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PRESENTATION TO THE HOUSE SPECIAL COMMITTEE ON
OIL AND GAS
BY ROBERT L. PIERCE, CHAIRMAN & C.E.O.
JUNEAU, ALASKA
MARCH 7, 2000

THANK YOU FOR THE INVITATION TO APPEAR BEFORE YOUR COMMITTEE AND THE OPPORTUNITY TO PRESENT THE FOOTHILLS CASE.

WE HAVE A PACKAGE OF MATERIALS ABOUT OUR COMPANY THAT MIGHT BE OF INTEREST TO THE COMMITTEE. I UNDERSTAND THAT YOUR RULES AND PROCEDURES ALLOW THE DOCUMENTS TO BE TENDERED AS PART OF THE RECORD.

I WILL USE MY TIME BEFORE THE COMMITTEE TO EXPLAIN WHY WE BELIEVE THAT THE TIME IS RIGHT TO COMPLETE THE ALASKA NATURAL GAS TRANSPORTATION SYSTEM, ALSO KNOWN AS THE ALASKA HIGHWAY PIPELINE.

FOOTHILLS BELIEVES THAT THE ALASKA HIGHWAY PIPELINE IS COST EFFECTIVE... ENVIRONMENTALLY SOUND...AND POLITICALLY PALATABLE.

AS YOU KNOW, THERE IS A GREAT DEAL OF HISTORY AROUND THIS ISSUE. ORIGINALLY, THREE PROPOSALS TO MOVE ALASKA NORTH SLOPE NATURAL GAS VIED FOR APPROVAL. (1) THE EL PASO PROJECT THAT WOULD PIPELINE THE GAS TO A LNG FACILITY AT VALDEZ AND THEN SHIP THE PRODUCT TO CALIFORNIA. (2) THE ARCTIC GAS PROPOSAL WHICH WOULD PIPELINE GAS ACROSS THE NORTH SLOPE TO THE MACKENZIE VALLEY AND ON THROUGH CANADA TO THE U.S. MARKET. (3) THE ALASKA HIGHWAY PROJECT...AN OVERLAND PIPELINE ALONG THE DALTON AND ALASKA HIGHWAY THROUGH ALASKA AND CANADA TO THE LOWER 48 MARKETS.

THE REST IS HISTORY AND AS THEY SAY, "THOSE WHO FORGET HISTORY ARE BOUND TO REPEAT IT."
THE HISTORY IS THAT BOTH THE UNITED STATES AND CANADA AGREED ...THAT WHEN ALL THINGS WERE CONSIDERED ...THE ALASKA HIGHWAY ROUTE WAS THE BEST OPTION.

ACCORDINGLY, CERTIFICATES WERE ISSUED ...INTERNATIONAL AGREEMENTS WERE SIGNED BY THE PRESIDENT AND THE PRIME MINISTER ...AND THE AGREEMENTS WERE RATIFIED BY CONGRESS IN THE U.S. AND BY PARLIAMENT IN CANADA. THE DECISION...THE AGREEMENT...AND THE LEGISLATION SELECTING THE ALASKA HIGHWAY ROUTE HAVE THE FORCE AND EFFECT OF A TREATY BETWEEN OUR TWO COUNTRIES.

FOR ONE WHO ACTIVELY PARTICIPATED IN THOSE PIPELINE WARS BACK IN THE 70'S...THERE IS A SENSE OF "DÉJÀ VU".

THERE IS NOW A PROPOSAL BEING FLOATED...WHOSE CENTRAL PREMISE IS TO MOVE ALASKA GAS EAST TO THE MACKENZIE DELTA AND THEN DOWN THE VALLEY TO JOIN THE CANADIAN PIPELINE GRID. THIS DIFFERS FROM THE EARLIER ARCTIC GAS PROJECT IN THAT THIS NEW PIPELINE IS TO BE LAID UNDER THE OCEAN ICE RATHER THAN THROUGH THE ANWR.

I SAY DÉJÀ VU BECAUSE THIS IS NOT A NEW CONCEPT ...WE (AND OTHERS) LOOKED AT SIMILAR OPTIONS BEFORE. I PREDICT THAT THIS PROPOSAL WILL FAIL FOR THE SAME REASONS AS BEFORE... NAMELY, ECONOMICS, ENVIRONMENT AND POLITICS. WE CAN RETURN TO THIS ISSUE LATER.

CLEARLY THERE IS A RENEWED INTEREST IN BUILDING A PIPELINE FROM ALASKA TO THE LOWER 48 STATES.

WHY?

THE U.S. DEMAND AND PRICE FOR NATURAL GAS CONTINUES TO ESCALATE, DRIVEN PRIMARILY BY THE DEMAND FOR NEW GAS FIRED ELECTRICAL GENERATION. MOST ANALYSTS PREDICT A 30 TCF U.S. MARKET AND UP TO A \$3.00/MCF PRICE BY THE SECOND HALF OF THIS DECADE.

THERE IS A NEED TO CONNECT NEW SOURCES OF SUPPLY. MANY BELIEVE THAT THIS U.S. DEMAND WILL BE MET WITH INCREASED EXPORTS OF CANADIAN NATURAL GAS. THIS ASSUMPTION MIGHT BE TOO OPTIMISTIC. RECENTLY, THE CHAIRMAN OF THE NEB WARNED ABOUT THE POTENTIAL OF A 2 BCF/D SHORTFALL IN DELIVERABILITY FROM CANADA BY 2001. THIS WINTER, WE ARE SEEING SURPLUS PIPELINE CAPACITY AND THE 1.5 BCF/D ALLIANCE PIPELINE WILL BE PUT IN-SERVICE LATER THIS FALL.

AND THIRDLY, THE NORTH SLOPE IS THE LARGEST UNCONNECTED GAS RESERVE IN NORTH AMERICA.

I HAVE BEEN IN THE GAS BUSINESS FOR SOME TIME. LET ME GIVE YOU AN ALBERTA'S PERSPECTIVE ON THIS ISSUE. AT ONE TIME, MUCH OF ALBERTA'S NATURAL GAS RESERVES WERE STRANDED ...NOT UNLIKE THE CURRENT SITUATION IN ALASKA.

WORKING TOGETHER, INDUSTRY AND GOVERNMENT TOOK UP THAT CHALLENGE. THE STRATEGY WAS NOT DIFFERENT FROM WHAT I UNDERSTAND TO BE A LONG-STANDING ALASKAN POLICY AND ONE THAT YOUR COMMITTEE IS CURRENTLY INVESTIGATING, NAMELY: (1) LOOK FOR INCREASED MARKET OPPORTUNITIES IN THE LOWER 48. (2) LOOK FOR WAYS TO USE OR FURTHER PROCESS THE GAS WITHIN THE STATE.

THERE WAS ENOUGH GAS IN ALBERTA FOR BOTH PURPOSES JUST AS I UNDERSTAND THERE IS IN ALASKA. THE ALBERTA STRATEGY TO PROCESS SOME OF ITS GAS WITHIN ALBERTA AND FIND NEW MARKETS FOR THE REST SUCCEEDED, IN PART BECAUSE OF THE POLICIES OF GOVERNMENT AND

DEVELOPMENT PLANS OF INDUSTRY ...BUT ALSO BECAUSE ALBERTA WAS IN THE RIGHT PLACE AT THE RIGHT TIME.

ALBERTA'S STRATEGY WAS TO DEVELOP A PETROCHEMICAL INDUSTRY IN THE PROVINCE AND AGGRESSIVELY PURSUE INCREASED EXPORTS TO THE U.S. INCLUDING NEW MARKETS IN THE U.S. NE. IT WAS VERY SUCCESSFUL.

CAPITAL INVESTMENTS IN THE PETROCHEMICAL INDUSTRY IS APPROACHING \$7 BILLION, OVER 400 CONSTRUCTION JOBS ARE CREATED FOR EACH \$1BILLION INVESTMENT AND A SINGLE \$200 MILLION PETROCHEMICAL DERIVATIVE PLANT IN ALBERTA PAYS CUMULATIVE TAXES OF \$300 MILLION OVER A 20 YEAR PERIOD.

NATURAL GAS EXPORTS TO THE U.S. HAVE INCREASED DRAMATICALLY IN THE PAST TWO DECADES.

IT WAS ALBERTA'S TURN TWO DECADES AGO. I THINK IT WILL BE ALASKA'S TURN VERY SOON.

CAN THE "DISTANCE FACTOR" BE OVERCOME?

WILL THE CHICAGO GAS PRICE ALLOW FOR THE PROFITABLE MOVEMENT OF ALASKA GAS SOUTH?

I BELIEVE THAT THE ANSWER IS YES AND I BELIEVE THAT THE BEST WAY TO TRANSPORT YOUR GAS TO MARKET IS ALONG THE ALASKA HIGHWAY PIPELINE.

LET ME BRIEFLY DESCRIBE THE DETAILS OF OUR PIPELINE PROPOSAL.

THE CURRENT PROJECTED CAPITAL COST FOR THE PIPELINE IS AROUND U.S. \$6 BILLION.

WE NOW BELIEVE THAT AN APPROPRIATE DESIGN WOULD INVOLVE USING A HIGH-PRESSURE PIPE THAT WOULD HAVE THE CAPABILITY OF MOVING GAS LIQUIDS THAT MIGHT OTHERWISE BE LEFT STRANDED ON THE NORTH SLOPE.

WE ANTICIPATE THROUGHPUT VOLUMES IN THE RANGE OF 2.5 – 3 BCF/D.

THE DISTANCE WOULD BE ABOUT 1700 MILES COMMENCING AT THE NORTH SLOPE WITH ROUGHLY ONE-HALF OF THE NEW PIPELINE BEING BUILT IN ALASKA AND THE OTHER HALF IN CANADA.

BECAUSE WE HAVE MANY OF THE KEY APPROVALS IN HAND, WE BELIEVE THAT OUR PIPELINE COULD BE IN-SERVICE BY AS EARLY AS 2006.

THIS IS AN AMBITIOUS PLAN BUT A REALISTIC ONE. SOME MIGHT ASK ...HOW IS IT THAT THIS PIPELINE IS SO MUCH CHEAPER THAN PREVIOUS ESTIMATES? THERE ARE SEVERAL REASONS FOR THIS. A SIZABLE SECTION OF THE ORIGINAL PIPELINE HAS ALREADY BEEN BUILT...THE "PREBUILD".

HIGHER STRENGTH STEEL AND HIGHER OPERATING PRESSURES ENABLE US TO USE SMALLER DIAMETER PIPE TO MOVE THE SAME VOLUME OF GAS. NEW WELDING TECHNIQUES ALSO ENABLE US TO ACHIEVE HIGHER PRODUCTIVITY IN PIPELINE CONSTRUCTION.

THERE ARE KEY SENSITIVITIES TO A PROJECT SUCH AS THIS...TWO OF THE MORE IMPORTANT BEING THE COST OF GAS IN THE MARKET...AND THE PIPELINE THROUGHPUT VOLUMES. LET ME DEAL WITH THOSE IN ORDER.

ULTIMATELY FOR ANY PROJECT TO SUCCEED THERE MUST BE SOMETHING IN IT FOR EVERYONE...THE PRODUCERS...THE PIPELINES ...MAJOR SUPPLIER AND UNIONS...IN-STATE GAS USERS AND GOVERNMENTS. THE HIGHER THE PRICE OF GAS IN THE LOWER 48 STATES ...THE MORE MONEY THERE WILL BE TO GO AROUND.

WE BELIEVE THAT A CHICAGO GAS PRICE IN THE RANGE OF \$3.00/MCF COULD PROVIDE A SUFFICIENT PROFIT MARGIN FOR EVERYONE TO SIGN ON.

TURNING TO THE QUESTION OF THROUGHPUT VOLUMES. AS A RULE OF THUMB...LARGER PIPELINE CAPACITIES EQUAL LOWER PER MILE TRANSPORTATION TOLLS. HOWEVER, PIPELINE DESIGNS MUST ALWAYS BE COGNIZANT OF THE LOWER 48 MARKET PLACE. OVERBUILDING THE PIPELINE COULD DEFEAT THE PURPOSE OF THE EXERCISE.

THERE ARE OBVIOUS SYNERGIES IF WE CAN HARMONIZE PIPELINE DESIGNS SO AS TO SERVE BOTH THE LOWER 48 AND THE IN-STATE GROWTH IN GAS DEMAND. THIS SHOULD BE A WIN-WIN FOR ALASKA ECONOMIC DEVELOPMENT AND THE ALASKA HIGHWAY PIPELINE, NOT TO MENTION THE CONSUMER ADVANTAGE FOR ALASKANS THAT WILL RESULT FROM THE OPPORTUNITY TO USE NATURAL GAS FOR HOME HEATING.

AS YOU KNOW, FOOTHILLS IS A PARTNER IN THE ANS LNG PROJECT. WE HAVE BEEN ACTIVELY INVESTIGATING THESE SYNERGIES AND BELIEVE THAT WE COULD SAVE SEVERAL HUNDRED MILLION DOLLARS IF THE TWO PROJECTS COULD BE BROUGHT TOGETHER. THIS MIGHT VERY WELL BE ENOUGH TO ENSURE THE PROJECT CAN MEET THAT ALL-IMPORTANT CHICAGO PRICE.

LET ME NOW RETURN TO THOSE THREE FUNDAMENTAL FACTORS OF ANY PIPELINE PROPOSAL THAT I SPOKE OF EARLIER. (1) ECONOMICS (2) ENVIRONMENT (3) POLITICS.

CAN AN ALTERNATIVE PROPOSAL MOVE THE GAS CHEAPER?

THE ONE ALTERNATIVE CURRENTLY BEING INVESTIGATED IN SOME CIRCLES IS THE PROPOSAL TO BUILD A PIPELINE UNDER THE ICE OF THE BEAUFORT SEA.

THE PROMOTERS OF SUCH A PROJECT CLAIM THAT THEIR PIPELINE IS SHORTER... WILL ENCOUNTER FEWER CONSTRUCTION OBSTACLES AND THEREFORE CAN DELIVER ALASKAN GAS INTO THE CANADIAN GRID CHEAPER THAN THE ALASKA HIGHWAY PIPELINE.

WE WILL CONCEDE THAT A PIPELINE THROUGH THE OCEAN IS SHORTER BY APPROXIMATELY 125 MILES...OR ABOUT 7 % OF THE TOTAL PROJECT.

HOWEVER, DISTANCE ALONE WILL NOT MAKE THE PROPOSAL MORE COST EFFICIENT.
WHY?

THE ALASKA HIGHWAY PIPELINE WILL BE BUILT ALONG AN EXISTING TRANSPORTATION CORRIDOR...THE DALTON AND ALASKA HIGHWAYS.

EASY ACCESS TO THE RIGHT-OF-WAY IS EXTREMELY IMPORTANT TO LOW-COST, EFFICIENT PIPELINE CONSTRUCTION. WITHOUT IT, THE MOVEMENT OF PERSONNEL, MATERIALS AND EQUIPMENT WOULD BE A MAJOR UNDERTAKING IN ITS OWN RIGHT.

TO BUILD A PIPELINE WHERE NO ROAD CURRENTLY EXISTS OFTEN MEANS THAT THE COST OF A NEW ROAD IS INCLUDED IN THE CAPITAL COSTS OF A PIPELINE. NORTHERN ROADS COST MONEY TO BUILD AND MAINTAIN.

THE TERRAIN ALONG THE ALASKA HIGHWAY ROUTE PROVIDES NO GREATER CONSTRUCTION CHALLENGES THAN THOSE FACED NOW IN NORTHERN CANADA AND ALASKA. MOST OF THE GEOTECHNICAL WORK HAS BEEN COMPLETED ALONG THE RIGHT-OF-WAY. THE MOUNTAIN PASS IN THE BROOKS RANGE IS DIFFICULT CONSTRUCTION BUT NOT EXTRAORDINARY BY ANY MEANS.

WE HAVE MANY OF THE NECESSARY PERMITS IN HAND AND MOST RIGHTS-OF-WAY HAVE BEEN SECURED. AN ALTERNATIVE PROJECT MUST BEGIN FROM SCRATCH. THAT EFFORT REQUIRES TIME AND MONEY ...AND PLENTY OF BOTH AS WE CAN ATTEST TO.

WE BELIEVE THAT A PIPELINE UNDER THE OCEAN WILL COST MORE THAN OUR PROJECT.

THE SECOND FUNDAMENTAL FACTOR RELATES TO ENVIRONMENTAL ISSUES.

IS AN OFFSHORE NORTH SLOPE PIPELINE MORE ENVIRONMENTALLY BENIGN? I DOUBT IT.

IN FACT, ENVIRONMENTAL FACTORS PLAYED A KEY ROLE IN THE ORIGINAL DECISION WHEN THE ALASKA HIGHWAY PIPELINE ROUTE WAS CHOSEN AS THE BEST ALTERNATIVE.

AGAIN THE FACT THAT THE PIPELINE FOLLOWS AN EXISTING, WELL-USED TRANSPORTATION CORRIDOR MEANS THAT IT WILL BE LESS ENVIRONMENTALLY DISRUPTIVE, PARTICULARLY WHEN COMPARED TO A PIPELINE THROUGH A PRISTINE UNDEVELOPED AREA.

THERE WILL BE THOSE WHO SCOFF AT SUCH SUGGESTIONS. THEY MIGHT BE WELL ADVISED TO STUDY SOME RECENT SAMPLING OF NORTH AMERICAN ATTITUDES REGARDING ENERGY ISSUES. THE MOST IMPORTANT ENERGY/ENERGY INDUSTRY ISSUE WAS NOT COST BUT THE EFFECTS ON THE ENVIRONMENT. THAT IS A MARKED CHANGE IN PUBLIC SENTIMENT AND PERHAPS A FUNDAMENTAL CHANGE.

FINALLY, LET ME SAY A FEW WORDS ABOUT THE POLITICAL FACTOR. I DO THIS WITH SOME TREPIDATION WHEN SPEAKING TO SUCH A FORUM AS THIS.

POLITICS OFTEN BOIL DOWN TO A DEBATE ABOUT WHAT BENEFITS WILL FLOW FROM ANY GIVEN PUBLIC POLICY. THIS DEBATE WILL BE ABOUT TWO VERY DIFFERENT PIPELINE PROPOSALS ...THE ONE THAT WE PRESENT WILL RUN THROUGH THE LENGTH OF YOUR STATE ...CAN BECOME A CATALYST FOR FURTHER DEVELOPMENT...WILL PROVIDE JOBS FOR YOUR CITIZENS...AND IN THE LONG-RUN WILL GENERATE MAXIMUM TAX REVENUES.

I BEGAN BY SPEAKING ABOUT ALBERTA...THE JOBS THAT HAVE BEEN CREATED ...THE BUSINESS INVESTMENT THAT HAS RESULTED...THE TAXES THAT HAVE BEEN GENERATED.

IF MAXIMIZING BENEFITS FOR ALASKA IS THE GOAL OF ENERGY DEVELOPMENT ...THEN OUR PIPELINE PROPOSAL SHOULD WIN THE DAY.

PIPELINES ARE ABOUT MORE THAN RIBBONS OF STEEL PIPE CONNECTING GAS WELLS TO THE MARKET PLACE. THEY CANNOT BE REDUCED TO ONE-DIMENSIONAL ECONOMIC THINKING.

THEY ARE INSTRUMENTS OF NATIONAL, REGIONAL AND STATE ECONOMIC AND SOCIAL POLICY ...THEY OFTEN PRESENT DIFFICULT CHOICES ABOUT COMPLEX ECONOMIC AND LONG-TERM ENVIRONMENTAL PRIORITIES...AND ULTIMATELY THEY ARE ABOUT POLITICS.

OUR PROJECT IS ECONOMICALLY COMPETITIVE WITH ANY ALTERNATIVE. ENVIRONMENTALLY, IT IS FAR SUPERIOR. I WILL LEAVE TO OTHERS THE DEBATE AND DECISION ABOUT THE BEST PUBLIC POLICY AND THE BEST POLITICS. OUR PROJECT WON THE DAY...THE LAST TIME THIS ISSUE WAS HEARD.

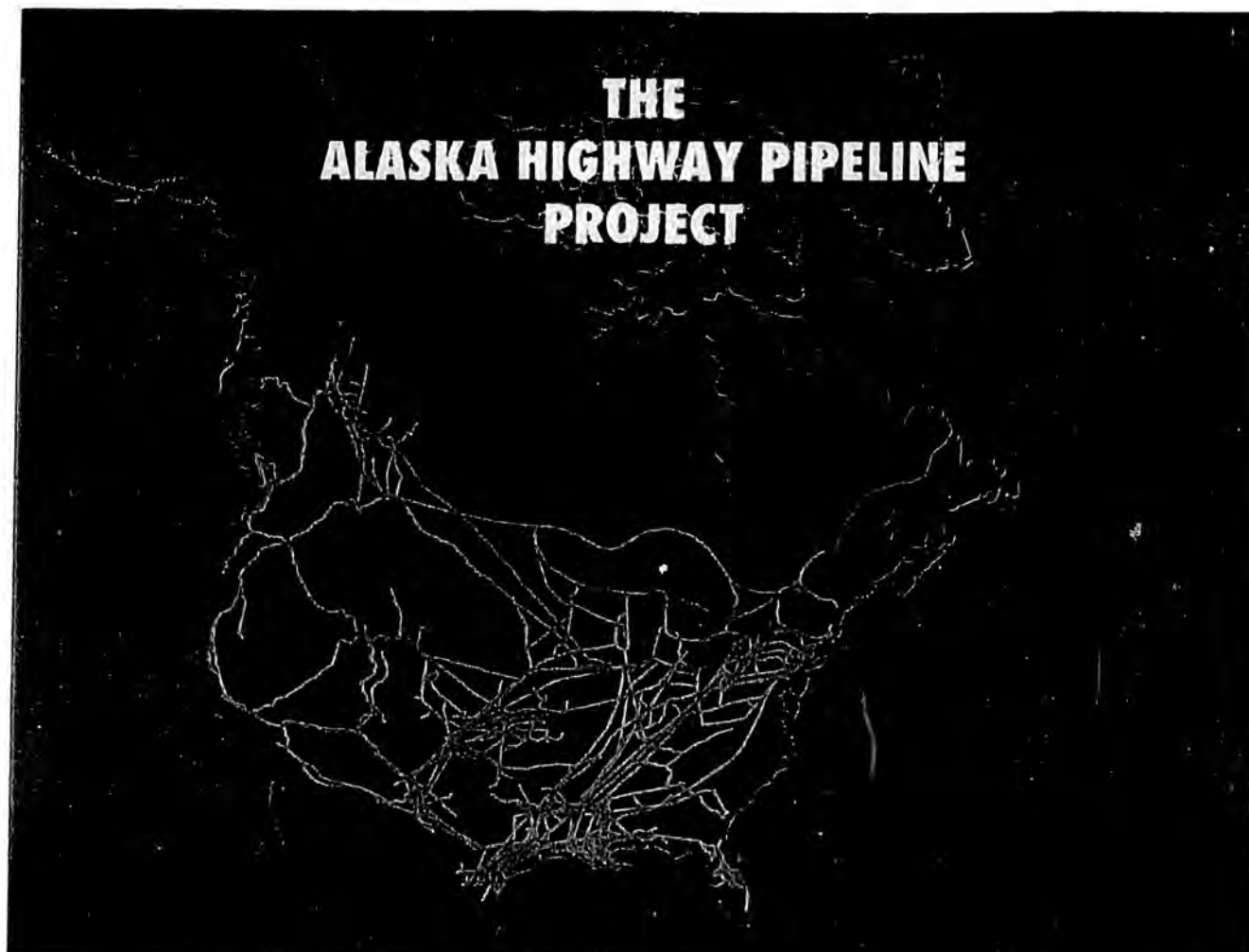
IF THERE MUST BE A REMATCH ...WE BELIEVE THAT THE ANGTS WILL WIN AGAIN.

THANK YOU. WE WELCOME YOUR QUESTIONS.



Good Morning Everyone.

- We've heard this morning and we will hear more this afternoon about gas supply and demand in North America. At Foothills we believe the supply / demand picture indicates the time is right to complete the Alaska Highway Pipeline Project.

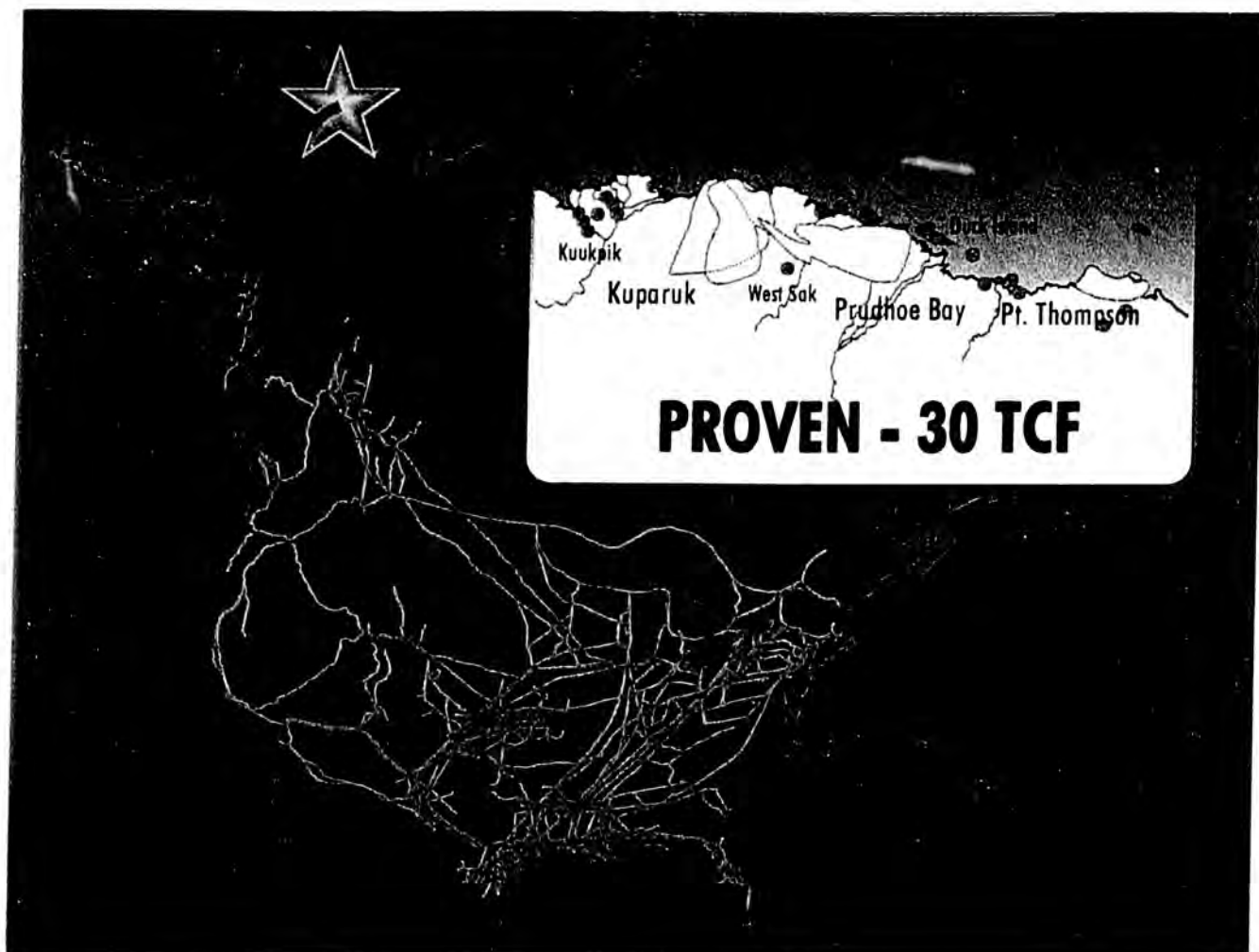


- This project will be an important element in meeting the growing demand for natural gas. As many of you know, we've been discussing the Alaska pipeline for a long time. I know there are skeptics who think it will never be built.
- I want to use my time today to tell you why I believe they're wrong. I'll spend a little time discussing the size and deliverability of the Alaska gas reserves. I also want to put into perspective the challenge of moving Alaska gas to market.
- And lastly I'll explain the advantages of the Alaska Highway Project and, why it is the option with the best chance of success.



THE ACCESSIBLE ARCTIC - TAPPING ALASKA GAS

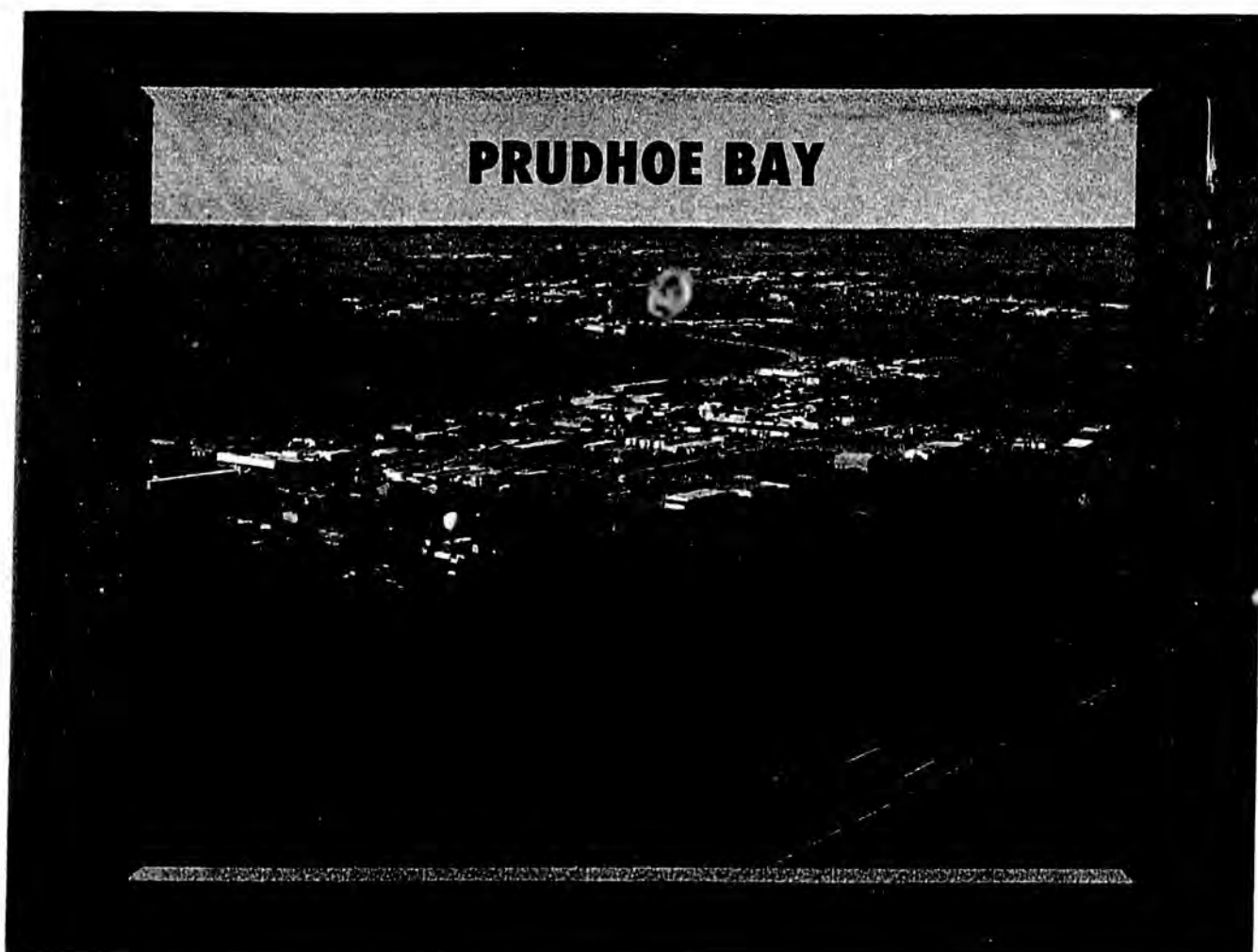
- But before I begin, let me deal with one issue that we are frequently asked about. That is the validity of the Certificates that were granted to the Alaska Highway Project by the Canadian Parliament and the US Federal Energy Regulatory Commission. Some people take the view that because we've not completed the entire project in the timeframe originally envisioned, we should be required to go back through the approval process again.
- Well, the Certificates in both Canada and Alaska are just as valid today as the day they were issued. The regulatory and legislative underpinning for this project is not outmoded nor is it burdensome. Rather, it is one of the major advantages this project enjoys.
- That said, let me begin by discussing the North Slope gas reserves. It's no secret there are very large reserves on the North Slope of Alaska.





THE ACCESSIBLE ARCTIC - TAPPING ALASKA GAS

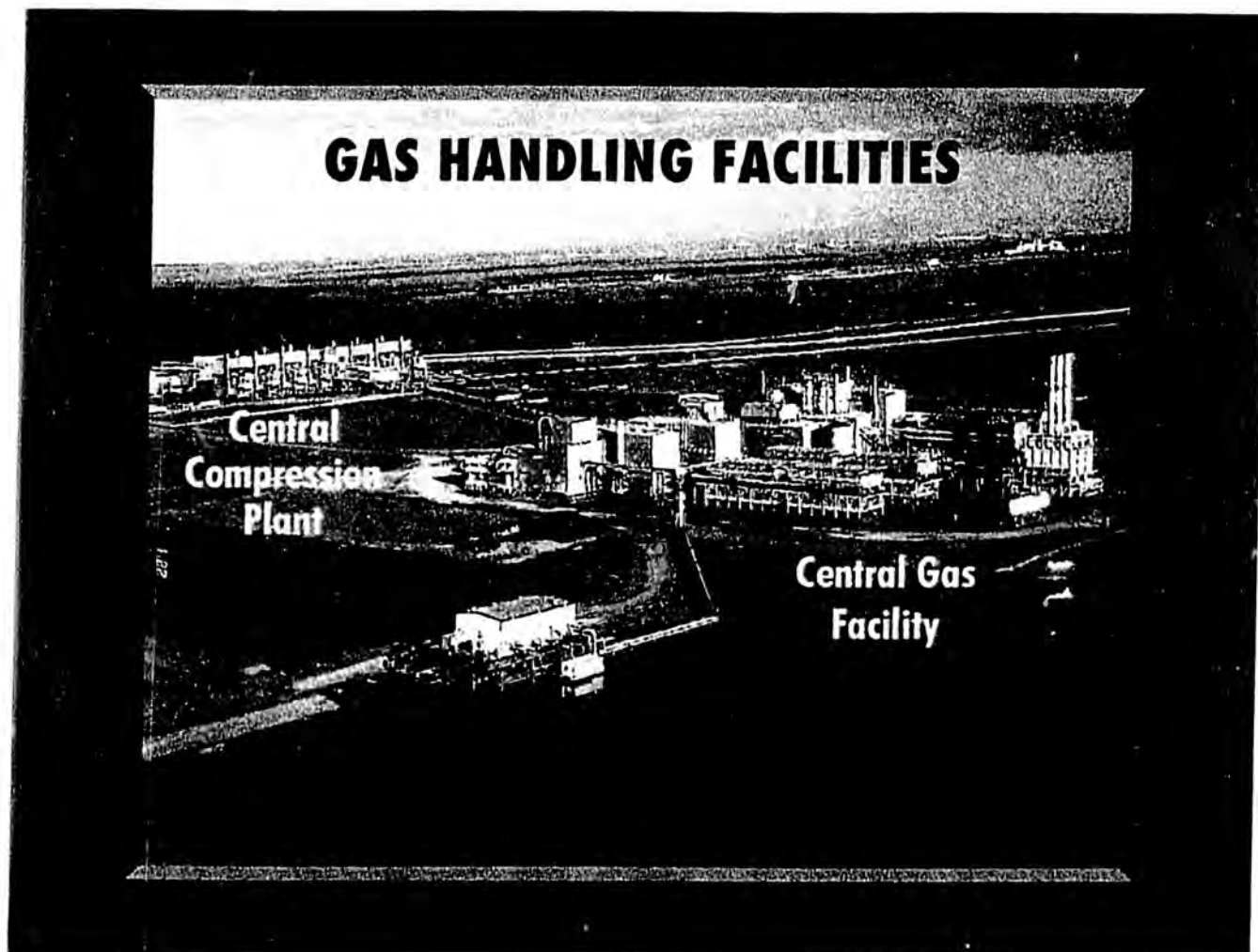
- The Prudhoe Bay field alone contains some 26 trillion cubic feet. This area around Prudhoe Bay contains over 30 trillion cubic feet of proven reserves. The North Slope Province as a whole is estimated to have a potential of 100 trillion cubic feet.
- Some of my colleagues in the upstream oil and gas business suggest this is just the beginning. They describe the 30 tcf as an 'accident' that happened while they were looking for oil! They feel that once attention turns to finding gas - the proven reserves will pale in comparison.
- I have a photo here that I hope will give you a sense of the scale of development on the North Slope.
- The view is north with the airport at Prudhoe Bay in the foreground and the Arctic Ocean in the background. As you can see, there is a very large investment in infrastructure. Currently gas is produced in association with the oil. It is separated out and for the most part re-injected into the reservoir to enhance further oil recovery.

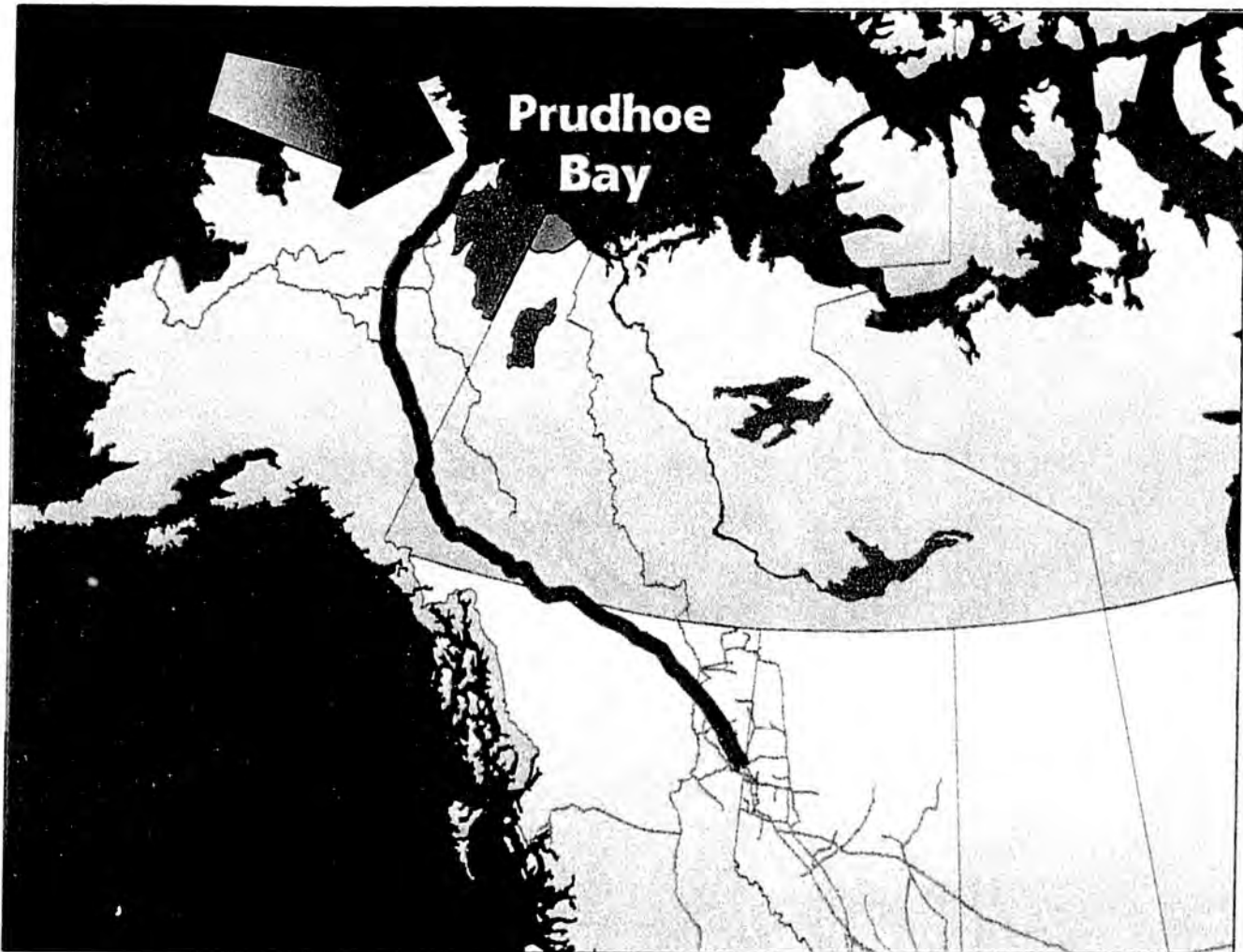




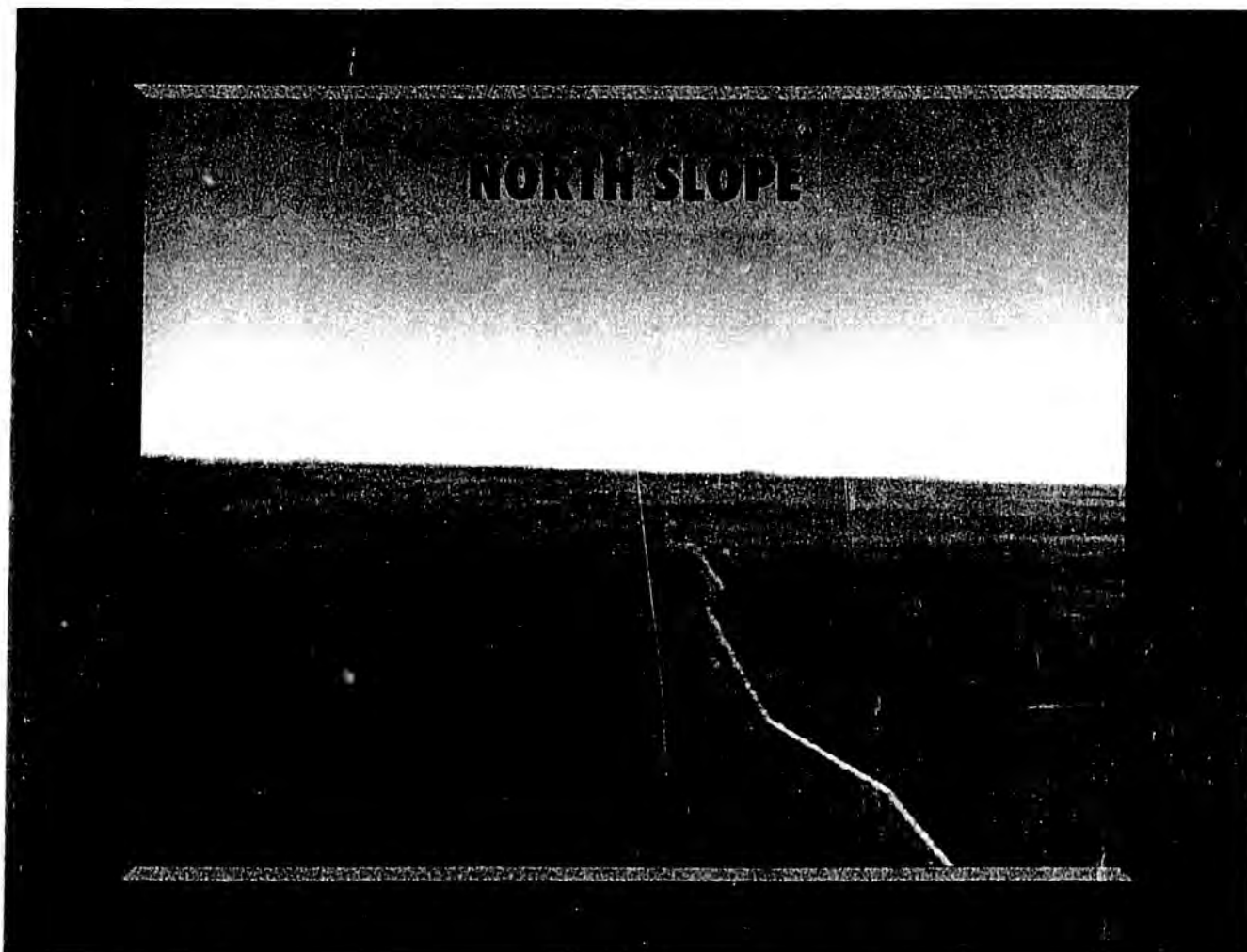
THE ACCESSIBLE ARCTIC - TAPPING ALASKA GAS

- The gas is processed here in the Central Gas Facility, one of the largest gas processing plants in the world. It currently handles about 8 billion cubic feet per day. That volume equals the take away capacity of TransCanada's pipeline east of Empress.
- To make the Alaska gas reserve "pipeline quality" is easily done. The bulk of the field development costs have already been incurred.
- There's no question the gas reserve is there.

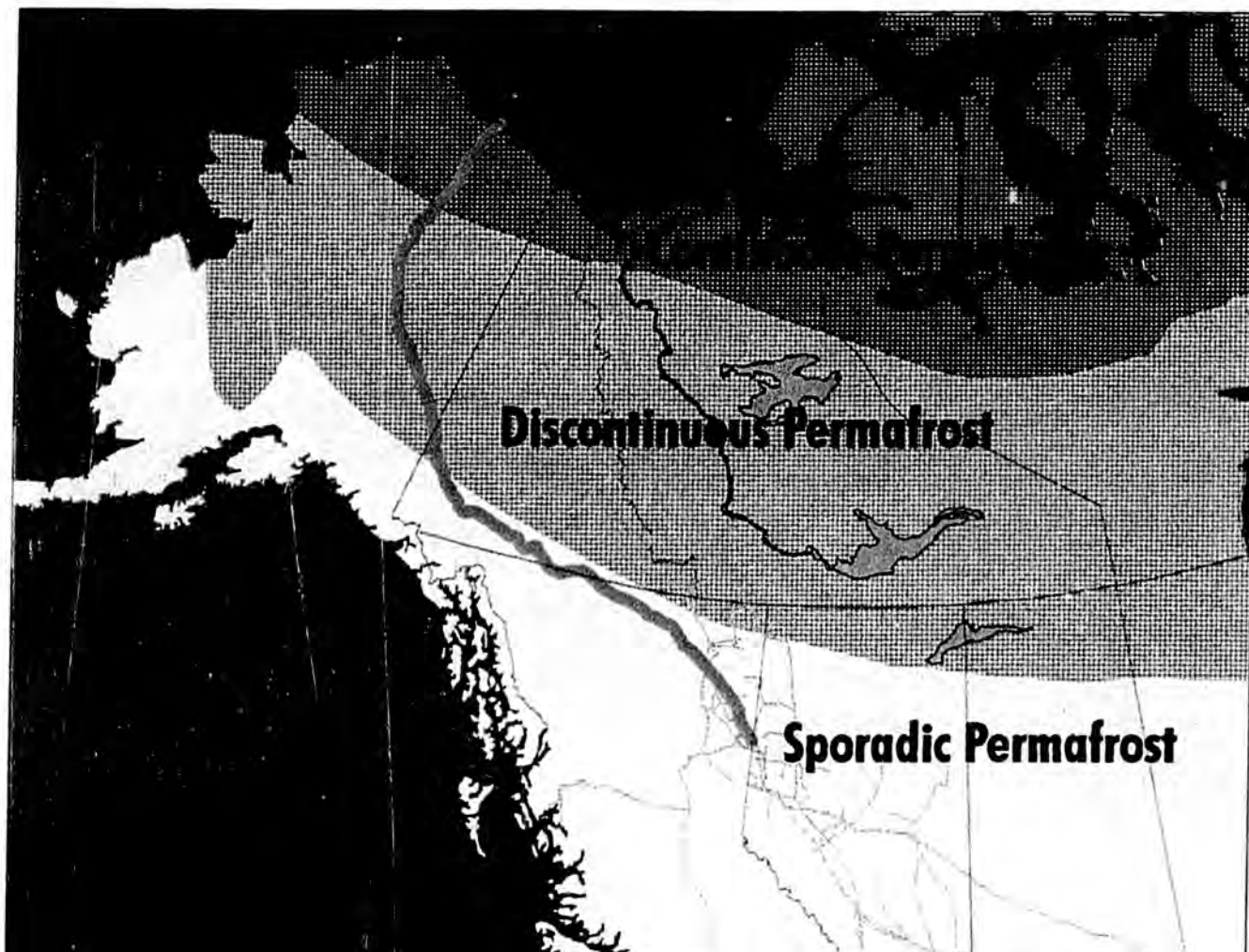




- Now lets look at the pipeline route again.
- I'd like to address some of the challenges of moving the North Slope gas to market along this route. I'll do this by taking you on a helicopter flight along the pipeline route. We'll be able to stop along the way while I describe some of the challenges and the methods by which they can be overcome.
- We'll start here.



- Two points of interest as we begin. First - notice the all weather State highway on the left hand side of the picture. Easy access to the right of way is extremely important to low-cost, efficient pipeline construction. And there is no better access than a highway along 100% of the route. Without it the movement of personnel, material and equipment would be a major undertaking in it's own right. This is one of our major advantages.
- Second - As you can see, there is an existing pipeline here. The TAPS oil pipeline, its about 800 miles long, and moves oil from Prudhoe Bay to Valdez on the south coast of Alaska. Throughout the video, you'll see this pipeline is elevated at times as it is here. This usually means the pipeline is traversing an area of permafrost. Let's stop for a moment and talk about permafrost.

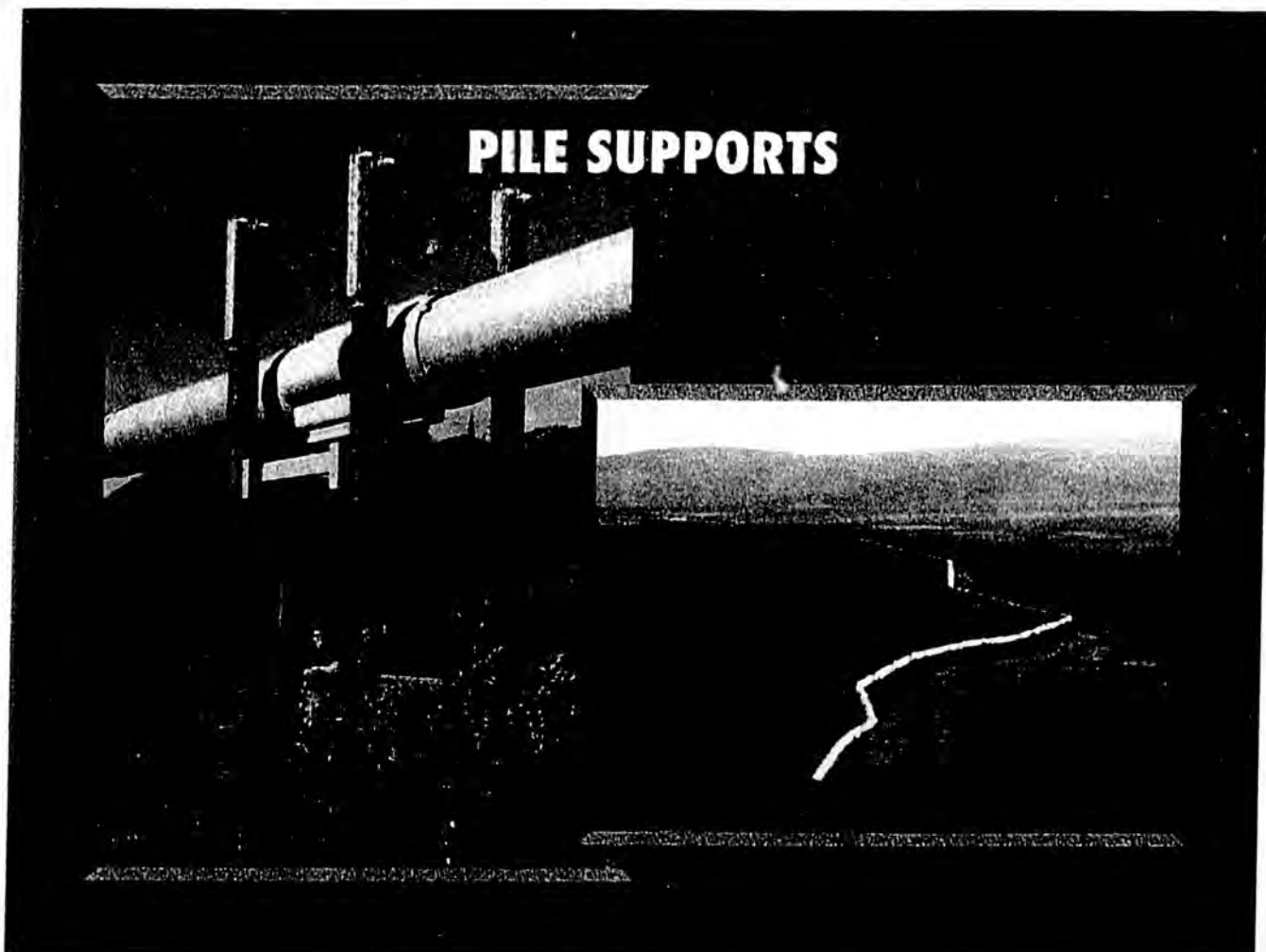


- It's the biggest technical challenge to pipeline construction in the Arctic.
 - In the far north the ground is permanently frozen except under the largest rivers and lakes.
 - In the discontinuous permafrost zone the majority of the ground is frozen with some unfrozen sections
 - In the sporadic permafrost zone the majority of the ground is thawed with some frozen sections.
- Frozen soil is actually a pretty good material to build on as long as we can keep it frozen. The difficulties start when the ground begins to thaw.



THE ACCESSIBLE ARCTIC - TAPPING ALASKA GAS

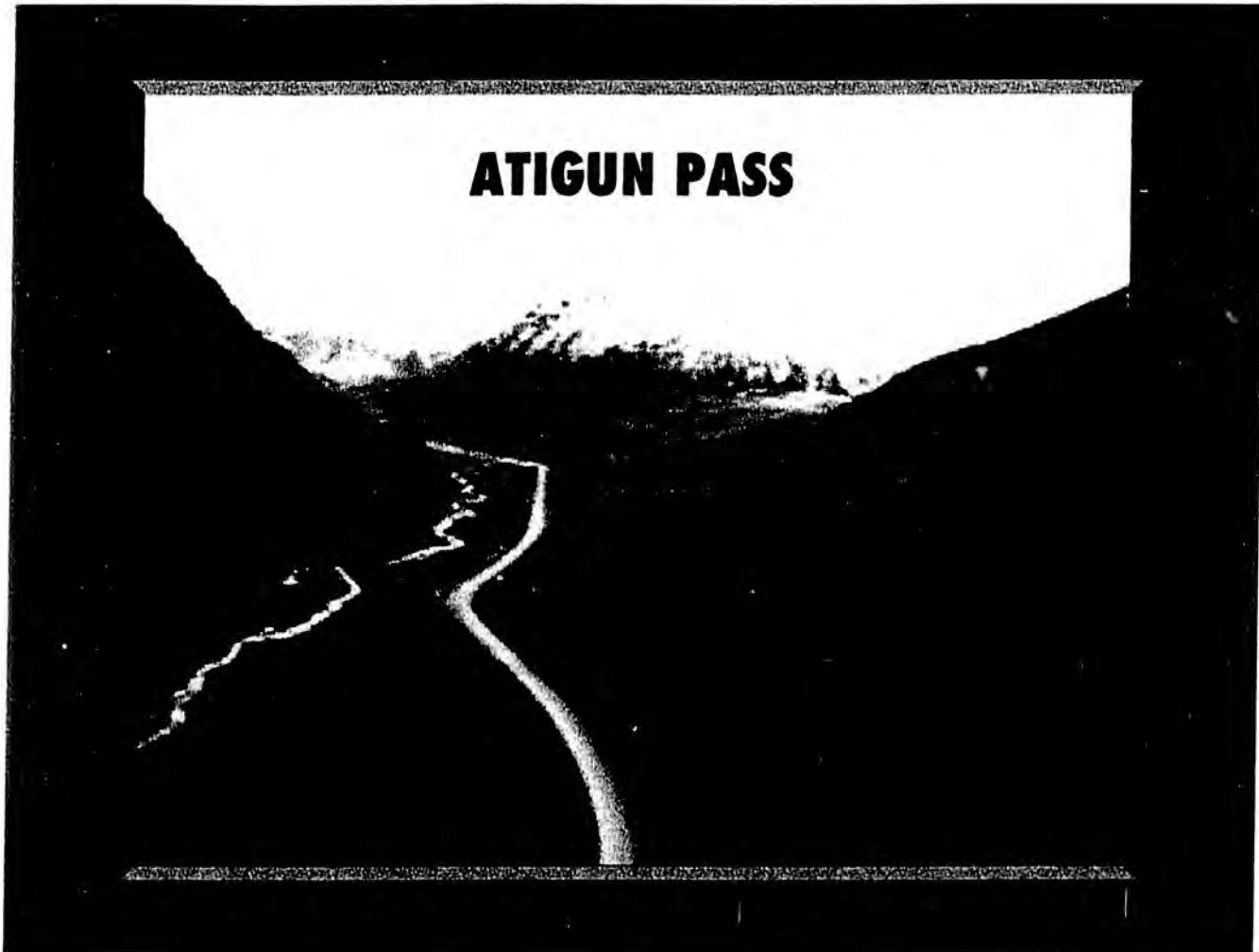
- As you can see the designers of the oil pipeline chose to put it above ground on pile supports. This was necessary because of the requirement to keep the oil warm so it would flow easily.
- With a gas pipeline we have another option. We can cool the gas to just below 0°C and bury the pipe in the frozen ground.
- This has two important consequences:
 - First - the cold gas is slightly denser therefore more energy can be transported when compared to the same pipeline operating at higher temperatures. An arctic pipeline is more efficient!
 - Second - burying the pipe allows us to use the same very efficient pipeline construction techniques that have been developed and used in Canada for many years.
- This photo clearly shows the difference in complexity and cost between above ground and buried construction.





THE ACCESSIBLE ARCTIC - TAPPING ALASKA GAS

- Now lets get back on the helicopter and continue our journey.
- But - before we start let me set up the next leg. We're going to be moving towards what some feel is the greatest construction challenge along our route. The Atigun Pass in the Brooks Mountains.



- As you can see the valley narrows down as we approach the summit of the pass. The oil pipeline is buried in the bed of the river along this stretch. As we come up onto the summit you can see the highway make a big loop and climb along the side of the mountain while the oil pipeline route goes straight up the slope in the lower right corner of the picture.



THE ACCESSIBLE ARCTIC - TAPPING ALASKA GAS

- Now we're right up on top, this video was taken in September and as you can see the weather is not always cooperative. We expect construction of this small segment of the route will cost several times as much per mile as the average cost across Alaska. However the constricted section is only 2 miles long.
- Now the valley is starting to widen out and the terrain becomes much easier again. This is a good time to stop and talk about the second point I want to make.
- Putting into perspective the challenge of moving Alaska gas to market.
- Several new technologies make construction of the pipeline much easier and less expensive than it would have been when it was first proposed.
- For example higher strength steels and higher operating pressures enable us to use smaller diameter pipe to move the same volume of gas. The smaller diameter pipe is much easier and cheaper for our contractors to install. Another challenge: working positively with the environment.
- I'm sure we all agree that the environment needs careful consideration when selecting the best way to bring Alaska gas to the south.

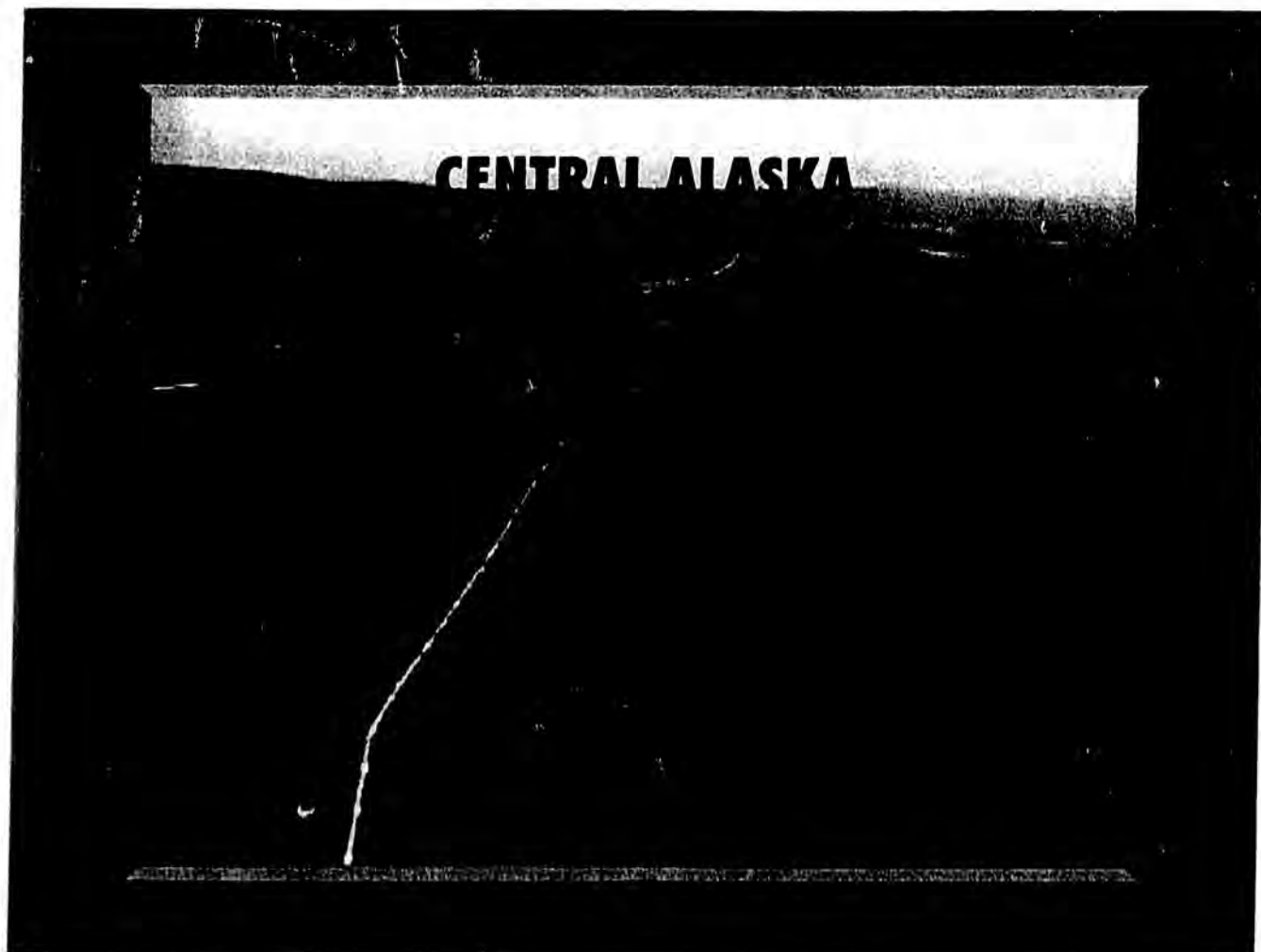


- The Alaska Highway Project was subjected to an extraordinary level of environmental scrutiny and assessment. In fact many of the environmental standards that are applied to pipelines today were developed during that assessment and were adopted and supported by Foothills. At the end of that assessment, the Highway Project was chosen as the best alternative from an environmental standpoint.
- Why was it chosen? In part, because of the commitments made by Foothills to environmental protection but I believe it was primarily due to the environmental advantages that come with a route that follows an established transportation corridor.
- The advantages have not changed.
- As we continue our journey, I'll show you more of the route while I continue to discuss some environmental issues.



THE ACCESSIBLE ARCTIC - TAPPING ALASKA GAS

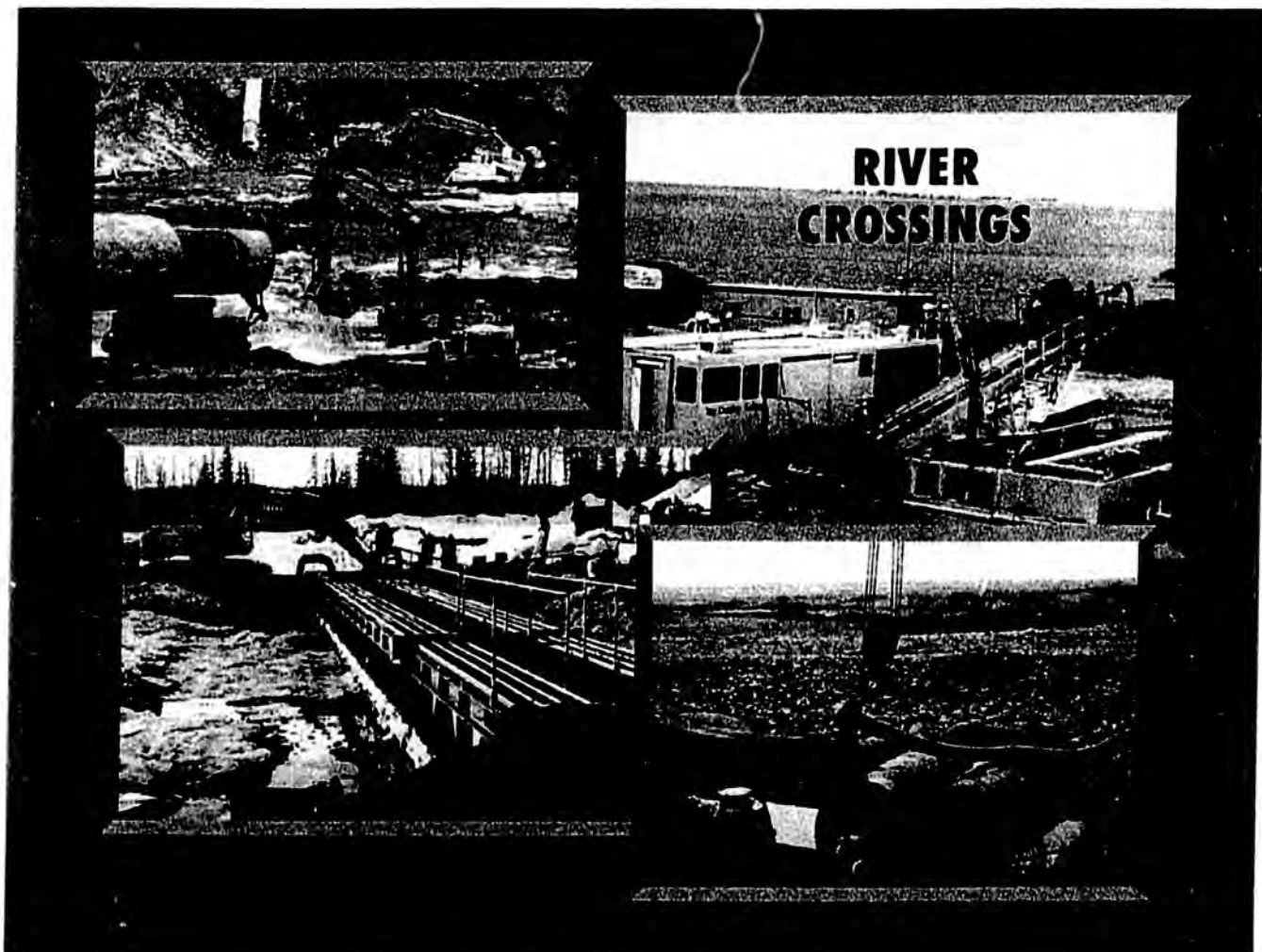
- I'm just going to let the video run and you will see the terrain poses no unusual environmental or construction challenges.
- I mentioned Foothills' commitments to environmental protection and I want to focus on that for a moment. Every pipeline constructor has an obligation to protect the environment through which its pipeline passes. Foothills has always recognized those obligations and has made a full commitment to meet them.
- The route we've chosen along an established transportation corridor meets the environmental challenge. Protecting environmental values will be much easier in this corridor than in remote wilderness areas. That relative ease in meeting requirements for environmental protection is another major advantage of the Alaska Highway Project. In addition, we now have available much improved techniques for environmental protection. Nowhere is this more true than for river and stream crossings.
- Let's stop here for a moment.

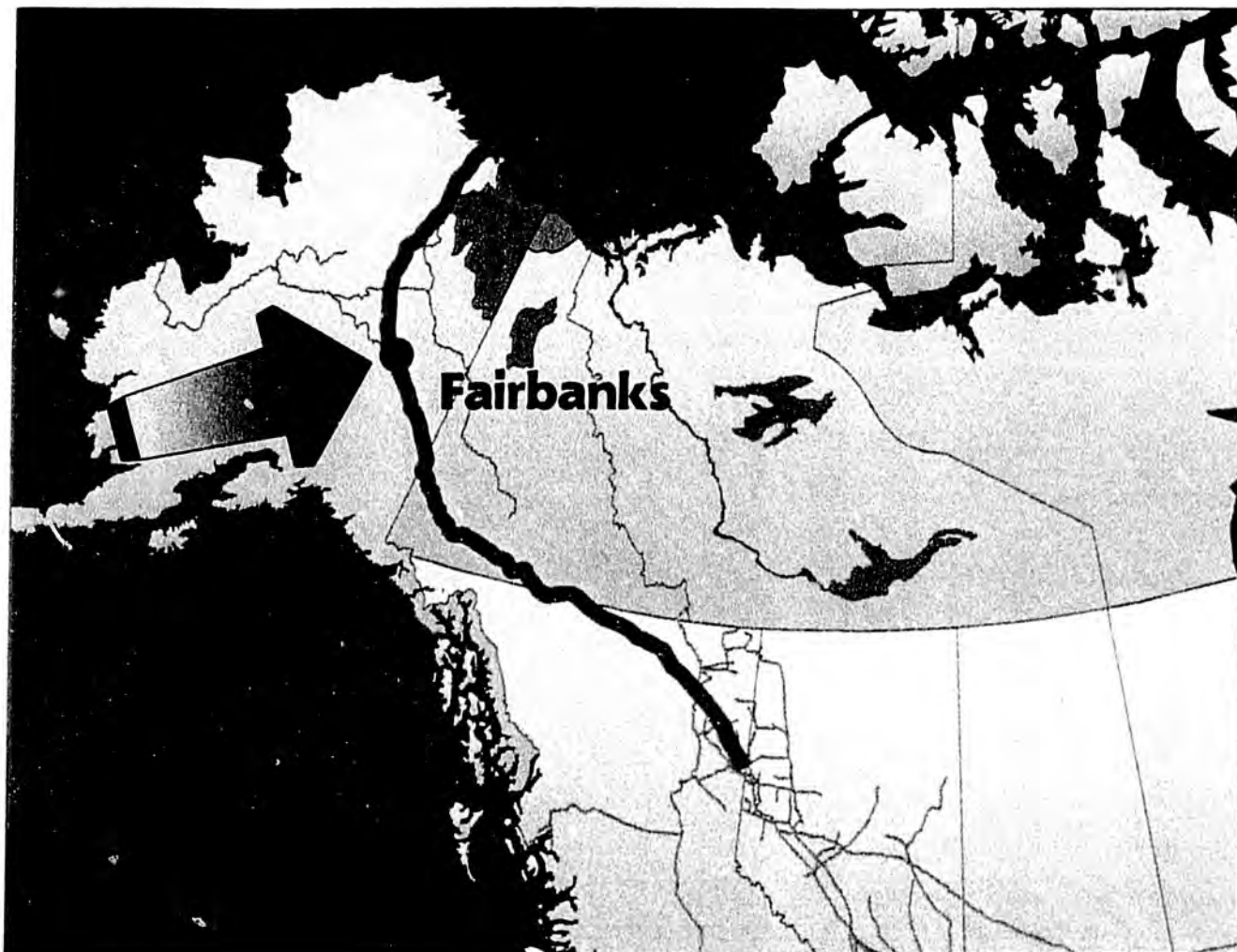




THE ACCESSIBLE ARCTIC - TAPPING ALASKA GAS

- In addition to the standard "open cut" and "aerial" methods of crossing streams that were employed two decades ago.
- All contractors now employ a suite of techniques that include "dam and pump", "fluming" and "directional drilled" crossings. The appropriate stream crossing technique can now be selected to maximize environmental protection while minimizing costs.
- Foothills is absolutely committed to utilizing the best environmental practices, 21st century practices!



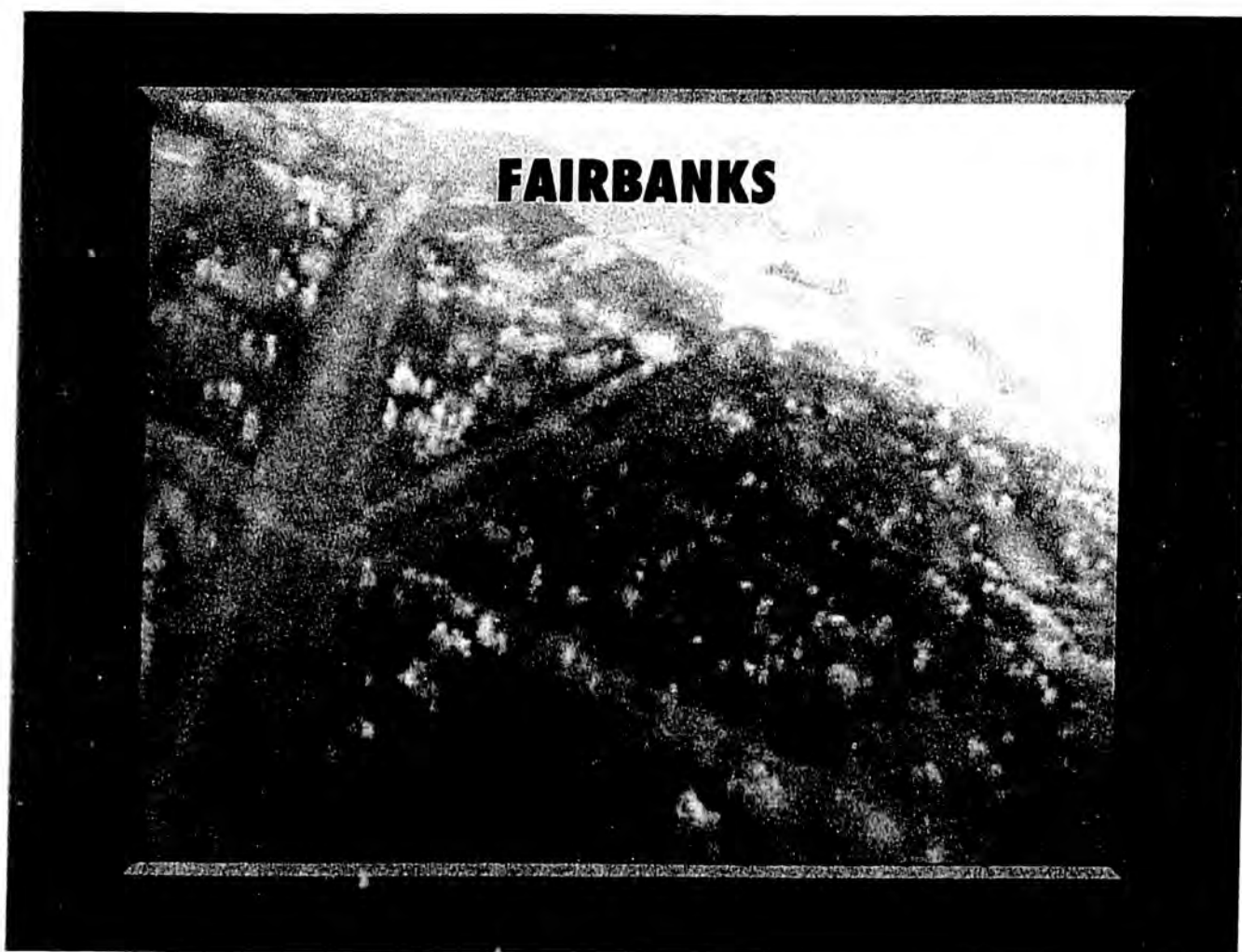


- The Alaska Highway route was selected as the most environmentally acceptable option and it remains the most acceptable today.
- There's one more point I'd like to make as we take a last look at the Alaska portion of the proposed pipeline. That deals with future economic development in the region.



THE ACCESSIBLE ARCTIC - TAPPING ALASKA GAS

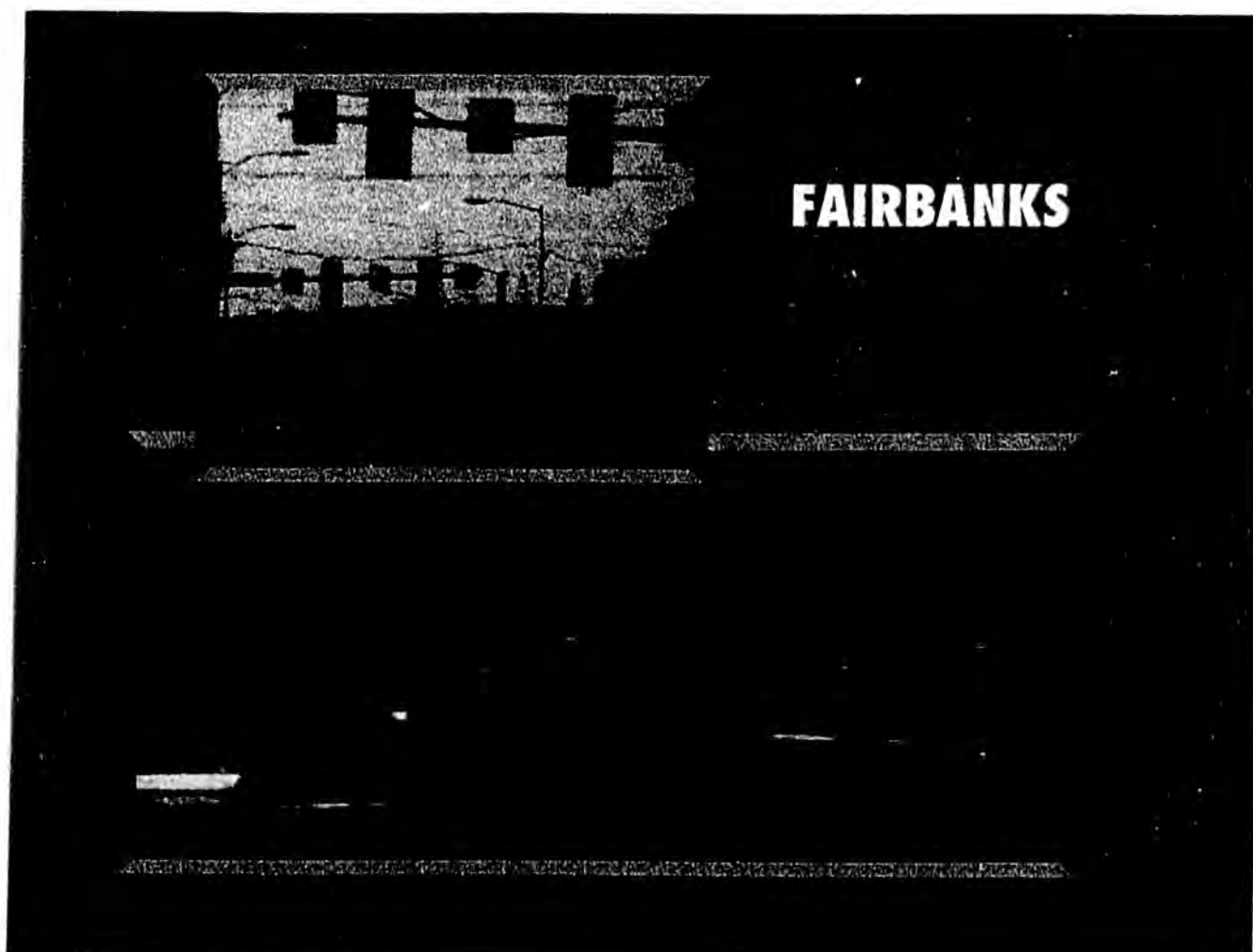
- We are now in central Alaska, approaching the city of Fairbanks. You can see the highway and the oil pipeline right of way. In a few seconds you will see a major airfield on the left-hand side. As you can see from the extent of the existing development there are no serious impediments to pipeline construction in this area.
- Construction can proceed here just as it does near Grande Prairie or Fort St. John.

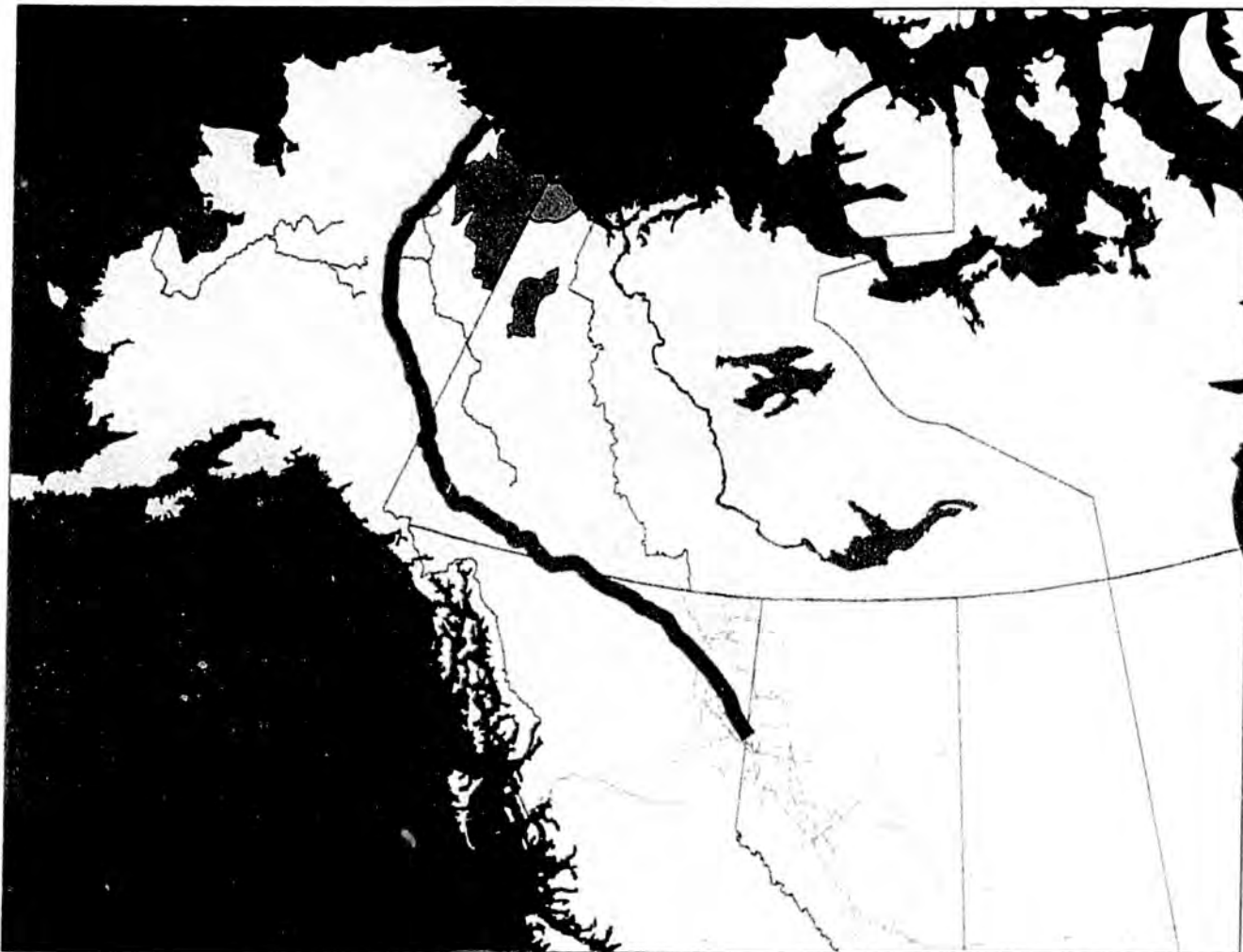




THE ACCESSIBLE ARCTIC - TAPPING ALASKA GAS

- Now I'd like to say a few words about what this project will mean to the people and communities along the corridor. You have only to look in our province of Alberta to see how oil and gas exploration and development has grown the communities along the way.
- The people of Alaska, and remember we are talking about Alaska gas, are not unlike people from any other part of the world. When natural resources are found in their state, they demand, with considerable justification, benefits from any exploitation plan. Benefits not only in the form of royalties, but also in the form of jobs. Benefits like an alternative source of energy to heat their homes and generate electricity and opportunities for further economic development.



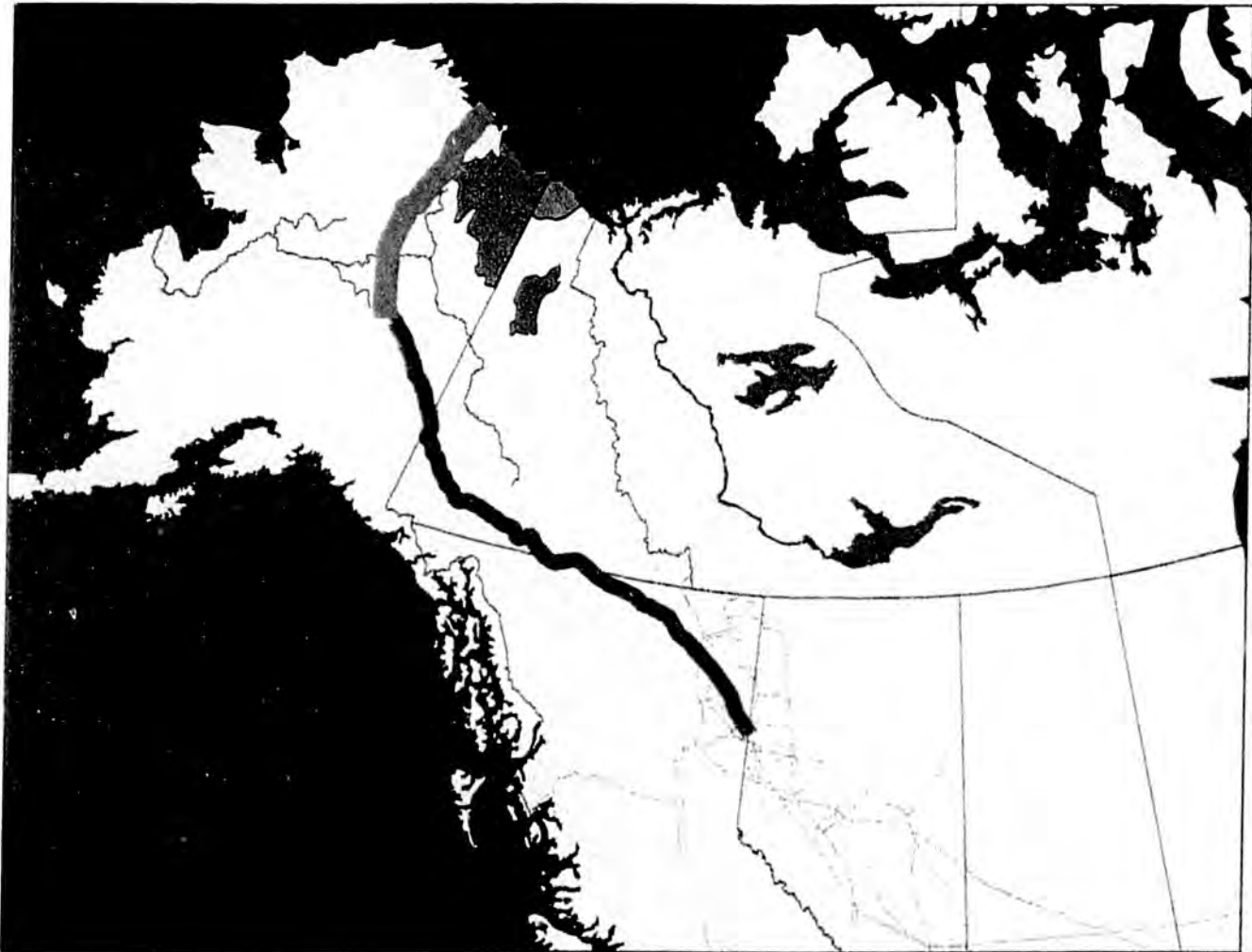


- Any of you who were here last year will remember Terry Cameron discussing the Alaska North Slope LNG Project.
- Just a word or two to bring you up-to-date on that project.
- Foothills, along with our partners BP Amoco, ARCO, Phillips, and Marubeni are continuing to develop the LNG option. We are actively investigating the synergies that could be achieved through sharing the Alaska Highway pipeline corridor from Prudhoe Bay to Fairbanks.



THE ACCESSIBLE ARCTIC - TAPPING ALASKA GAS

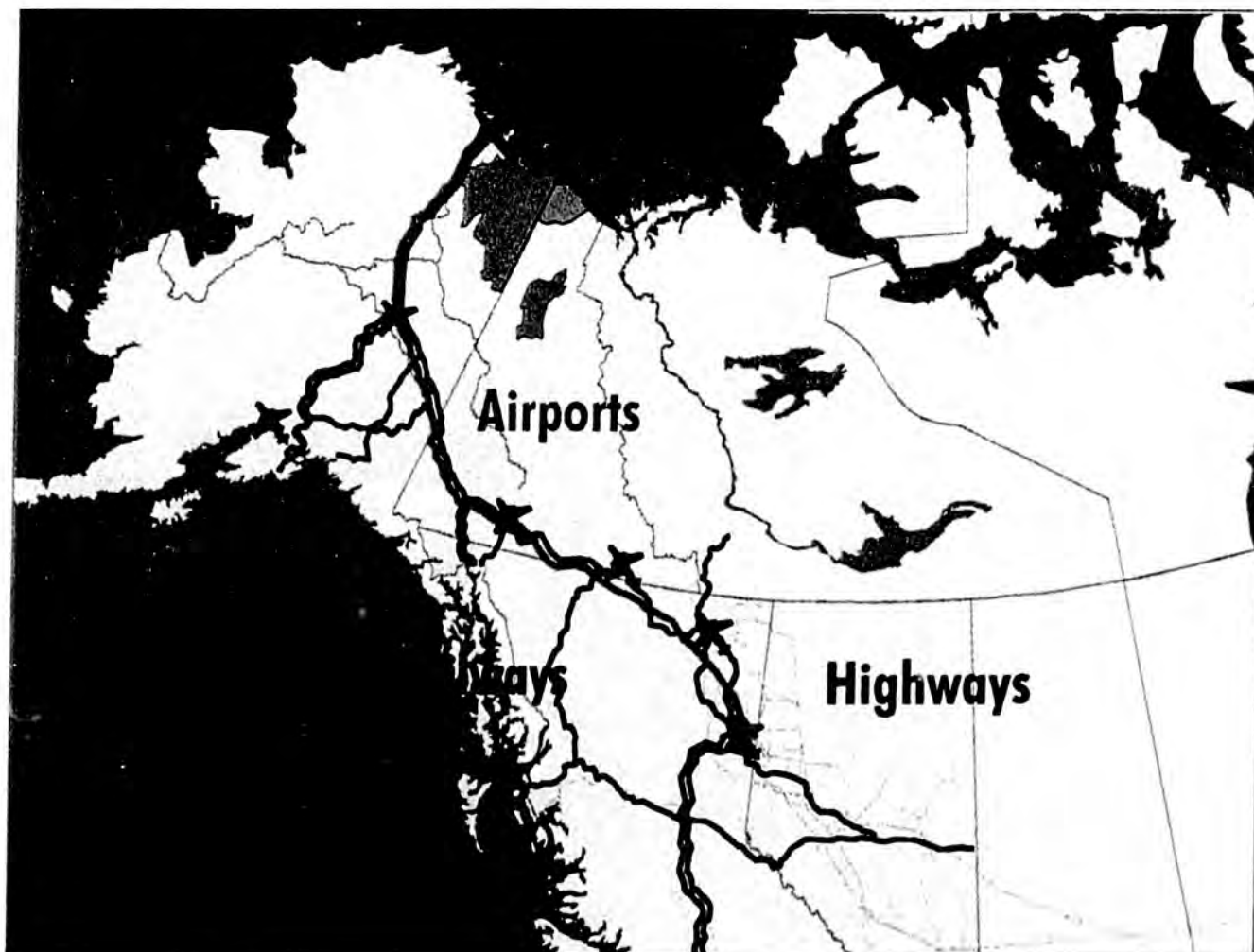
- If we can bring these two projects together it would shave the equivalent of several hundred million dollars off the cost of the stand-alone projects significantly improving the competitiveness of both.
- That about does it for the Alaska part of our trip down the Alaska Highway pipeline route.
- I've concentrated on the Alaskan challenges because fewer people have had an opportunity to see that part of world. As you've seen, it isn't as difficult as many have imagined. The other half of the pipeline will be built through the Yukon and British Columbia.





THE ACCESSIBLE ARCTIC - TAPPING ALASKA GAS

- This region has its own challenges. But they are familiar challenges. The industry faces them every day in northern Alberta, north eastern B.C., Yukon and the Northwest Territories.
- I'd like to turn now to the third item that I indicated I would address today and that is why is the Alaska Highway Pipeline the most competitive option?
- First, Alaska gas is ready for market. As we have seen there is a massive and proven reserve on the North Slope. The majority of the field development costs have already been incurred. Other projects face as much as \$1.00 per thousand cubic feet in field development costs.
- Secondly, this project follows an existing and well-developed transportation corridor.





THE ACCESSIBLE ARCTIC - TAPPING ALASKA GAS

- As you've seen, there is a major highway along 100% of the length of the pipeline. Not to mention the numerous other highways that will give us access from various seaports.
- There is railway access into central Alaska as well as to Fort St. John and Fort Nelson at the southern end of the route.
- There are numerous major airports along the route.
- All of this means the Alaska Highway Project will be significantly less costly and more environmentally acceptable than a project in undeveloped wilderness
- Also the Alaska Highway Project has a significant head start. Certificates of Public Convenience and Necessity have been issued in both Canada and the United States. Wetlands permits for both the pipeline and the gas conditioning facility have been issued in Alaska. Final environmental impact assessments have been completed. Most of the field data needed for design has been collected and approximately half the right of way has been acquired.
- Clearly this project is well down the path and can be completed at least three years ahead of any greenfield project.
- Lastly, this project enjoys significant support from the people and governments along its route. It will provide the major northern population centres with employment, access to an alternative energy source and the potential for further industrial development.
- Some twenty years ago the National Energy Board, the Federal Energy Regulatory Commission, the Government of Canada, the President and Congress of the United States all selected the Alaska Highway route as the best one to move Alaska gas to the lower 48 states.



THE ACCESSIBLE ARCTIC - TAPPING ALASKA GAS

- It was the right decision then. It is the right decision now.
- We can move Alaska Gas to market at a competitive price.
- We can move it in a more timely manner.
- We can move it with the least environmental disturbance.
- We can do this with the greatest benefit to those living in the area.



Foothills Pipe Lines



CORPORATE HIGHLIGHTS

Foothills is a major Canadian natural gas transportation company exporting natural gas to the United States. In 1998, Foothills transported 938 Bcf or over one-third of all Canadian natural gas exported to the U.S. Load factors on Foothills' system averaged 99% over the year.

Alaska North Slope Project

► In August 1998, Foothills joined four other sponsors to develop a project that will move a portion of Alaska's North Slope natural gas reserves to Asian markets in the form of liquified natural gas. Foothills has a 22% interest in the undertaking and, along with the other sponsors, will spend over \$100 million during the first phase of the project. Other participating companies include Arco Alaska Inc. (37%), Marubeni Corp. (17%), Phillips Petroleum Company (12%) and CSX Corp. (12%). The multibillion dollar undertaking envisaged by the sponsors will involve the construction and operation of gas conditioning facilities on Alaska's North Slope, an 800 mile long high pressure pipeline to Valdez or Cook Inlet, a gas liquifaction facility, a marine terminal and the commissioning of marine tankers. The first phase will be completed over four years and will focus on defining costs and minimizing economic uncertainty. Engineering, regulatory and commercial issues will also be addressed as well as supply and market.

Eastern Leg Expansion

► Foothills completed an expansion of its pipeline system in 1998 and began flowing gas through the new facilities in December. The Eastern Leg Expansion was the largest single addition to the Foothills system to date and increased capacity to markets in the U.S. Midwest by approximately 700 MMcfd. The expansion saw the installation of 113 km of 42" pipe, a replacement 38,000 hp turbine and compressor at the Piapot Compressor Station, a new 13,000 hp recompressor at the Empress De/Re Facility and cooler additions at three of the four compressor stations in Saskatchewan. Total cost of the expansion was \$179 million. The added pipeline capacity is providing an outlet for Alberta gas to new markets and has helped to restore the pricing equilibrium between the U.S. Midwest and Alberta for Canadian producers.

Y2K

► Foothills is proactively addressing the Y2K issue. Initial work began in the mid 1990's. The Y2K compliance program was developed over the last year and a multidisciplinary staff committee was given the task of implementing the program. A consulting firm specializing in Y2K issues has provided assistance in completing an inventory and compliance check of Foothills operating equipment. The inventory allowed identification of critical systems and potential risks which are being addressed through mitigation and contingency plans. Purchasing procedures have been modified to increase Y2K compliance and a "Clean Management" policy has been adopted. A major issue was identified with the corporate financial system and as a result that system has been replaced. It is Foothills intent to provide continuous, safe and reliable service into the new millennium.

Climate Change

► Negotiation of the Kyoto Accord on Climate Change in November 1998 further signalled the increasing importance of reducing greenhouse gas emissions from energy production and use. Dealing with the accord will require innovation throughout the energy industry over the coming decades. Foothills has actively engaged in the climate change debate and became a participant in the Voluntary Climate Change Challenge in 1994. The voluntary action plan adopted by Foothills was among several from the pipeline industry receiving top marks from the Pembina Institute for Appropriate Development. Foothills' goal is to maintain a prudent approach that considers customer needs for an efficient and competitive means to move clean burning natural gas to markets where it can be used as an alternative to more polluting hydrocarbon fuels.



THROUGHPUT SUMMARY

The Canadian natural gas industry has benefited significantly from the development of the Foothills pipeline system. Since the original system went into service in October 1981, a total of 8.6 Tcf of Canadian natural gas has been delivered for export to the United States.

THROUGHPUT AND LOAD FACTORS

► Throughput and load factors for 1997 and 1998 are shown in the following table:

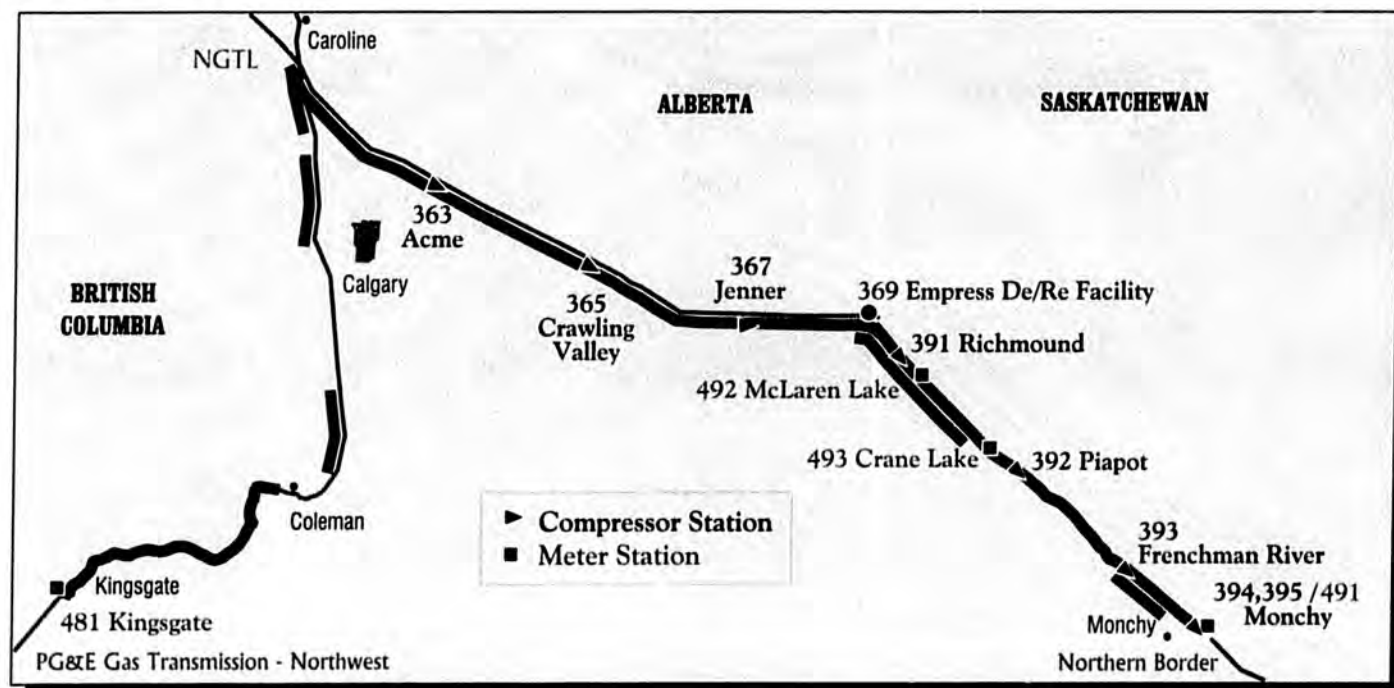
	Eastern Leg		Eastern and Western Leg Combined	
	1997	1998	1997	1998
Throughput (Bcf)	559	554	934	938
Load Factor (%)	102	101	98	99

► Currently the Foothills pipeline system has firm contracted capacity of roughly 3.3 Bcfd. This total is comprised of 2.2 Bcfd on the Eastern Leg serving markets in the U.S. midwest and 1.1 Bcfd on the Western Leg serving markets in California and the Pacific Northwest.



SYSTEM FACTS

FACT SHEET



	Eastern Leg	Western Leg	Total
Length of Pipeline (km / miles)			
Zone 6 (Alta.)	380 / 236		380 / 236
Zone 7 (Alta.)		124 / 77	124 / 77
Zone 8 (South B.C.)		166 / 103	166 / 103
Zone 9 (Sask.)	370 / 231		370 / 231
Total	750 / 467	290 / 180	1,040 / 647
Pipe Diameter (mm / inches)	1067 / 42	1,067 / 42 914 / 36	
Maximum Operating Pressure (kPa / psig)	8,690 / 1,260	6,280 / 911 8,690 / 1,260	
Compression Power (KW / Hp)			
Station 363 (Acme)	26,100 / 35,000 (ISO)		
Station 365 (Crawling Valley)	26,100 / 35,000 (ISO)		
Station 367-1 (Jenner)	21,679 / 29,072 (ISO)		
Station 367-2 (Jenner)	19,800 / 26,542 (ISO)		
Empress De/Re Facility Turbo Expanders	32,775 / 43,950 (ISO)		
Recompressors	27,591 / 37,000 (ISO)		
Station 391 (Richmond)	21,679 / 29,072 (ISO)		
Station 392 (Piapot)	28,340 / 38,000 (ISO)		
Station 393 (Frenchman River)	26,100 / 35,000 (ISO)		
Station 394 (Monchy)	21,679 / 29,072 (ISO)		
Station 395 (Monchy)	26,100 / 35,000 (ISO)		
Total	276,442/370,658 (ISO)		
Firm Export Delivery Capacity (10 ⁶ m ³ /d / MMcfd)	62.3 / 2,190	31.0 / 1,094	93.3 / 3,284



CURRENT TRANSPORTATION SERVICES

1999 ESTIMATED TOLLS

FIRM SERVICE

Firm Service (T-1)

- ▶ T-1 service is available to any customer who has signed a Firm Service Agreement with Foothills.
- ▶ A monthly demand charge (based on contract quantity and distance) is calculated on the actual costs of Foothills.
- ▶ Fuel is provided by individual customers on a volume distance basis.
- ▶ Revenue from interruptible service is credited to the T-1 cost of service.
- ▶ Backward haul service up to a customer's maximum daily receipt quantity is provided at no additional cost under the Firm Service Agreement as long as there is sufficient gas moving forward on the system. Customers are not required to provide fuel for backhaul service.
- ▶ Current estimates of the 1999 unit transportation costs based on zone receipt point quantities (excluding fuel) at 100% load factor are:

Foothills (Alta.)	Cdn.¢/Mcf
Zone 6	
- Caroline to Alta. / Sask. Border	9.0¢
Zone 7	
- Caroline to Alta. / B.C. Border	3.7¢

Foothills (South B.C.)

Zone 8	
- Alta. / B.C. Border to Kingsgate, B.C.	6.7¢

Foothills (Sask.)

Zone 9	
- Alta. / Sask. Border to Monchy, Sask.	7.2¢

- ▶ The Zone 9 toll has been reduced in 1999 as a result of the benefit of the capital cost allowance related to the 1998 Eastern Leg Expansion.
- ▶ Foothills uses an open season process to allocate available and expansion capacity. Any inquiries regarding capacity may be directed to Bob Moore at the address listed below.

Requests should be addressed to:

Bob Moore, Customer Service Representative
Foothills Pipe Lines Ltd.
3100 - 707 Eighth Avenue S.W.
Calgary, Alberta T2P 3W8
Dir: (403) 294-4407 Fax: (403) 294-4174
E-Mail: bob.moore@foothillspipe.com

INTERRUPTIBLE SERVICE IN SASKATCHEWAN

Interruptible Service (IT-1/IT-2)

- ▶ IT service for forward haul and backward haul is available in Saskatchewan (Zone 9) to any customer who has signed an Interruptible Transportation Service Agreement with Foothills.
- ▶ A commodity charge (per Mcf charge) for each of the two tiers of interruptible service is calculated at the T-1 service rate at a 90% load factor (IT-1) and a 100% load factor (IT-2). Tier 1 service has a higher priority than Tier 2.
- ▶ The rates for the two tiers of interruptible service for the period April 1, 1999 to March 31, 2000 are as follows:

	$\$/10^3 m^3/100 km$	McNeill to Monchy
Tier 1 (IT-1)	1.098	8.1¢/Mcf
Tier 2 (IT-2)	0.988	7.2¢/Mcf

Requests for Interruptible Capacity

- ▶ To request service, please make a request in writing including the following:
 1. Name, address and authorized representative of the company requesting service.
 2. Desired Maximum Daily Receipt Quantity.
 3. Term of service requested including commencement and termination dates.
 4. The proposed receipt and delivery points. In the case of service through Saskatchewan, this is McNeill (Alberta / Saskatchewan Border) and Monchy, respectively.



Phil Cochrane, Senior Supervisor, Customer Service & Regulatory Affairs
Foothills Pipe Lines Ltd.
3100 - 707 Eighth Avenue S.W.
Calgary, Alberta T2P 3W8
Dir: (403) 294-4495 Fax: (403) 294-4174
E-Mail: philip.cochrane@foothillspipe.com

BACKGROUND

Foothills sponsors have been active in the development of northern pipelines dating back to the late 1960's when the first large discoveries of natural gas were made near Prudhoe Bay, Alaska and subsequently in the Canadian Mackenzie Delta/Beaufort Sea Region. Foothills was formed as a joint venture to advance the development of northern pipeline systems on behalf of its shareholders, NOVA (now TransCanada PipeLines Limited) and Westcoast Energy Inc.

1976

- In 1976, Foothills and its American partner (Northwest Alaskan Pipeline Company) jointly proposed the Alaska Natural Gas Transportation System (ANGTS) to transport Alaskan natural gas from Prudhoe Bay through Alaska and Canada for markets in the lower 48 United States. Two other competing projects were also advanced at that time; a liquefied natural gas (LNG) tanker project and a project crossing the environmentally sensitive Alaskan North Slope.
- The Alaska Natural Gas Transportation Act (ANGTA) was passed in 1976, establishing a procedural framework to permit the President and Congress to make a final decision on a transportation system for Alaskan reserves.

1977

- In 1977, after extensive public hearings in both Canada and the United States, Canada's National Energy Board (NEB) and the United States Federal Power Commission (FPC) [predecessor to the Federal Energy Regulatory Commission (FERC)] chose the ANGTS as the most economic and environmentally sound means to deliver Alaskan reserves to market.
- In the same year, the President approved the ANGTS, which was ratified by Congress and an "Agreement on Principles Applicable to a Northern Pipeline" was then signed and ratified by Canada and the United States, approving the ANGTS routing. In 1977 the FPC also granted conditional certificates to the ANGTS sponsors in the United States.

1978

- Following the Agreement, the Canadian Parliament in 1978 enacted the Northern Pipeline Act which granted certificates to Foothills for the construction of the ANGTS in Canada and established the Northern Pipeline Agency to oversee design and construction of the Canadian portion of the project.

1979

- The opportunity to access Canadian Mackenzie Delta/ Beaufort Sea reserves prompted the Government of Canada and Foothills to enter into two Agreements. The first, the Dempster Link Agreement, required Foothills to file an application for approval to construct the Dempster Lateral and the second, the Natural Gas Throughput Agreement, required Foothills to provide for transportation of these reserves on the ANGTS. In June 1979, Foothills filed the necessary application to meet its obligation. In 1990, the Dempster Link Agreement was extended to April, 2000.

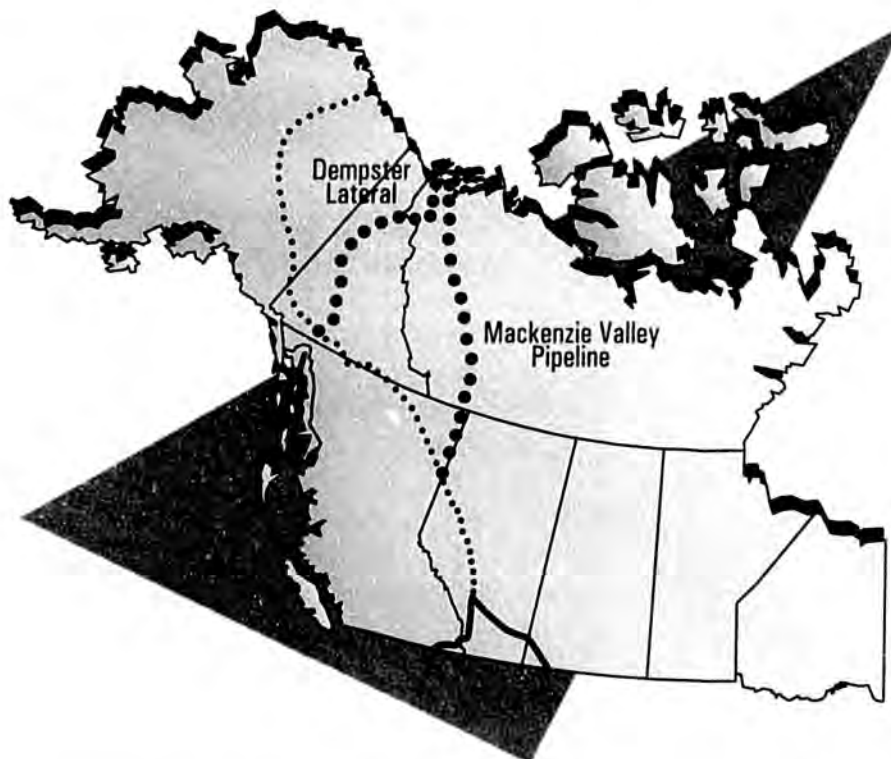
1980

- In both the NEB Decision (1977) and the President's decision (1977), the concept of prebuilding the southern portions of the ANGTS was identified as a benefit of the project.
- This would provide U.S. consumers with the opportunity to obtain additional surplus Canadian gas in advance of Alaskan gas. United States Presidential and Congressional assurances and support for the expeditious completion of ANGTS enabled the approval of the Prebuild in Canada.
- The Prebuild was designed to include a Western Leg transporting Canadian gas to markets in California and the Pacific Northwest, and an Eastern Leg to primarily serve the U.S. Midwest market.
- In the early 1980's, transportation contracts were put in place for 240 MMcfd (Pan-Alberta Gas Ltd.) on the Western Leg and 975 MMcfd (800 MMcfd - Pan-Alberta Gas Ltd., 100 MMcfd - Consolidated Natural Gas Company and 75 MMcfd - ProGas Limited) on the Eastern Leg, following which construction began in Canada and the United States.

NORTHERN PIPELINE PROJECTS

ANGTS

- ▶ The ANGTS will be the largest pipeline project in North America encompassing nearly 4,800 miles of large diameter pipeline in Canada and the United States. The route for the pipeline through Canada and the United States is depicted on the left.
- ▶ The ANGTS offers a safe, reliable and environmentally sound means to transport an initial 2.3 Bcfd of Alaskan gas, with provision for an additional 1.2 Bcfd of Canadian Mackenzie Delta/Beaufort Sea gas reserves via the proposed Dempster Lateral.
- ▶ In 1988, as part of their ongoing efforts to reduce the cost of transporting natural gas via ANGTS, Foothills and its U.S. partner undertook a complete reassessment of the design, capital costs, and related cost of service for the project based upon advances in pipeline technology, knowledge gained from full scale testing and changes in the economic environment. The result was a 45% reduction from the original 1982 estimate.
- ▶ Foothills continues to investigate alternative means to achieve further cost, design and operating efficiencies for the project.



Dempster Lateral Pipeline Project

- ▶ The Dempster Lateral Pipeline Project would connect 1.2 Bcfd of Canadian Mackenzie Delta/Beaufort Sea area reserves through a pipeline system that follows closely the existing Dempster and Klondike Highways to an interconnection with the ANGTS near Whitehorse, Yukon.
- ▶ The Dempster Lateral Pipeline Project assumes the ANGTS is in place.

Mackenzie Valley Pipeline Project

- ▶ The Mackenzie Valley Pipeline Project generally follows the Mackenzie River Valley to Fort Simpson, N.W.T. then south to Boundary Lake on the Alberta/B.C. Border where it would connect with an extension of the existing Prebuild System. The project was designed to transport an initial volume of 1.2 Bcfd from the Mackenzie Delta/Beaufort Sea area.

NORTHERN PIPELINE PROJECTS

Since its inception in the mid 1970's, Foothills has had extensive involvement in Canada's north. Several full scale test sites were established to provide information toward the cost-effective construction of a safe, reliable northern pipeline while minimizing environmental impacts. Foothills has also worked closely over the years with the people and the communities of the North to assist in the provision of sustainable development in northern regions, to minimize socio-economic impacts, and to provide benefits to northern residents.

Today, Foothills holds certificates in Canada for the construction and operation of the Alaska Natural Gas Transportation System (ANGTS) and has applications before the National Energy Board for both the Dempster Lateral Project and the Mackenzie Valley Pipeline Project. In 1998, Foothills embarked on a feasibility study for delivery of Alaskan gas reserves by LNG to Asian markets.



Alaska North Slope (ANS)

► In 1998, Foothills along with four other sponsors embarked on a joint venture to explore and develop a viable project for the delivery of liquefied natural gas from reserves on the North Slope of Alaska to markets in Asia. The natural gas from these frontier reserves would be shipped by pipeline across Alaska to the southern coast, liquefied and delivered to market via tankers. Foothills involvement in this project will provide valuable experience and ultimately reduce costs on Foothills' other northern development projects.

PREBUILD

Phase I of the Alaska Natural Gas Transportation System was constructed by Foothills Pipe Lines following regulatory and legislative approvals in both Canada and the United States. Phase I, or the Prebuild as it has been known, was developed to deliver Canadian natural gas to the lower 48 states in advance of the flow of northern reserves. The Prebuild has been expanded on several occasions and Foothills has been responsive to changes in natural gas regulation and customer needs.

Western Leg

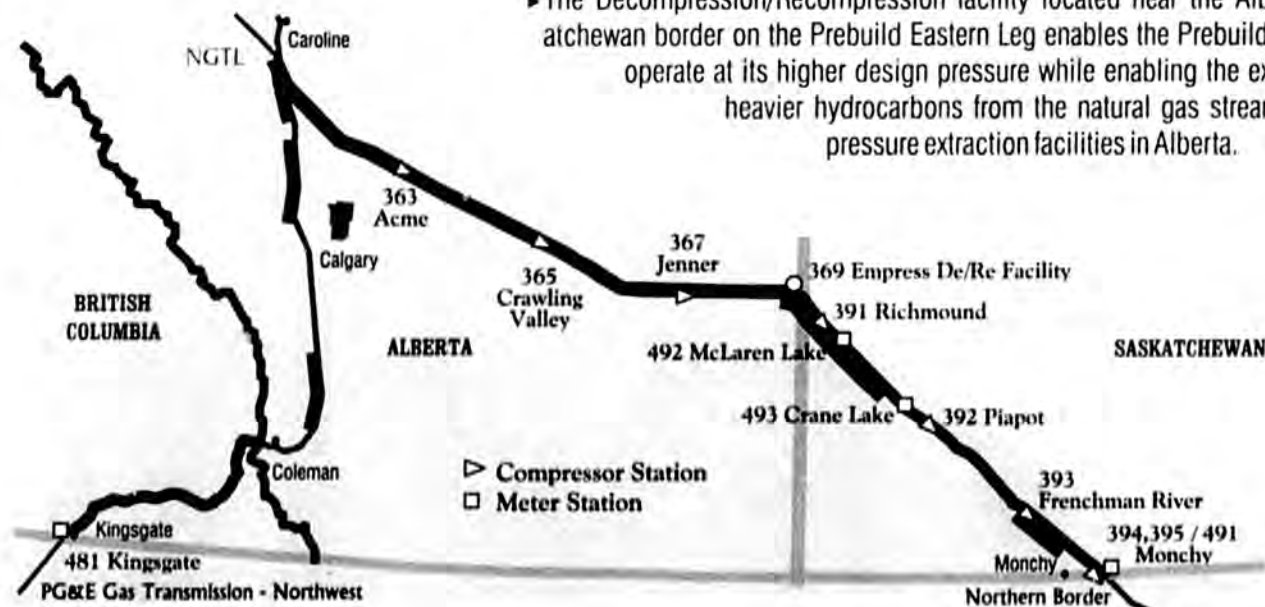
► The Western Leg in Canada consists of 180 miles of 36" and 42" O.D. - 911/1260 psig pipeline. The Western Leg is located south of Caroline along the foothills of the Rocky Mountains, through the Crowsnest Pass to Kingsgate, B.C. where it connects with PG&E Gas Transmission-Northwest. The natural gas transported through this segment of the Prebuild is ultimately delivered to California and the Pacific Northwest. The Western Leg began operation on October 1, 1981. Capacity on the Western Leg is currently 1,094 MMcfd.

Eastern Leg

► The Eastern Leg in Canada consists of 466 miles of 42" O.D. - 1260 psig pipeline and associated compression facilities. Commencing at Caroline, the pipeline traverses in a southeasterly direction across Alberta, and through southwestern Saskatchewan to Monchy, Saskatchewan where it interconnects with Northern Border Pipeline Company. The natural gas is delivered primarily to U.S. Midwest markets. The Eastern Leg began operation September 1, 1982. In addition to firm transportation, an interruptible service is offered on the Saskatchewan section of the Eastern Leg. Capacity on the Eastern Leg has increased since its inception to approximately 2.2 Bcfd.

Other Facts

- The system's current total firm contract export delivery capacity of almost 3.3 Bcfd has more than tripled since the system went into service.
- The Canadian portion of the Prebuild system currently consists of 647 miles of 36" and 42" pipeline, seven compressor stations, four meter stations and a Decompression/Recompression facility.
- The Decompression/Recompression facility located near the Alberta/Saskatchewan border on the Prebuild Eastern Leg enables the Prebuild system to operate at its higher design pressure while enabling the extraction of heavier hydrocarbons from the natural gas stream at lower pressure extraction facilities in Alberta.



BACKGROUND

1981/82

- The Prebuild Western and Eastern Legs were placed in service in 1981 and 1982 respectively. The installation of these pipeline facilities was the result of an investment of approximately \$Cdn. 2.5 billion in Canada including transmission, gathering and production facilities. The Prebuild system has provided and continues to provide substantial benefits to Canada and the U.S. that otherwise would not have been realized.



1988

- In 1988, renewed interest in the Canadian Mackenzie Delta/Beaufort Sea reserves raised the possibility that these reserves could move to market in advance of Alaskan north slope reserves. Consistent with Foothills' commitment to transport both Alaskan and Mackenzie Delta natural gas reserves to market, the Company filed an application for approval to construct a pipeline system to transport Mackenzie Delta/Beaufort Sea reserves to market. The Mackenzie Valley Pipeline was developed as an alternative to the Dempster Lateral.
- The decision as to which project proceeds first is dependent upon whether Alaskan North Slope or Canadian Delta gas is marketed first. Both the Dempster Lateral Project and the Mackenzie Valley Pipeline Project applications remain before the NEB.

1990

- In 1990, Foothills acquired an interest in the Alaska segment of the ANGTS demonstrating its further commitment to the delivery of northern gas reserves.
- The addition of De/Re Facilities at the Alberta/Saskatchewan border enabled Foothills (Alta.) system to be segregated from NOVA Gas Transmission facilities and operate at a higher pressure consistent with its original design. The facilities were located adjacent to the Empress Extraction Plants and maintained the ability to strip the gas of its heavier hydrocarbons prior to exiting Alberta.
- A new compressor station was added near the Frenchman River in Saskatchewan to act as a security station in the event of an outage at the Monchy Station located at the Canada/U.S. border.

1991

- In 1991, Foothills along with three major Delta producers and two other pipeline companies formed a joint venture to examine the viability of a common pipeline project to connect northern Canadian natural gas reserves.

1992

- Minor modifications to the Monchy Compressor Station on the Saskatchewan segment increased firm capacity to 1500 MMcfd.

1992 CONTINUED

- Foothills also added two new compressor stations in Alberta located near Acme and Crawling Valley and modified the existing station near Jenner to meet the increased capacity requirements on the Alberta section. The additions and modifications were completed for service by November 1992 and added 577 MMcfd of additional capacity in Alberta.
- Foothills added a second stage to its De/Re Facilities to increase capacity to accommodate the new expansion volumes.

1993

- Foothills received a request to increase capacity on the Western Leg of its system by 854 MMcfd. To accommodate this request, Foothills constructed four sections of new pipeline virtually completing the pipeline in South B.C. The facilities were completed for a November, 1993 in-service.

1994

- The high system load factors and potential significant throughput losses associated with an unscheduled outage at Monchy dictated the need for a second compressor unit at that station. The new unit was completed and ready for service in September of 1994.

1998

- Based on new capacity requests totalling 700 MMcfd, Foothills made major additions to its Saskatchewan and Alberta facilities on the Eastern Leg. A third phase was added to the De/Re Facility, 113 km of 42" pipeline looping to the existing system was constructed, a new larger horsepower compressor and turbine unit replaced the existing unit at Piapot and other modifications to existing Saskatchewan compressor stations were completed. The facilities were placed into service in the last quarter of 1998.
- Foothills embarked on a feasibility study for delivery of Alaskan stranded natural gas reserves by LNG to Asia Pacific markets.