

“Parking Available” The Base for the Beaufort Project

Introduction

Thanks for the opportunity to speak to you today.

I am very pleased to be here and to talk about what I hope you will see is a major new initiative in Canada’s Western Arctic.

Simply put, we are working to develop a deep-water port to support oil exploration in the Beaufort Sea and I hope in the next few minutes to show you how this might come about.

Some History

First, I’ll begin with some history about oil and gas exploration.

The Beaufort was a very busy place in the late 1970s and early to mid-1980s.

Companies like Dome Petroleum, Gulf Canada, Esso Resources and others were searching for oil that we were told by the Liberal government of the time was both running out and only going to become more and more expensive.

All this drilling activity was funded, in large part, by the Canadian taxpayer through the National Energy Program and its generous subsidy and tax write-off provisions.

Happy days, indeed.

But also very productive ones, especially for the Canadian ship design and building industries. Think of the wonderful design work that led to the *Robert Lemeur*, a vessel that completely re-thought how best to deal with ice in the Beaufort.

The *Kulluk*, the *Molikpaq*, the *Terry Fox*, - it was indeed a most exciting time in the northern marine world when all things seemed possible.

BUT, the oil shortage didn't materialize, the world price fell, the Mulroney Conservatives were elected and the NEP was done.

Everyone went home and the Beaufort Sea became very quiet.

And Today?

And then, about six years ago, industry got interested in the Beaufort once again.

Why? Well, for the most part because if you're an international oil company, that is, not a government-owned national oil company, there are fewer and fewer places in the world where you can explore and, if successful, make the kind of money your company is used to.

The Beaufort Sea is one of those few places.

And second, with the changes in ice coverage in the Arctic waters, the region is becoming more and more accessible for longer and longer periods, making exploration once again attractive.

And so we now have the majors, not Canadians this time, but companies like Esso and BP and ConocoPhillips and Chevron and, just for a lark, the ill-named Franklin Petroleum, all holding exploration licenses in the Beaufort.

These licenses are issued by the federal government under a competitive system with the dollar value of the exploration work a company commits to carry out being the basis on which a winner is determined.

At present, the work commitments total just over \$2 billion, a sum that needs to be spent over the next 7 to 10 years in order for the companies to keep their licenses or pay a significant financial penalty

There Will be Challenges

In addition to the change in the operators, no longer Canadians but all Internationals, there are other big changes in the work to be done this time with the most obvious being the water depths that will be tested.

The old Beaufort saw drilling from ice islands and sacrificial gravel islands, from WW II refurbished vessels turned into drillships, from bottom-founded rigs like the SSSC and the *Molikpaq* and anchored floaters like the *Kulluk*.

And all this drilling took place in relatively shallow waters ranging from 3m to 60m deep and up to about 100 km from shore.

The new work will be on offshore ELs that are up to 300 km from Tuk Harbour and are found in water depths from 6m near shore to 2000m in the far offshore.

The vessels that will drill in these deep waters have not yet been built but the first well must be spudded by 2020 and while that is some 7 years away, time flies, even in the Arctic, and there is much to do to prepare the Western Arctic Region for the activity to come.

Tuk Harbour – The Base for the Beaufort

Let's turn now to the proposed port facility in Tuk Harbour.

First, I'll talk about "why" we want a port and then about "what" that facility might look like.

The "why" is really three-fold – first, to try and lower the high costs of exploring in the Beaufort; second, to ensure that some economic benefits from the offshore activity accrue to the local economy, and third, to provide the necessary protection against the possible negative impacts of that activity.

The first one is pretty obvious.

If we can, through the development of a full service port facility, help to lower exploration costs for industry, the Beaufort can become a more cost competitive basin in which to operate.

We will never be as low cost as areas like the Gulf of Mexico or North Dakota, but we can work to reduce the cost burdens relative to other Arctic opportunities and that would benefit both the companies and the country.

The second issue is a bit trickier – exploration on the offshore is a risky business – we've seen that in the Gulf, in the North Sea, off the coast of Australia. Bad stuff can happen and the local populations can be seriously affected by oil spills, blow-outs and accidents.

If there aren't potential rewards to balance against that risk, why would the locals support the planned activity? And so, a port, a professional port, could be the source of significant local benefits and could help to build needed support for that offshore activity.

And third, when that bad stuff does happen, we need to be prepared to respond, both quickly and effectively.

A port on the Beaufort coast would be the staging point for the equipment needed to deal with an oilspill, a blow-out, a shipping incident or, unfortunately more likely, a helicopter downing.

And now, what might that port look like?

Those of you who know Tuk Harbour and its surroundings know full well that it is challenged by shallow entrances, by water depths that seriously limit the draft of the vessels that can access it.

The Harbour itself is roughly 6.5 km long with a width of up to 1.8 km

There are two basins in the harbour, a south and north basin with both basins having depths greater than 20 m.

However the approaches to the harbour are only 4 m deep which limits the types of vessels that can access it.

And that is a fact. You have to go a long way, a very long way, to get to deep water.

To give an idea of the draft limitations in the region, the “Beaufort Harbour Study” conducted by Dome Petroleum in 1979 showed that the distance from Tuk Harbour to the 10m water depth was 37km while the distance to the 17m depth was 51km.

A very real limitation and while the easy answer is dredging deeper entrances, that process would be never-ending – we are in a Delta after all - and very expensive.

And so, what to do? How to overcome that draft limitation and make Tuk Harbour a real port?

The answer, it turns out, was to be found in the obituary pages of the New York Times.

That answer, at least a partial answer, popped up when I came across the obit for one Paul Soros, the brother of George Soros, the well-known financier.

Unlike his brother, Paul pursued a career as an engineer, and over the years, (he was 87 when he passed), his company built port structures all over the world.

And in the obit was the line that changed how I thought about Tuk Harbour:

“When Paul Soros, as a young engineer, observed that large cargo ships could not get to shallow-water piers to load and unload, he came up with a radical solution: take the piers to the ships.”

There was the answer, thanks to Paul.

And now I'd like you to stretch your mind a bit with me and think of Tuk Harbour, of the port, not as just that small body of water you probably know in front of the old Bay store but as a combination of elements, a logistics infrastructure that runs from the Inuvik airport, up the soon-to-be built, year-round, highway from Inuvik to Tuk, into Tuk Harbour and then offshore to a structure located in some 40 metres of water.

It's important to note that while there are alternative sites along the coast with greater water depth and better approaches, (McKinley Bay, Wise Bay, for example) no other site has the combination of Harbour, airfield and soon to be all-weather highway access that Tuk possesses.

It is this combination of assets that describes what I mean by Tuk Harbour.

That's what I mean by "The Base for the Beaufort".

The Offshore Structure

Of the four components I've described, the airport, the highway, Tuk Harbour and the offshore structure, it's that last one I'd like to talk about now.

What might such a structure look like? And who might build it?

A stand-alone, purpose-built permanent structure, similar to the Dome Petroleum designed (although never put in place) Artificial Production and Loading Atoll (APLA), would be an option.

The APLA was planned as an offshore, bottom-founded, year-round production, storage and loading facility for Beaufort development in the early 1980s.

Dome envisaged an atoll being developed by a "super-dredge", Class 6 ice-breaker capable vessel that would operate all year round and dredge in water depths up to 80m.

Such a design could be re-configured to handle ship servicing and consumables storage and it could act as a transfer point between the deep water vessels and those capable of entering the shallow draft of the Tuk Harbour approaches.

A second choice might be to expand on a company-owned permanent production facility one located at a future producing field.

Were such a facility to be developed at the Amauligak field, for example, it, too, could be expanded to provide vessel handling services. *(40m of water and about 50km from shore)*

Both models are today simply that – models – but as we move ahead over the next few years these, and other ideas, will be looked at.

We think we're on the verge of something big in the Beaufort and while we know from past experience that things in the Arctic can change, that the Beaufort doesn't give up her riches easily, it's that promise of doing something new, of facing the challenges, that has always made the Arctic such an exciting place to work.

Conclusion

Let me close now by doing two things.

One, thanking you for your kind attention to my talk today and two, asking you to think about what I've said and, if you have any thoughts on how we might better proceed with this project, if you have any knowledge that you think might help to better understand and deal with the challenges we will face, call me up, email me, and I'll be most happy to chat with you.

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