foothills commercial proposal.
- Work on the pipeline right-of-way.

Alaska Northwest Natural Gas Transportation Company (ANNGTC)

We are aware of a lingering concern regarding the so-called withdrawn partners issue and alleged liabilities associated with that issue.

When I appeared before your committee in July of this year, I indicated that Foothills had undertaken discussions to re-enlist the Withdrawn Partners of the ANNGTC.

In our testimony before the US Senate Energy Committee on October 2, 2001, Foothills said:

"In the initial stages of the Alaska Highway Project, numerous U.S. energy companies were partners in the Alaska Partnership. However, during the decade of the 1980s and the 1990s when the producers of Alaska natural gas were unwilling to commit that gas to Lower 48 markets because of low energy prices,

all of the U.S. partners withdrew from the Alaska Partnership. Foothills and TransCanada, as the two remaining partners, have offered to the current holders of the withdrawn partner interests an opportunity to rejoin the Alaska Partnership. The negotiations with these companies have been productive and are ongoing”

Last month we followed-up our testimony with a letter expanding on the re-enlistment process.

“ Earlier this month we testified before the Committee on Energy and Natural Resources regarding our efforts to reconstitute the Alaska Northwest Natural Gas Transportation Company (Alaska Partnership) by re-enlisting the withdrawn partners. We are writing today on behalf of TransCanada and Foothills, and, with the authorization of the withdrawn partners – Duke, El Paso, Enron, PG&E Corporation, Semptra and Williams specifically with respect to the re-enlistment process. We are pleased to report that continued progress has been made on the critical issues, including the key principles for re-enlistment by any withdrawn partner who so elects in the Alaska Partnership, for the purpose of constructing the Alaska Natural Gas Transportation System (ANGTS).

We have already scheduled further meetings so that we can continue to work on the details for reconstituting the Alaska Partnership. It is anticipated that all parties will have signed a Memorandum of Understanding (MOU) within the next month. TransCanada, Foothills and the withdrawn partners are committed to eliminating commercial barriers to construction of the ANGTS and in so doing would be prepared to release contingent claims against the Alaska Partnership related to previous investments in the ANGTS as part of a commercial arrangement to ensure a market viable project.”

Our negotiations with the withdrawn partners are approaching the final stages and we are confident of meeting our timeline for the successful conclusion of an agreement..

Commercial Proposal

A commercial agreement with the Alaska producers is an important prerequisite to any pipeline project.

Achieving such an agreement has been delayed, in part, because of the withdrawn partnership issue overhanging the project, and because the Alaska North Slope are focused on completing their project feasibility study.

In our October evidence before the US Senate Energy Committee, we said:

“An important first step towards commercial viability of an Alaska gas pipeline is a commercial agreement between the producers and potential shippers who, in turn, enter into transportation contracts with the owners and operators of the transportation system. In this regard, the Alaska Partnership has pursued discussions with the producers for the last several months. After several

discussions with the producers over the last year, it has been agreed that we will develop a commercial proposal to present to the producers before the end of the year."

The above referenced October testimony also stated:

"The next step on our critical path will be to prepare, present to, and negotiate with the producers of Alaska North Slope natural gas a comprehensive commercial proposal for a pipeline project. Based on the progress we have made since the Energy Committee hearings, we are confident that such a proposal will be presented to the producers before the end of the year. As companies with long-standing interest in building and owning an Alaska natural gas pipeline, we have every incentive to reach a commercial arrangement with the producers to develop a viable project. We believe that such an arrangement will be achieved on a timely basis, consistent with the energy needs of the Nation."

With regards to the negotiations with the North Slope Producers, we remain confident that we will reach a commercial arrangement to develop a viable project.

Pipeline Right-of-Way

The Alaska Natural Gas Transportation System from Prudhoe to Alberta is approximately 1,750 miles long.

Access to land is becoming a difficult challenge for all North American pipeline projects. Public lands constitute the majority of the property through which the pipeline will pass.

Foothills is well advanced along the road of securing the pipeline right-of-way. More than 400 miles of right-of-way on federal lands has been acquired. Currently, we are making progress on securing the 200 miles of right-of-way on State lands with the Gas Pipeline Office. Work is under way to assess the information that was previously submitted in an earlier application, and a process to move forward has been identified. With the State right-of-way lease expected to in hand by 2003, over 90% of the right-of-way for the project will have been acquired or reserved.

Let's summarize the progress of the Alaska Highway Pipeline project.

1. The United States and Canada have determined that the ANNGTC/Foothills (ANGTS) Alaska Highway Pipeline project is:
 - (a) Necessary.
 - (b) In the public interest.
 - (c) Should be granted a unique fast track status.
2. Foothills and TransCanada have offered to the current holders of the withdrawn partner interests an opportunity to rejoin the Alaska Partnership. Negotiations have been productive and we are well on our way to re-assembling the Alaska Partnership.
3. A commercial arrangement between a coalition of North American pipeline companies and an Alaska natural gas producer group is the next key milestone. We are working towards that end.
 - A commercial arrangement will allow the project to move to the next phase of the project ... "the countdown to construction" phase.
 - A substantial amount of this work has already been completed and more is currently being done "on spec" to further expedite this stage of the project.
4. As I indicated, we have made substantial progress in the area of pipeline right-of-way.
5. In moving forward we will comply with the technical and environmental conditions established by President Carter when he approved our project. In doing so we intend to work with interested stakeholders. Over the coming months we will take steps to establish a consultation process that will enable interested Alaskans to become involved in the project.
6. We are committed to maximizing Alaska benefits consistent with prudent economic efficiencies. The Governor's Policy Council has made reasonable recommendations in this regard.

Ultimately the final decision to construct a pipeline will rest with the gas producers. We remain confident that the long-term demand for and the price of natural gas in the North American markets will support this project.



November 8, 2001

The Honorable John Torgerson
Chair, Joint Committee On Natural Gas Pipelines
Alaska State Legislature
35477 Kenai Spur Highway, Suite 101A
Soldotna, Alaska 99669

Senator Torgerson:

Thank you for the opportunity to address your committee relating to a GTL project for the North Slope and on issues of gas supply and demand for Cook Inlet natural gas.

I would like to make a few comments about U.S. energy independence in light of the September 11th terrorist attack on the US.

I have long been a proponent of GTL's as one solution for Alaska's stranded natural gas and coal based GTL's as one answer for reducing US dependence on foreign crude imports. Many others are interested in the prospects of GTL's but are waiting for some sign from the Federal and Alaskan Governments that they are willing to support GTL programs.

If the US wants a National Energy Policy to reduce its dependence on foreign crude oil it can look to the example of the South African's. South Africa pioneered coal gasification - gas to liquids in the 50's and expanded the program in the 70's when OPEC boycotted the US in order to reduce its imports of foreign crude.

Today with advances in GTL technology, the US can build more efficient gasification - GTL plants for far less than what it cost South Africa. The US has enough coal reserves in 38 states across the nation to make over 10 million barrels per day of synthetic motor fuels for over 200 years.

The Alaskan North Slope contains enough natural gas to make a 1 million barrels per day of synthetic fuels that can be transported down the existing crude oil line to Valdez for shipment to the lower 48. Of importance also is that a GTL batching program will

ANGTL's proposal can result in the US, replacing up to 25% of its "dirty" diesel with this new clean burning fuel. The existing crude oil refiners don't want that to happen because it will cost them money.

Each year US refiners cite lack of domestic refining capacity to meet the summer driving needs as justification to raise the price of gasoline and diesel 25¢ to 35¢/gallon. An Alaskan GTL program could end this US refining short fall, resulting in \$billions less to the oil companies.

F-T produced GTL's are odorless, non-toxic and completely biodegradable on land or water according to the US EPA. The \$3+ million cost to clean up of the diesel spill from the fishing boat Windy Bay in Prince Williams Sound this past August could have been a non event.

Alaska can become a major producer of these ultra clean fuels if it so chooses, but it will take tremendous pressure from the people and environmental community to make it happen. Alaska has enough existing natural gas to make upwards of 1 million barrels per day of these ultra clean fuels and enough capacity in the existing oil pipeline to transport these fuels; plus develop ANWR.

America is not as short of clean energy as we are critically short of a comprehensive energy policy that can wean us off foreign crude and products.

There are many misconceptions about an Alaskan GTL program and about GTL's in general.

Too many BTU's are wasted

Natural gas from the North Slope must be converted into useful energy by some process. Home heating, electric generation, transportation fuels, industrial processes. None are 100% efficient. Most industrial processes, including electric generation are at best 50% efficient. Did you know that the gas turbines used to generate electricity are only about 40% to 50 % efficient.

The truth is that the actual GTL conversion process converts approximately 70% of the natural gas BTU into synthetic fuels. If you capture the "waste" heat for electric generation, the CO2 for enhanced oil recovery and process water to reduce energy consumption, you end up converting more BTU's in the natural gas to useful products.

Of course the finished products from the GTL process are for the most part more valuable than natural gas, certainly from a National Energy Policy point of view.

There is enough Natural Gas on the North Slope for several projects.

The truth is that a 4 BCF/D gas line will need at least 36 TCF. No other project can be financed until gas producers "prove" up additional reserves. While it is easy to say the North Slope contains 50 to 100 TCF of gas reserves, until they are "proven" no other project can be financed and built. A .5 to 1 BCF/D GTL project that can be economically done TODAY still leaves enough gas for a

Gas to liquid plants are very expensive but will produce environmentally superior natural gas based "alternative" fuels for the motor fuels market. It is important to note that GTL's are NOT petroleum based. Compressed natural gas (CNG), is also an "alternative" fuel for use in the motor fuels market. Under existing motor fuels tax schedules, CNG is taxed at a lower rate than petroleum based motor fuels. If GTL's, which are also natural gas based like CNG, are taxed at the same rate as CNG, then the GTL producer will keep up to \$13/bbl more of the price collected for its fuel at the pump resulting in a higher net-back to the well head and an acceptable rate of return on the plant investment. This is not additional Federal and State support, it is being taxed at the same rate as other natural gas based alternative motor fuels.

One Major Oil company claims that any form of Federal "subsidy" is unacceptable and sends the wrong signals to the market. This same oil company gladly accepted an exemption to the "wind fall profit tax" for their Alaskan crude to help pay off their "expensive" Alaskan oil line. Are these majors willing to accept subsidies when they help them, but unwilling to allow them if they help others and reduce US dependence on foreign crude oil?

Now I would like to move on the Cook Inlet / Kenai area.

The ANGTL Company is looking at two different GTL programs in the Cook Inlet area. They are for the most part mutually exclusive in that natural gas price and availability will dictate which direction we go.

Some believe that the Cook Inlet area is short on natural gas and the long term outlook is for limited resources and higher natural gas prices well in excess of \$2.50 to \$3.00 / mcf. Still others believe that the region has vast supplies of natural gas but little or no new market demand for base load supplies to warrant much additional exploration.

In the scenario of abundant gas supply in the Cook Inlet area - \$2.00 or under gas prices.

ANGTL has proposed to contract with several Cook Inlet producers to purchase up to 70,000 mcf/d of natural gas (25 bcf/yr) for a minimum of 12 years (300 bcf) and preferably 25 years (640 bcf) to base load a GTL plant built adjacent to the Tesoro and Agrium facilities on the Kenai. Based upon a preliminary engineering study preformed by Dresser Engineering, the estimated plant cost should be in the \$250 million dollar range for a 8,500 bbl/d plant. The limiting plant size is the availability of the natural gas feed stock.

The natural gas will be sold to the plant on a net back basis determined by the revenues received from the sale of the different products. As you know the GTL plant produces excess hydrogen and nitrogen, two of the primary feed stocks for the fertilizer plant. The GTL plant plans to will export these feed stocks to the fertilizer plant for incremental ammonia and urea production. Thus potentially lowering the overall cost of the fertilizer plant, improving the economics of the plant and its ability to pay market value for natural gas while competing in an export products market.

Presentation to the Joint Committee on Natural Gas Pipelines

**Bill VanDyke, Petroleum Manager
Tim Ryherd, Geologist
Will Nebesky, Commercial Analyst**

**Alaska D.N.R. - Division of Oil and Gas
November 8, 2001**

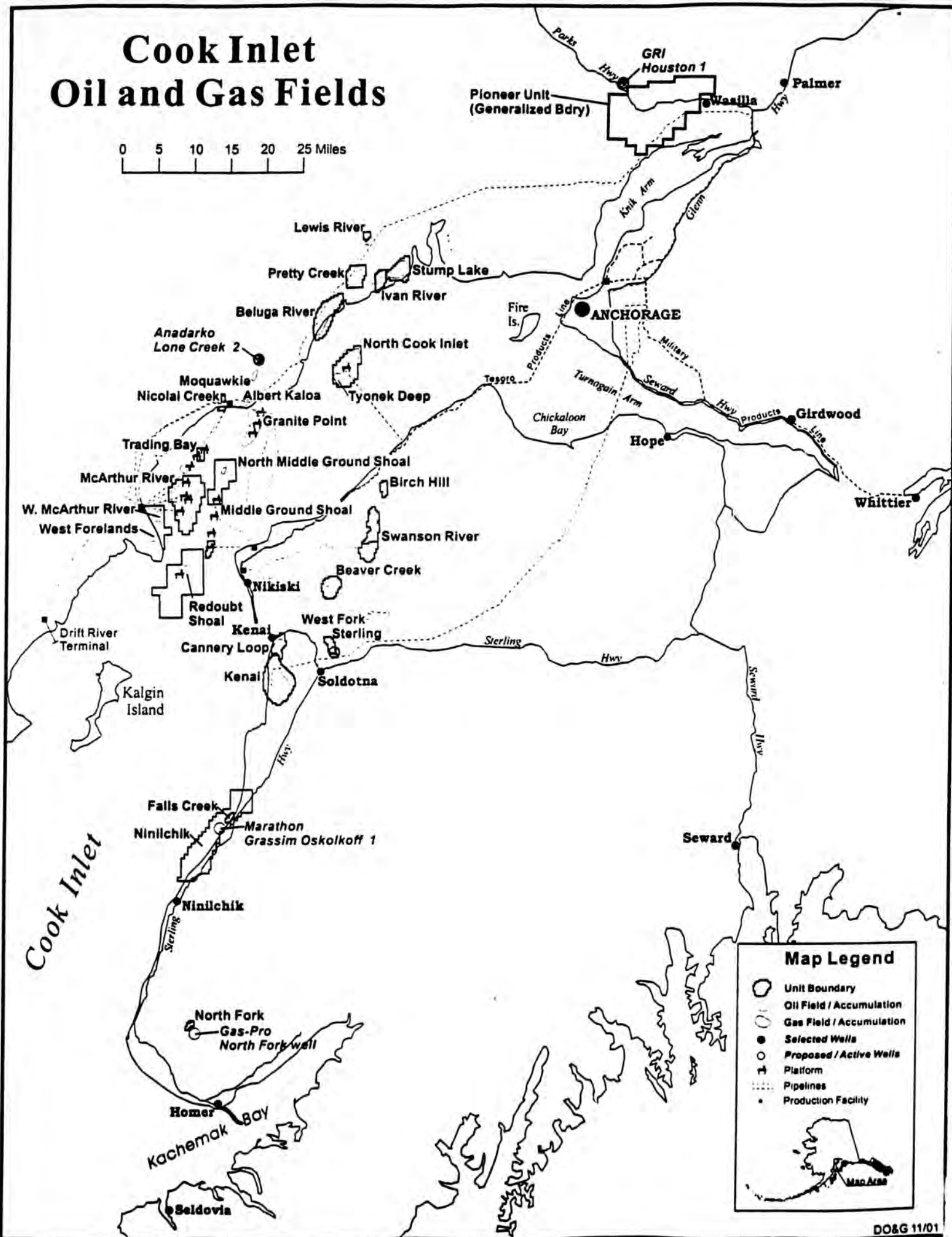


**Alaska Department of
Natural
Resources**

<http://www.dog.dnr.state.ak.us/oil/index.htm>

Cook Inlet Oil and Gas Fields

0 5 10 15 20 25 Miles



Map Legend

- Unit Boundary
- Oil Field / Accumulation
- Gas Field / Accumulation
- Selected Wells
- Proposed / Active Wells
- Platform
- Pipelines
- Production Facility



Cook Inlet Gas Production and Reserves

FIELD NAME

BEAVER CREEK

BELUGA RIVER

IVAN RIVER, STUMP LAKE,
PRETTY CREEK, LEWIS RIVER

KENAI, CANNERY LOOP

MCARTHUR RIVER

NORTH COOK INLET

STERLING

SWANSON RIVER

TRADING BAY

WEST FORELAND

ALL OTHERS

TOTAL

2000 PRODUCTION (BOF)
5
39
3
18
65
53
0.3
29 (net)
0.1
0
5
167 (net)

2000 PRODUCTION (BOF)
28
180
17
207
313
740
88
25
37
36
172
115

Gas Hypothetically Available for Local Utility Use

ASSUMED DATES GAS USERS CEASE OPERATIONS

GAS USER	SCENARIO 1	SCENARIO 2	SCENARIO 3	SCENARIO 4**
AGRIUM	2005	2010	2015	2015
LNG	2009	2009	2015	2015
OIL FIELD OPERATIONS	2009	2015	2015	2015
GAS REMAINING FOR UTILITY USE (BCF)	1060	690	-100	900**
YEARS OF SUPPLY FOR UTILITY USE	17	11	0	15

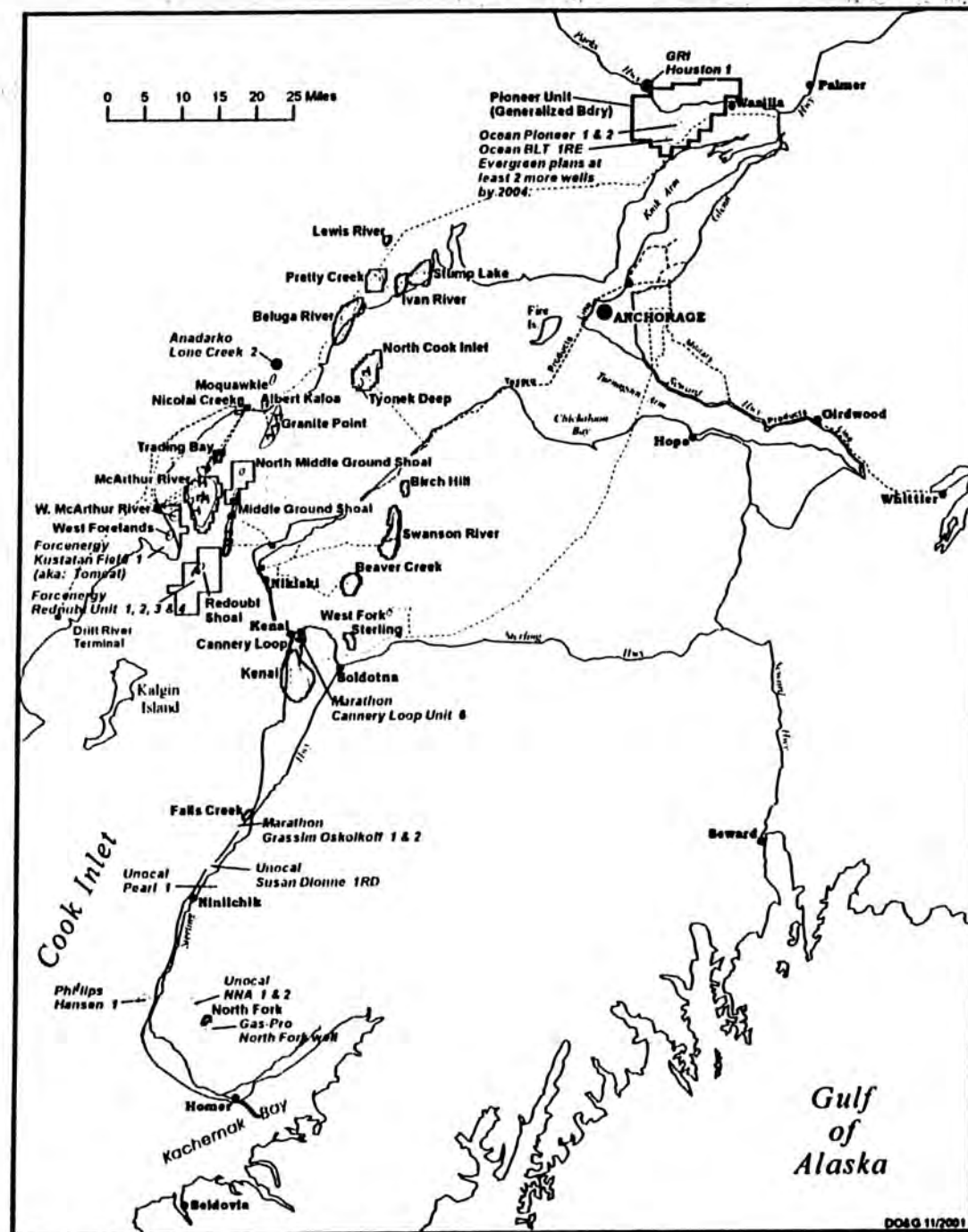
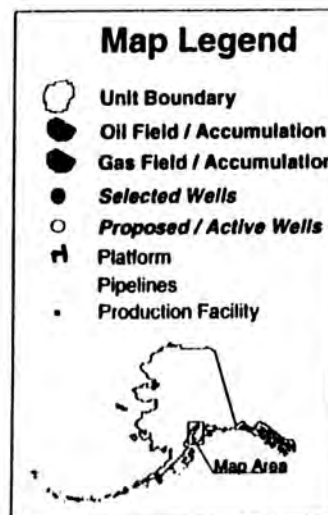
NOTES:

- 1) THESE SCENARIOS ARE HYPOTHETICAL.
- 2) ASSUMED SHUT DOWN DATES ARE NOT BASED ON ACTUAL GAS SUPPLY OR ECONOMIC REALITIES.
- 3) GAS REMAINING FOR UTILITY USE IS BASED ON CURRENT RESERVE AND USE ESTIMATES.
- 4) YEARS OF UTILITY SUPPLY BASED ON CURRENT UTILITY CONSUMPTION RATES.
- 5) POTENTIAL FUTURE GAS DELIVERABILITY CONCERNS ARE IGNORED.

****SCENARIO 4 ADDS AN ASSUMED 1000 BCF OF YET-TO-BE DISCOVERED GAS.**

WVD
DNR/DO&G
NOV. 8, 2001

Cook Inlet Activity



Cook Inlet Exploration Summary – 2001

- **Ninilchik Unit and Falls Creek Unit – Marathon (Gas)**
 - G.O. #1 well completed as gas well, G.O. #2 well planned
- **South Ninilchik Unit and Deep Ck. Unit – Unocal (Gas)**
 - Possible State/CIRI joint administration, up to 3 wells planned for 2001-02
- **Pretty Ck./Lewis Riv./Ivan Riv. – Unocal (Gas)**
 - Re-entered 1 well each in Lewis Riv. and Ivan Riv., drilling P.C.U. #4, new well, in Pretty Ck. field
- **Swanson River Unit Gas Satellites Project – Unocal (Gas)**
 - Proposal to develop two gas fields north and east of Swanson River oil field on Federal and Native owned lands
- **Redoubt Unit – Forest Oil (Oil discovered in 1968 by Pan Am)**
 - R.U. #1, #2, & #3 wells completed by Forest, R.U. #4 is planned
 - Field is bigger than originally thought, up to 193 MMBO recoverable reserves
 - Forest has other prospects at Sabre, Corsair, and Valkyrie
- **Pioneer Unit – Evergreen Exploration (Coalbed gas, no proven reserves)**
 - Formerly operated by Ocean Energy, ownership and operations transferred to Evergreen in mid-2001.
 - 2 production wells & 1 injection well drilled in 1999; committed to drill 6 more wells, at least 1 in each of 2 new areas
- **Cosmopolitan Unit – Phillips (Oil discovered in 1967 by Penzoil)**
 - Hansen #1 well permitted to drill to bottom location on State lease
- **Nikolai Ck. Unit – Aurora Gas (Gas)**
 - Production started in Oct., NCU #3 well produces at rate of 2 MMCF/day
- **North Fork Unit – Gas Pro (Gas)**
 - Project apparently on hold
- **Trading Bay Unit/McArthur River Field – Unocal (Oil)**
 - T.B.U. #K-13 came on production at 7,100 BOPD, highest rate of any well in Cook Inlet

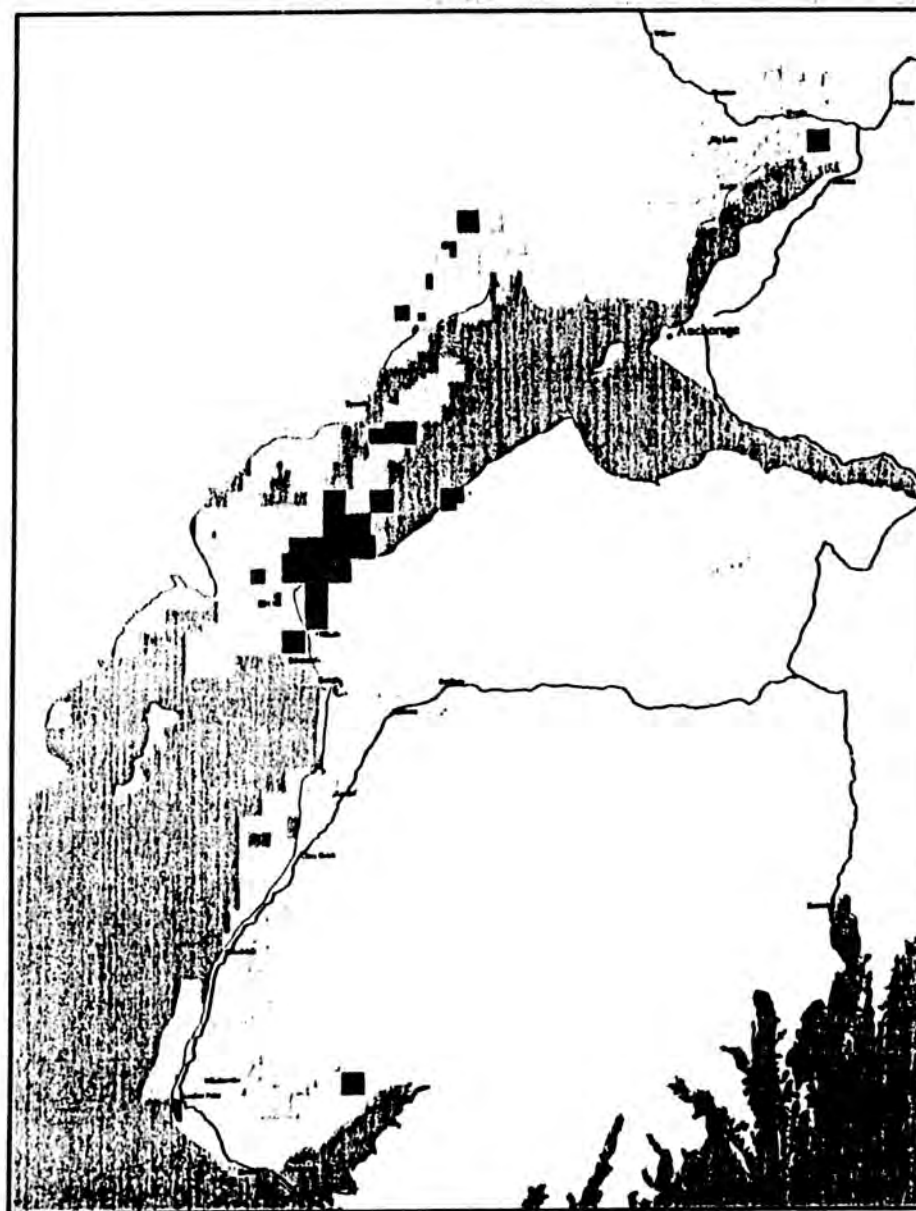
Cook Inlet Areawide 2001 Sale Results



Currently Leased Acreage

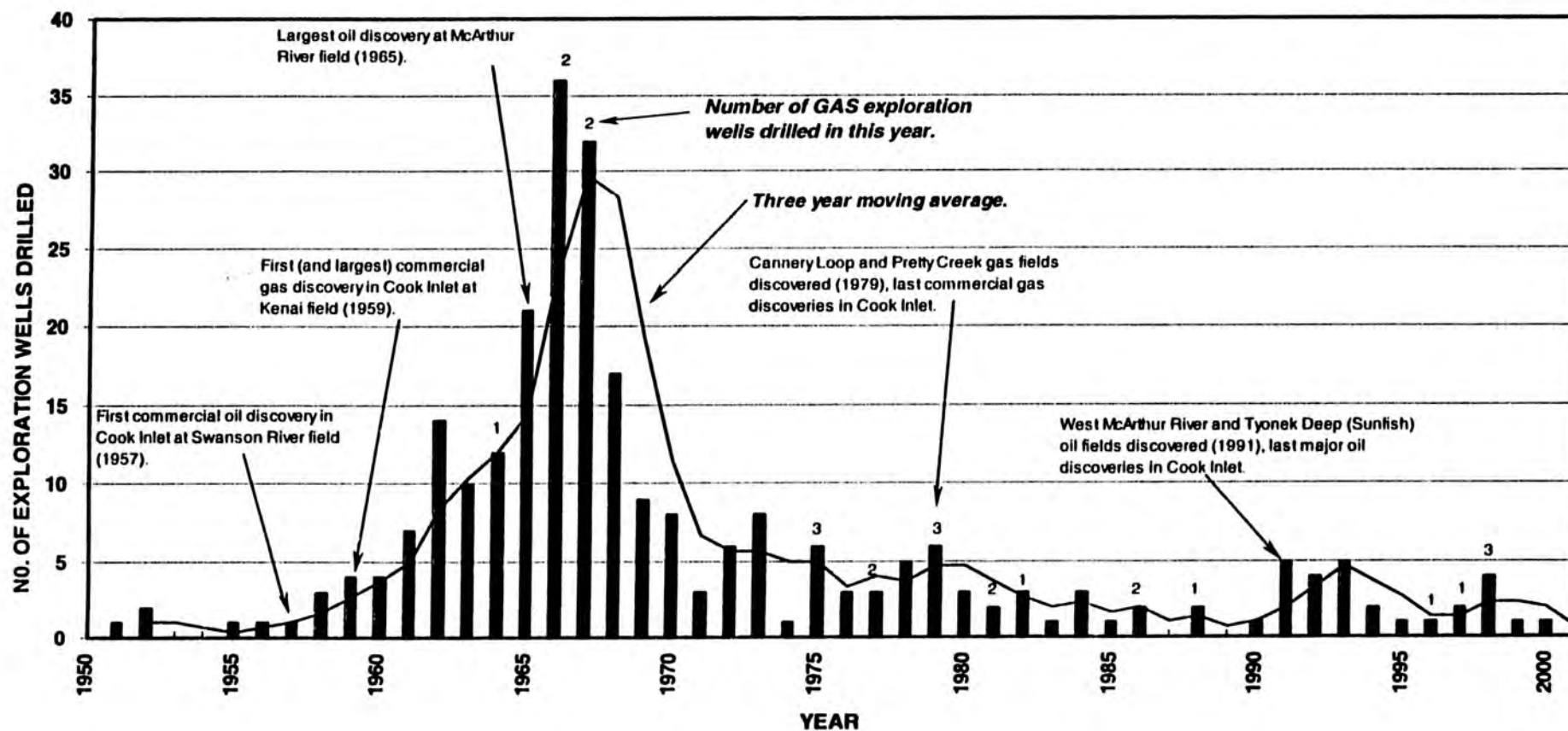


Cook Inlet Areawide 2001 Leases



Timeline of Cook Inlet Exploration

COOK INLET EXPLORATION WELL DATA AND IMPORTANT EVENTS



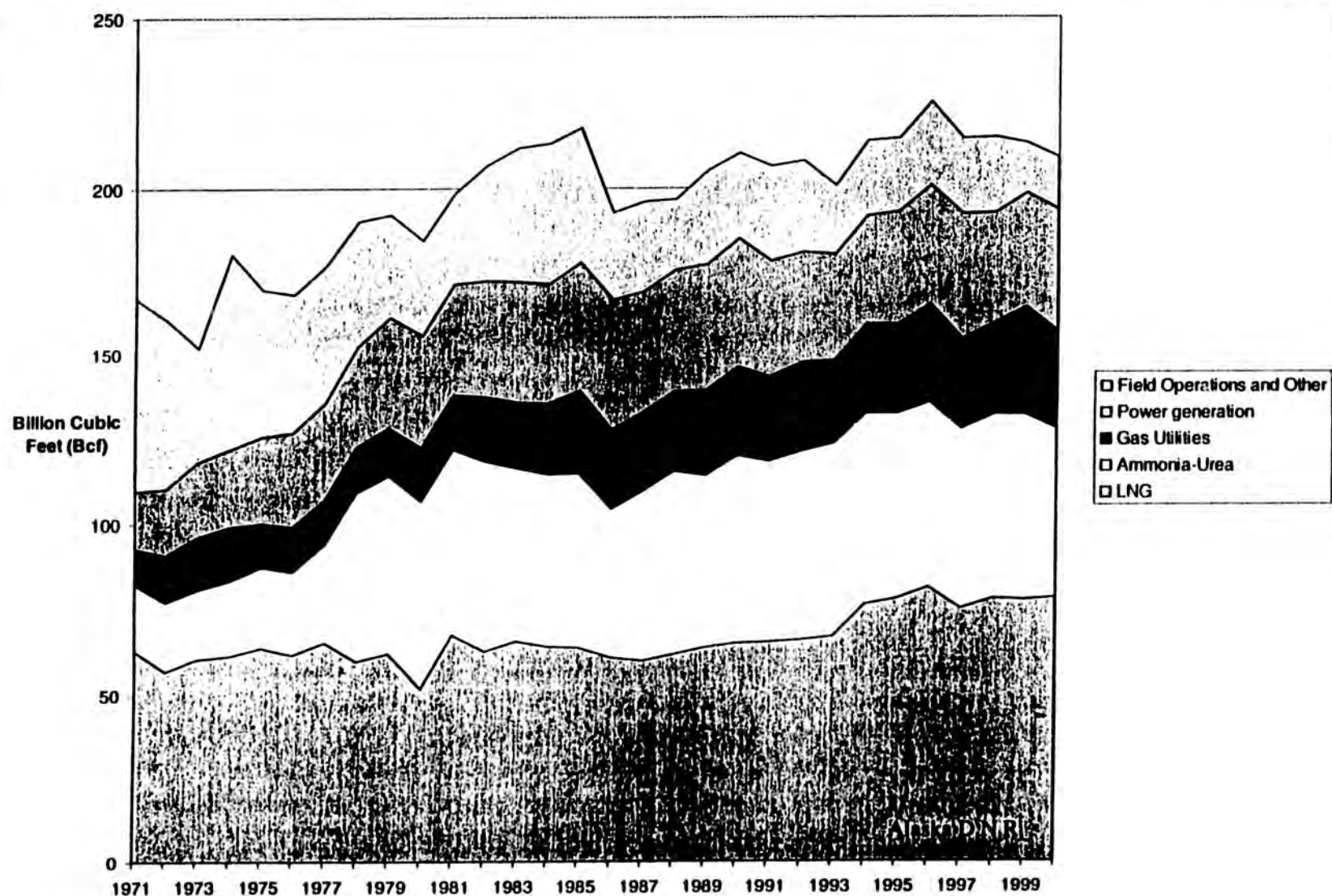
Cook Inlet Gas Exploration History

- 267 oil & gas exploration wells drilled in CI through 2000
 - ◆ Of these, 24 were GAS exploration wells
- Of largest 10 CI gas fields (based on current gas reserves), only Cannery Loop (smallest of the 10) was found by exploring FOR gas
- Much of Cook Inlet basin area is underexplored

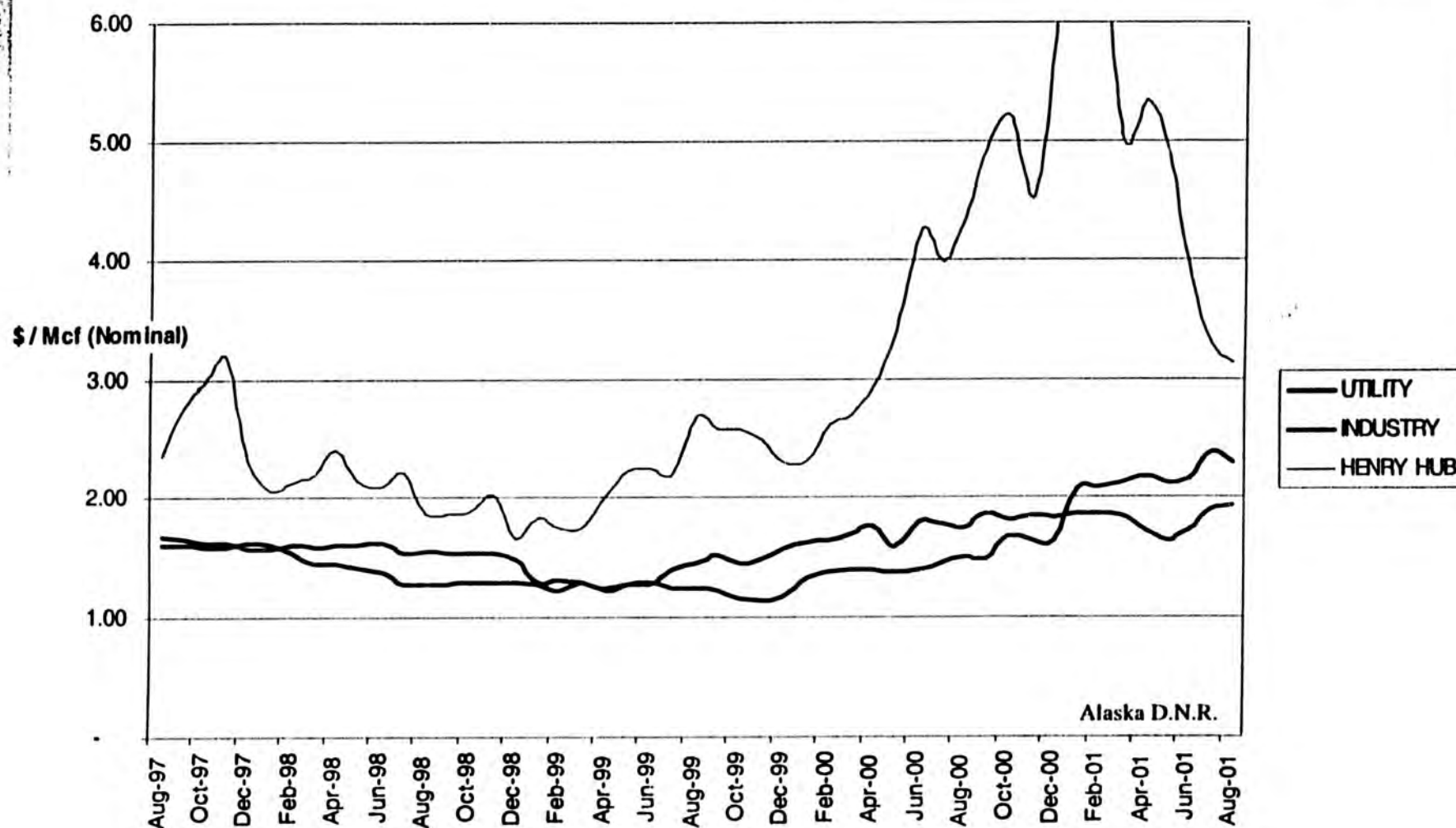
Outlook and Predictions For Cook Inlet

- **Areawide sales make entire area available for exploration and development**
- **Independents will become an increasing influence**
 - ◆ **More competition for prospects and leases**
 - ◆ **New thinking and inventive technology and business climate**
- **Independents will drive exploration and development costs lower**
 - ◆ **This may mean less money for the State of Alaska, as well as service companies**
- **Oil continues to be an elusive target in Cook Inlet**
- **Conventional gas exploration will extend beyond the core developed areas**
- **Coalbed gas will continue as an emerging exploration target**
 - ◆ **Viability of this exploration play is yet to be determined**

Cook Inlet Historic Gas Consumption by Major Disposition Category 1971 - 2000

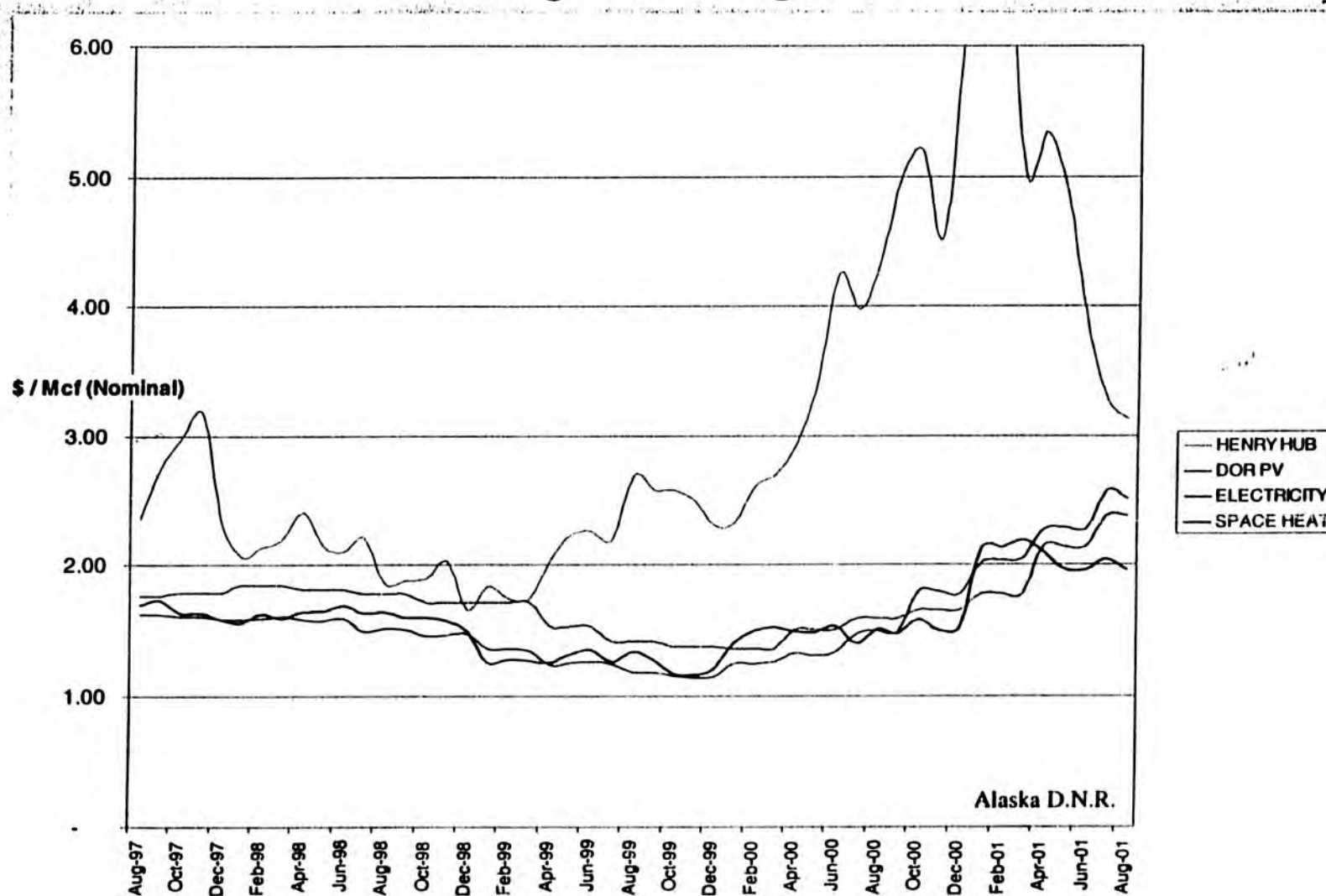


Royalty Value for Natural Gas Utility and Industry Dispositions in Cook Inlet Versus Henry Hub Spot Price Aug 1997 - Aug 2001



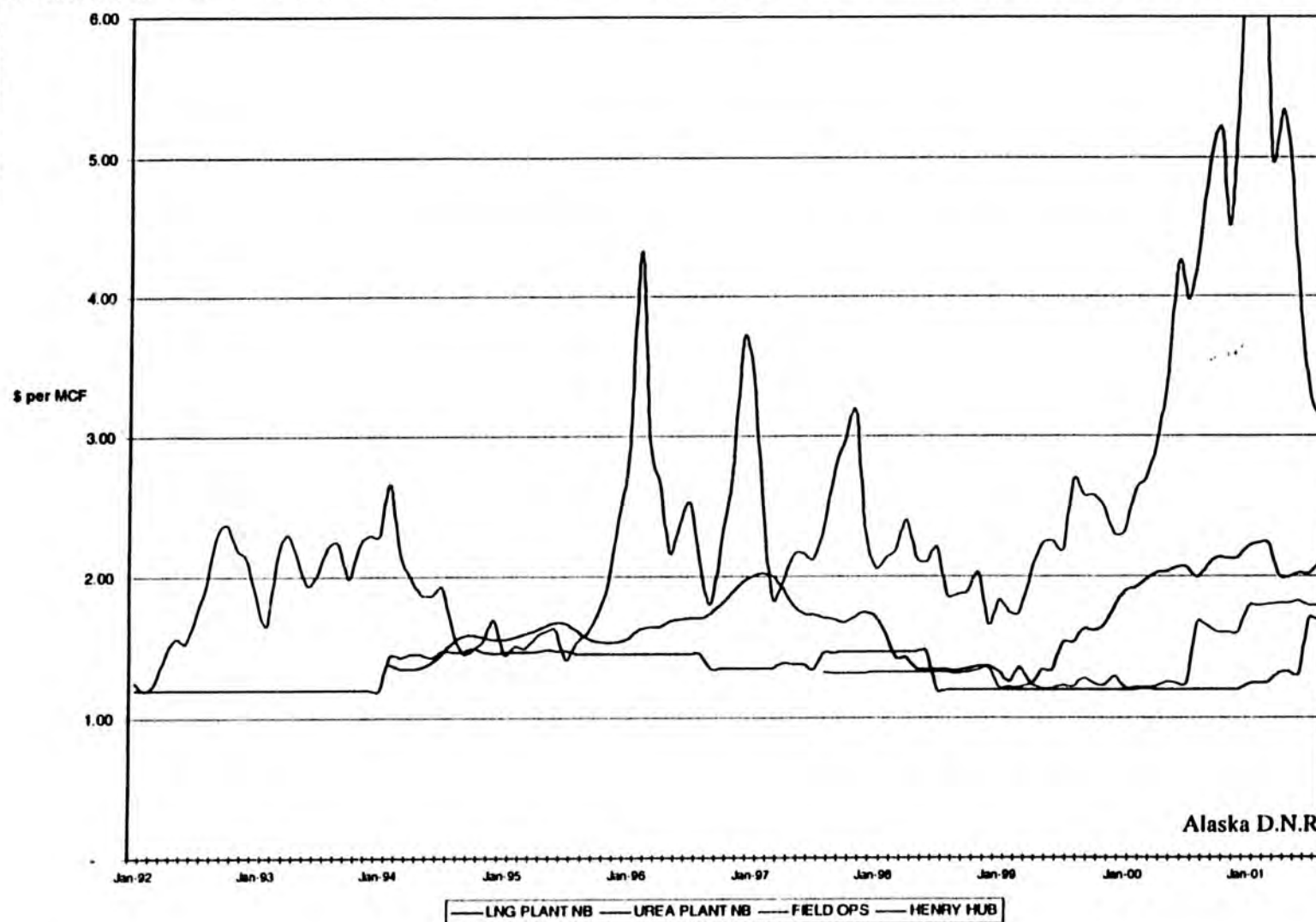
Utility = Electric and Space Heat.
Industrial = Urea, LNG, and Field Operations.
Henry Hub located at U.S. Gulf of Mexico.

Royalty Value for Electricity and Space Heat Dispositions in Cook Inlet Versus Henry Hub Spot Price Aug 1997 - Aug 2001



Electric = CEA and MLP.
Space Heat = Enstar, Aurora, and Other LDC Direct Sales.
DOR PV for CEA, MLP, and ENSTAR.

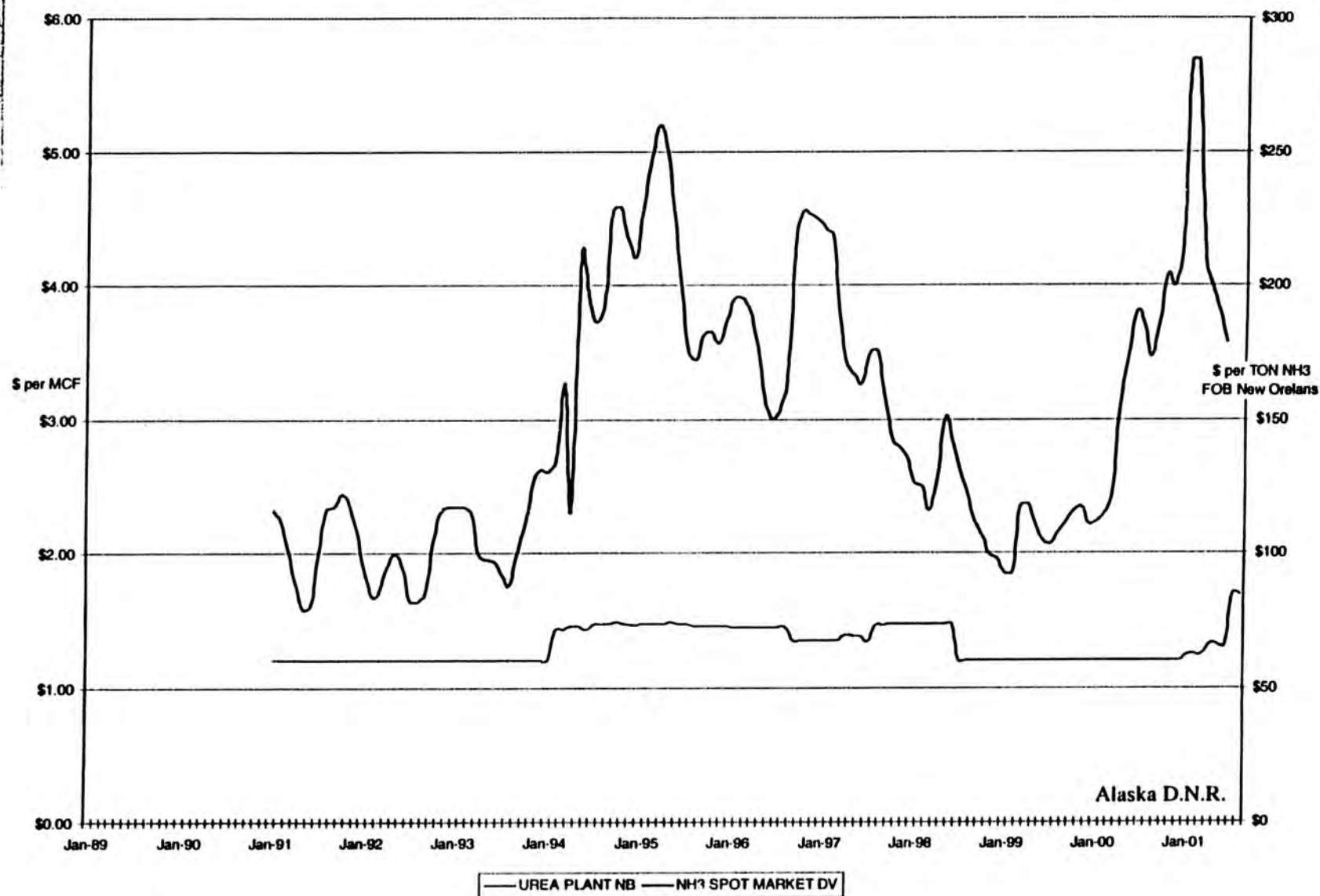
Royalty Values for Urea Plant, LNG and Field Operations Gas Dispositions in Cook Inlet Versus Henry Hub Spot Price Jan 1989 - Aug 2001



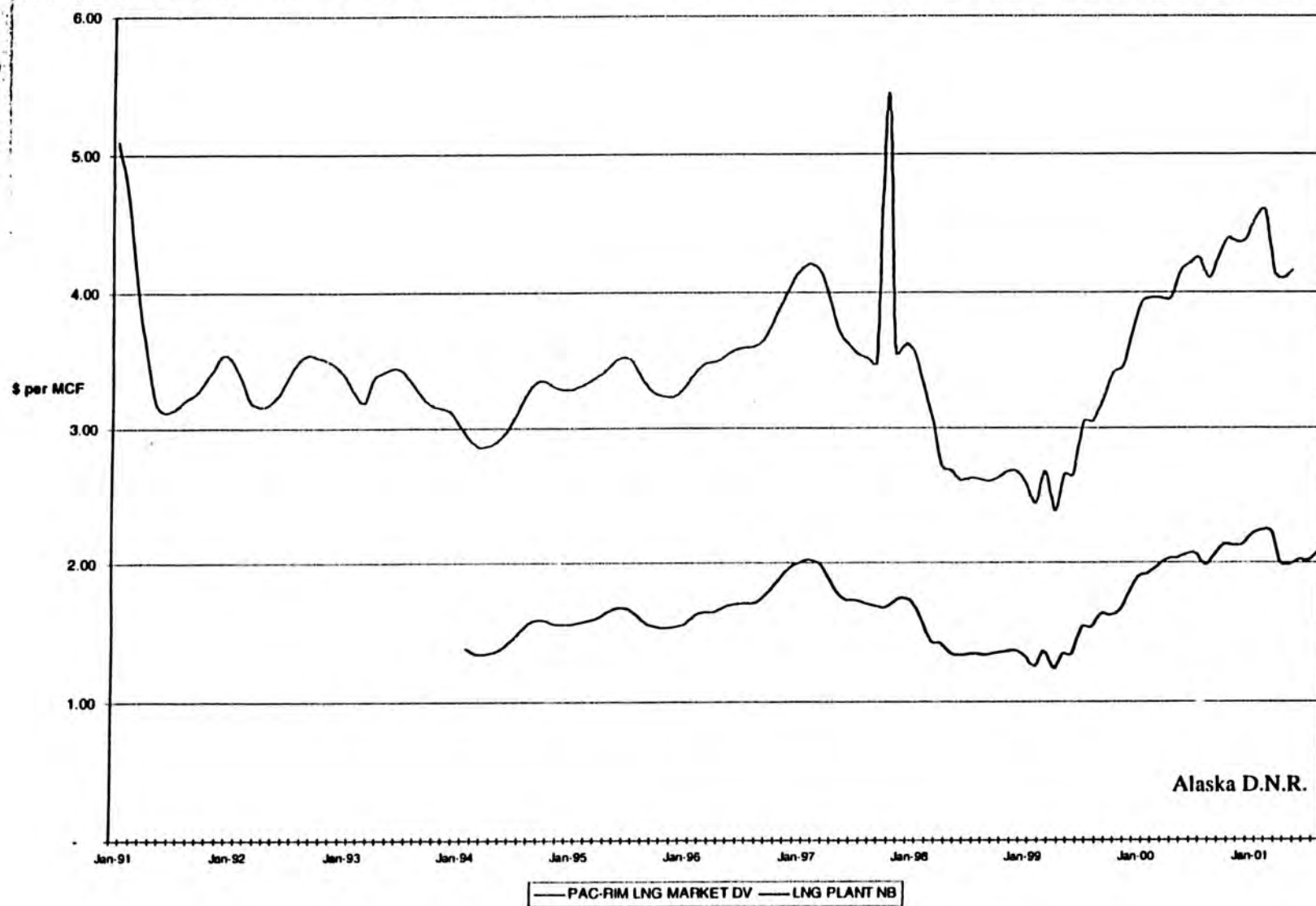
Alaska D.N.R

Note: Royalty Values are Netted Back to the Wellhead.

Destination and Royalty Values for Ammonia-Urea Plant Dispositions in Cook Inlet Jan 1991 - Aug 2001



Destination and Royalty Values for LNG Gas Dispositions in Cook Inlet Jan 1991 - Aug 2001

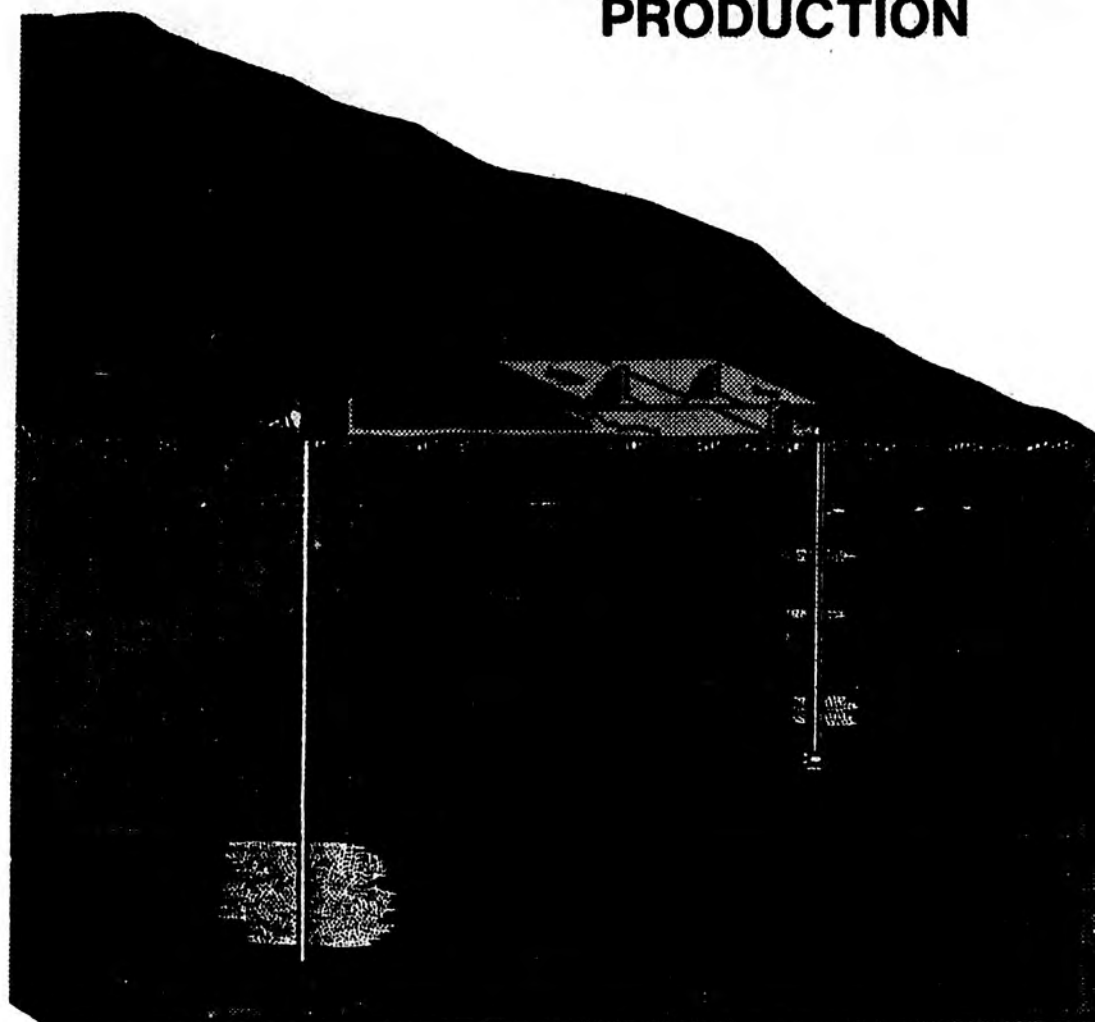




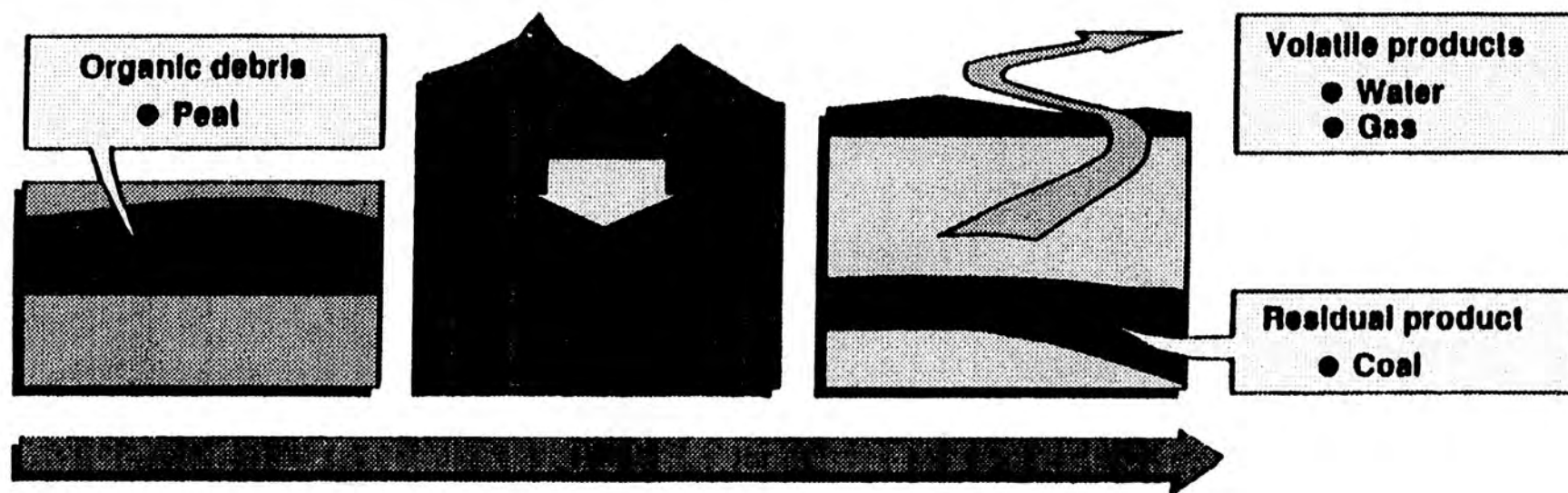
Alaska State Legislature

**Joint Committee on Natural Gas Pipelines
November 8, 2001**

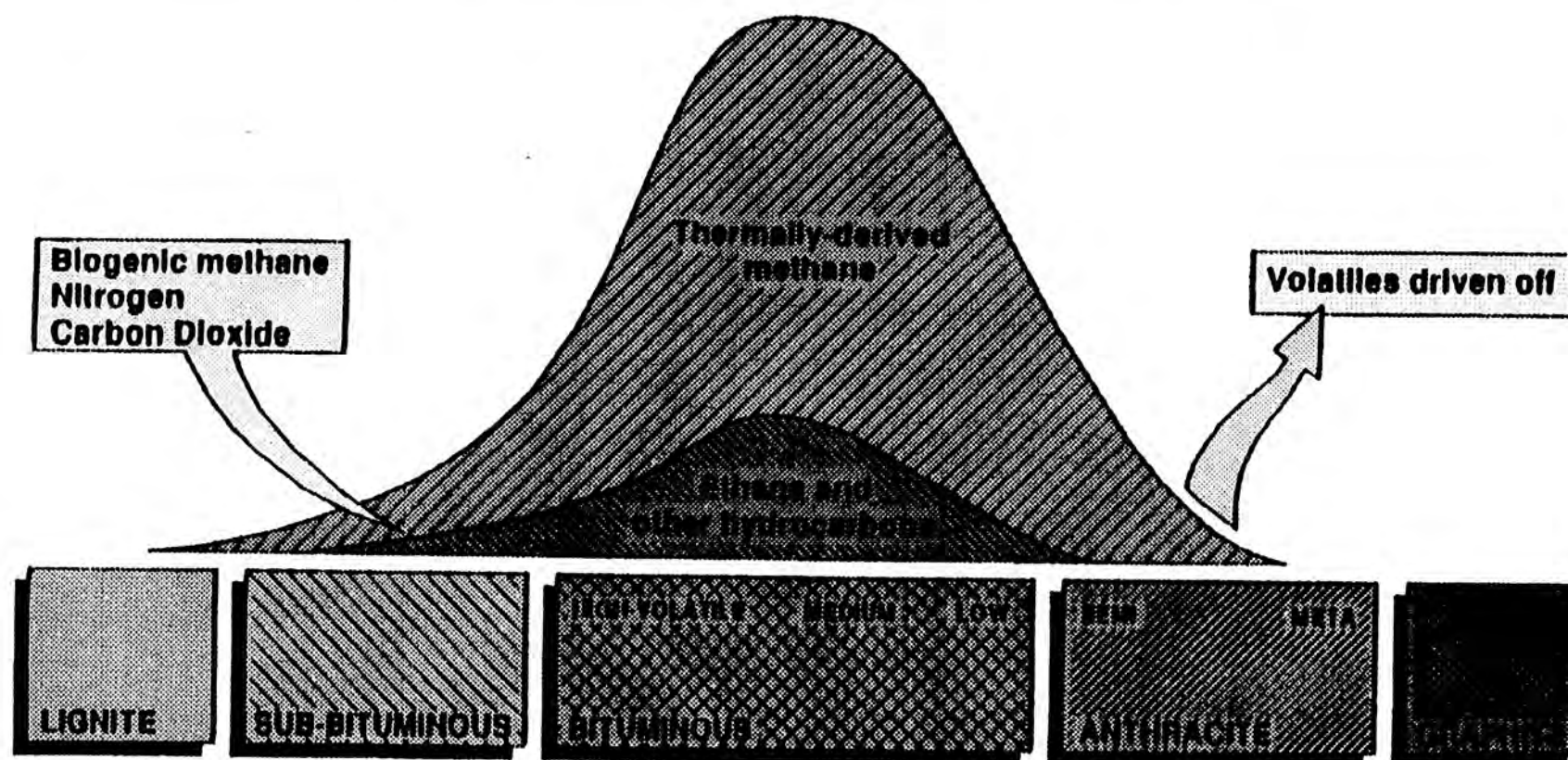
COALBED METHANE PRODUCTION



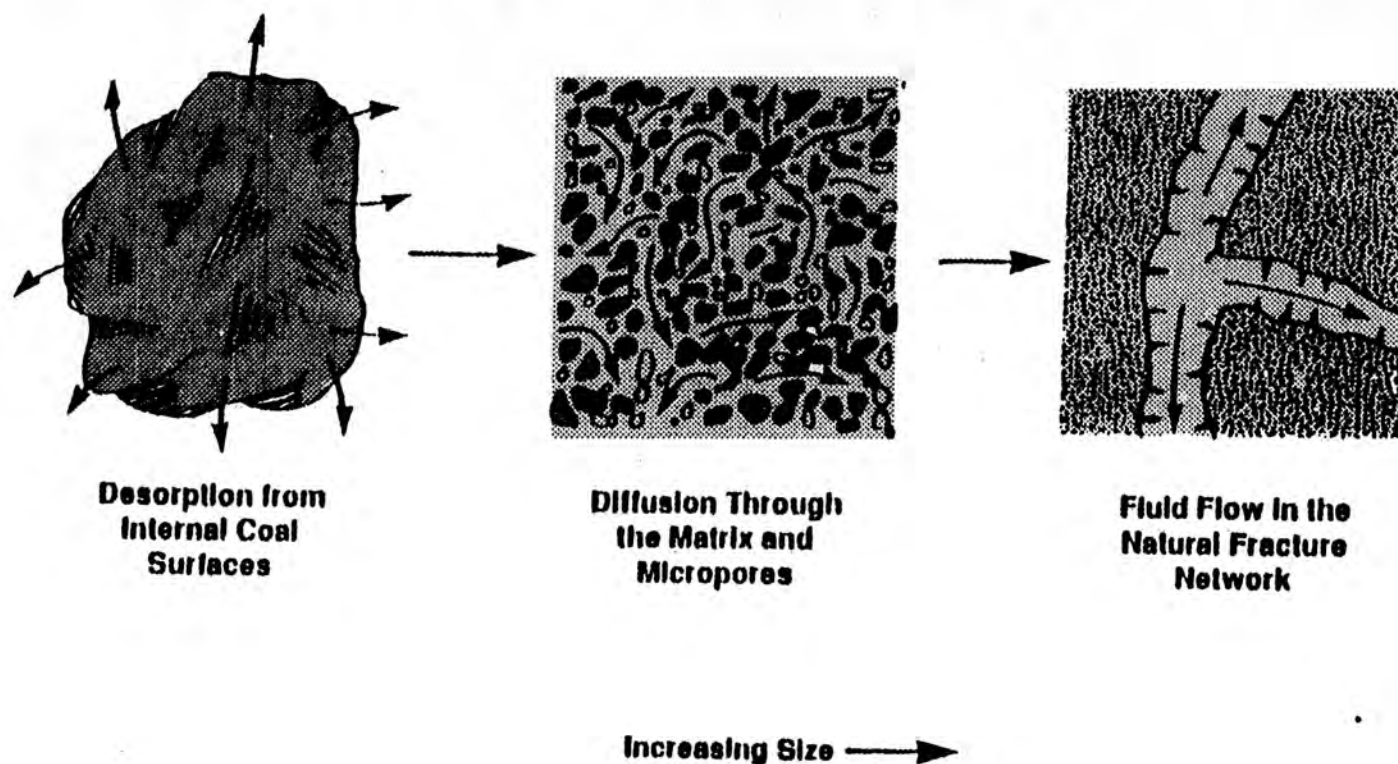
COALIFICATION



GAS GENERATION IN COAL



PROCESSES IN THE TRANSPORT OF COALBED METHANE GAS



EVERGREEN

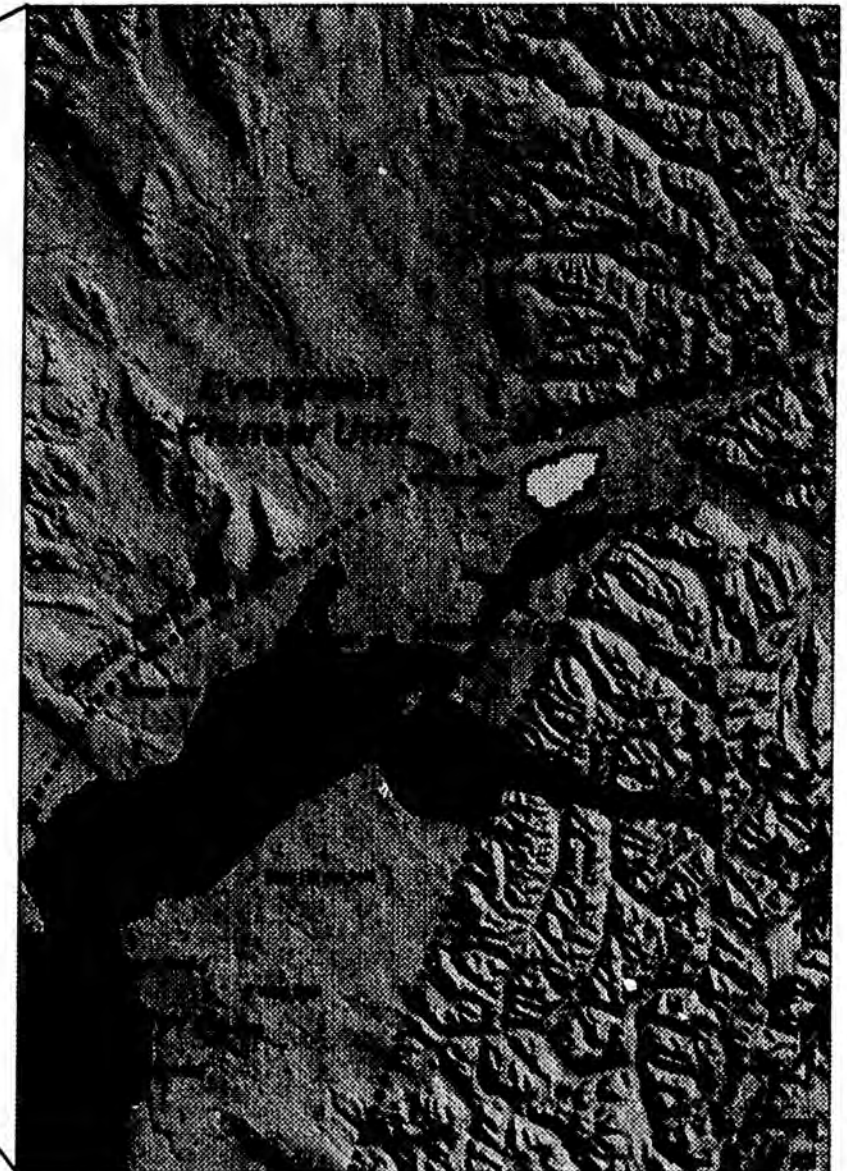


Alaska has half of
the known coal
resources of the
USA

More than 1,000
Btu of coal bed
methane resource
is associated with
these extensive
coal groups

Alaska Cook Inlet Basin

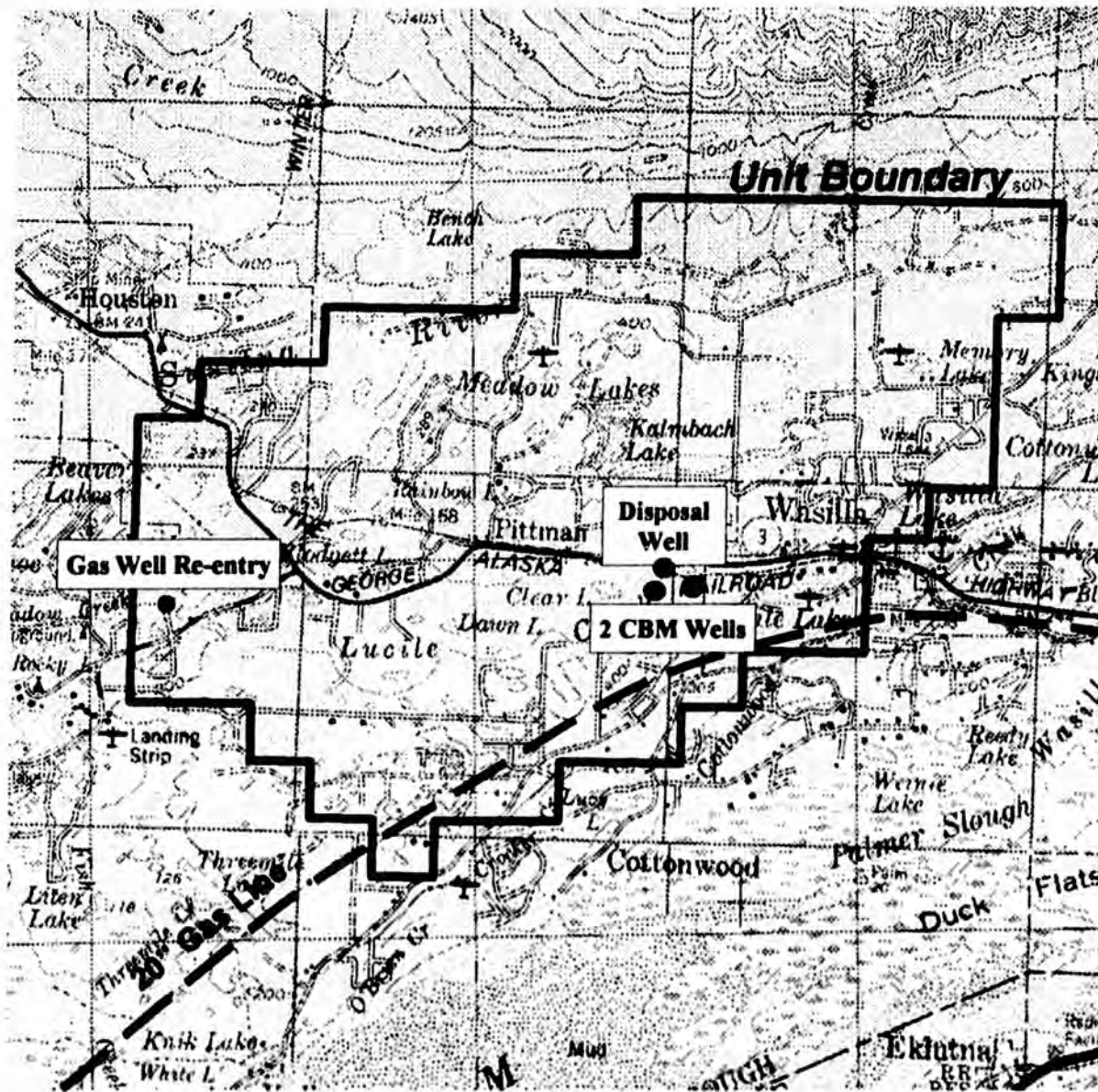
EVERGREEN



- **Established Conventional Gas:**
Discovered 1957
Existing infrastructure
Declining gas supply in this region
6.2 Tcf produced to date
- **Cook Inlet Basin Resource**
1.5 trillion tons coal possible
200 Tcf CBM resource possible
- **Evergreen Acquires Pioneer Unit in 2001**

Pioneer Unit

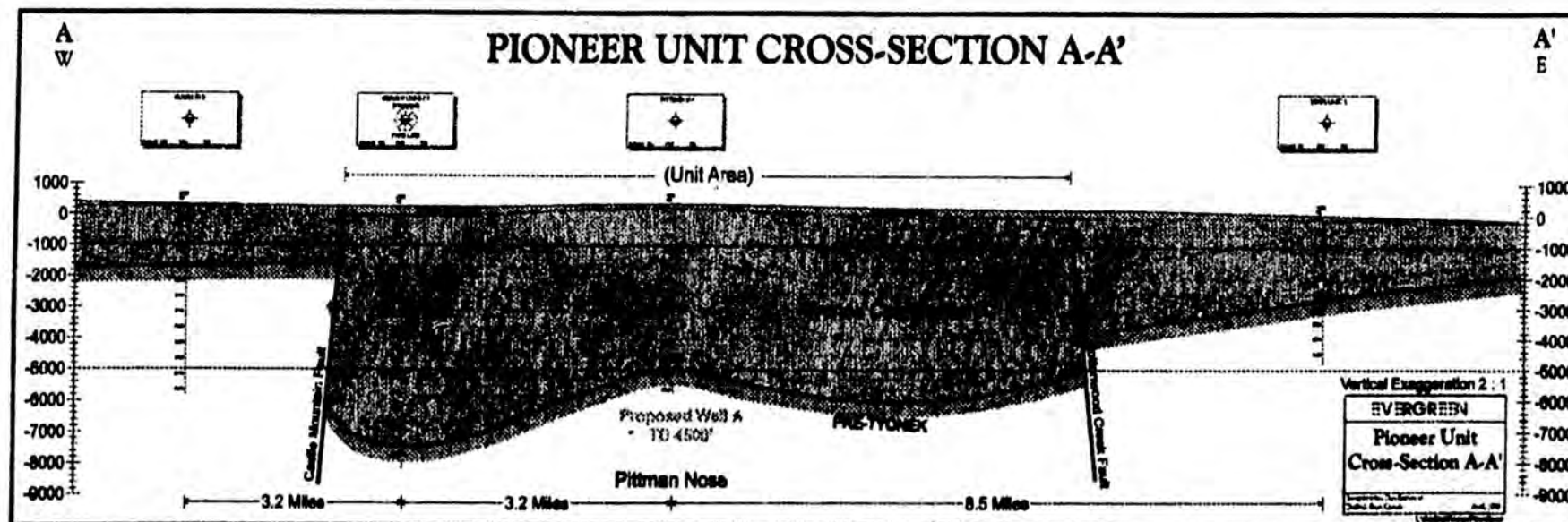
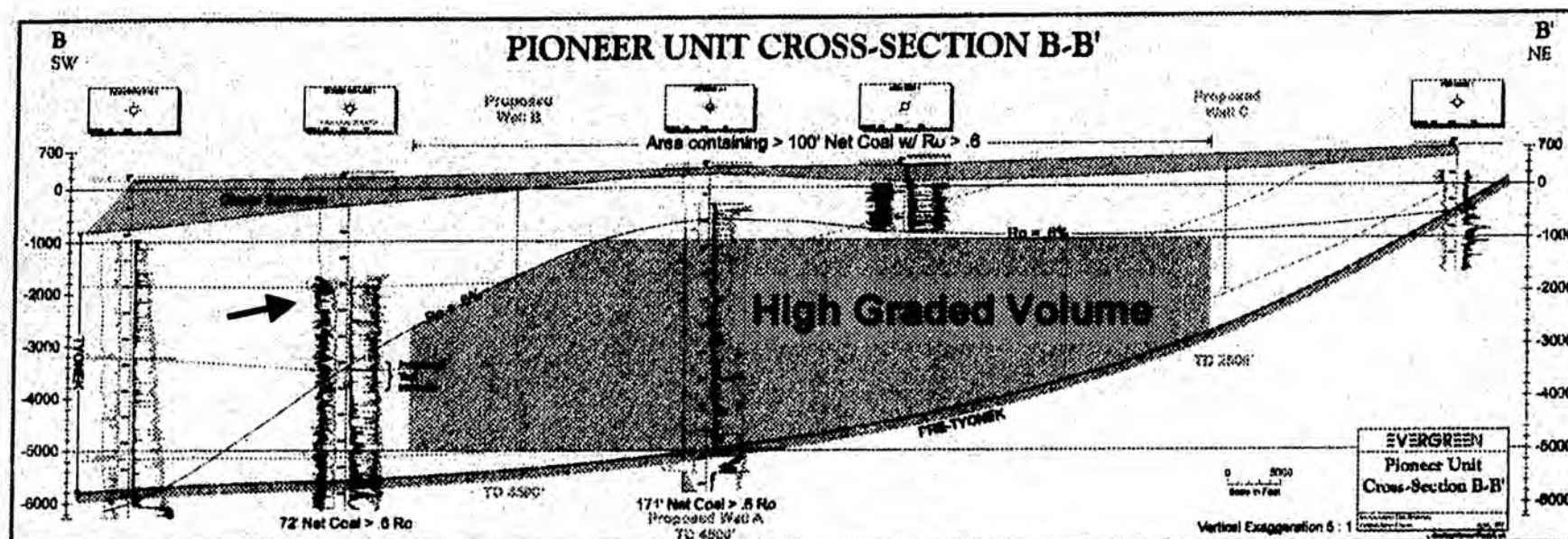
EVERGREEN



- 48,000 acres
- 100% working interest
- Infrastructure
Gas pipeline
- Wells drilled - 2000
2 CBM
1 Water disposal
1 Gas well re-entry
- Future Plans
Drill/Complete 6-8 wells
in 2002
Complete disposal well

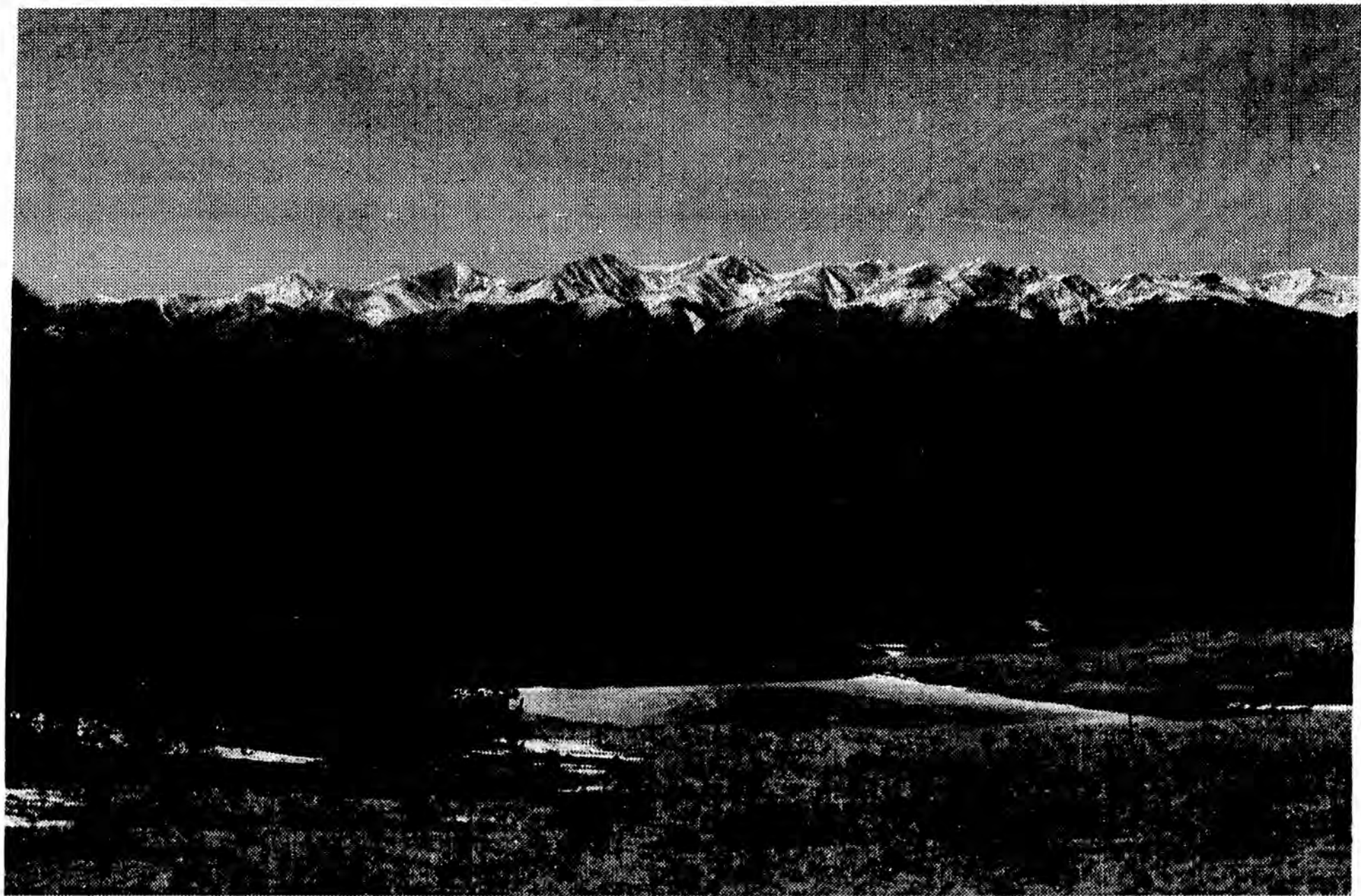
Cross Sections

EVERGREEN



Raton Basin

EVERGREEN



U.S. Coalbed Methane Resources

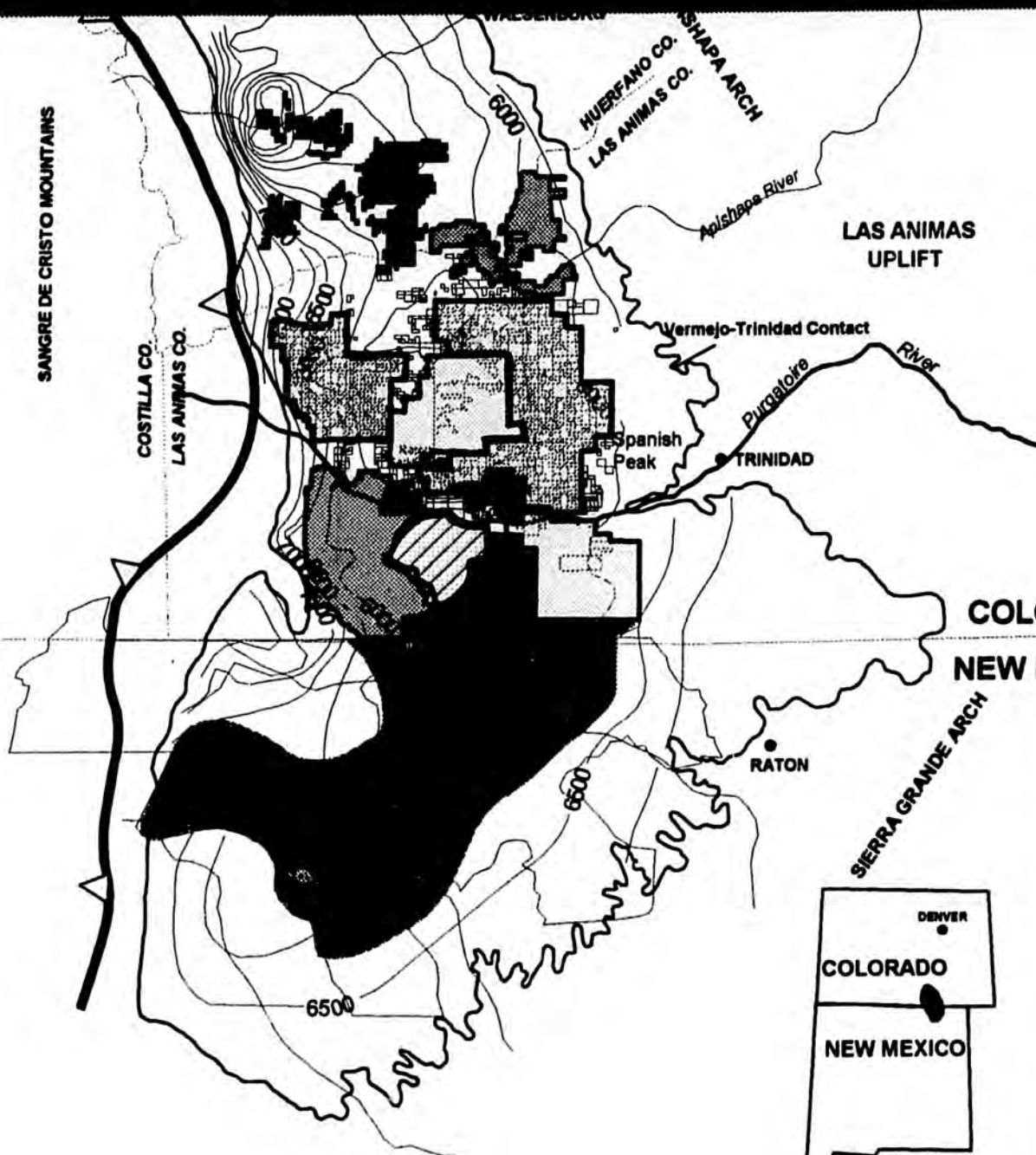
EVERGREEN



Source: GTI/ICF

Ra

EVERGREEN

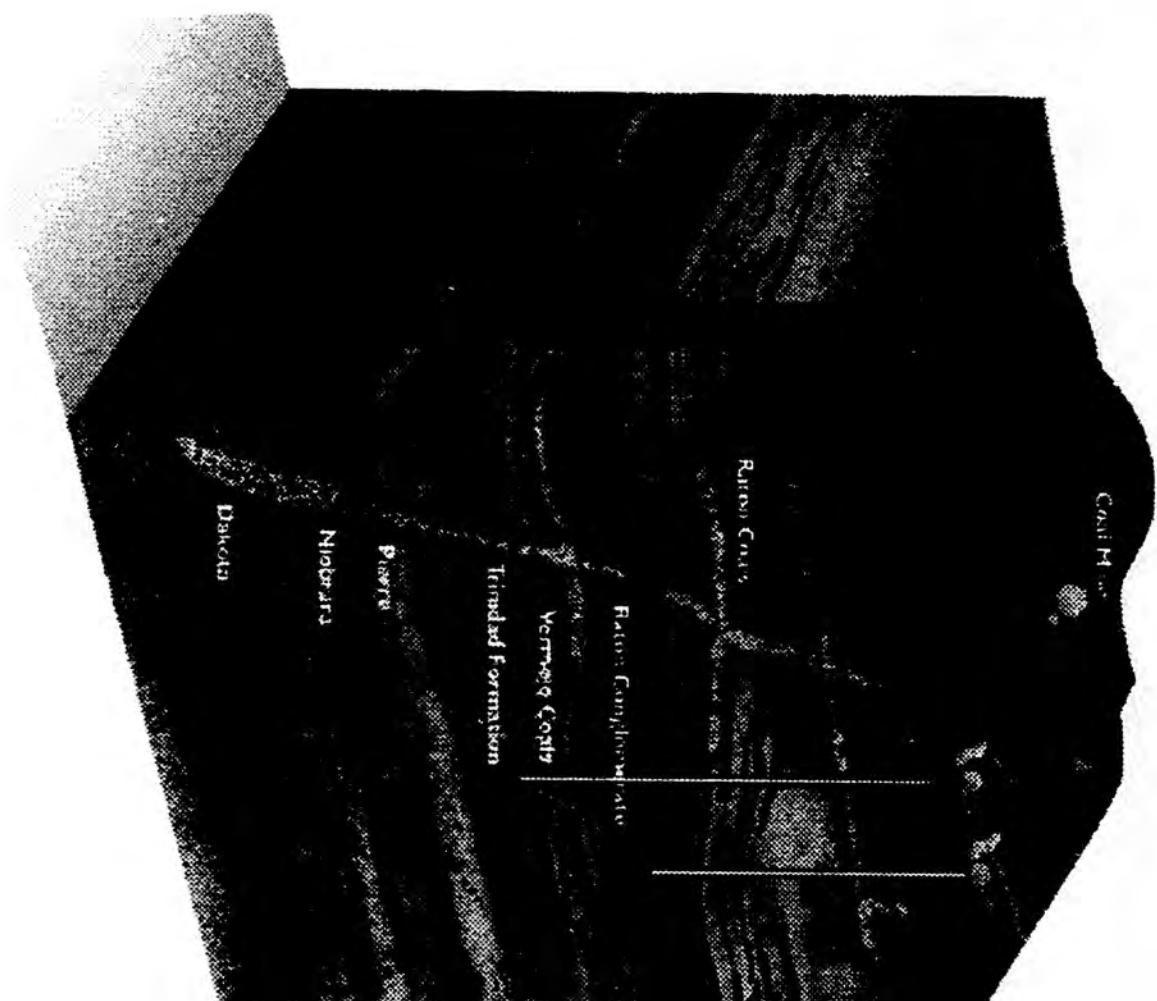


COLORADO
NEW MEXICO



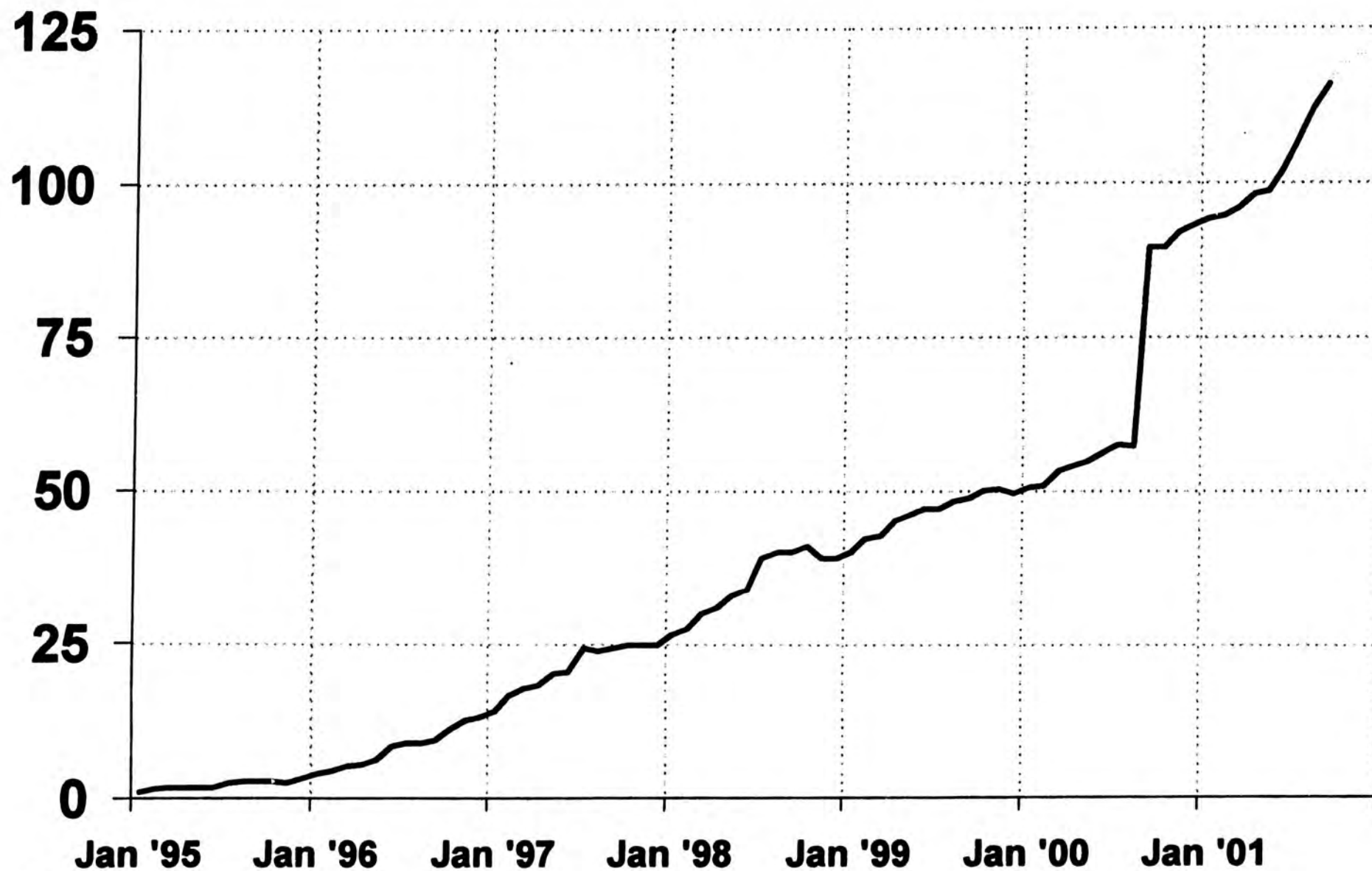
Raton Basin Stratigraphy

EVERGREEN



Gross Daily Production

(Million Cubic Feet)



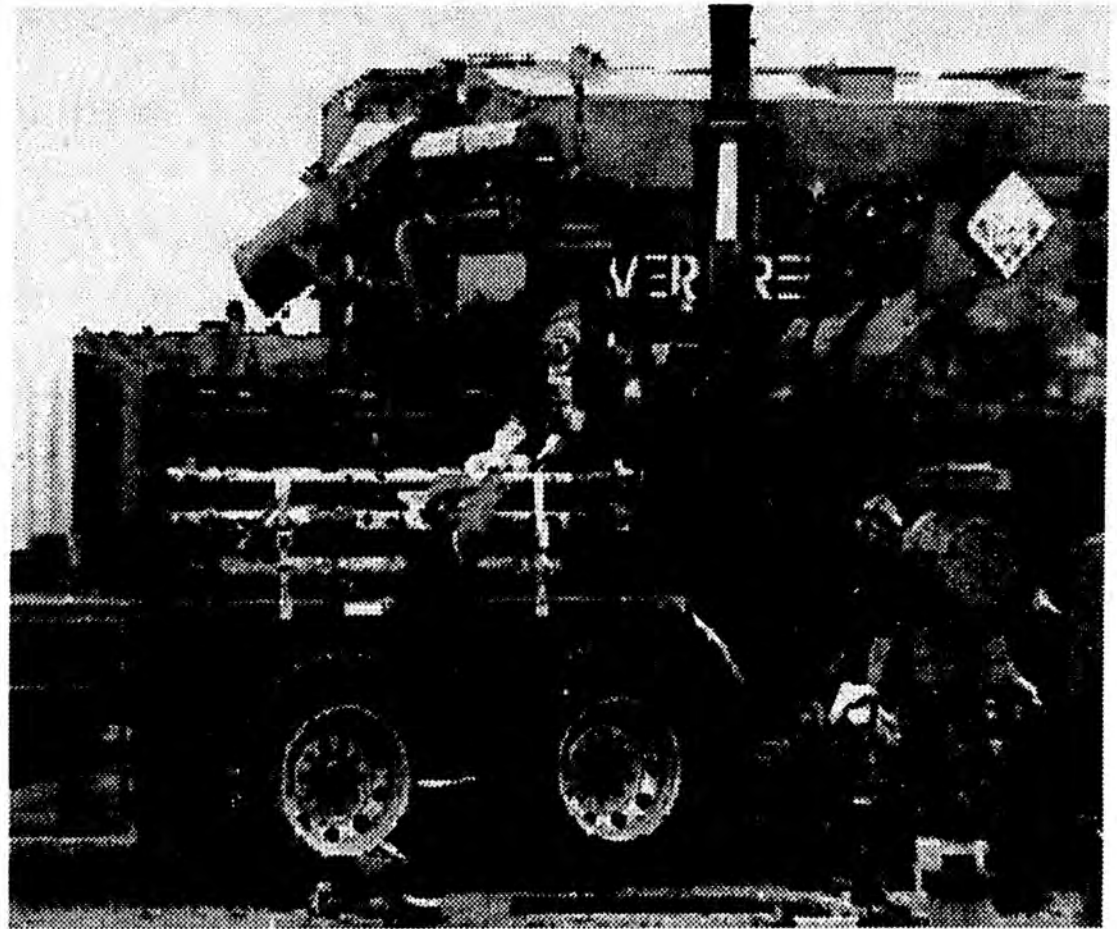
through
09/30/2001

Key Operating Focus

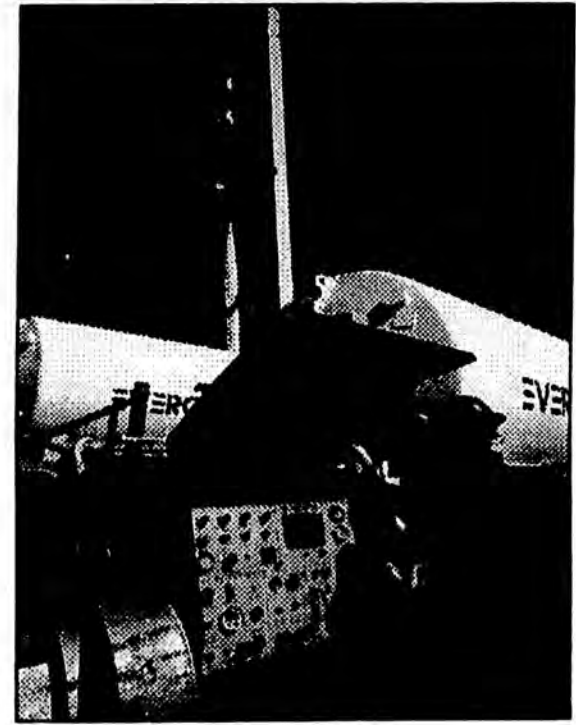
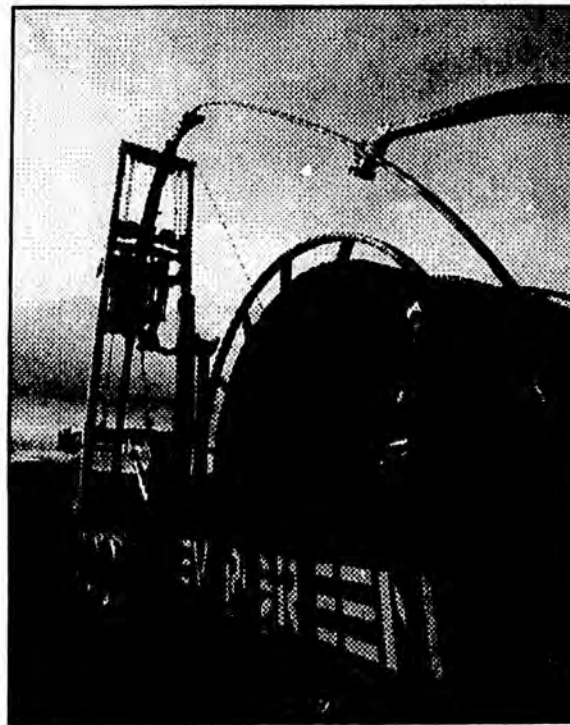
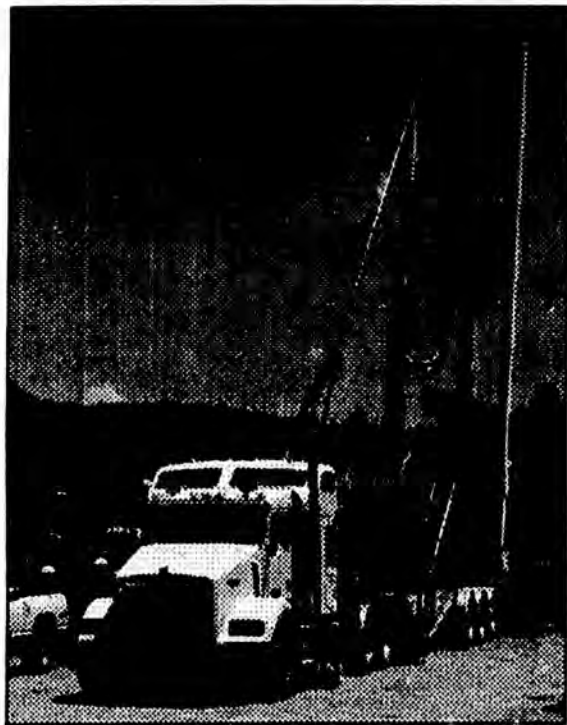
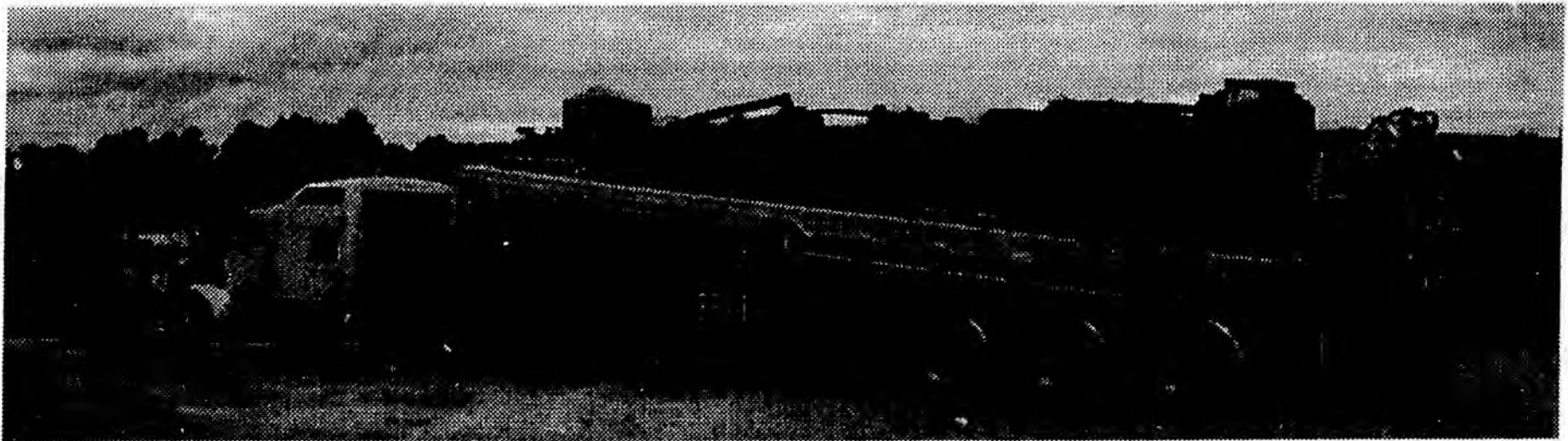
EVERGREEN

Constant experimentation to
improve productivity through
new technologies

Overall drilling
success since
1993: 98%

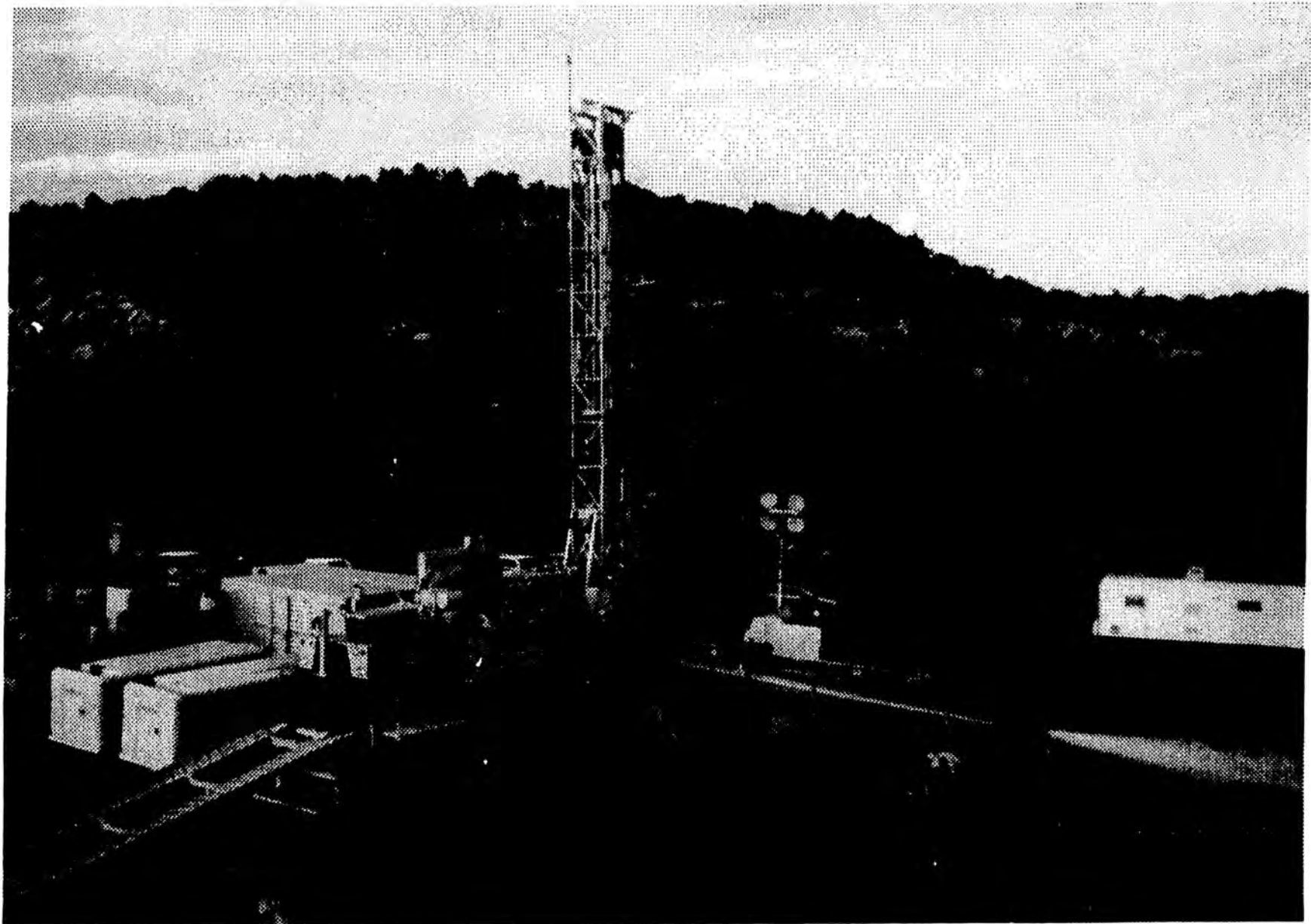


New Completion Technology



Evergreen Air Drilling Rig

EVERGREEN



Evergreen Cement Equipment

EVERGREEN



Evergreen Hydraulic Fracture Treatment

EVERGREEN



Portable Frac Equipment

EVERGREEN



Portable Frac Equipment

EVERGREEN

