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ALASKA AND BP - A SHARED FUTURE

Testimony of BP Exploration (Alaska) Inc. to the House Special Oil & Gas Committee

By Brian E. Davies
Vice President

March 20, 1992

Mr. Chairman, Members of the Committee. Good afternoon. My name is Brian Davies and I am Vice President for Endicott and Development Projects for BP Exploration (Alaska) Inc. My testimony today will share with you some thoughts about the outlook for Alaska as BP sees it, and our plans to remain a major player in Alaska.

In the process, I hope to debunk thoroughly a number of rumors about BP that have persisted for some time -- rumors, for example, that we are turning over our operatorship at Prudhoe Bay to ARCO, that BP is shifting emphasis from Alaska to new areas overseas such as Colombia, even that BP is leaving Alaska and has quietly put its Alaskan assets up for sale. None of these rumors is true. Indeed, they could hardly be more mistaken about our intentions. As you will see, the strongest and best demonstrations of BP's continuing Alaskan commitment have been misconstrued as evidence of an intent to abandon this state.

Let me begin by reminding everyone that BP has been and remains the largest investor in Alaska by far. We own, and have paid for, just over half of the investment in the main oil reservoir at Prudhoe Bay -- which is not only the largest oil field in North America, but also required the greatest investment to develop. We own, and have paid for, more than half of the investment in Endicott. We own, and have paid for, half of the investment in the Trans Alaska Pipeline System. We own, and have paid for, approximately 40% of the investment in the Kuparuk River field, currently the second largest oil producer in the United States. We have assembled the greatest fleet of Jones Act ships in history to transport our Alaskan oil. But unlike our partners on the North Slope, we are barred by the Jones Act from owning any of these ships.

Here is a table showing how much money BP has spent for Alaskan projects during the last decade.

Year	BP's Alaskan Spending	Alaska Royalty and Taxes Paid
1982	3.1	1.7
1983	1.9	1.4
1984	1.9	1.5
1985	1.8	1.6
1986	1.5	0.7
1987	1.1	1.1
1988	1.1	0.9
1989	1.4	1.1
1990	1.5	1.8
1991	1.5	1.2
Total	16.8	13.0

Figure 1. BP's Historic Spending on Alaskan Projects ($ billions)

As you see, in the past ten years BP **alone** has spent some $16.8 billion -- an average of nearly one and a half billion dollars a year. These expenditures have enabled BP to become and remain the largest producer of oil in Alaska. They have also made us the State's largest taxpayer -- a distinction we did not actively seek, but one which we acknowledge and accept. The table shows that we have paid some $13 billion in Alaskan taxes and royalties since 1982.

Today our commitment to Alaska remains as strong as ever. This year BP again plans to spend on the order of one and a half billion dollars in developing and operating our Alaskan assets. To those who fear BP may forsake Alaska in favor of Colombia, let me put this into perspective: Our planned spending on Alaska is over **seven times** what we plan to spend on Colombia this year. And we have committed ourselves to the GHX2 gas handling project for Prudhoe Bay -- a one and a half billion dollar investment, of which we are paying half. Clearly we would not continue investing heavily in Alaska if it were not important to us. The sheer size of our ongoing investment is proof of just **how** important it is.

Well, so much for the past and the present. What about the future? How does Alaska figure in BP's longer term plans?

The short answer is, Alaska figures very large indeed.

As some of you may already know, for several years BP has been actively divesting a number of its oil and gas interests that do not fit within our strategic, long-range plans. Our purpose is to focus on those assets that are truly "core" assets for our future business. We have, for example, sold our interests in onshore properties in the Lower 48 principally because they were too small and too numerous and tended to distract us from effectively managing our major properties. BP's Alaskan interests are definitely part of our "core" both because of their present size and because of their potential for the future.

Let me briefly explain why Alaska is part of BP's "core" portfolio. For those of us in the "upstream," or exploration and production side of BP's business, the challenge is not only to produce the reserves we already have, but we must also look continually to find new reserves to replace what we are producing.

To clarify my point I will use the term "**resource**" to mean the total amount of oil or gas that is in place, without regard to how much of it might ever be recovered. In contrast, I will use the term "**reserves**" to mean that portion of the resource in place which we believe can ultimately be produced using existing technology and under reasonable economic conditions.

In the case of Prudhoe Bay, for example, the amount of oil originally in place in the ground was some 22 billion barrels. Of this, some 9.6 billion barrels were seen as being recoverable when the field began producing. In other words, the oil **resource** was 22 billion barrels and the **reserves** in 1977 were 9.6 billion barrels. Since then some 8 billion barrels of oil have been produced, leaving a remaining **resource** of 14 billion barrels -- 22 billion originally in place minus the 8 billion that have come out. Similarly, the remaining **reserves** of the field would be 1.6 billion -- 9.6 billion minus the 8 billion already produced.

But the remaining reserves at Prudhoe Bay are much greater than 1.6 billion barrels. What has happened is, we and our partners in the Prudhoe Bay field have been able to convert more of the **resource** into **reserves**. Instead of 9.6 billion barrels of recovery, we have managed and developed the reservoir in such a way that we now see technologically feasible ways of recovering 12 billion barrels or more, assuming economic conditions remain reasonable. In other words, some 2.4 billion barrels of oil have been converted from mere **resource** into **reserves** since 1977. And consequently the remaining reserves are not 1.6 billion barrels, but a whopping 4 billion barrels -- which still makes Prudhoe Bay the largest oil field in the United States even after 15 years of production.

Here is a table that summarizes the arithmetic I have just gone through.

	Resource	**Reserves**
Estimated as of 1977	22	9.6
Additional Reserves from Resource		2.4
		12.0
1977-91 Production	8	8.0
Remaining as of 1992	14	4.0

Figure 2. Oil Resource and Reserves of Prudhoe Bay

In terms of recoverable **reserves**, the additions to Prudhoe Bay since 1977 are greater than the total oil reserves for Kuparuk, and more than twice as great as the oil reserves of Endicott, Lisburne, Point McIntyre, Niakuk and Milne Point combined. In fact, nowhere else in the world during the past decade has BP been more successful in adding **reserves** of oil to its inventory than on the North Slope.

So now you know where one of BP's major focuses has been in terms of looking for new **reserves**. We have been looking right in our own back yard -- at

the substantial **resources** that have already been discovered -- to try to figure out how we convert even more of the **resource** into recoverable **reserves**. And we will continue these conversion efforts. After all, even with 12 billion barrels of **reserves**, there are still some 10 billion barrels of **resource** there for us to work on. This is why BP views Alaska as part of the "core" for its future business.

Besides exploring for ways to convert **resources** into **reserves**, BP is actively doing conventional exploration work on the Slope as well.

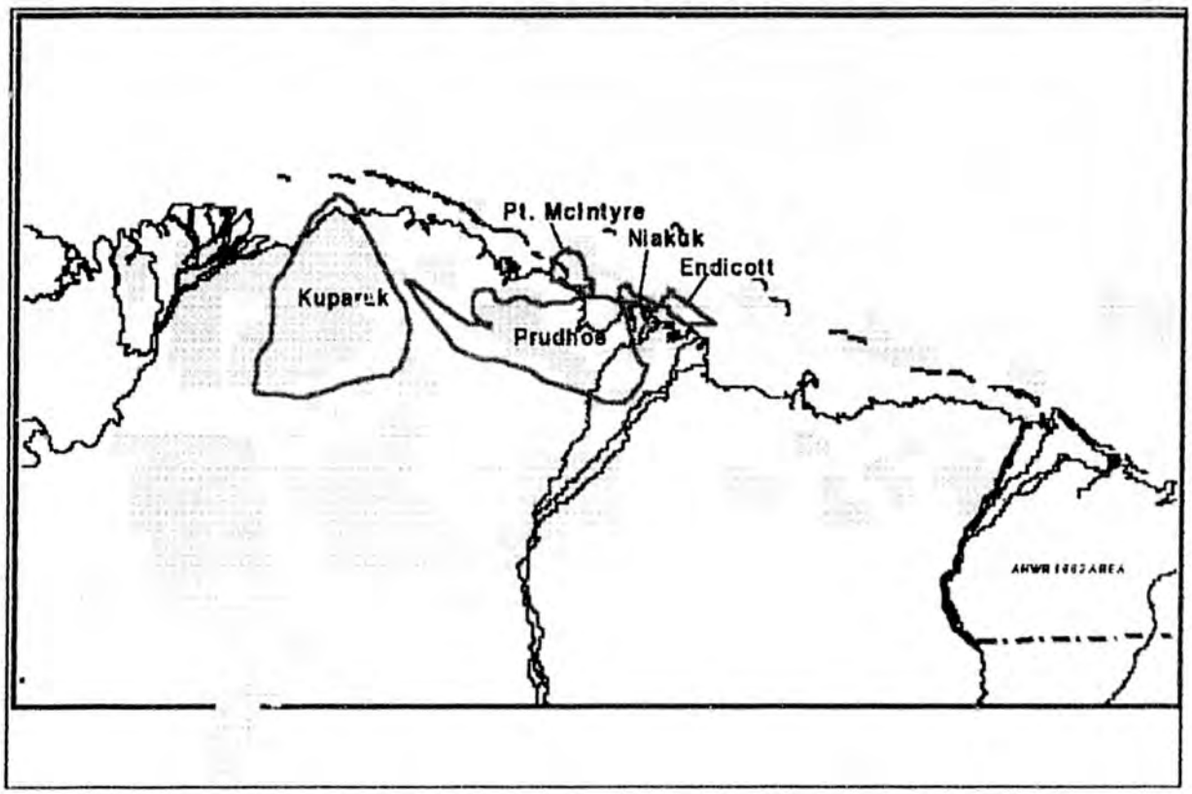

Figure 3. Map of BP's North Slope Leases

Here is a map showing acreage on the North Slope in which BP owns a leasehold interest. Note the land outside the producing limits of the fields currently in production. As you can see, BP's position onshore in the Central North Slope is a dominant one.

Why are we focused there? We are, quite simply, looking for oil that is close to TAPS. Any oil we find there should not only cost less to move to the pipeline, but its nearness to the pipeline should also allow it to come into production much sooner than if it were farther away. In addition, we are looking for oil in and around the edges of the already developed fields. As production from the fields declines, there will be unused capacity in their facilities that could be used for any new oil we may find. Using existing production facilities instead of designing and installing brand new facilities will reduce the costs of producing the new oil, and thus will lower the size of discovery that has to be made in order to be economic.

You may have heard that BP recently decided not to participate in the Kuvlum well in deeper water of the Beaufort Sea, and people in some quarters have taken this as a sign of BP's lack of commitment to Alaska. But let me say here and on the record that BP withdrew from Kuvlum because it does not fit with our strategy and position on the North Slope. As you can see from where we own leases, our focus is overwhelmingly onshore and in shallow waters fairly close to shore. With Endicott we have become the technological leader for small-footprint developments onshore or on an island in shallow waters.

But Kuvlum would be something very different. Even if a major oil discovery were made, Kuvlum is far enough offshore that its development would require solutions to such major problems as moving pack ice, installing production facilities in such seas in more than 100 feet of water, and developing a way to bring the production to shore. We considered becoming the pioneer in advancing the technology that would be needed to overcome these problems, and we found that we would have little further use for the new expertise and knowledge we would gain. We simply don't have other acreage where we could apply that technology. So we decided to let those explore and develop Kuvlum for whom it will be a better fit.

Meanwhile, we will continue to explore those prospects that do fit with our position and strategy. This year alone we plan exploration efforts on our acreage at a likely cost of more than $20 million. The two or three exploratory wells we plan for this year are right in line with the historic rate of exploratory wells in which we participated during the past decade, which averaged 2.4 wells per year.

I would like to talk now about the decline in Prudhoe Bay production, for it is forcing us to take various measures that have led to the greatest misunderstanding about our long term intentions for Alaska.

Prudhoe Bay is in decline. It has been since 1988. More important, it will continue to decline, significantly, over the coming years. And as production declines, so do revenues -- both our revenues and the State's.

Julian Darley, President of BP Exploration (Alaska), described the "new economic order" on the North Slope very clearly last January during an address at the "Meet Alaska '92" forum put on by The Support Industry Alliance.

Here is a simplified illustration of the production and revenues from Prudhoe Bay.

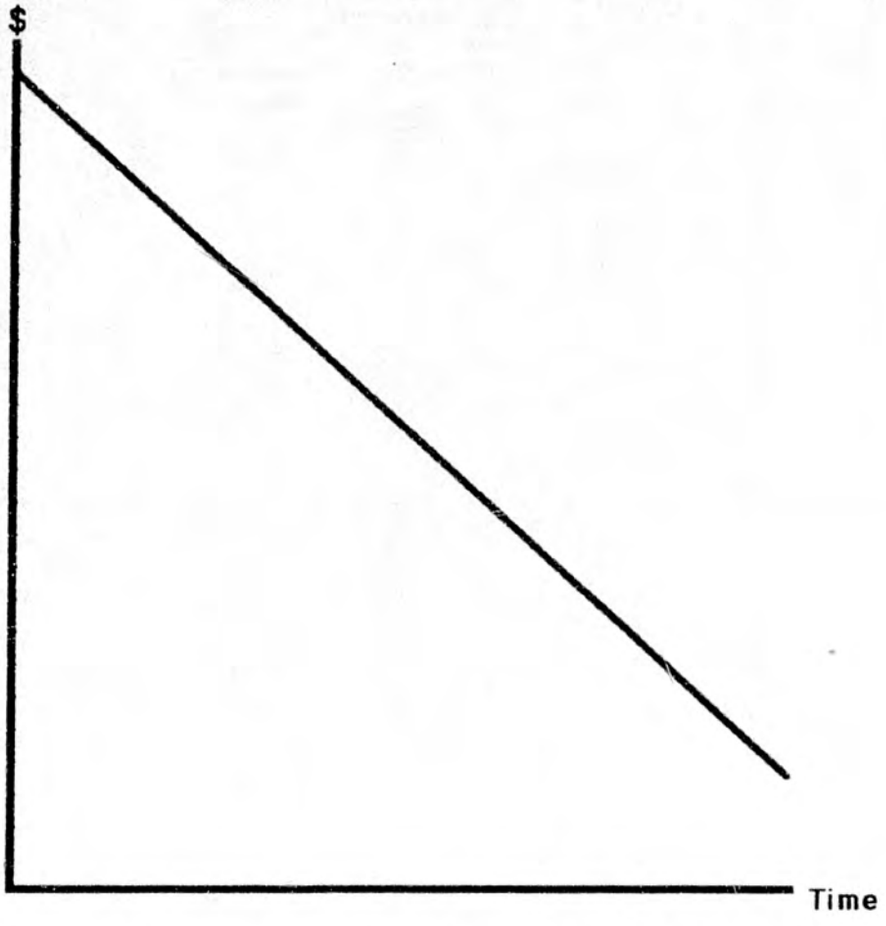

Figure 4. Illustration of Oil Production Decline

This illustrates the fact that oil production is in decline. This is the part of the picture the State sees, since state royalty and production tax revenues depend on the price of oil and the volume being produced.

But there is another side of the economic picture that we, as a working interest owner in the fields, are seeing. This is the cost side of the ledger.

Here is a simplified illustration of the costs of operating the field, based on historic experience.

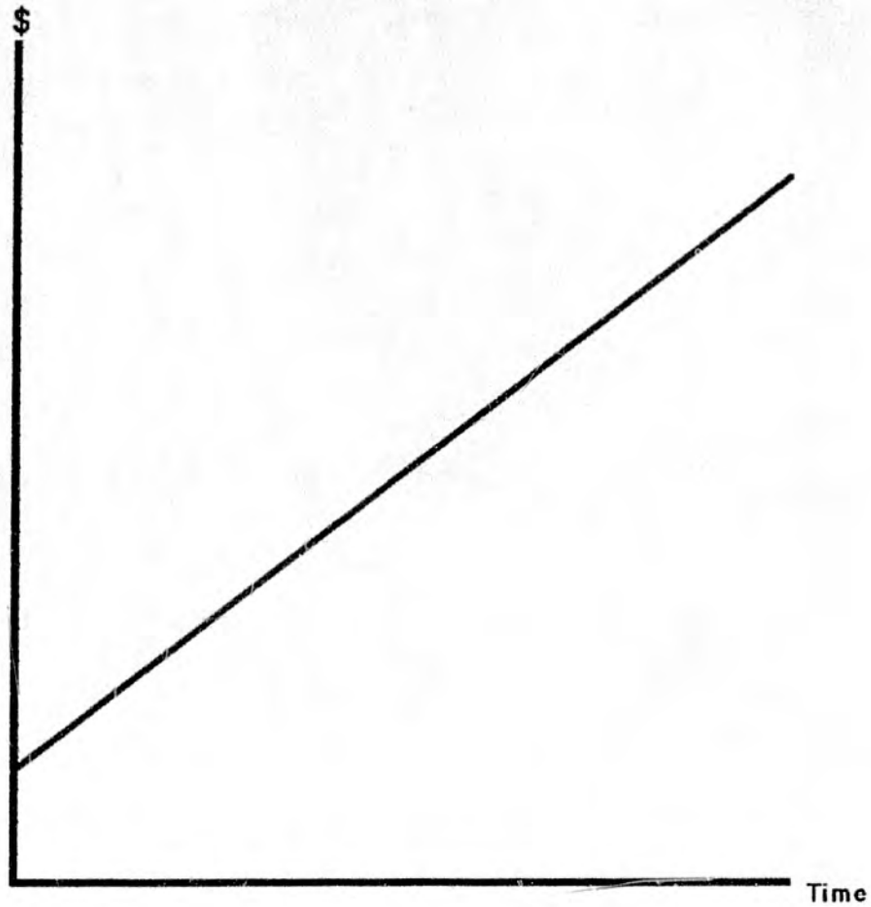

Figure 5. Illustration of Increasing Operating Costs

As this illustration suggests, costs have been rising. And we expect them to continue to rise because the industrial challenge is increasing. Although less oil is being produced, more and more gas and water have to be handled in operating the field.

This side of the economic picture is largely invisible to the State -- particularly in terms of its petroleum revenue -- because the production tax and royalty revenues are based on the so-called "wellhead value" of the oil and are not affected by the costs of producing that oil.

Now here is an illustration of what the complete economic picture looks like when you put the production and the cost trends together.

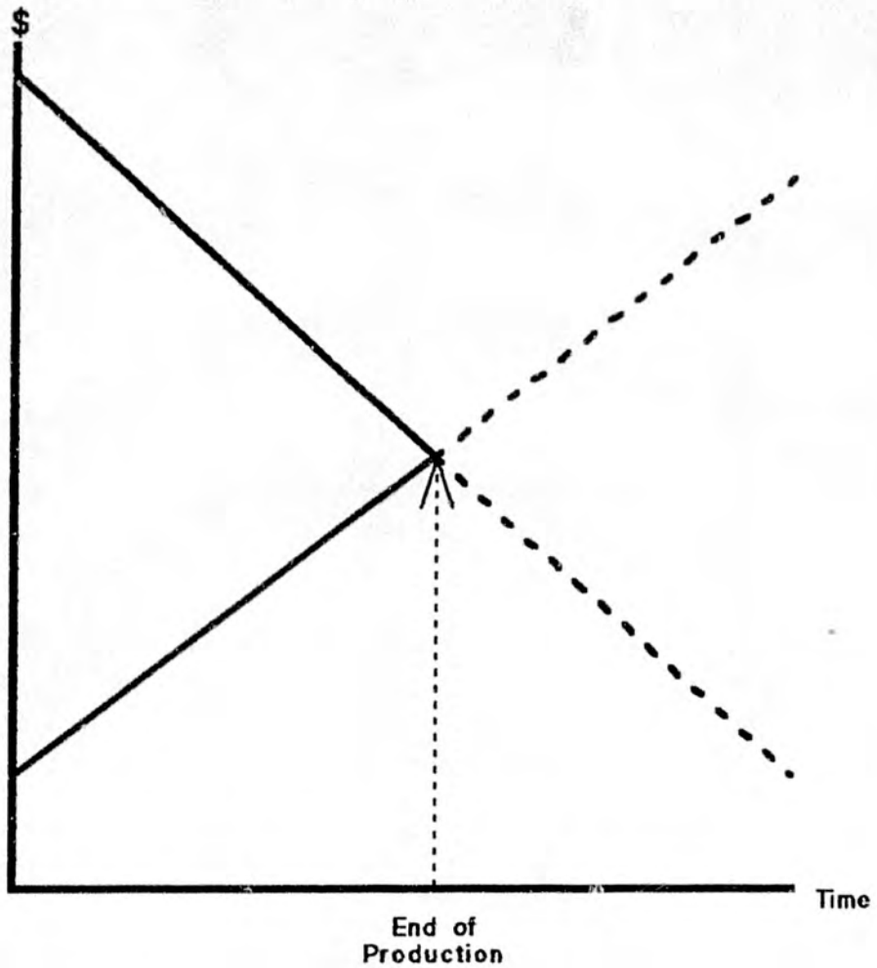

Figure 6. Effect of Rising Costs and Declining Production

Yes, that's right, production stops and the field dies. When the operating costs of production overtake the revenues from that production, it makes no sense to continue operating the field. So it gets shut down. This is what happened with the two platforms in Cook Inlet that have been shut down in the past year. Eventually this is the ultimate destiny of every oil field -- or of any mine or other activity that draws against a depleting, finite resource.

With this prospect staring us in the face at Prudhoe Bay, what can be done about it? One potential solution would be to reverse the downward trend in revenues, as the next slide illustrates.

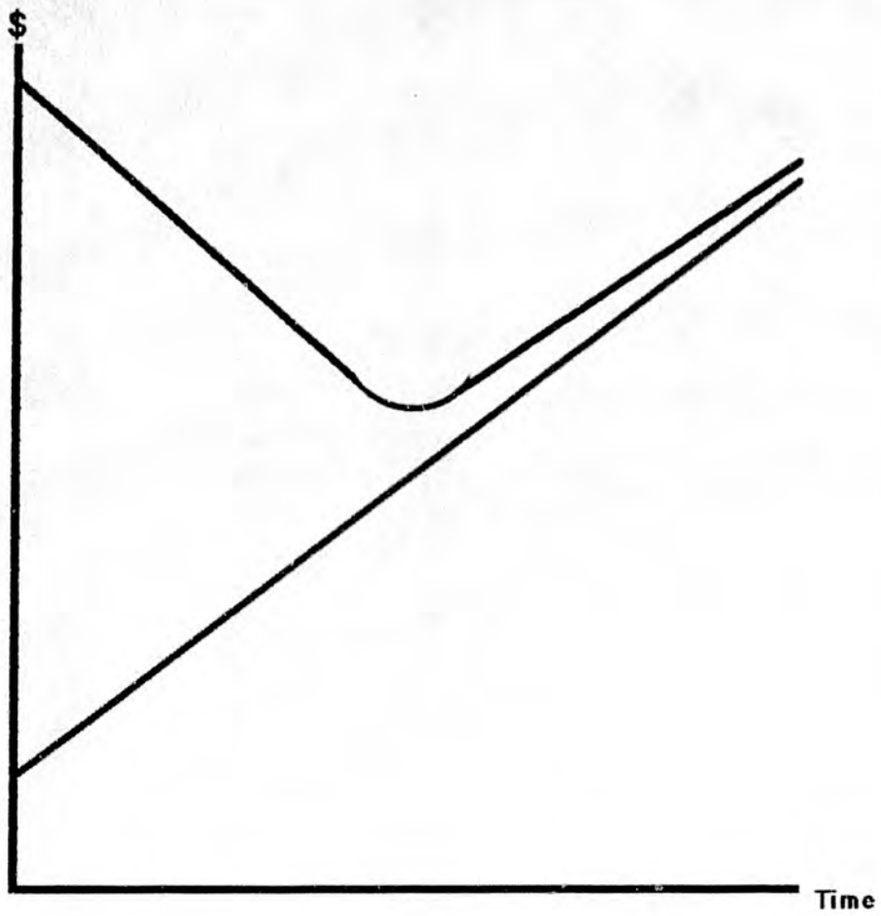

Figure 7. Effect of Reversing the Revenue Decline

But is this solution realistic? What would have to be done to make it come true?

To increase the revenues, there must be either an increase in prices or an increase in production, or an increase in both. There is, of course, one small practical problem with repeatedly raising oil prices enough to put revenues back on an increasing path and keeping them there. That problem is the market. Oil producers have to take the price the market offers, and cannot dictate prices to the market. In the early '80s even OPEC discovered that it could not ignore the laws of the market and raise oil prices indefinitely. Following the massive price increases of the 1970s, oil consumption dropped, and at the same time new supplies of oil were becoming available because OPEC's high prices had made them economic for the first time. In the end these market forces meant that OPEC members could not sell as much oil as they wanted to, and the effectiveness of the cartel finally collapsed in 1986 as the result of competition among its members.

What about increasing revenues by increasing production? Well, almost by definition, the fact that Prudhoe Bay is in decline means that production cannot be

increased. Instead it steadily decreases. But this does not mean there is nothing to be done on the production side of the equation.

For, in fact, we can do things about the **rate** of decline. Even though we can not reverse the decline in production, we can slow it down. And this is what we have been doing. For example, last year's program of well fracking, workovers and other activities to stimulate production from existing wells succeeded in slowing the rate of decline by an average of 126,000 barrels a day from what it otherwise would have been. In addition, because the GHX1 gas handling expansion project was on line during the entire year, total production of hydrocarbon liquids from Prudhoe Bay in 1991 stayed almost exactly even with 1990.

This temporary arrest of the decline in production during 1991 was a tremendous achievement, if we may say so ourselves. But it did not come cheaply. We and the other Prudhoe Bay owners spent over $225 million in 1991 doing frac work and well workovers. The GHX1 project cost $400 million. The point is this -- **slowing down the production decline requires a lot of new investment.**

While it costs a lot to slow down the decline, BP believes there are numerous new investment opportunities that will prove worthwhile. Here is a graph illustrating how the decline in North Slope production can be slowed down by new capital investments.

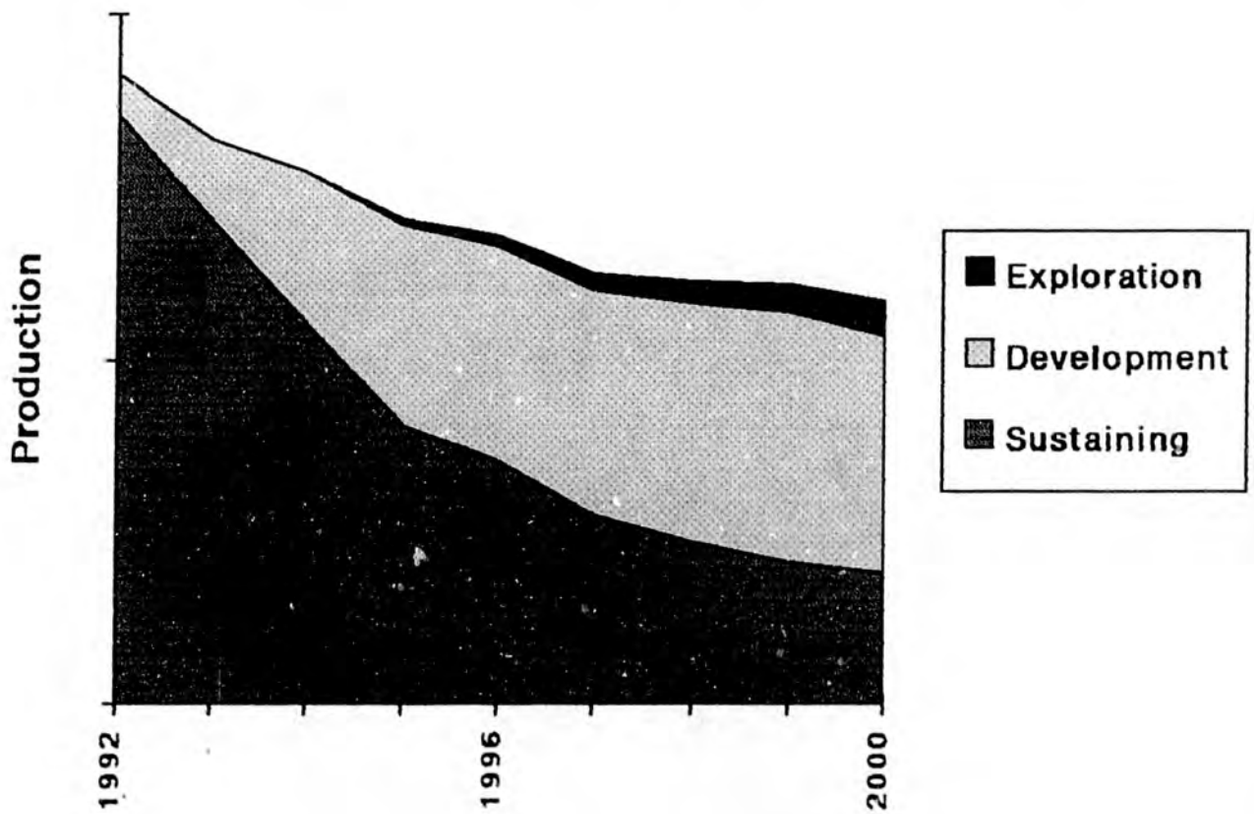

Figure 8. Production Potential from New Investments

The bottom area of the graph represents our production that would come from the existing investments in North Slope fields. We call it the "sustaining" production. It's basically what production would be if for some reason there were no further investments to develop the fields. As you can see, the production drops quite rapidly -- especially in the next few years -- and then it flattens out a bit toward the end of the 1990s although it is still always declining.

The significant layer of production lying immediately above the sustaining production is the additional production that we would get from continuing to make investments to develop the known fields on the Slope. These include drilling more wells at Prudhoe Bay, Lisburne, Endicott and Kuparuk; expanding the enhanced oil recovery, or EOR, operations at Prudhoe Bay and Kuparuk; extending the area of the Prudhoe Bay waterflood project; and developing Point McIntyre and Niakuk. As you can see, the production benefits of continuing these activities are substantial and will grow during the decade. The widening in this layer that you see starting in 1995 reflects the start up of the GHX2 gas handling project for Prudhoe Bay.

But the cost of these potential new investments is tremendous, and our share could total more than $3 billion over the rest of this decade. This would be over and above the more than $10 billion we will be paying in operating costs during the same time.

Finally, at the top of the graph you see a comparatively thin, but steadily widening layer of production beginning in the mid-1990s. This represents an estimate of the additional production we would hope to get from reservoirs yet to be discovered on the Slope. It represents the initial payoff for our exploration efforts. Comparing this layer to the other layers of production above the sustaining level, you can see once again why BP focuses its efforts so much on wringing every possible barrel out of the known **resources**, converting them into **reserves**.

But as you can also see, a substantial portion of the remaining **reserves** will only be produced as the result of substantial new investments. These new investments must stand or fall on their own economic merits. To make no bones about it, BP is a profit-seeking enterprise for our shareholders. We will make these new investments if they are sufficiently attractive.

Here is where Alaska can make a crucial contribution to help us justify making these new investments -- **it can maintain stability in its tax structure**. We did not like the change to the ELF formula in 1989. Not only was the change unnecessary, but the new formula was designed to penalize Prudhoe Bay and Kuparuk. And it does. Still, even under the new formula, we can evaluate the attractiveness of our new investment opportunities. But changing the rules of the game again, particularly if they target Prudhoe Bay and Kuparuk, will destabilize the tax structure and prejudice the major new investments and the resulting production that I have just discussed.

I'm not sure whether you have all had a chance to read the letter to the Finance Committee by David Pritchard of BP, raising a warning flag about the nickel-a-barrel oil tax surcharge. In case you haven't, I am attaching a copy of it to

my written statement to the Committee. I will not repeat his points now, but I urge you to consider his letter carefully.

Stability means more than not changing the tax laws. Since 1977 virtually every aspect of North Slope production and transportation operations which adversely impacted the state's revenue picture has been in litigation. Taxes, royalty and pipeline tariffs. While those of us based in Alaska understand that differences will exist between the State and the producers, this litigation always has high visibility in the board rooms of the producers. Alaska, when compared to other jurisdictions, is much more litigious -- a fact acknowledged two years ago by the Legislature's own international oil consultants. I am suggesting that at this stage of development on the North Slope we must find more rapid and economical ways to resolve our differences. Recently the State and the pipeline companies had a successful experience in alternate dispute resolution in the pipeline corrosion case, and we feel similar alternatives to litigation should be utilized for other disputes in the future.

Specifically with regard to tax administration, it is our experience that the rules of the game have been repeatedly changed as new "interpretations" are applied retroactively years after the fact. These new positions are very different from what was intended when the tax statutes and regulations were written. You would expect that it should at least be possible for us to pay the correct amount of royalties and taxes at the time they are due. But it turns out that some of these novel and unforeseeable interpretations make it impossible even theoretically for us to have paid the "correct" amount when we filed our returns.

Regardless of how or when the disputes over past taxes are resolved, the State needs to establish transparently clear rules about what we should be paying now for our current taxes. Tell us how to figure the right amount to pay, and we will pay it. But don't make us try to guess what someone years from now will think is the right amount. To give us stability, these rules need to be made in such a way that they will be applied consistently both today and in the future.

But I have not come here to complain about how the tax laws are being interpreted and applied, or to complain about seemingly endless litigation. So, let me return to the fundamental economic realities of the decline in North Slope oil production, which I was discussing. What I was saying earlier is that substantial, ongoing new investments in the fields can improve the revenue side of the economic picture by slowing down the rate of decline in production. Here is a graph depicting this.

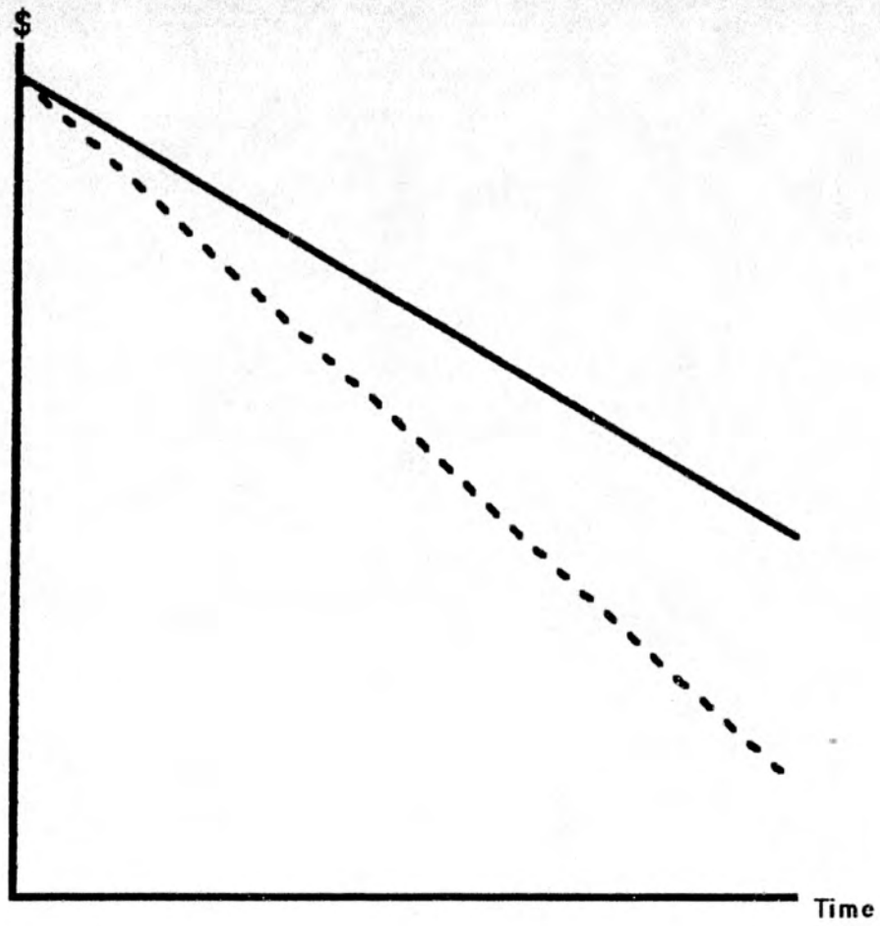

Figure 9. Slowing the Rate of Decline

What the new investments will do is shift the decline in the revenue side of the equation so that it falls off less steeply. But when you look at the cost side as well as the revenue side --

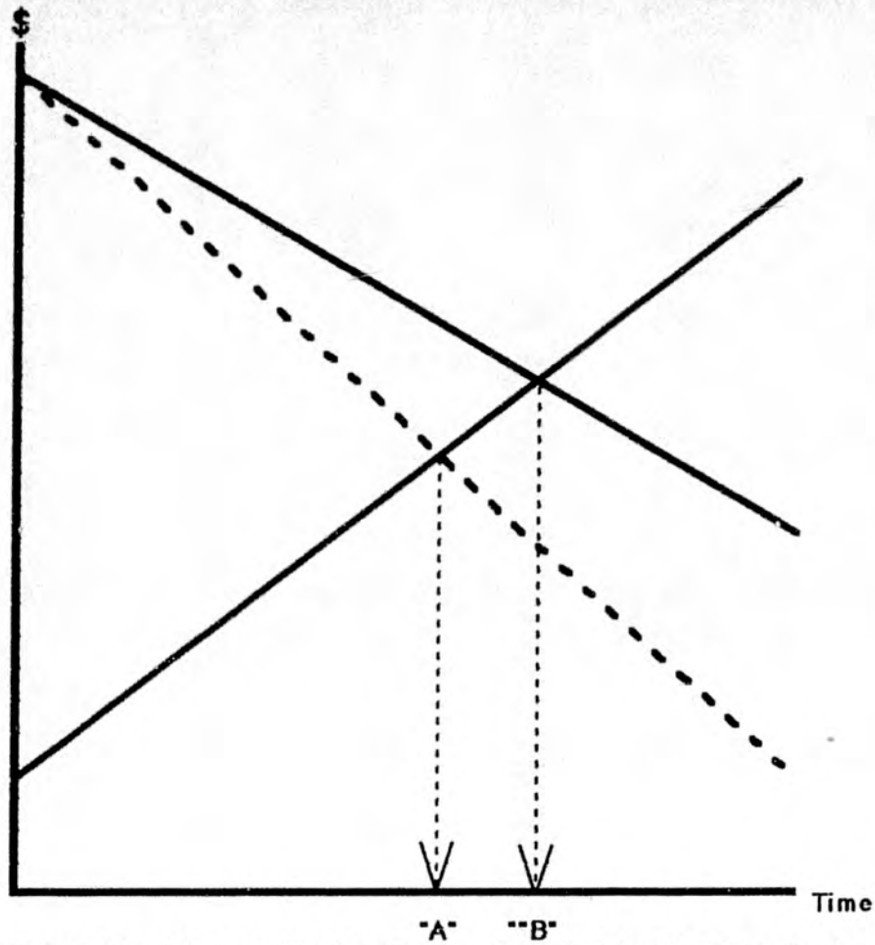

Figure 10. Effect of Slowing Decline for a Field with Rising Costs

you can see that new investments do not solve the problem. They only delay the "day of reckoning" from time "A" to time "B."

This means we have to work on the cost side of the equation as well. As I noted, the historic trend for operating costs has been a steady and continuous increase. Simply to arrest operating costs at their present level would be something of an achievement.

However, the only option that offers any chance of fully realizing the potential of the North Slope fields is to reverse the rising trend in costs and make them actually decline.

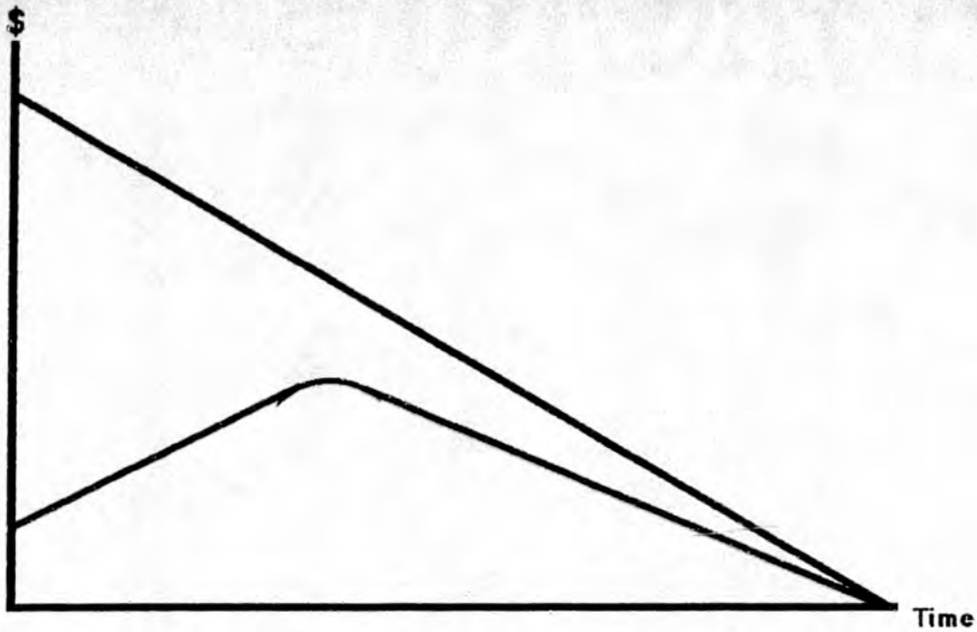

Figure 11. Saving a Declining Field by Reversing the Rising Cost Trend

This is the reality that the Prudhoe curve imposes on us. Declining production means that we have to get better control over our operating costs and reverse their historic tendency to rise. We at BP, like our counterparts at ARCO, have no choice but to operate in a new mode -- leaner, more efficient, smarter.

One of the first and most important initiatives to operate smarter on the Slope was the Shared Services Agreement between ARCO and BP for Prudhoe Bay operations. If both companies are performing some function on their respective sides of the field and there are economies of scale to be realized by combining those separate activities, the Shared Services Agreement calls for the two to be combined. It simply does not make sense to keep doing things separately when it would cost less to combine them. Our compelling economic situation overrides the sense of "turf" and rivalry that otherwise exists between two companies that are, after all, competitors. The Shared Services Agreement also calls on both companies to rethink their work practices and adopt the most efficient approach regardless of its source – whether ARCO, BP, or anybody else.

BP is also changing the way it does business with its contractors. Some 80% of our operating costs are paid to outside contractors, so clearly any improvements we can achieve in efficiency with them can go a long way towards reversing the trend in operating costs. As Julian Darley told The Alliance in January:

> "We're seeking partnerships with our suppliers that are truly collaborative -- ones driven by *value*, where *price* is only one of the components.
>
> "A business partnership is a marriage. It has to be a win-win situation, or it won't work."

Too often and for too long, our contractors have not had a real understanding of BP's actual needs. This was mostly because we didn't tell them. We only said, "Here's what we want. How much will it cost?" Our new approach takes more effort on our part -- our people have to sit down with the bidders and explain not only **what** we want but **why** we want it. We at BP simply don't know our contractors' business as well as the contractors themselves know it, and so they must be able to tell us when they see something better than what we're asking for. This is what we mean by "collaborative partnering," and it's just another way for us to be smarter in the way we do business.

A third way for us to reduce our operating costs is to re-examine and challenge those things that we do in-house. Are these things really activities that BP is particularly good at doing? Are they things that BP should be doing itself? Are there external businesses that provide the same services and at less cost? We are finding that quite a lot of work we have been doing internally is really not part of what our business is all about. And so we are turning to outside sources for that work. This process has been given the inelegant name of "outsourcing." It is merely another way we have found to smarten up the way we do business.

Another way to do business smarter is to eliminate outright the lower-value activities performed by our staff. We must continually review what we are doing and question whether value is truly being added by these activities. We must search for ways to accomplish the same results with fewer people. Over the past few years we have moved many functions to Alaska that were previously performed Outside, and at the same time have steadily reduced the number of staff required overall. This has not been easy for us -- in fact the experience is quite painful, and we can sympathize with what the State must go through in cutting its spending back to a sustainable level. But we find there is little choice but to continue to reduce staff in this new era of declining production.

These initiatives -- the Shared Services Agreement with ARCO, partnering with our contractors, outsourcing, and staff reductions -- are manifestations of BP's commitment to remain in Alaska, for it is only by taking these and similar steps that we fully develop the resources that are here. Ironically, these very initiatives seem to be the source for the suspicion that we are about to leave. People have misunderstood the Shared Services Agreement as being a transfer of our operating functions over to ARCO, not as a way for both companies to save money. They see partnering as a way of cutting back on the scope of work we're doing, rather than as a way for both our partners and ourselves to benefit from working more closely together. They mistake outsourcing and staff reductions as signs that BP is withdrawing its business activity from the state. As I have explained, all these initiatives are our only way of coping with the economic reality being forced on us by the decline of North Slope production.

And here, too, there is an area where the State of Alaska can help us. As an unavoidable consequence of declining production, BP's focus, and that of our partners in the North Slope fields, must be to prioritize our expenditures, spending money on those projects that produce a return on our investment. It follows, then, that investments in projects that do not generate any return should only be made when there is a clear need for them.

At BP we pride ourselves for our efforts to be leaders among the industry in protecting health, safety and environmental quality. Our management are sincerely committed, at a personal level as well as corporately, to the pursuit of these goals. It is simply good business, as well as responsible corporate citizenship, for industry to make the investments necessary to protect and promote public health, safety and environmental quality. But, as Alyeska president James Hermiller told the Anchorage Chamber of Commerce last January:

> "Regulatory controls should not be required merely because technology exists to do the job. Agencies must consider benefits versus costs."

And it is not good for the State to ignore the benefits versus costs, either. Again, as Mr. Hermiller pointed out:

> "A good rule of thumb is that for every dollar Alyeska spends, the dollars received by the state for severance taxes and royalty payments are diminished by 25 cents, and the value of all production, including royalty oil, is reduced by one dollar."

The same is true whether the dollar is spent for TAPS, or for the marine terminal, the tankers or some other transportation facility. But, more fundamentally, the increased cost of doing business -- whether in the transportation sector or in the production operations -- becomes an economic drag that ultimately tends to reduce the rate of production and prevent the full recovery of the reserves. There will simply be less production on which royalty and production taxes are paid.

But please do not misunderstand me. We absolutely are not asking for a license to despoil the environment and imperil the health and safety of the public. By all means, protect the environment and people's well being. All we are suggesting is that, in this era of declining production, the State should work closer **with** us, instead of **against** us, to ensure that the justification is real, not illusory, before requiring us to make the investment. To the extent the State and industry share the same goals -- producing as much as possible while preserving and protecting health, safety and environmental quality -- the process of regulation should be more like a partnership than a confrontation.

I hope that by explaining what BP is doing and why we are doing it, I have dispelled the fears about our intentions. As I said at the beginning of these remarks, BP is committed to Alaska. We are not about to leave. We hope to be here for as long as the State will let us remain, so the tremendous petroleum resources here can be fully developed and produced.

Our actions are the best proof we can offer of our enduring commitment to Alaska. We are striving to convert still more of the petroleum **resource** into recoverable **reserves**, not only at Prudhoe Bay but for all the fields on the North Slope. We are relentlessly seeking for ways to do our business smarter. So far we have found Shared Services with ARCO, collaborative partnering with our outside vendors and contractors, outsourcing of functions that others do better than we, and achieving more ourselves with fewer people -- and we are still looking. We have

focused our exploration activities on those areas of Alaska that best fit our expertise, experience and business objectives. We seek a reinforcement of the partnership industry has with the State of Alaska and its people.

These are not the deeds of someone who is about to get out of Alaska. And as our slogan says, it is "deeds, not promises" that count.

Thank you for this opportunity to address the Committee.