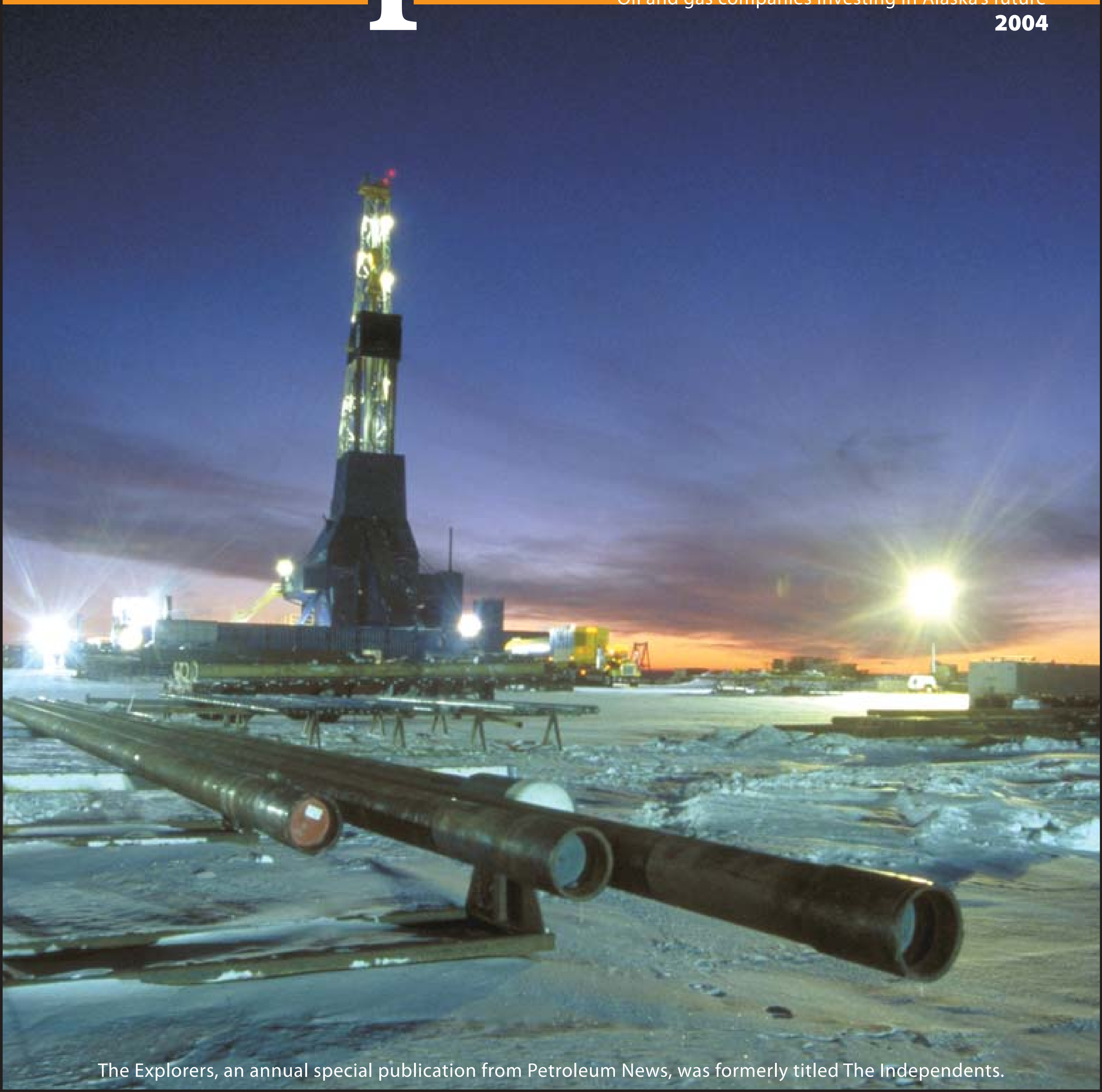
The Explorers

Oil and gas companies investing in Alaska's future

2004



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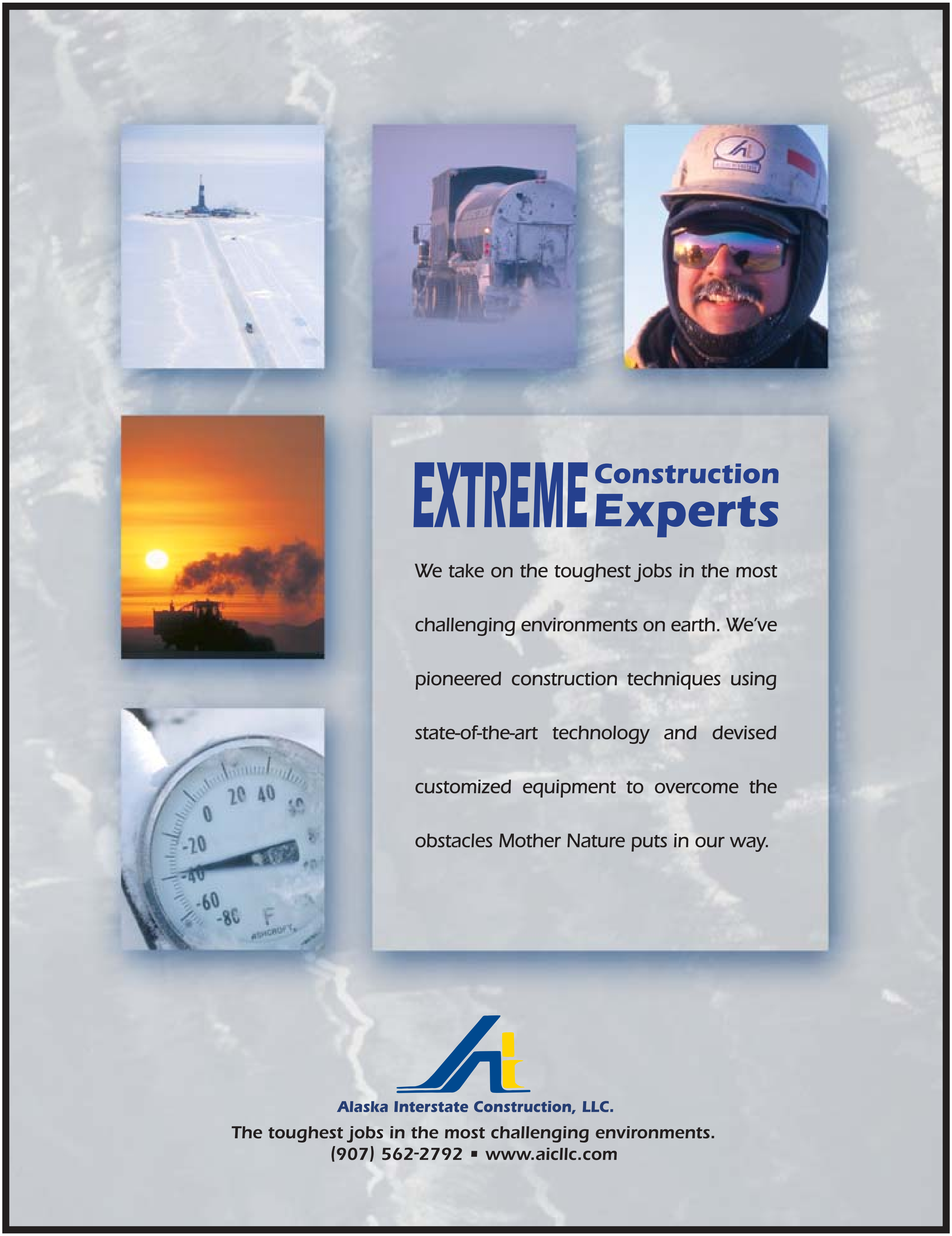
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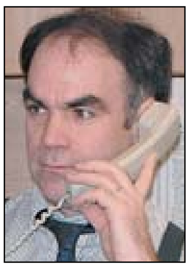
Breaking the barriers to increased Alaska exploration and production

By **MARK MYERS**
Director, Division of Oil and Gas

The movie "The Right Stuff" highlighted the breaking of the sound barrier (Mach 1) by Chuck Yeager in the Bell X-1. Yeager's flight was considered very risky because an aircraft encountered buffeting as it approached Mach 1, but it was unclear what would happen to an aircraft after passing through Mach 1. Today, concern about a sound barrier is ancient history and supersonic flight is a routine operation.


Mark Myers, director, Division of Oil and Gas, state of Alaska

Alaska's oil and gas industry has experienced its share of buffeting associated with some real (and some perceived) barriers. These 'fear factors' have included: lack of access to well and other technical data; restricted access to certain highly prospective areas; permitting uncertainty; limited winter exploration season; high exploration and development costs; long cycle times for project development; lack of infrastructure or lack of access to existing infrastructure; high transportation costs due to distance from supply hubs; distance to markets for oil and gas; and the return of low commodity prices.

Efforts in some form or fashion to break these barriers have been ongoing for several decades. It's time to examine these efforts and see how we are doing.

Government is doing its part

The state of Alaska and the federal government are doing their part to break through these barriers.

For example, access to geological, well and production data has never been easier with the Alaska Oil and Gas Conservation Commission's Web enabled, user friendly public databases and the Department of Natural Resources' expanded research programs and digital map data releases.

The state's streamlined permitting processes are bearing fruit with real life examples of explorers going from lease issuance to the completion of permitting for offshore exploration drilling operations in less than three months.

The results of last year's detailed scientific studies will likely allow DNR to expand the North Slope winter tundra travel season (hopefully with a little help from Mother Nature) without compromising the environment.

State and federal resource management agencies have recently opened or are in the planning stages for opening many highly prospective areas for oil and gas leasing including the northeastern and northwestern National Petroleum Reserve-Alaska, expanded areas in both federal and state waters of the Beaufort Sea and the onshore and state waters of the Alaska Peninsula.

In order to lower exploration and development costs and to stimulate exploration, the state Legislature has passed significant tax incentives for seismic, exploration drilling and gas development.

Due to the recent passage of key incentives by Congress, large scale commercial North Slope gas production is much closer to reality. The state is doing its part by accelerating its processing of TransCanada's gasline right-of-way application, while at the same time aggressively negotiating fiscal agreements with multiple applicants to lower project risk for both pipeliners and producers.

New geologic concepts, can-do attitudes

In addition to bringing new geologic concepts and an aggressive can-do attitude to Alaska, explorers are doing their part to break the cost, cycle time and access barriers by bringing new innovative ideas and technologies to Alaska.

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THE EXPLORERS

November 2004

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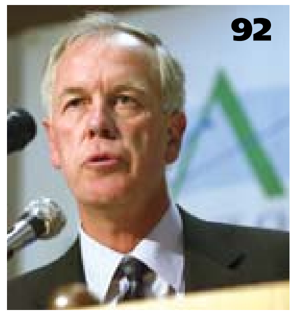

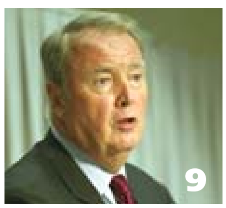

GUEST EDITORIALS

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AOGA president: Alaska's challenges

By CHUCK PIERCE
AOGA President

Alaska in four words: Good rocks — high cost

Alaska's challenges: Lower costs; attract more investment; drill more wells; maximize production.

JUDY PATRICK

Chuck Pierce is vice president of Unocal Alaska, and president of the Alaska Oil & Gas Association

For explorers, old and new, and for the state of Alaska, the economic future is as simple and as complicated as meeting this challenge.

Alaska's geology — its good rocks — are a natural gift that has given the state a strong economy and jobs with the possibility of more of both in the future.

It is the good rocks, the possibility of additional oil and gas resources in Cook Inlet basin and on the North Slope that have kept the pioneer companies investing billions of dollars in Alaska since the 1950s and 1960s — companies like ConocoPhillips, Unocal, Marathon, ExxonMobil, BP. These are the companies that have been part and parcel of the statehood story in Cook Inlet and the great economic boom story of Prudhoe Bay and the North Slope. Their investments and production are the bread and butter of Alaska's economy and could be far into the future.

It is the good rocks, the tremendous gas reserves on the North Slope that hold out such strong hope for a gas pipeline.

It is the good rocks that keep joint venture partner companies here who have had long time interests in Alaska, like ChevronTexaco, Shell Western and Total. These are large international companies who have been active in Alaska and who continue to keep an economic eye on the state though partnership interests. They may well be active players in Alaska's future.

It is the good rocks in Cook Inlet, on the North Slope and in unexplored basins across Alaska that attract companies newer to Alaska like Anadarko, EnCana, Armstrong, Pioneer, Forest, Kerr-McGee, Talisman, XTO, Devon and others. If successful, these companies will be an important component of Alaska's future.

Good rocks – high cost

Alaska is considered one of the highest cost oil and gas provinces in the world.

The high cost might not matter so much if Alaska did not have to compete globally for oil and gas investment; or if Alaska was also thought to have the largest potential reserve base in the world. It does not have that reputation. Alaska has a reserve base strong enough to make it a player among the 60 or so oil and gas provinces in the world, especially in gas. But we are competing for investment dollars with areas believed to have similar reserves, especially in oil — reserves that can be produced in less time and at less cost. Even at high oil prices, Alaska remains high cost; if prices are high for North Slope crude, they are also high for every other producing area worldwide.

One new company manager spoke for all companies in a speech to the Alliance:

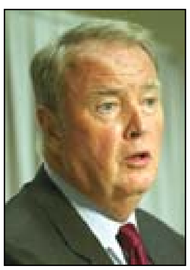
see **PIERCE** *page 10*

Resourcefulness, technology drivers in today's resource development

By FRANK H. MURKOWSKI
Governor of Alaska

In Gold Rush days, at the turn of the last century, Alaskan explorers passed along innumerable tales of wealth pulled from a harsh and often frozen ground. In the best stories, it seems, it was plain luck that led to the fantastic discovery of a giant nugget, gold-laced quartz vein or rich placer claim.

The pioneering explorers of today seek Alaska's rich resources with similar passion. There are still great stories. Luck, however, is less of a factor. In today's economy, technology, science, collaboration and sound government policy are the tools needed to provide as close to a guarantee of success as possible.



JUDY PATRICK

GOV. FRANK MURKOWSKI

Explorers provide the determination and hard work. Corporations and universities provide the science, technology and financial underpinning. Government must provide sound policy.

Only by working together will the energy demanded by the nation be efficiently mined, processed and sent to market. Stakes are high. We know that the nation must locate and develop domestic energy sources if our economy is to grow and generate the jobs needed to keep families prosperous.

Future prosperity depends on energy explorers

The role played by those who discover new energy sources could not be more important. Put plainly, our nation's future prosperity relies on the success of today's energy explorers.

As governor, my job is to take a leadership role in promoting exploration for new energy. As an administration, we have much to be proud of — while recognizing there's still work to do.

My administration's highest priority is advancing construction of a natural gas pipeline. Alaska's congressional delegation worked to pass legislation important to making the project competitive in a world market. On the state's side, we are actively negotiating with both producers and pipeline companies on a gas pipeline fiscal agreement. In the process, we are insisting on access rights to the pipeline for all producers.

During the past 18 months we have increased the amount of exploration acreage companies may hold, therefore allowing oil and gas explorers to work in several places at the same time. In addition, we have provided tax incentives for seismic exploration and exploratory well drilling statewide, and for development of natural gas in areas other than the North Slope.

see **MURKOWSKI** *page 10*

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MURKOWSKI

My administration, for example, has encouraged oil and gas exploration in frontier areas of the North Slope and the Bristol Bay basin. We have taken steps to hold lease sales off of ANWR within Alaska's sovereign three-mile limit, and we are working to promote exploration in NPR-A as well as the North Slope foothills.

Administration committed to common sense approach

My administration is committed to an effective, common sense approach to regulation. Narrow special interests, claiming to be defenders of the environment, will continue to discourage regulatory reform. With the help of technology and good stewardship, exploration can be done responsibly.

These are no quick fixes. Rather, the goal of regulation reform is efficiency by knocking down counterintuitive road-blocks.

An example: by consolidating Alaska's water quality protection programs we reduced the paperwork and time needed to secure permits without yielding on clean water standards. Likewise, we streamlined air permitting requirements.

Improved transportation infrastructure will foster successful exploration as well. I put in place an industrial roads program, which I call "Roads to Resources." The program will seek funding for and quickly construct short sections of new road in order to access areas for natural resource development and exploration. Three of these roads are planned to extend into the North Slope from the Dalton Highway, accessing NPR-A as well as the foothills.

We can leverage technology and rely on human ingenuity for resource development. I have asked the University of Alaska to bring its human capital and technology to bear on resource development. Specifically, the university is home to two of the most advanced supercomputers in the nation — powerful tools to analyze the data and create the maps needed to guide today's explorers.

I have asked the university to be a source of expertise to stand up to those who would forever lock away Alaska's vast, and much needed, energy resources. The university has the tools to supply solid scientific knowledge needed to establish responsible energy development policies.

Our development goals cannot depend on luck. What worked in the 1890s will not work today. Instead, we will rely on the resourcefulness of our people empowered by the technology of tomorrow. ◆

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MYERS

For example, Armstrong Alaska has engineered a lower cost but elegant modular development system for off-shore and onshore areas. Additionally, a few years ago Anadarko Petroleum's Arctic platform was just a concept. It could now become a reality, a prototype having completed a two-season test drilling program.

Some explorers are developing lower cost drilling solutions, while still others are developing partial processing alternatives to mitigate the costs associated with using certain existing infrastructure. Clever use of these and other technologies combined with their lower overhead and accelerated time frames, will allow explorers to break down the minimum economic field size barrier and economically produce fields that apparently aren't attractive to some of the state's large producers.

Due to a growing world-wide economy and limited supply, the $50 per barrel and $6-plus per million Btu price barriers have been shattered and it appears that higher commodity prices are here to stay.

Finally, the intrastate tariff on the trans-Alaska pipeline has been lowered significantly and it is expected that the interstate tariff will be substantially lower by no later than 2009. This is good news for all future North Slope oil production.

Due to a lot of hard work by many people, the barriers are falling and we have begun to see a more robust and diversified oil patch.

I look forward to the day when Alaska's oil production increases back to more than 1 million barrels per day and we have gas flowing south from the North Slope: That will truly produce a sonic boom heard 'round the state. ◆

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PIERCE

"We like the possibilities in Alaska. We intend to invest here. But if we can't beat the costs, we can't stay here."

How can Alaska become more competitive for oil and gas investment dollars? Bottom line: How can we drill more wells and get more production?

We should be asking ourselves these questions. Both company management and government policy choices can influence production by lowering costs. For companies the toolbox includes technology and efficient management. For government the toolbox includes wise use of fiscal systems and efficient regulatory management.

The hypothesis is simple: There are exploration and development wells that are not being drilled in Alaska due to cost and regulatory constraints. The challenge is to identify practical solutions, and implement those that will make the most difference. The cost factors are as varied as lifting of viscous oil, tundra travel, seasonal restrictions, no available jack-up rig in the Cook Inlet, tight gas formations and the risks associated with the commercialization of North Slope gas.

There is not one silver bullet. Alaska's oil and gas basins each have their own peculiarities, which mean they will each have their own problems and solutions.

To address these problems the state has started working solutions on a project by project basis for issues as varied as tundra travel and North Slope gas pipeline. This is absolutely the right approach.

Some have suggested increasing taxes on the industry. This will just drive the costs higher and reduce incentive to invest.

In order to increase drilling, create jobs and increase production we (the oil and gas industry and the state) need to work on a portfolio of unique initiatives to solve the unique problems impeding the drilling of oil and gas wells across the state.

Alaska can be thankful for our good rocks — and use our fiscal and regulatory tools to lower the high costs.

We need to position ourselves so that when oil and gas company board members are reviewing their portfolios someone says: "What about Alaska? That's a good place to invest." ◆

Independents' Day

Alaska lease sales bring in $14.7 million; Armstrong dominates, Devon enters

By KRISTEN NELSON
Petroleum News

One observer called it "Independents' Day," and he was right on the mark: Only one major oil company bid in the Oct. 27 state lease sales, and that in partnership with an independent. The state of Alaska took in $14,728,140.80 in bonus bids at the areawide oil and gas lease sales — $5,280,384 in the Beaufort Sea sale and $9,447,756.80 in the North Slope sale.


JUDY PATRICK
Ed Kerr, Armstrong

The sales were dominated by Armstrong Alaska, subsidiary of Denver-based Armstrong Oil and Gas, which had $8,309,112.32 in apparent high bids, $509,777.92 in the Beaufort Sea sale and $7,799.334.4 in the North Slope sale. Partnership bidding in the Beaufort Sea sale with Kerr-McGee accounted for $465,669.12 of Armstrong's bids.

Calgary-based Talisman Energy's U.S. subsidiary Fortuna Exploration was the second largest bidder at $3,453,312.

Other independents with winning bids in the two lease sales included Anadarko Petroleum, AVCG, Mark Anderson (affiliated with Summitt Oil & Gas of Beverly Hills, Calif.), and UltraStar Exploration (an affiliate of Winstar Petroleum).

Independent Pioneer Natural Resources bid in a 50-50 partnership with ConocoPhillips, the only major oil company bidding at the sales.

And Devon Energy Production, a subsidiary of Houston-based Devon Energy, bid in its first Alaska lease sale, picking up a block of Beaufort Sea leases.

Armstrong has highest bids in North Slope sale

Armstrong had the highest bids in the North Slope sale for three adjacent leases on the eastern edge of the Kuparuk River unit, with bids ranging from $373.87 an acre to $383.57 an acre.


JUDY PATRICK
H.S. "Hank" Radomski, Devon

Armstrong, in partnership with Kerr-McGee, also had the highest bids in the Beaufort Sea sale, $303.17 an acre, for two tracts on the southern edge of the Kerr-McGee operated Nikaitchuq unit in which Armstrong is a partner. On its own, Armstrong took a tract to the east of Nikaitchuq.

The largest block Armstrong took was in the North Slope sale: 14 leases astride the Kuparuk River south of the Kuparuk River and Prudhoe Bay units.

Armstrong took five leases on the southern edge of Kuparuk, one tract northwest of ConocoPhillips' Placer prospect on the western side of Kuparuk and six tracts northwest of Tarn.

Fortuna dominates Beaufort Sea sale

Fortuna's $3,453,312 in bids were all for Beaufort Sea tracts. The company took a block of 19 leases in Harrison Bay off the National Petroleum Reserve-Alaska, bidding $60.10, $50.10 and $40.10 for some acreage closer to NPR-A, ranging down to $15.10 an acre farther off-

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INDEPENDENTS

shore.

Fortuna farmed into NPR-A acreage held by Total and was a partner in Total's NPR-A exploration well in 2003. Fortuna was the largest bidder in the Bureau of Land Management's June 2004 northwest NPR-A lease sale, with $26,480,300 in high bids and also making the highest bid, $13,745,000, for a tract near the Ikpikpuk River at the junction between the northwest and northeast NPR-A planning areas.

Kerr-McGee, bidding in partnership with Armstrong, spent $1,086,561.28 for its 70 percent share of the two leases it bid on with Armstrong in the Beaufort Sea sale.

Anadarko, bidding only in the North Slope sale, was apparent high bidder on $746,361.60 for 16 leases on the east side, three on the southern edge of BP's currently dormant Badami unit, and the remainder farther south in the area where Anadarko has been working what it calls its Jacob's Ladder prospect.

AVCG took a block of leases in the vicinity of Nuiqsut adjacent to NPR-A for $478,080.

Mark Anderson bid $256,000 for four onshore leases. Pioneer bid $185,196.80 for one lease adjacent to its existing acreage position south of Prudhoe Bay, and was a 50-50 bidder with ConocoPhillips on two other leases in that general area.

Devon took a Beaufort Sea block of leases west of Northstar for $182,400. UltraStar took a Beaufort Sea lease for $48,332.80 in the vicinity of Gwydyr Bay, and ConocoPhillips' share of its partnership bid with Pioneer was $33,984.

Geologic opportunity

It's not rocket science: companies bid at Alaska's Oct. 27 lease sales because they see geologic opportunity in the state. But the largest bidder at the sale, Armstrong Oil and Gas, also said a spirit of cooperation from big companies already working on the North Slope and from regulators are big factors.

H.S. "Hank" Radomski, Devon Canada senior landman, told Petroleum News after the sale that this is the first time Devon has bid in an Alaska lease sale. Devon's acreage in the Cosmopolitan unit in Cook Inlet and on the North Slope at Point Thomson is the result of mergers, he said.

"Geologically Alaska is not much different" and the Canadian group "saw some exploration opportunities in Alaska." The leases just acquired are "near Sandpiper" and the prospect "is still in its infancy stage. It's just a lead at this point. We're still evaluating data," and plan to acquire seismic that has already been shot over the leases.

Geoscience team credited

Ed Kerr, vice president for land and business development for Denver-based Armstrong Oil and Gas, credited the company's geoscience team in Denver for identifying acreage the company bid on Oct. 27. The company's acreage selection "was a product of the science that we've been able to do, coupled with some of the confidential data from our earlier drilling and the application of it on a regional basis," he said.

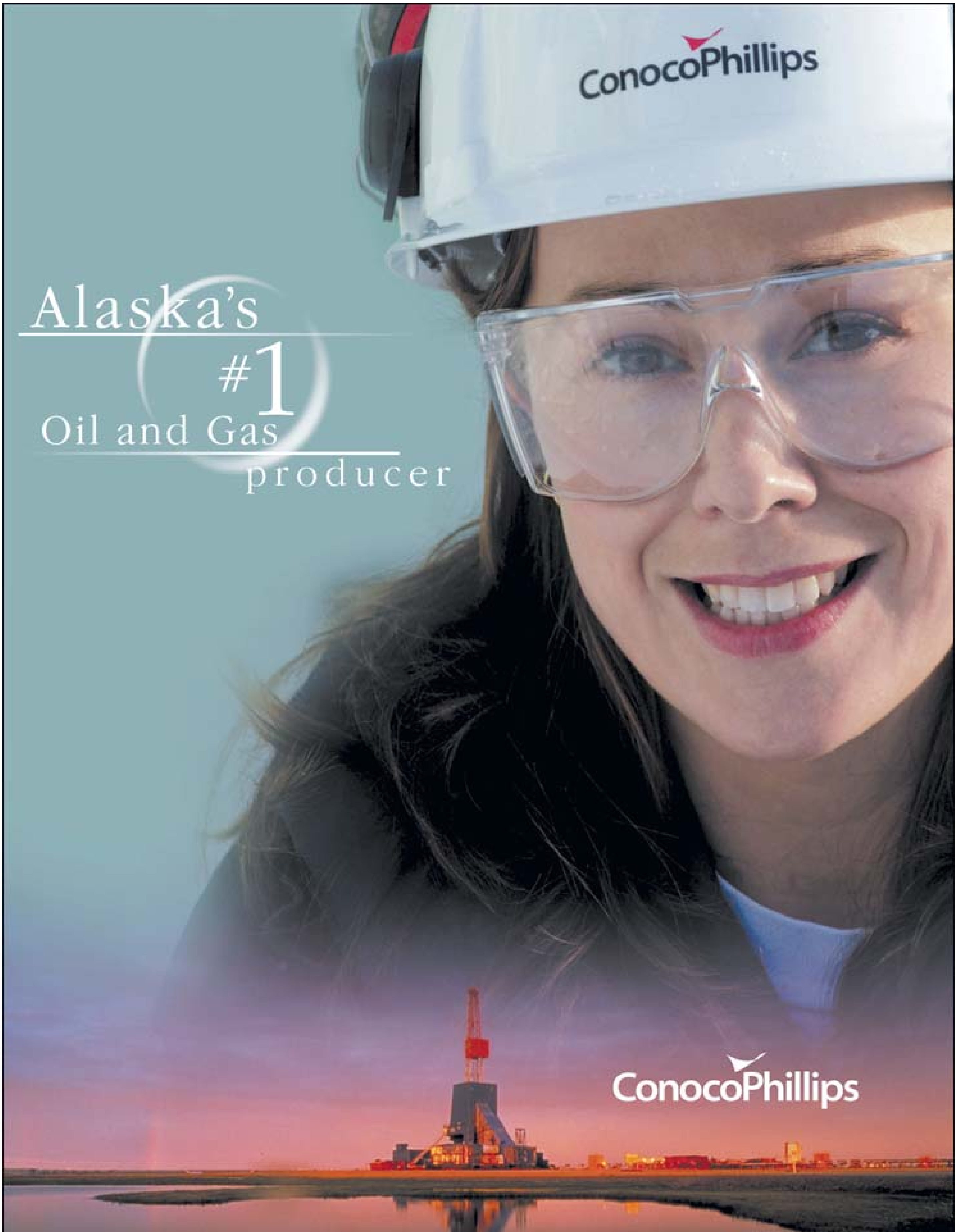
Kerr said Armstrong has found both big companies and the state willing to work with it cooperatively. "It's a difficult place to come in and do business, but we have seen that spirit of cooperation (from the big companies) and it's caused us to come up here and get more active, not less active."

On the regulatory side, he said, things have to be done safely and appropriately, "but you still have to have that spirit of cooperation in order to be successful and get things done."

Kerr said he thinks the North Slope is "a great place for independents … and this is one of the greatest petroleum systems there is in the world, so I think that you will see more companies coming."

There are "moderate sized companies that are looking to get up on the North Slope and they're just a little nervous because they haven't stuck their toe in the water yet, and I think in large part companies like Armstrong are a catalyst for them — Pioneer, Kerr-McGee as well — they want to see that first development get going, they want to see that first bit of production coming on," Kerr said.

Production from an independent on the North Slope, he said, combined with the current high oil prices and the global need for oil, "will open the floodgates." ◆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Shell drops leases, still hot for Alaska

—reprinted in part from Petroleum News, Oct. 31, 2004

Petroleum news
FROM THE ARCHIVES
www.PetroleumNews.com

Shell recently dropped its oil and gas leases on Alaska's North Slope, but asked Petroleum News to stress it is still very interested in Alaska.

According to Mapmakers Alaska, Shell recently surrendered 10 central North Slope leases picked up in a 2002 state oil and gas lease sale for $2.4 million.

"Rents were coming due" on the 56,000 acre parcel south of the Kuparuk River unit. The acreage was "relinquished" by Shell "after a routine internal assessment of the area," Shell spokeswoman for EP Americas, Kelly op de Weegh, told Petroleum News Oct. 25.

"We felt that the potential of the area did not meet our investment criteria and the rentals have not been paid. But I want to stress, our decision to surrender what we consider to be a small, non-material leasehold does not affect our goal to continue evaluating investment opportunities in Alaska," op de Weegh said.

"That specific area" of the North Slope does not interest Shell, she said, asking that Petroleum News "stress that we do not view this as an exit from Alaska. We are spending a lot of effort on evaluating Alaska."

Op de Weegh's assertion that Shell is still interested in Alaska coincides with remarks by Shell's global exploration director, Matthias Bichsel, on Sept. 22 (see the Sept. 26 issue of Petroleum News).

Bichsel, said Shell "wants to develop a bigger exploration position in Alaska, which it sees — alongside North Africa, the Russian Arctic and the global deepwater — as one of the key areas of upstream potential for the international oil and gas industry.

Shell interested in "western part" of Alaska

"We're clearly interested in trying to get a foothold there," he said.

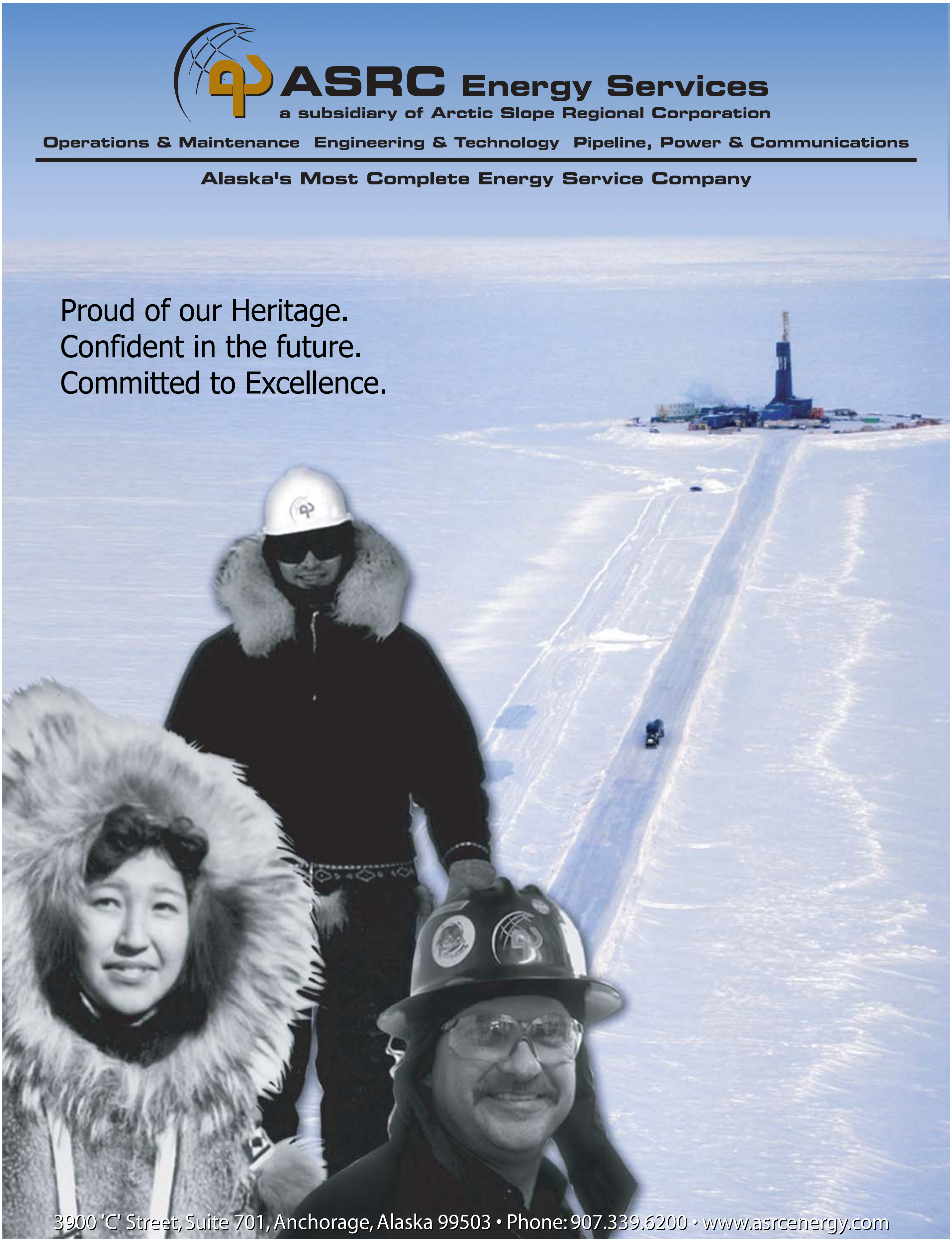
Bichsel said that the 10 leases south of Kuparuk were picked up by the local operating unit "on a purely opportunistic basis." And that Shell has enough information in place after the "thorough evaluation" of the last 18 months to "go after a focused and targeted approach in the future."

Shell, he said, was interested in the "western part" of Alaska, onshore and offshore.

Op de Weegh would not elaborate on "western part," which could include on and off shore the National Petroleum Reserve-Alaska, the Chukchi Sea, or on and offshore the Bristol Bay basin in southwestern Alaska.

In mentioning Shell's continued interest in Sakhalin and West Siberia, Bichsel said, "You have a bit of a theme there — Sakhalin, West Siberia and Alaska — which is the Arctic, which requires big funds, which requires technology, tenacity, staying power, which I think companies like ours are very well suited to."

Op de Weegh would not comment on any past or current discussions with BP to acquire BP's North Slope assets, but Bichsel did say in September that Shell could achieve its goals in Alaska through lease sales, without the need to do deals or make acquisitions. ◆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IN BRIEF

Ken Thompson joins AVCG, Brooks Range

Former ARCO senior executive Ken Thompson has invested in Alaska Venture Capital Group LLC and been named the fifth managing partner for the Kansas-based independent. AVCG, which holds 142,000 acres in oil and gas leases on Alaska's North Slope, is owned by eight Kansas independent oil and gas companies — Thompson's Alaska Energy Partners LLC is the first Alaska-based owner.

JUDY PATRICK

KEN THOMPSON

According to an Oct. 10, 2004 interview with AVCG managing partner Bo Darrah, Thompson will also serve as chairman of Brooks Range Petroleum Corp., a company AVCG formed earlier this year as a subsidiary to operate its Alaska leases. Darrah will continue serving as president and CEO of Brooks Range.

Thompson said his key role at Brooks Range will be "overseeing strategy, providing input on exploration prospects and future leasing, and I will continue to build relationships with partners in the state." He said one of the things that attracted him to AVCG and Brooks Range was their "promising" prospects, including "a couple of past ARCO prospects that I was familiar with."

Thompson will continue in his role with Pacific Star Energy LLC, an Anchorage-based company he formed to give Alaskans a vehicle for equity investment in a natural gas pipeline from the North Slope to outside markets.

—*Kay Cashman*

Total, EnCana unload NPR-A leases; Talisman gets Caribou

By KAY CASHMAN
Petroleum News

According to Mapmakers Alaska, Total E&P USA has dropped all but three of its 20 leases and EnCana has dropped all of its leases in the National Petroleum Reserve-Alaska.

Total assigned eight leases to partner Talisman Energy and relinquished nine to the Bureau of Land Management. The leases Total assigned to Calgary-based Talisman's U.S. subsidiary, Fortuna Energy, cover the Caribou prospect — both the east and west blocks — where Total and farm-in partner Fortuna drilled an exploration well in 2003-2004.

The three leases Total hung onto are in the Fox prospect just south of the USGS/Husky Inigok Test Well No 1 on a ConocoPhillips and Anadarko Petroleum lease, Total spokeswoman Jenna Wright said Oct. 26, 2004.

Bear prospect leases were relinquished to BLM.

"The leases we kept are strictly Total's with no agreements or farm-ins at this time," Wright said.

"We released this acreage in order to focus our resources and efforts elsewhere within our U.S. portfolio, but the three leases we retained will be further evaluated to determine their exploratory potential," she said.

Talisman has said it will probably drill a well in NPR-A in the winter of 2005-2006.

When asked where the well would be drilled, David Mann, manager of investor relations and corporate communications for Talisman, said he didn't know: "Obviously we already have seismic on the Total acreage. And obviously we have our own views on geology and prospectivity," he said in regard to the 9,362 foot, Caribou 26-11 No. 1 exploration well Total drilled, plugged and abandoned.

EnCana said it relinquished its five NPR-A leases as part of a strategy change for its Alaska oil and gas properties: "We went through an evaluation of the NPR-A acreage and, as a result, prioritized it down," Paul Myers, vice president USA region for EnCana, told Petroleum News Oct. 25, 2004.

The decision to drop the NPR-A leases was part of a "continued maturation process of our portfolio – deciding where we want to be and where we want to focus." There is "one area" in Alaska that EnCana is "most interested in," and the five leases aren't in it, Myers said, declining to identify that area.

The five leases, ranked as "low potential" by the Bureau of Land Management, encompass 56,980 acres 55 miles southwest of Nuiqsut, and are adjacent to Total's Fox prospect.◆

IN BRIEF

Doyon could seek industry partner for Yukon Flats exploration

The agreement in principle for a land trade in Yukon Flats National Wildlife Refuge between Doyon Ltd. and the U.S. Fish and Wildlife Service, announced Oct. 20, 2004, would give each something they want, says Jim Mery, senior vice president of lands of the Interior Alaska regional Native corporation.

Mery told Petroleum News Oct. 25 that Exxon and Amoco explored in the Yukon Flats area in the 1980s, "and that's the basis of our information, and why we think the areas is so promising." The companies did surface studies and about 240 miles of seismic were gathered, both on public and on Doyon lands. Doyon subsequently licensed information from industry.

Doyon's goal is to consolidate prospective areas of Doyon and federal land, Mery said.

Once the agreement is final, "we would then go out and we would seek an industry partner or partners to help conduct the next round of exploration which would likely be a more focused round of seismic followed by drilling," he said.

In addition to work done in the 1980s, the U.S. Geological Survey is just finishing up a large petroleum assessment. Their conclusions aren't public yet, Mery said, "but we have every reason to think they will be positive."

—Kristen Nelson

Pioneer to develop at Gwydyr Bay

BY KRISTEN NELSON
Petroleum News

In October 2004, Pioneer Natural Resources Alaska applied to the state of Alaska to construct and operate onshore oil and gas production facilities just north of the BP-operated Prudhoe Bay unit at Gwydyr Bay.

Both BP Exploration (Alaska) and ARCO Alaska have drilled in this area, Pioneer said in applications for the work, which includes a four-acre gravel pad and a 2.8-mile gravel access road to a site some three miles north of T Pad in the Prudhoe Bay unit in the vicinity of BP's Pete's Wicked No. 1 exploration well.

Produced fluids would be transported by a gathering pipeline system and processed at an existing Prudhoe Bay facility.

Pioneer acquired the leases in the state's 2003 North Slope and Beaufort Sea areawide lease sales.

"The Gwydyr Bay area contains relatively small isolated hydrocarbon accumulations" discovered during exploration by BP and ARCO, Pioneer told the state. "These oil fields have not previously been developed due to their relative isolation and size."

The company "proposes to utilize a simple design and cost structure to develop these outlying fields." A six- to 12-month drilling program is planned with a conventional diesel-powered drilling rig, a coiled-tubing workover rig, waterflood and gas lift facilities.

Production is expected to begin in the spring of 2006, with a 10 to 20 year production life. ◆

PIONEER NATURAL RESOURCES GWYDYR BAY PROJECT AREA

Production in a box

Armstrong's production and processing facilities keep oil contained, reduce North Slope costs

BY KRISTEN NELSON
Petroleum News

Smoother, faster, better, cheaper is Armstrong Oil and Gas's mantra.

"Smoother, faster, better, cheater: everyday that's what we try to do; without that we think the competition will go by us," Stu Gustafson told the Alaska Support Industry Alliance Oct. 28 in Anchorage.

Gustafson, Armstrong's vice president of operations, spoke both to the Alaska Chapter of the International Association of Drilling Contractors and the Alliance the week of Oct. 25, 2004, updating Anchorage audiences on the company's three-year history in Alaska, and on its plans for drilling with Kerr-McGee this winter in the Nikaitchuq and Tuvaaq units in the shallow waters of the Beaufort Sea, and for Armstrong's own plans for its onshore Two-Bit prospect, just off the western edge of the Kuparuk River unit.

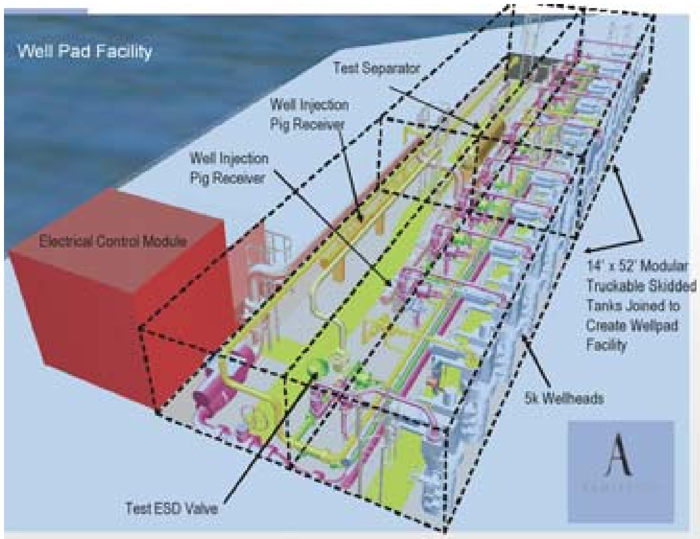
Two of the Nikaitchuq wells this winter, operated by Kerr-McGee, will be "long-term production tests," Gustafson said. Kerr-McGee will also drill an extended reach well, and if farm-out arrangements are completed with ConocoPhillips, a fourth well will also be drilled in this area.

At Two-Bits, the Armstrong prospect west of Kuparuk, "we'll drill two exploratory wells over this winter. It's two prospects," Gustafson said, and if one of those prospects proves up, "we will start production drilling and we will be online by year end (2005)."

Armstrong would get Two-Bits on line quickly with an idea Gustafson developed when faced with North Slope Native concerns about offshore production. They don't want to see a single drop of oil in the water, he said.

The solution started on a napkin in the Brower Cafeteria in Barrow, Gustafson said: Put all of the facilities inside a tank, a containment vessel, so that if there is a leak the leak is contained. This production-in-a-box plan has been refined by ASRC Energy Services, Gustafson said, but basically conductor pipe is put through the floor of the tank, wellhead and piping is inside and it's monitored from offsite by cameras and heat sensors inside the tanks. The concept has been embraced by Kerr-McGee, Gustafson said, and variations on the idea are being

see TANK page 22



COURTESY OF ARMSTRONG ALASKA

While production in a tank began as a response to an environmental concern — keeping oil contained — it is proving economic, with drill site costs estimated at $12 million for a 12-well site, compared to $29 million for a conventional North Slope facility.

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TANK

looked at by Pioneer Natural Resources. Armstrong brought in Pioneer and Kerr-McGee as operating partners on Beaufort Sea prospects it assembled.

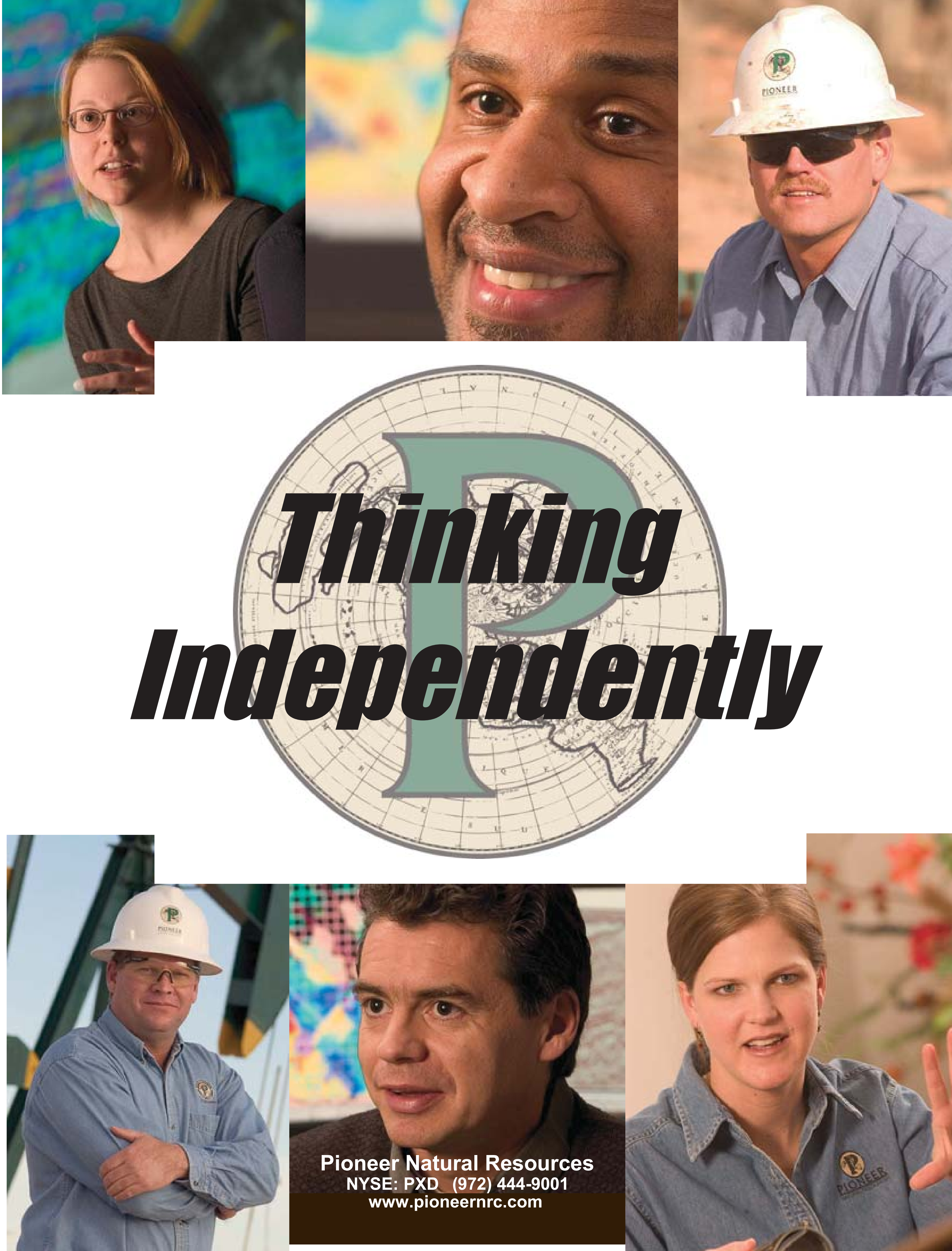
Environmental solution also solves some cost issues

Gustafson said that while production in a tank began as a response to an environmental concern — keeping oil contained — it is proving economic, with drill site costs estimated at $12 million for a 12-well site, compared to $29 million for a conventional North Slope facility. Armstrong is also planning to bring in modular processing facilities and process oil on site. These are skid-mounted production units and truckable he said. Two-Bits would use "no unit power, no unit processing, we do it ourselves, all the way to the LACT (lease automatic custody transfer) meter."

And to move the oil Armstrong is looking at the type of fluid transport line used in the Gulf of Mexico. The flexible pipe comes in 3,200-foot rolls, he said, and would be laid pipe-within-a pipe inside an outer pipe, and buried in the road.

What's next? Armstrong picked up some 115,000 acres of state oil and gas leases Oct. 27. It first bid on state leases in 2001, brought in a partner (Pioneer), and was drilling within seven months of lease issuance, completing three wells offshore in one season, a single-company record, Gustafson said. In 2003, Armstrong doubled its acreage, brought in Kerr-McGee and drilled two wells in 2004.

"We buy prospects … to drill," he said. We have brought in Pioneer and we have brought in Kerr-McGee, Gustafson said, and "we're working on other options." ◆


Thinking
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Kerr-McGee finds oil on North Slope

Armstrong snags Oklahoma independent as partner; discovery announced four months later

By KAY CASHMAN
Petroleum News Publisher & Managing Editor

Happy New Year, Alaska. That was the front page headline in the Jan. 11, 2004, Petroleum News story which broke the news about Kerr-McGee entering Alaska. Over the Christmas holiday big independent Kerr-McGee Oil & Gas had bought a 70 percent interest in a North Slope prospect offshore BP's Milne Point unit.


RICK BUTERBAUGH


JUDY PATRICK
MICHAEL STOCKINGER

The major offshore player and premier deepwater explorer was snagged by Armstrong Alaska as majority partner and operator in the shallow water play where at least one exploration well was planned for that winter. The prospect was initially called Northwest Milne, but soon was renamed Nikaitchuq.

Happy New Year, Frank Murkowski

The headline might also have read, "Happy New Year Gov. Frank Murkowski," as Alaska's governor had taken a special interest in attracting new explorers to the state's prolific oil and gas basins. He welcomed the Oklahoma City independent with open arms.

"The governor wants more players on the North Slope. … Opportunities are opening up in Alaska. The state has been great to work with. It's good to be able to bring a company to the slope that hasn't been there before. Kerr-McGee is the kind of company we need up there. They are big enough to operate on the North Slope and they're great operators," Bill Armstrong, president of Armstrong Alaska and its affiliate, Denver-based Armstrong Oil & Gas, told Petroleum News Jan. 8, 2004.

HQ: Oklahoma City, Okla.
CEO: Luke R. Corbett
OIL & GAS HQ: Houston, Texas
TOP AK EXEC:
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In a Jan. 28 conference call Dave Hager, Kerr-McGee's senior vice president of exploration and production, said his company viewed the North Slope as a low-cost basin with huge reserve potential. He said Kerr-McGee's first well was expected to cost $7-10 million.

"We think that given that type of cost, we get significant reserve exposure on lower risk prospects for a low entry cost," Hager said, adding that more acreage divestitures are likely in Alaska, which will provide his company with more acquisition opportunities. Alaska's government, he said, was interested in getting "more companies like ourselves up there to kick off the next generation of prospecting."

Alaska Interstate Construction had already begun ice road construction to the prospect when the deal between Armstrong and Kerr-McGee was announced Jan. 8.

The two companies rushed to get the drilling and operational permits transferred to Kerr-McGee.

To insure a smooth transition between the two operators, Kerr-McGee gave Armstrong Vice President Stu Gustafson power of attorney to direct the winter's exploration operations.

Michael Stockinger, vice president of drilling for Kerr-McGee, would be head man for the company in Alaska. Stockinger had worked as drilling manager for Conoco in 1991 at the Milne Point unit.

Kerr-McGee also immediately set up an Alaska office in Arctic Slope Regional Corp.'s office building at 3900 C Street in Anchorage. Two Kerr-McGee employees began working rotation shifts from that office.

ASRC Energy Services, a subsidiary of

see **KERR-MCGEE** page 25

continued from page 24

KERR-MCGEE

Arctic Slope Regional Corp., was the engineering support operations service company chosen to oversee drilling under Gustafson at Nikaitchuq. Skip Coyner, the ASRC drilling superintendent who oversaw Pioneer's exploration program at the nearby Oooguruk unit the previous winter, was the project manager.

Alaska Chadux was selected as the spill response contractor.

The agreement, which initially involved almost 13,000 acres that were unitized before drilling would be completed that winter, included the right to acquire interest in 13 additional leases in the area, totaling 54,000 acres.

The exploration plan Armstrong had filed with the state required one well but Stockinger said drilling additional wells allowed Kerr-McGee to "farm into additional acreage," so the company set out to drill at least two wells.

The wells were drilled by Nabors Alaska from ice pads at two locations on Spy Island.

High-quality hydrocarbons

Three months after it signed the deal with Armstrong, Rick Buterbaugh, Kerr-McGee's vice president of investor relations, announced the company had "encountered high-quality hydrocarbons" from its first well, the Nikaitchuq No. 1, and was "encouraged" by the results.

The company was drilling the Nikaitchuq No. 2, he said, with an expected bottom hole some 9,000 feet from the initial well.

"This well," he said, "may test the down-dip limit of the reservoir."

Armstrong's Nikaitchuq unit application to the Alaska Division of Oil and Gas said the partners planned to test prospective intervals in the Cretaceous Brookian sandstone, the Jurassic Nuiqsut sandstone and the Triassic Sag River sandstone.

The application also said the Jurassic interval, the secondary interval of interest, has been tied to 3-D seismic and to Thetis Island No. 1, drilled in 1985, and Pioneer Natural Resources' Ivik No. 1, Oooguruk No. 1 and Kalubik No. 1 wells, drilled the winter of 2002-2003 in the Oooguruk unit.

The third objective, the Brookian interval, was found "with good reservoir quality and hydrocarbon shows" in wells directly to the southwest of Nikaitchuq, Armstrong said in the unit application.

Nikaitchuq No. 1 tests 960 bpd

On April 19, 2004, Kerr-McGee announced that the Nikaitchuq No. 1 vertical exploration well tested 960 barrels per day of 38 degrees American Petroleum Institute crude from the Sag River formation.

The company also said that if the prospect was developed "horizontal wells would most likely be utilized, which would be expected to produce at higher flow rates than the vertical well."

The company said the rig was off the ice and the Nikaitchuq No. 2, which was not tested, "successfully extended the accumulation down dip."

A Kerr-McGee spokeswoman said the company was evaluating the data collected from the drilling and re-calibrating 3-D seismic of the area "to define appraisal drilling plans for the upcoming winter drilling season."

Up to six North Slope wells

Indeed, in July 2004, Kerr-McGee announced it planned to drill as many as six North Slope wells in the winter of 2004-2005 to evaluate its Nikaitchuq discovery.

The company said the wells would be drilled from two to three locations, using two, and possibly three, drilling rigs.

Kerr-McGee Alaska

see **KERR-MCGEE** *page 26*

continued from page 25

KERR-MCGEE

Operations Manager Todd Durkee told Petroleum News July 14 that the company included all of the options — from a single well to six wells — in the unit operations plan it filed with the Alaska Division of Oil and Gas.

The operations would be "nearly identical" to those in the same area last winter, with access by sea ice roads from Oliktok Point to ice pads on and adjacent to Spy Island.

"We either make a decision to move forward after this year's drilling season or not," Durkee said. "We intend to fully evaluate the Sag River formation discovery the company made last winter season."

One well into Tuvaaq unit

Armstrong's newest unit — i.e. prospect — was Tuvaaq, approved by the state in September 2004. It lies between Nikaitchuq to the west and Pioneer/Armstrong's Oooguruk unit immediately to the east.

Kerr-McGee said it had cut a deal with Armstrong to drill a well into the Tuvaaq unit that also involved taking a majority ownership position — Armstrong and Pioneer each took minority positions.

Kerr-McGee's other five proposed pad locations were in the Nikaitchuq unit.

Armstrong's five-year initial plan of exploration for Tuvaaq said it planned to drill three wells: the first, in the winter of 2004-2005, would test the Triassic/Jurassic; the second in the 2006-07 winter drilling season, would test the Cretaceous Kuparuk sand interval, Jurassic Nuiqsut sand continuity and limits of the Triassic Sag/Eileen/Ivishak accumulation within the Tuvaaq unit. The third well, planned for 2008-09, would test the Triassic Sag/Eileen/Ivishak intervals on the eastern side of the unit.

Kerr-McGee, Pioneer talking development deal

In August 2004, both Pioneer and Kerr-McGee executives told analysts that they were discussing partnering for development of the oil discoveries made at their respective units.

"We have begun discussions with Pioneer to explore potential development synergies in Alaska," said Buterbaugh in an Aug. 25 conference call.

He said Kerr-McGee expected to drill two of the five appraisal wells it had permitted in the winter of 2004-2005 on its Northwest Milne acreage (Nikaitchuq) "to confirm deliverability and to establish the aerial extent of the reservoir." He also confirmed the company would drill at least one exploratory well on its West Milne Point acreage (Tuvaaq).

Strong technical justification

The division said in its decision approving the Tuvaaq unit that "Armstrong submitted a strong technical application that justified the size and shape of the unit." Armstrong integrated and interpreted 3-D seismic surveys and tied that data to surrounding well control, using the data to identify targets including the Jurassic Nuiqsut and Sag River, Eileen and Ivishak sandstones.

Well data was available from the Milne Point field several miles southeast of Tuvaaq, where oil is produced from the Schrader Bluff, Kuparuk and Sag River formations, and from the Kuparuk River field south of Tuvaaq, which produces out of the Kuparuk River formation. The division said there were also a dozen or so exploration wells south and west of Tuvaaq which have tested hydrocarbons in the Kuparuk formation and in Jurassic sands.

Armstrong tied 3-D seismic from Tuvaaq with the offshore Thetis Island No. 1 and the Kalubik No. 1 wells, and with recent wells in the adjacent

see **KERR-MCGEE** *page 27*

continued from page 26

KERR-MCGEE

units: the Ivik, Natchiq and Oooguruk wells in the Oooguruk unit and the Nikaitchuq No. 1 and No. 2 in the Nikaitchuq unit.

"Armstrong believes that the quality and thickness of the Sag River sandstone should increase to the north/northwest from the Milne Point area into the Tuvaaq unit area," the division said, also noting that oil-stained Brookian sandstones were encountered in the Thetis Island No. 1 and Kalubik No. 1 wells southwest of Tuvaaq. A Brookian sandstone in the Kalubik No. 1 well tested oil at a rate of 10 barrels per day, and Brookian sands were also tested in the Thetis Island No. 1 well, producing mud filtrate with a trace of oil.

In the northern Milne Point unit and northeastern part of the Kuparuk River unit the primary oil production comes from lower A Kuparuk sandstone, and in the northwestern Kuparuk River unit Kuparuk C sandstone is preserved locally, with a significant portion of production from Kuparuk C, along with A sandstones. Some Kuparuk C sandstone is preserved southwest of Tuvaaq in the Kalubik wells and in the Colville Delta wells.

"It is quite possible," the division said, "that the Tuvaaq area could contain pods of Kuparuk C sandstone that have been preserved on the down-side of the northwest trending, down to the northeast faults in the area."

Jurassic sandstone potential

There was also Jurassic sandstone potential in the area, with three oil-bearing Jurassic sandstones in the Colville Delta area southwest of Tuvaaq: the Nechelik, Nuiqsut and Alpine. While the Alpine interval was not present in the northern Colville Delta, the underlying Nuiqsut sandstone appeared to extend into and thicken in the Colville Delta area: "The overall Jurassic section appears to thicken to the east-northeast of the Colville Delta area based on the East Harrison Bay 1 and Oliktok Point 1 wells," the division said.

Jurassic Nuiqsut sandstone oil prospects at Tuvaaq "are dependent on the interplay of faulting," the division said, and the faulting probably separates the potential Jurassic reservoir in the Tuvaaq area from the Thetis Island accumulation.

"The key to unlocking the reserves within the Jurassic sands is producing the low API gravity oil without damaging the formation with drilling fluids," the division said, in contrast to Sag River oil, expected to be higher API.

Armstrong has also identified Sag River and Sadlerochit potential by integrating 3-D surveys over the Colville Delta, Prudhoe, northern Milne Point, northern Kuparuk, Oooguruk, Tuvaaq and Nikaitchuq.

There are two Sag River structural prospects at Tuvaaq, and the division said that geochemical analyses of oils from the Nikaitchuq and Milne Point wells predict that Sag River oil at Tuvaaq would be in the range of 36-38 degrees API; reservoir modeling predicts a production rate of up to 2,500 barrels per day with horizontal wells. ◆

—Kristen Nelson contributed to this story

Aurora puts more Cook Inlet fields on line

After repeated successes with gas, company plans onshore oil drilling campaign, looking for partners

By KAY CASHMAN
Petroleum News

COURTESY OF AURORA GAS

From left, Ed Jones, Scott Pfoff and Andy Clifford discuss Aurora's Three Mile Creek prospect.

Aurora Gas had a busy year in Alaska's Cook Inlet basin in 2004.

By mid-October, the company had brought two gas fields on line, bringing its inlet gas producing fields to four.

At the same time Andy Clifford, Aurora's vice president of exploration, said negotiations were under way for a drilling rig to drill two deep gas wells on the Three Mile Creek and Aspen prospects, "each of which could contain recoverable reserves of as much as 400 billion to 1 trillion cubic feet of gas."

And all this activity, and more, has been onshore in the Cook Inlet basin, where Aurora intends to stay.

Ed Jones, Aurora's vice president of operations, told Petroleum News in late October 2004, that the Houston-based independent would focus on deeper gas potential in the Cook Inlet basin in 2005, as well as start looking for partners for a southern Cook Inlet oil play.

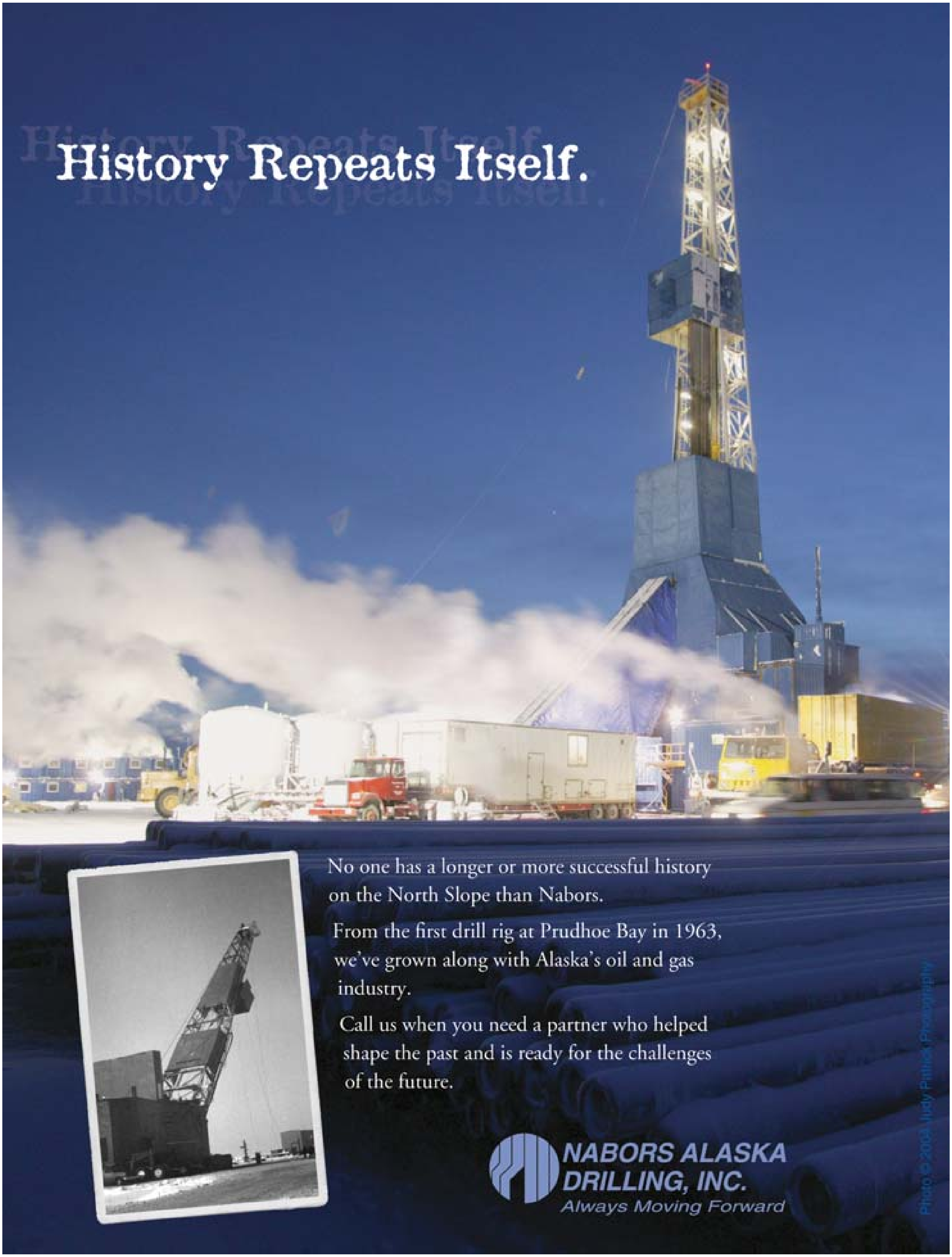
Story begins in 1994

The story of Aurora Power, Aurora Gas and Aurora Well Service — a family of companies working in Southcentral Alaska – began in 1994 when the original company, Aurora Power, was formed to market natural gas to large customers.

Aurora Power still sells more than 7 billion cubic feet per year to some of Southcentral Alaska's largest gas consumers, but, from the start, the company's main goal was to be an inlet gas producer, and in 2000 Aurora Gas was formed.

According to G. Scott Pfoff, president of all three Aurora companies, Aurora Gas is a niche player, with its initial focus on "gas that really has already been discovered, one way or another. … Our whole niche is to use those logs and the geology and the well control and then some of the seismic that's been shot since, and

see **AURORA GAS** *page 30*


History Repeats Itself.
No one has a longer or more successful history on the North Slope than Nabors.
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NABORS ALASKA DRILLING, INC.
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continued from page 28

AURORA GAS

put together a puzzle to go back in and find low-risk opportunities to develop natural gas."

When companies were exploring Cook Inlet for oil in the 1960s, they found a lot of gas, "sometimes they knew it and they tested it, sometimes they didn't, they just blew right through it with heavy mud that invaded the zones," Pfoff said.

West side gas focus

About 100,000 of Aurora's 135,000 acres are on the west side of Cook Inlet where it is producing gas, Pfoff said.

Nicolai Creek was the first gas field Aurora put into production; the Lone Creek gas field was the second. Moquawkie was next in July 2004, followed by the Albert Kaloa field in August 2004.

The only prospect that proved a disappointment in 2004 was Long Lake.

Aurora re-entered Long Lake unit-1, drilled by Texaco in 1973, expecting to find large quantities of natural gas, but Jones said the well was not producing as expected.

"We still consider the area very prospective. We're still trying to figure out why this well was not successful," Jones said Oct. 28, 2004.

Venturing into the unknown

"We're going to keep our butts on shore," close to infrastructure, Pfoff said in May 2004. "We're not going to be big risk takers."

But, as the company works through its inventory of reentry candidates it will do "more exploratory type drilling," he said.

For example, in May 2004 Aurora picked up a west side lease at the mouth of the Susitna River. It is a frontier area for the company, Clifford said, with only a little bit of well control and vintage seismic.

Aurora Gas, LLC

AURORA GAS LLC

HQ: Houston, Texas
PRESIDENT: G. Scott Pfoff
ALASKA EXECUTIVES: J. Edward Jones, executive VP, operations; Andrew C. Clifford, executive VP, exploration
TELEPHONE: (713) 977-5799
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WEB SITE: www.aurorapower.com

The Three Mile Creek unit is another example, Pfoff said. There are wells in the area, and the company is shooting seismic, but the company's November 2004 well is "going to be much closer to what I would call a wildcat well than a simple developmental reentry…"

Nicolai Creek was the first gas field Aurora put into production; the Lone Creek gas field was the second. Moquawkie was next in July 2004, followed by the Albert Kaloa field in August 2004.

Chasing Cook Inlet oil play

And Aurora has "always had an eye on the under-explored Cook Inlet oil play," Clifford said in a Prospect Market article he wrote for the Oct. 17 edition of Petroleum News.

There are known prospects offshore, but, he asked, "why look offshore when there is excellent potential for large oil reserves onshore and as extensions of proven, productive trends?"

Aurora has mapped five drillable prospects with unrisked expected recoverable reserves of 400 million barrels of oil and risked reserves of 140 million barrels, Clifford said.

Four prospects are less than six miles from existing oil pipelines, two have been defined by 3D seismic data, and all have good road access.

"Aurora plans an aggressive drilling campaign for the next two to three years," he said.

Aurora will be offering the package of prospects to industry on "attractive terms with a view to getting drilling under way as early as the spring of 2005," Clifford said. ◆

Alaska key area for EnCana?

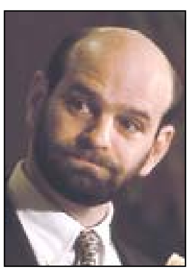
Calgary independent evaluating several Beaufort Sea, North Slope, Foothills prospects

By KAY CASHMAN
Petroleum News

The headline in a November 2003 Petroleum News story about EnCana carried the same headline as this story, but without the question mark — a question mark that may prove premature.

The Calgary-based independent, which first entered Alaska as Alberta Energy in 2000, did not drill in Alaska last winter and it won't be drilling in the winter of 2004-2005.

GWYN MORGAN



JUDY PATRICK

TOM HOMZA

But Tom Homza, EnCana Oil and Gas (USA) Inc.'s Alaska manager, told the Resource Development Council Nov. 20, 2003, that Alaska was one of EnCana's key international exploration provinces, and that EnCana was "optimistic about the resource potential that remains in Alaska.

"That's why we're here investing," he said, "and we're investing in lands, wells and in the community."

Homza was reiterating what his boss had said earlier that year.

Just three days after EnCana notified the U.S. Minerals Management Service it was plugging and abandoning its McCovey No. 1 exploration well in the Alaska Beaufort Sea, EnCana's President and CEO Gwyn Morgan told analysts at a Feb. 5, 2003 energy summit that Alaska — along with the Gulf of Mexico, Australia and North Africa — was among his company's "high-impact opportunities to be drilled."

In a conference call with analysts later in that month, Morgan pledged to continue exploration in Alaska, despite the fact the company's first well in the state had been a duster.

Morgan backed up his words with dollars.

EnCana was the only bidder in the state of Alaska's May 7, 2003 North Slope Foothills areawide sale where it bid $36,576 for a single tract. (The 5,760-acre tract was adjacent to a large Anadarko Petroleum-EnCana lease block south-southwest of Sagwon on the Dalton

see **ENCANA** page 32

ENCANA

HQ: Calgary, Alberta
CEO: Gwyn Morgan
EXECUTIVES IN CHARGE OF ALASKA IN CALGARY:
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WEB SITE: www.encana.com

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ENCANA

Highway and west of Anadarko's Dolly Varden prospect.)

> *EnCana was the second highest bidder at the Sept. 24, 2003 U.S. Minerals Management Service Beaufort Sea sale. The company paid $3,550,158 at that sale, taking all 24 tracts on which it bid, including a block of 19 tracts north of NPR-A in the Smith Bay area, adjacent to six existing ConocoPhillips-Anadarko Petroleum leases.*

Offshore NPR-A

And EnCana was the second highest bidder at the Sept. 24, 2003 U.S. Minerals Management Service Beaufort Sea sale. The company paid $3,550,158 at that sale, taking all 24 tracts on which it bid, including a block of 19 tracts north of NPR-A in the Smith Bay area, adjacent to six existing ConocoPhillips-Anadarko Petroleum leases.

EnCana spokesman Alan Boras told Petroleum News Sept. 25, 2003 that the 24 tracts the company took included about 100,000 acres on the western Beaufort and about 20,000 acres approximately 20 miles northeast of Prudhoe Bay.

Prior to this sale, he said, EnCana had 675,000 net acres in Alaska. Asked what the company had planned for its newly acquired acreage, Boras said EnCana would "evaluate existing seismic data and do exploration evaluation with that existing data, as well as looking at whether the company might acquire additional seismic in the future.

"It's very early days," he said, but the company will evaluate the prospects on its new leases, along with the rest of its Alaska portfolio, and plan work in due course.

"They're working away"

Boras had less to say in an October 2004 statement to Petroleum News. He said, "EnCana continues to evaluate its Alaska assets and opportunities in comparison to other investment opportunities across the company's portfolio."

When asked when that evaluation would be complete, he couldn't give a definite time frame, but he did say, "They're working away."

The main areas that Alaska must compete with for EnCana's exploration dollars in 2005 include North America onshore (Boras said targeting primarily resource plays like its Cutbank Ridge discovery), the North Sea, Gulf of Mexico, offshore Canada's East Coast, Brazil, Chad and some of the Gulf Coast states in the Middle East.

Alaska is competitive

Homza said in 2003 that Alaska can and does successfully compete within EnCana for exploration funding, evidenced in the 2002 Beaufort Sea McCovey exploration project and the lease sale acquisitions EnCana made in Alaska through 2003.

State and federal agencies have allowed access "to quality lands on reasonable terms." But Homza said EnCana could not have competed for Beaufort Sea Minerals Management Service tracts without the incentives offered in the fall 2003 lease sale.

He said EnCana was looking at several other prospects in the Beaufort and multiple prospects onshore, in addition to the Brooks Range Foothills where EnCana holds a substantial block of gas-prone acreage in anticipation there will be a natural gas pipeline built from the North Slope in the foreseeable future.

"We continue to pursue opportunities on all of our lands," Homza said. Many of those opportunities "have been enhanced by the facilities' operators, who have farmed out acreage, shared technical expertise and data."

And, he said, EnCana is "confident we can reach other mutually beneficial arrangements in the future."

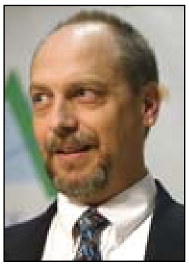
EnCana's partners at McCovey were ChevronTexaco and major North Slope operator ConocoPhillips. ◆

Marathon: Still going strong after 50 years

By **KRISTEN NELSON & KAY CASHMAN**
Petroleum News

Marathon Oil celebrated 50 years in Alaska in 2004. The company, which is based in Houston and has its Alaska headquarters in Anchorage, operates onshore in Alaska's Cook Inlet basin.

Marathon's predecessor, Ohio Oil Co., purchased its first leases on Alaska's Kenai Peninsula within the Cook Inlet basin in 1954. Initially, the company bought minority interests in leases operated by other oil companies, including a working interest in the Swanson River prospect where oil was discovered in 1957. It was that discovery that convinced Congress the territory of Alaska could support itself as a state.



JUDY PATRICK

JOHN BARNES

In 1959, Marathon participated in the Kenai gas field discovery and in 1961 had begun supplying natural gas to the Anchorage utility market.

Marathon's first offshore oil field discoveries were in partnership with Unocal at Trading Bay and McArthur River in 1965.

Marathon was a partner with Unocal, operator of the Cannery Loop gas field discovery in 1979. Production from the field began in 1988.

In 1986, Marathon set the Steelhead platform at McArthur River. This platform, designed and installed by Marathon, is the largest offshore platform in Cook Inlet.

Getting into LNG business

Marathon and other companies were exploring for oil in Cook Inlet and, in the process, discovered a lot of gas. Finding a market for that gas was a challenge.

Marathon began looking at opportunities for liquefied natural gas, partnering with Phillips Petroleum (now ConocoPhillips) to build an LNG plant at Nikiski. Completed in 1969, the facility exported the first LNG out of North America and the first LNG imported into Japan. Marathon manages shipping to the Far East, while ConocoPhillips manages the plant.

Marathon was active in both oil and gas in the inlet until 1996, when it sold most of its oil production.

The company then focused on natural gas, and in recent years has been an aggressive natural gas explorer, with discoveries at Wolf Creek, Ninilchik and most recently Kasilof.

In addition to supplying some of the gas to the LNG plant, Marathon also supplies more than half of the natural gas for Southcentral Alaska utilities.

The Kasilof well was Marathon's first dual-lateral well in Alaska, and Marathon's Alaska business unit manager, John Barnes, said Aug. 13, 2004, that the company also believes it is the first dual-lateral well in Cook Inlet.

He said the well "has full integrity on both legs for pressure and fluid control."

The 17,000-foot extended reach well, drilled from onshore between Glam Gulch and Kenai north of the Ninilchik unit, had offshore bottom holes in Marathon's Kasilof unit.

"That's probably the most ambitious well we've drilled in several years," Barnes said November 2003, adding that the junction had been set and Marathon was drilling the first well from the main bore.

Marathon provided few details on the discovery, but Houston-based Marathon spokesman Paul Weeditz told Petroleum News in August 2004 that the well, the Kasilof South No. 1, was completed in February 2004. "Both legs of the dual lateral encountered natural gas," he said.

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MARATHON

"The results of the well are under evaluation as part of determining economic feasibility of development," Weeditz said. If development is sanctioned, he said, it will take about five miles of pipe to tie Kasilof into the Kenai Kachemak Pipeline.

Marathon owns its own drilling rig, but Barnes said that the company used Nabors rig 273 at Kasilof, because there "was only one rig available that could drill that big a well."

More drilling successes

Marathon has drilled 38 gas wells in the Cook Inlet basin since 1998, including 12 exploration wells. The company said nine of the exploration wells have been successful and three have been suspended pending further evaluation.

That level of drilling activity, Barnes said, reflects a step change, most of which occurred when the company had a truck-mounted rig, Glacier Rig No. 1, built for drilling on the peninsula.

In the late 1990s, prior to the arrival of the Glacier rig, he said, a couple of wells a year was about the norm.

COURTESY OF MARATHON

Marathon commissioned the Glacier drilling rig during 2000. The rig was specially designed to meet Marathon's Cook Inlet needs, minimizing cost and environmental impacts.

The Glacier rig began work in early 2000, and Barnes said that aside from Christmas holiday shutdowns and maintenance, the rig has worked pretty much non-stop, "drilling wells primarily, a couple of re-drills" and rehabilitating some old wells.

Over the winter of 2003-2004, Barnes, said, drilling activity spiked, with three rigs working, two Nabors rigs in addition to the Glacier rig.

"Currently the Glacier drilling rig is only rig Marathon has working. Marathon is currently moving through its 2005 capital budget process and we are considering two rig program at this time for next year," Barnes said in October 2004.

Partners in Ninilchik unit and KKPL

The Marathon-Unocal discovery at Ninilchik was announced in early 2002, with the discovery well on the 25,000-acre Ninilchik prospect testing gas at restricted flow rates of up to 11.2 million cubic feet per day. Marathon, operator at Ninilchik, holds a 60 percent working interest ownership in the prospect.

Drilling so far has been at either end of the formation, Barnes said, with three-dimensional seismic shot over the center of the structure being evaluated. "Based on that seismic we'll drill the central portion of the structure," he said. Ninilchik, like Kasilof, is an offshore formation drilled from onshore.

There were four drilling locations by mid-August 2004 and there will probably be one or possibly two more locations to fully delineate the field, he said, "and then an ongoing drilling and development program there after it's fully delineated."

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continued from page 34

MARATHON

Eight wells had been drilled at Ninilchik by October 2004. "We expect to drill five new wells during the next year with additional wells to follow pending results of our 2005 drilling plan," Barnes said.

To tie Ninilchik gas into the Kenai Peninsula gas pipeline system, Marathon and Unocal formed Kenai Kachemak Pipeline LLC, and built a pipeline running from Ninilchik to the nearest tie-in point. Gas began moving through that line Sept. 2, 2003, Barnes said. "The Kenai Kachemak Pipeline is the first new gas transmission line … in the Cook Inlet … in well over a decade," he noted.

Gas discovered at Wolf Lake

In 1998, Marathon announced its Wolf Lake gas field discovery, finding gas in an area that had previously been explored for oil, Barnes said.

Wolf Lake, in the Kenai National Wildlife Refuge some 12 miles northeast of Soldotna, came on line in November 2001, via a five-mile pipeline, "the first Cook Inlet gas field discovery to be brought to market since 1979," Barnes said when production was announced. "The Wolf Lake discovery is a direct result of Marathon's commitment to a multi-year drilling effort in the Cook Inlet," he said, noting that Marathon has viewed "Cook Inlet as an area with a proven resource base, waiting on the right market conditions to support development."

Marathon has also completed an environmental impact statement for its East Swanson prospect on the wildlife refuge, "only the second EIS that has been approved for development on the refuge; the first was our Wolf Lake project," Barnes said.

And, he said, Marathon has "exploration prospects at Swanson River and around the town of Sterling where we shot an onshore seismic survey" in 2003, as well as other leads the company is working in the geologic and geophysical areas.

Maximizing production

In addition to exploring for new sources of natural gas, Marathon is focused on maximizing production from its existing gas fields. It invented the EXcape completion technology for Beluga formation gas sands at its Kenai field, allowing it to produce gas not previously thought economic.

Barnes said Aug. 13, 2004, that the EXcape technology received an award from "World Oil" as the best drilling and completion technology of the year. The technology "was developed specifically for our Kenai gas field, as an offshoot of how do you go into these older, tighter, less productive reservoirs," he said.

And is it successful? A "significant proportion of our ongoing expenditure is directed toward the EXcape completions in the Beluga formation in the Kenai gas field," Barnes said, with about 35 percent of gas now being produced at Kenai a result of EXcape-type completions. A large portion of the Beluga formation, prior to EXcape, was not regarded as commercial, Barnes said.

EXcape is used extensively at Kenai, he said, and Marathon has commercialized the technology "and it's starting to take off in some other locations" with other operators.

Marathon sees opportunities in Cook Inlet, Barnes said, but there are also challenges, including permitting, pipeline regulation and a shrinking industry.

The permitting issue is a difficult one to solve, he said, "because in and of itself, each one of these permits makes sense," and there is a good intention behind each permit. It's the cumulative effect, he said, that is the problem, with 30-plus, 40-plus or even 50-plus permits required for a project, depending on the project and the landowner.

Barnes described the result as "issue creep, where what you thought would take a year takes two years, and you just start to accept that. And then two years is four years.

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Key production

Marathon has 30-plus employees in Alaska, Barnes said, and when you add dedicated contractor employees from VECO and Inlet Drilling the number is probably about three times that.

The company's key production fields are Beaver Creek, Cannery Loop, Kenai, McArthur River, Wolf Lake and Ninilchik, with production from these properties averaging 168 million cubic feet per day for the first six months of this year. Production peaked at 220 million cubic feet on cold winter days. In 2003, Barnes said, Marathon sold about 65.8 billion cubic feet of natural gas, about a third of Cook Inlet production, supplying more than 50 percent of local utility demands.

Today, Marathon is the largest supplier of natural gas to Southcentral Alaska utilities Enstar Natural Gas and Chugach Electric Association, and is a major supplier to industrial customers such as Kenai LNG Corp., Agrium and the Tesoro refinery.

The company has ownership in more than 118 miles of major natural gas lines serving these Cook Inlet markets.

continued from page 35

MARATHON

It's one permit; it's now 45 permits.

"And it's that creep, across the board, whether it's on cost, permitting, timing, regulation, that's a tough thing to turn around…"

Marathon is working with the state administration and the Legislature on these issues, he said.

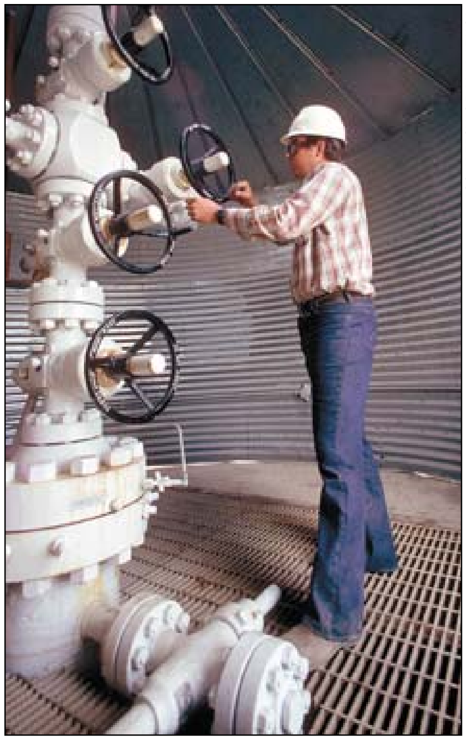
If you don't know how long it will take to complete a project because of permitting and regulatory uncertainties, he said, that is "not conducive to investment."

The shrinking industry

Barnes said there is another challenge: the shrinking Cook Inlet service industry. In the 1980s, he said, when he first saw the Kenai, there were a lot of service companies.

"That's not the case anymore," he said.

The oil and gas industry in the inlet has gotten smaller, and the number of service and supply companies has shrunk. Fewer people are employed in the industry, he said, and there is less competition and fewer alternatives for service, "so it's harder to see a vibrant strong industry in that environment."



COURTESY OF MARATHON

Marathon discovered the Cannery Loop gas field in 1979. The field is operated in quiet coexistence among residents near the City of Kenai.

It's a factor of activity level, he said, and as a result, "it almost feels like we're becoming more remote, not less. … if you were working in Gabon or Russia, you might actually have a stronger service industry than we have here… it's where the industry hot spot is," he said.

The activity level in Cook Inlet is down, he said, and as it has declined, the industry has gotten weaker.

It's all the service industries, he said: drilling, mud, labor, welding.

Barnes said Marathon's capital budget in Alaska is a changing number as projects are added or deleted during the year, but said $70 million was probably in the ballpark.

Ben Schoffmann, Marathon's Alaska asset team operations superintendent, said the company's Alaska drilling budget has been "fairly flat, but slightly increasing on the number of wells, as we've improved efficiency." Infrastructure has become a bigger capital requirement "as we have to move away from our mature assets and find new fields." If a well is "off the infrastructure," Schoffmann said, "then you've got a significant facility investment that's required," as opposed to the moderate investment to tie in a well at an existing field.

New infrastructure includes everything from field gathering systems to a building to put a computer in to new pipelines, he said.◆

Armstrong Alaska: Where they lead

By **KAY CASHMAN**
Petroleum News

The story of Armstrong Alaska and its Denver-based affiliate Denver Oil & Gas on the North Slope includes two discoveries in two years on prospects developed by Armstrong, permitted by Armstrong, and then drilled by two strong operating partners attracted to Alaska by Armstrong — Kerr-McGee and Pioneer Natural Resources.

Pioneer followed Armstrong to Alaska in October 2002 and is 70 percent owner and operator of the North Slope Oooguruk unit where Pioneer drilled the discovery wells in the winter of 2002-2003.

Kerr-McGee announced its deal with Armstrong in early January 2004 and is the 70 percent owner and operator of the Nikaitchuq unit where Kerr-McGee drilled the discovery wells — and where Kerr-McGee is drilling appraisal wells in the upcoming drilling season, the winter of 2004-2005.

ARMSTRONG
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ARMSTRONG ALASKA & ARMSTRONG RESOURCES

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Between the Oooguruk and Nikaitchuq units

In the last half of 2004, Kerr-McGee and Armstrong crafted an agreement on yet another prospect, which Armstrong unitized as the Tuvaaq unit.

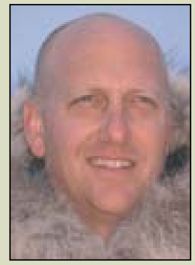
Kerr-McGee is drilling a well at Tuvaaq in the winter of 2004-2005.

The 14,561-acre Tuvaaq unit is in the near-shore waters of the Beaufort Sea between the Oooguruk and Nikaitchuq units, and north of the Milne Point and Kuparuk River units. It is the centerpiece of the 46,000 acre exploration play

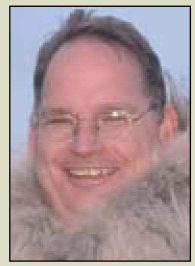
see **ARMSTRONG** page 38

The Armstrong team

JUDY PATRICK PHOTOS


Bill Armstrong, president and CEO


Stu Gustafson, vice president of operations


Matt Furin, vice president in charge of geoscience


Ed Kerr, vice president of land

David Johnston joins Armstrong Alaska

Petroleum news FROM THE ARCHIVES www.PetroleumNews.com

—Reprinted from Petroleum News, Aug. 15, 2004

David Johnston has joined Armstrong Alaska's team as manager of engineering. Johnston, former senior vice president of ASRC Energy Services, said he will primarily work for Armstrong Alaska, but he will also do some work outside the state for Denver-based Armstrong Oil and Gas.


FORREST CRANE
DAVID JOHNSTON

Johnston will report to Stu Gustafson, vice president operations for Armstrong Oil. "David ... will be a real asset to Armstrong. He will be working with me to develop and implement the exploration and initial production programs at Two Bits on Alaska's North Slope," Gustafson said Aug. 9.

Gustafson said Johnston's "extensive production and operations experience will be a great asset" in working with Armstrong's North Slope partners, Kerr-McGee and Pioneer Natural Resources, "towards potential production plans."

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ARMSTRONG

assembled by Armstrong.

In August 2004 both Pioneer and Kerr-McGee executives told analysts they were discussing partnering to develop the Oooguruk and Nikaitchuq unit discoveries.

Under terms of its agreement with Armstrong, Kerr-McGee could take over as operator of Tuvaaq and assume a 70 percent stake in the unit, Pioneer Vice President Susan Spratlen said in August 2004.

Pioneer also can participate in the middle unit, Spratlen said.

"There is acreage between our discovery and their discovery," she said. "There is a shared position in the acreage and a plan to drill a prospect. So there might be an opportunity for a joint development, if there was a discovery and if (the parties) can agree to terms. Then we could consider some type of joint development."

One option under consideration is to do away with the three exploration units and form a single operating unit developed as a stand-alone project, Spratlen said.

Armstrong submitted a five-year initial plan of exploration for Tuvaaq with the Alaska Division of Oil and Gas, which includes three wells.

The first well, to be drilled in the winter of 2004-2005, would test the Triassic/Jurassic; the second in the 2006-07 winter drilling season, would test the Cretaceous Kuparuk sand interval, Jurassic Nuiqsut sand continuity and limits of the Triassic Sag/Eileen/Ivishak accumulation within the Tuvaaq unit. The third well, planned for 2008-09, would test the Triassic Sag/Eileen/Ivishak intervals on the eastern side of the unit.

Story changing: Armstrong to drill

For the first time Armstrong, a small independent that began buying leases in northern Alaska in October 2001, will drill its own wells on the North Slope, serving as operator in the winter of 2004-05 at a prospect adjacent to the ConocoPhillips-operated Kuparuk River unit.

And, if that exploration is successful, the company hopes to be in production in 2005, Armstrong's vice presi-

see **ARMSTRONG** *page 96*

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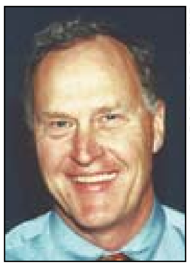
AVCG forms North Slope operating firm

AVCG and Brooks Range Petroleum open Anchorage office; increase activity in Alaska

PETROLEUM NEWS

In 2004, Alaska Venture Capital Group LLC continued to expand its activity in Alaska by opening an Anchorage office and forming a new operating company, Brooks Range Petroleum Corp. The new company was tasked with working with other oil and gas companies to monetize, explore and develop AVCG's 140,000 acres of oil and gas leases on Alaska's North Slope.



FORREST CRANE

JOHN JAY "BO" DARRAH

The Kansas-based independent also added a lease to Armstrong Alaska's Two Bits prospect, which is expected to be drilled in the winter of 2004-2005.

"Part of the reason for the new company was … to give us more of a name associated with the North Slope and part was for a corporate structure," member manager John Jay "Bo" Darrah Jr. told Petroleum News in August 2004.

Formed in 1999 to acquire, explore and develop prospects on Alaska's North Slope, AVCG's founders are Darrah and Barton Armfield, two experienced oil men and longtime acquaintances. Darrah has 33 years experience managing a privately held oil company based in Wichita, Kansas; Armfield has extensive, and relatively recent, history on Alaska's North Slope with Alaska Petroleum Contractors.

AVCG LLC

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The other six owners in AVCG are privately held, independent oil and gas companies actively exploring and operating in the Lower 48.

According to Darrah, AVCG has stayed on track with its plan to develop "North Slope leftovers" — i.e. smaller prospects near existing fields that hold in the range of 50 million barrels.

With three exceptions: "We have significant positions in two prospects that each exceed 100 million barrels and a third which has up to 90 million barrels of recoverable oil," Darrah said in August 2004, referring to estimates based on 3-D seismic shot on approximately 40,000 acres of AVCG's North Slope holdings.

Palm lease added to Two Bits

The firm's major blocks are Cronus, which includes joint acreage with ConocoPhillips; Gwydyr Bay, located near the mouth of the Sakonowyak River and separate from Pioneer Natural Resources' prospect of the same name; and Itkillik River and Ocean Point.

AVCG also holds a four-section lease at Palm on the western edge of the Kuparuk River unit, which has a new producing Kuparuk sand well.

In an August 2004 deal with Armstrong Alaska, AVCG's Palm lease was added to the Two Bits prospect, which Armstrong plans to drill in the winter of 2004-2005.

"Originally AVCG had bid on three adjoining tracts in this area but we were 'touched out' in the biding process on two of the leases, one by Bill (Armstrong) and one by ConocoPhillips," Darrah said. "Joining or contributing acreage in order to cause wells to be drilled is very common and traditionally easily accomplished among independents."

Remaining prospects are in various stages of evaluation. "We have positioned our prospects so that while looking for 50 to 100 million barrels of oil, we are assured that something less can be sanctioned, say in the 25 million barrel range," Darrah said. "When you think about it, 25 million barrels is huge anywhere else on-shore in the Lower 48," he added.

The Anchorage office

AVCG opened a land and exploration office in Anchorage in January 2004, which is staffed mainly by Darrah and Edgar Dunne, also an AVCG manager. Darrah said Brooks Range is working closely with ASRC Energy Services, its primary field service provider and a subsidiary of the Native regional corporation for northern Alaska, Arctic Slope Regional Corp.

AVCG expects to increase its North Slope activity in 2005 through Brooks Range Petroleum and by working with other independents, Darrah said.

"Our goal for 2005 is to drill a minimum of one well and a maximum of three wells," he said. "Our interest would range in size according to commitments from those

see **AVCG** *page 41*

continued from page 40

AVCG

funding partners."

Alaska economical challenges

The North Slope's prolific oil reserves and its U.S. address which ensured a "stable government environment" is what brought AVCG to Alaska in 1999, Darrah said. The company quickly found that Alaska's economic challenges greatly surpassed the region's geological challenges.

"While we knew the pipeline tariff cost at the time, I would have to say we were pretty ignorant to how 'open' the slope was and is to small companies," Darrah said.

Downstream costs for North Slope oil are "over the top," when compared to other locations worldwide. In particular, traditional North Slope facility sharing agreements now in place, such as Ballot 255 at the ConocoPhillips-operated Kuparuk River unit, "do not represent arms length transaction between facility owner and satellite owner," Darrah said. "This is because the two parties or assets are so closely cross-aligned to their percentage ownership in both centers that there is little if any net effect on their working interest. To date, there are no true third parties producing a satellite into one of the six existing North Slope facilities."

Most troubling for an independent considering a North Slope project are the backout formulas, which treat a facility's marginal barrels with the same value as the best barrels, he said.

"If some of the high cost of downstream operations could be lowered tomorrow, there would be more than a pitifully few exploration wells drilled year to year," Darrah said. "One of our big hurdles has been convincing new companies to partner with us, given the high marketing cost."

Companies that have given Alaska a look, thanks to AVCG, include St. Mary Land and Exploration, Devon Canada and Canadian Natural Resources, Darrah said. "I am proud to say that if any of these companies choose to do business on the North Slope, with or without us, that they will be doing so knowing all of the challenges, rewards and the full economic cost structure of doing business on the North Slope." ◆

—Patricia Liles contributed to this story

Cassandra seeks investors for Katalla well

Local independent has permits to drill test well at Alaska's first oil field southeast of Cordova

By KAY CASHMAN
Petroleum News

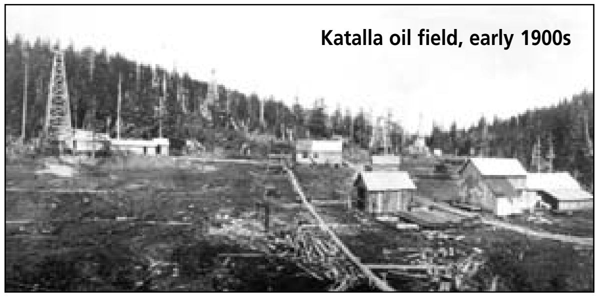
Cassandra Energy has decided to cut back its Katalla drilling program from two or three wells to one well, company President Bill Stevens told Petroleum News Oct. 28, 2004.

Stevens is in the process of amending his operating plan to reflect the downsizing of the project which will be on private land near the former town of Katalla, the site of Alaska's first commercial oil production in 1902. The field, 56 miles southeast of Cordova, was shut in following a refinery fire in 1933.

Cassandra, which is owned by a group of private investors, is looking for partners or investors for the Katalla project and is hoping to mobilize equipment in the spring or fall of 2005.

Cassandra's story began in July 2000 when the company entered into a lease-option for oil and gas rights on 10,134 acres from Chugach Alaska, an Alaska Native regional corporation. The surface rights were controlled by the Chugach National Forest.

A Sept. 17, 1982, settlement agreement between the U.S. Department of the Interior and Chugach Natives Inc. (predecessor to Chugach Alaska) gave the Native corporation exclusive rights to drill for, mine, extract, remove and dispose of all oil and gas deposits in a liquid or gaseous state from the date of signing until midnight Dec. 31, 2004, "and so long thereafter as oil and gas are produced in paying quantities," U.S. Forest Service officials said.



THE BARRETT WILLOUGHBY COLLECTION, ACCESSION NUMBER 72-116-213, ARCHIVES, ALASKA AND POLAR REGIONS DEPARTMENT, UAF

CASSANDRA ENERGY CORP.
HQ: Anchorage, Alaska, with office in Kenai, Alaska
CEO: Bill Stevens
EMAIL: casscon1@acsalaska.net or casscon@alaska.net

If a well capable of producing in paying quantities within the 10,134 acre Katalla area was not completed during that time period, all rights, title and interest of CNI would revert back to the United States.

Native corporation opts out

But Chugach Alaska canceled the agreement with Cassandra in August 2004.

Rick Rogers, Chugach Alaska's vice president for land and resources, told Petroleum News Oct. 28, 2004, "Cassandra's been unable to find capital for the project. The terms of our conveyance from the federal government are very clear. We don't have any oil and gas rights unless we can prove there are commercial quantities of oil and gas by Dec. 31, 2004, and we didn't see it happening by that date."

But the 465-acre Katalla oil field, of most interest to Stevens, was still in Cassandra's hands per a 2001 lease-purchase agreement with the Welch family of Cordova.

And Stevens, safety and health program coordinator for Inlet Drilling Alaska in Kenai, Alaska, doesn't give up easily, as evidenced by the 30 months it took him to get federal approval for the Katalla project which is surrounded on three sides by the Chugach National Forest. Cassandra was the first company to permit a well in the area in more than 16 years.

In a 2003 interview, Rogers said the Katalla project had gone through an extensive review process, including "an ACMP review, two environmental assessments by the Forest Service. It was a very exhaustive public process."

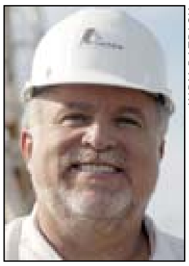
Stevens said Cassandra lost the interest of several potential investors during the drawn out permitting period, but as soon as his new plan of operations is amended, he'll be ready to go – and with only one test well, he'll need less money. ◆

North Fork project closer to development

NorthStar's southern Kenai Peninsula unit gets funding for second well, gasline north to KKPL

By KAY CASHMAN
Petroleum News

In mid-August 2004, Alliance Energy of Tulsa, Okla. announced it had agreed to fully fund development of NorthStar Energy Group's North Fork unit on Alaska's southern Kenai Peninsula.


JUDY PATRICK
BARRY FOOTE

The deal included 'fast-tracking' a pipeline north to connect the gas field with Kenai Kachemak Pipeline gasline to Kenai and drilling a second well in the unit so that a gasline could be built south to Homer, which has no source of natural gas.

Under a farmout agreement between Alliance and NorthStar, development of the North Fork field east of Anchor Point would include drilling the second well (No. 41-36,) "as soon as January 2005," NorthStar President Barry Foote told Petroleum News Aug. 19, 2004. (The lion's share of the North Fork field is held by field operator Gas-Pro, which is owned by NorthStar.)

Homer agreement with Enstar gets approved

Foote also said the Regulatory Commission of Alaska issued final approval in the summer of 2004 for the gas sales agreement between Enstar Natural Gas Co. and NorthStar, which would bring natural gas from North Fork to Homer.

Dan Dieckgraeff, Enstar's manager of finance and rates, told Petroleum News a year ago, when the companies first announced the agreement, that following RCA approval it would probably take a year and a half to two years to begin delivering gas to Homer. Commission approval, he said, was just the first step.

In October 2004, Dieckgraeff said the contract with NorthStar called for part of the line to be built by each firm with Northstar obligated to construct a pipeline to transport gas from its leases to Anchor Point and Enstar required to construct a pipeline extension from Anchor Point to Homer and install local gas distribution facilities in Homer.

The 20-year gas supply agreement, Dieckgraeff said, also called for "redundant deliverability of reserves" – i.e more than one well to supply Homer. (The existing well, never produced, was drilled in 1965 by Standard Oil of California when it was looking for oil.)

"We don't want to hang the town on one well. We want to have a second source for gas in case we have deliverability failure at one place," Dieckgraeff said.

NorthStar must also prove up its gas reserves and, using an independent petroleum engineer, that its leases constitute a commercial quality gas field. Specifically, the agreement between NorthStar and Enstar calls for 14.5 billion cubic feet of "present proven reserves," RCA said.

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Gas to go north, too

Initially, the commission said, "these pipelines would not be interconnected with the existing gas pipeline network on the Kenai Peninsula. However, NorthStar has said it hopes to find sufficient gas reserves to exceed the gas volumes necessary to meet Enstar's load in Homer and to interconnect with the KKPL. NorthStar would like to sell additional gas into the Southcentral market so it contemplates building a pipeline to Anchor Point large enough to accommodate both the gas necessary to serve Enstar plus additional volumes."

Part of the reason Northstar was looking at also going north with its gas was because the Homer market was "too small a market to justify development of a single well," Northstar said in public comments to RCA.

At the end of three years of service Enstar expects to be serving 1,500 customers in Homer, Dieckgraeff, said. The 10 to 11 mile four-inch pipeline to Homer will cost about $3.5 million.

Willbros, ENSR handling pipeline north

Alliance has engaged Willbros Pipeline Engineers and ENSR "to permit and

see NORTHSTAR page 44

NorthStar, Alliance didn't back down from a challenge when KKPL cut short

When NorthStar first got involved with the North Fork project, KKPL expected its gas line from Kenai to terminate at Anchor Point or Homer, but that changed and Ninilchik, farther north, was eventually chosen to be the end of the line.

NorthStar promptly said it would build a line to Anchor Point to take gas south to Homer and/or north to Ninilchik to connect with KKPL.

It also filed to expand its North Fork unit from 640 acres to almost 27,000 acres, drill a second well in the unit, and struck the 20-year gas supply deal with Enstar for Homer.

"We're very pleased about NorthStar's plans because we want to monetize this asset for the state," Steve Martinez at the Bureau of Land management told Petroleum News after a summer 2004 visit from NorthStar and Alliance executives.

continued from page 43

NORTHSTAR

build the pipeline north" to connect with the KKPL, Foote said in August.

He also mentioned the possibility of his company building the entire line to Homer; something he said he was interested in talking to Enstar about. ◆

Pelican set to drill four Cook Inlet wells

Company opened Anchorage office in mid-2004; staying onshore on west side in hunt for gas

By KAY CASHMAN
Petroleum News

With one disappointment under its belt — a dry hole at Iliamna No. 1 — Pelican Hill Oil and Gas is moving forward to drill as many as four onshore west Cook Inlet gas exploration wells between November 2004 and spring 2005. The San Clemente, Calif., independent, which bought its first leases in Alaska in 2001, also opened an Anchorage office in mid-2004.

JUDY PATRICK

AL GROSS

"We've got a sign on Iliamna No. 1, 'Opened by mistake,' Arlen Ehm, vice president/Alaska for Pelican Hill's Alaska operation, told Petroleum News on Nov. 1, 2004. Iliamna No. 1 was a vertical hole in section 31, township 9 north, range 14 west, Seward Meridian. It was on state oil and gas lease ADL 0388133, onshore at Trading Bay, northwest of the Trading Bay production facility.

"We're in the process of clearing everything out at that drill site at the moment; most of its already gone," he said. "What we're doing is mobilizing enough supplies to run all winter for four wells."

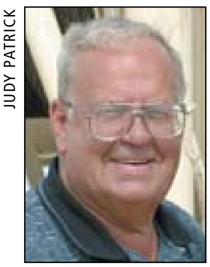
Pelican Hill will be spudding N Beluga No. 1 in the first section north of the ConocoPhillips-operated Beluga River gas field in mid-November 2004.

PELICAN HILL OIL & GAS INC.

PELICAN HILL OIL & GAS
HQ: San Clemente, Calif.
CEO: Allen J. Gross
TOP ALASKA EXECUTIVE: Arlen Ehm
ALASKA OFFICE: Anchorage
TELEPHONE: 907 277-1401
EMAIL: arlenehm@gci.net

"We're driving conductor pipe now," Ehm said.

N Beluga No. 1 is "2,000 feet from the east line and 1,750 from the south line of section 12, township 13 north, range 10 west," he said. "It's a close twin to the Alaska Energy Development well — the Burglin X33-12 — which is about 250 feet away."



JUDY PATRICK

ARLEN EHM

"That well," he said, "was pronounced dry and plugged and abandoned without testing in 1977." Pelican Hill's well is on a Trading Bay Oil and Gas lease.

"We're farming in the acreage by drilling the well," Ehm said. "Once it has been spudded the lease will be assigned to Pelican Hill."

Next drilling at Pretty Creek

Under Pelican Hill's agreement with Trading Bay Oil and Gas, if the N Beluga No. 1 is spud by Dec. 1, 2004, Pelican Hill has "a right to farm in all of the Trading Bay Oil and Gas Pretty Creek leases," Ehm said. "I am preparing to permit two wells at Pretty Creek."

The Pretty Creek leases are between Unocal's Pretty Creek and Lewis River units -— all the acreage between those two units.

"We'd like to drill two wells there — N Pretty Creek 1 and N Pretty Creek 2 — and then go back and drill a second well at Beluga, the NE Beluga 1, which I'm presently permitting. But drilling NE Beluga 1 is conditional upon N Beluga 1 being successful, just as drilling a second Pretty Creek well is conditional upon the success of the first Pretty Creek well," Ehm said.

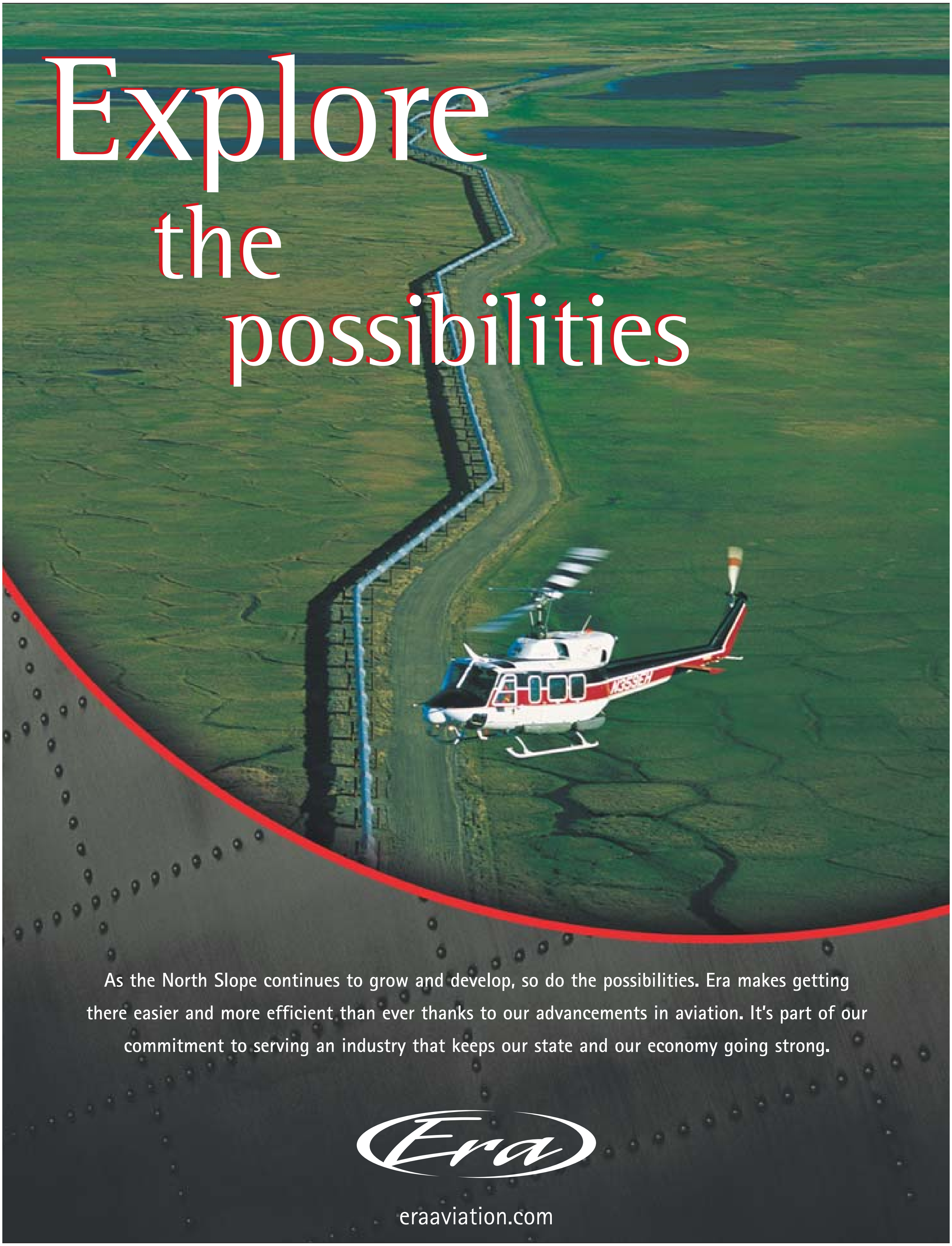
The last three wells, he said, are in the Susitna Flats state game refuge.

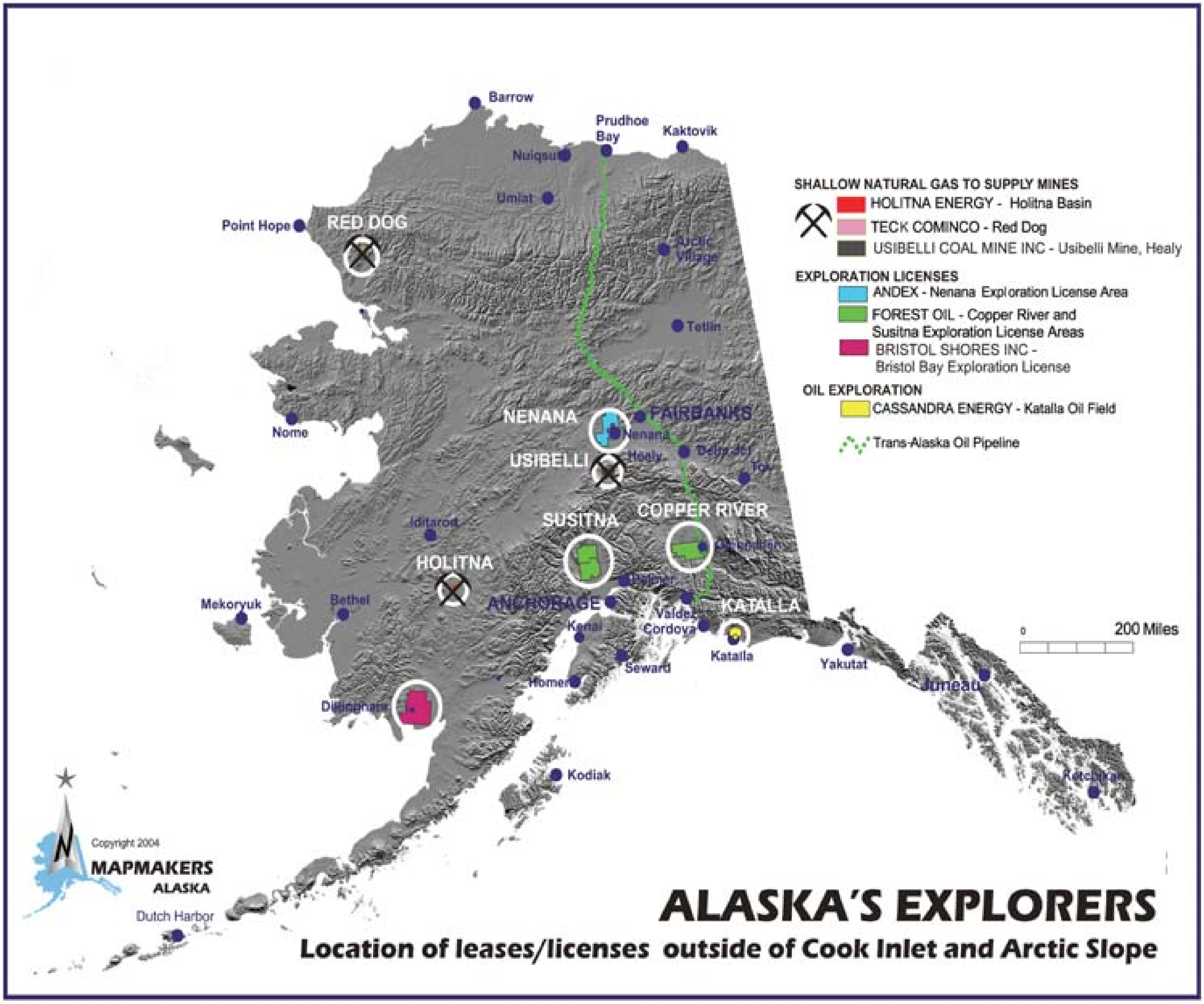
Jim Rose operations superintendent

Pelican Hill plans to use its own drilling rig, a Water Resources International rig, the Ideco H-35 KD, to drill the wells. Used to drill water wells in Hawaii and brought to Alaska by Pelican Hill President Al Gross, the rig was completely refurbished in 2004.

Ehm said that Jim Rose is the company's operations superintendent.

Camp operations are being run by Kuukpik Arctic Catering. Other contractors include Tesco, Quadco, Baroid, BJ Services and MRO Sales, he said. ◆

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Healy
Delta Jct
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Iditarod
SUSITNA
COPPER RIVER
Glennallen
HOLITNA
Palmer
ANCHORAGE
Mekoryuk
Bethel
Valdez
KATALLA
Kenai
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Katalla
Seward
Yakutat
Homer
Juneau
Dillingham
Kodiak
Ketchikan
Dutch Harbor
SHALLOW NATURAL GAS TO SUPPLY MINES
HOLITNA ENERGY - Holitna Basin
TECK COMINCO - Red Dog
USIBELLI COAL MINE INC - Usibelli Mine, Healy
EXPLORATION LICENSES
ANDEX - Nenana Exploration License Area
FOREST OIL - Copper River and Susitna Exploration License Areas
BRISTOL SHORES INC - Bristol Bay Exploration License
OIL EXPLORATION
CASSANDRA ENERGY - Katalla Oil Field
Trans-Alaska Oil Pipeline
0 200 Miles
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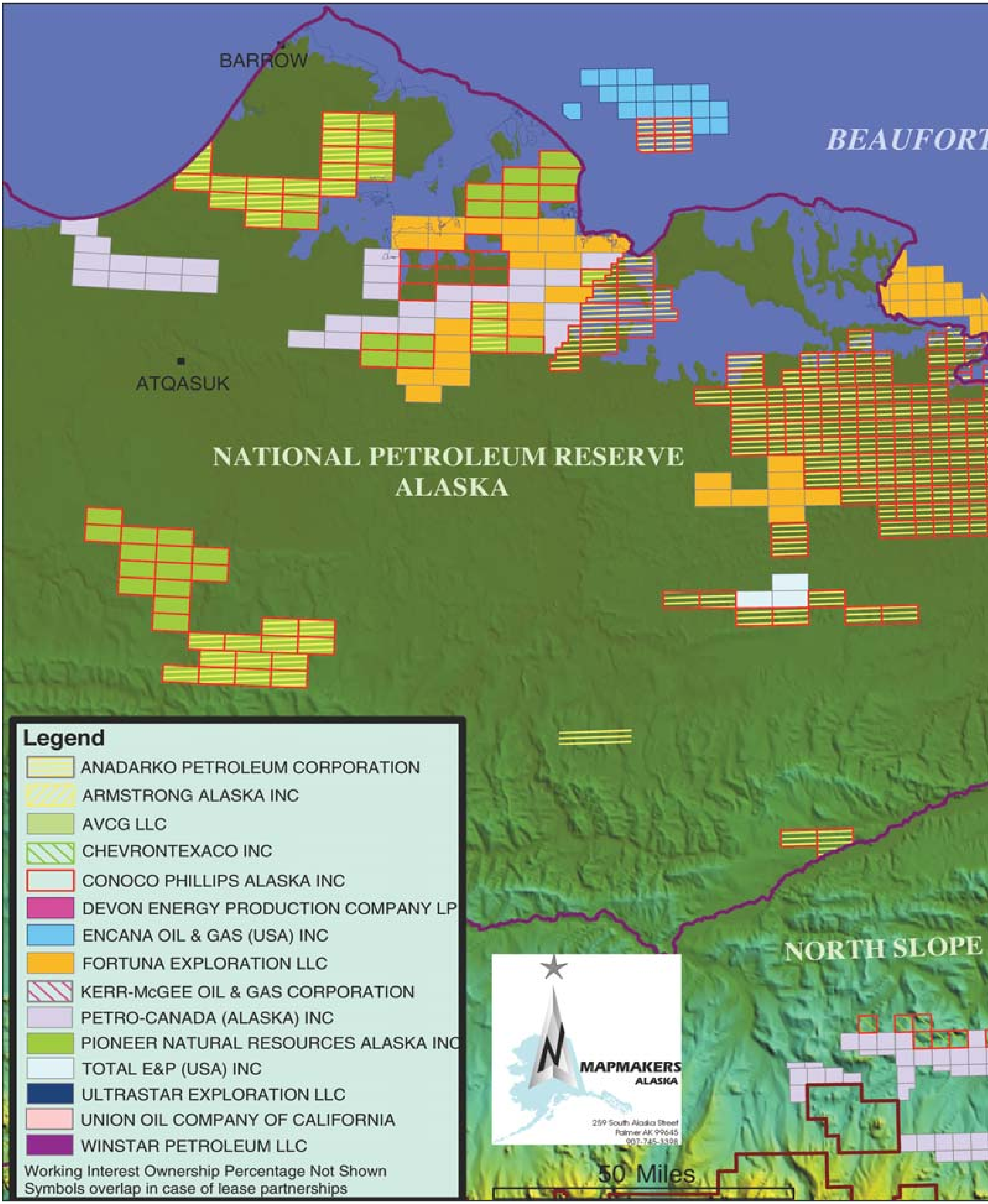
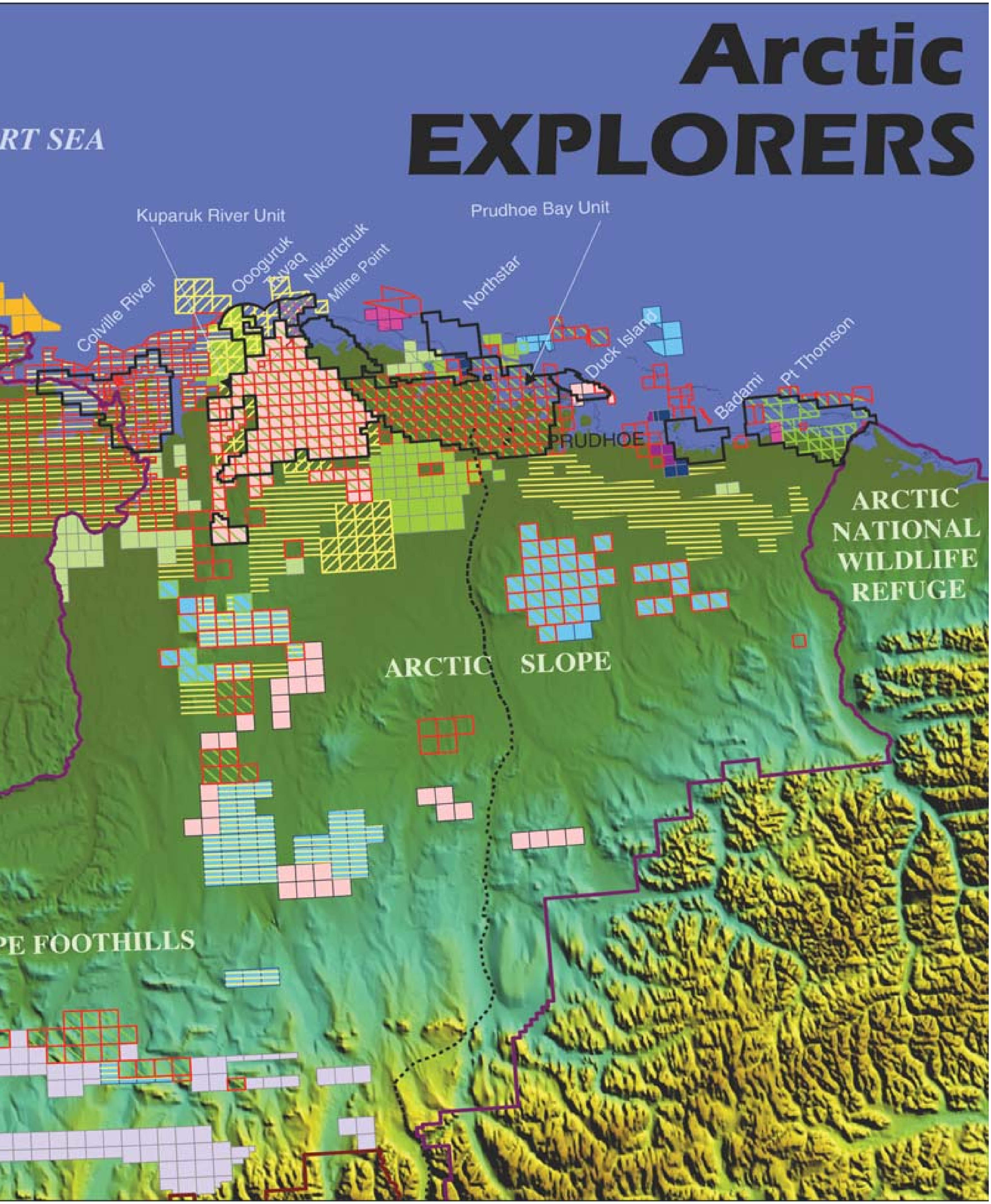
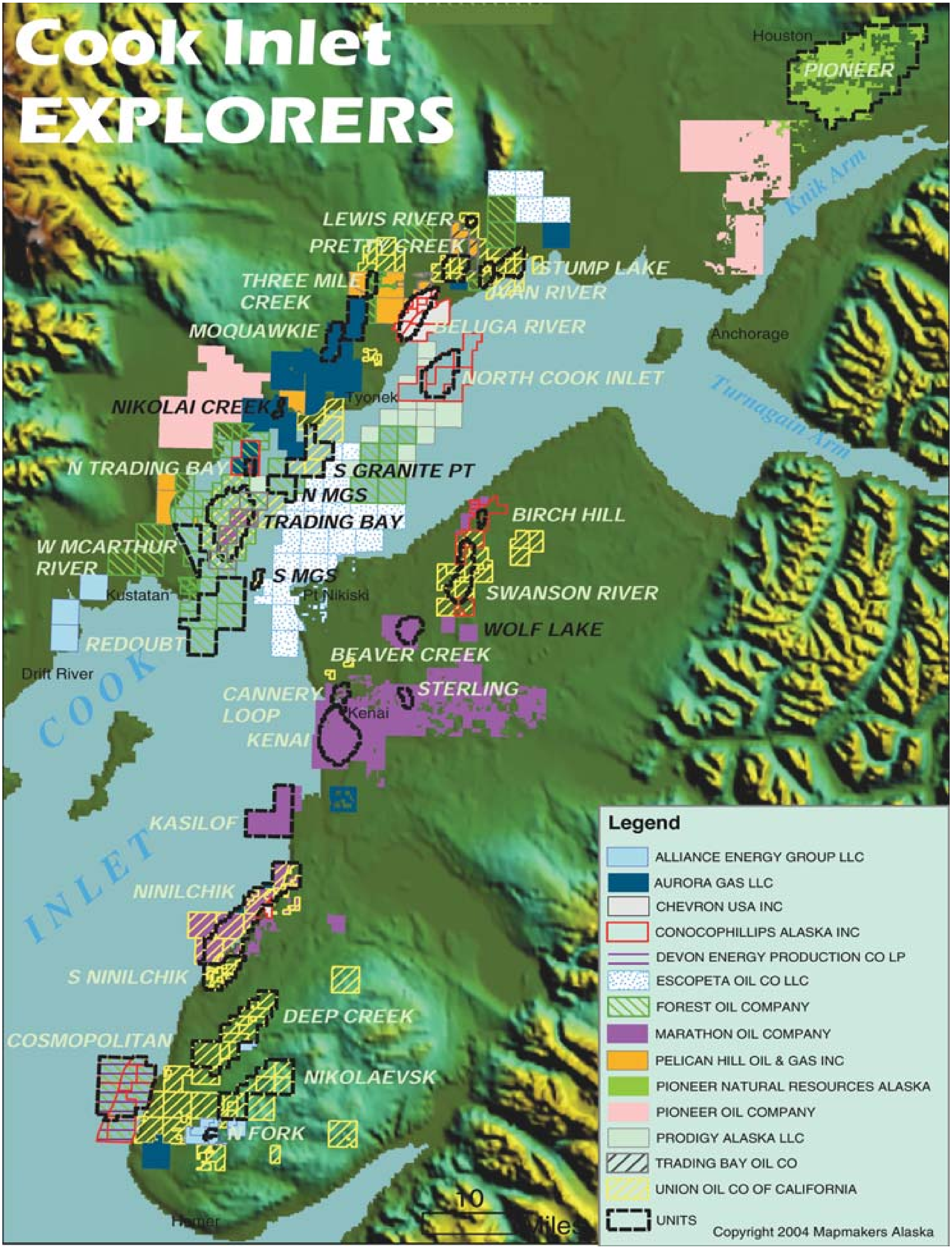
ALASKA'S EXPLORERS
Location of leases/licenses outside of Cook Inlet and Arctic Slope


BARROW
BEAUFORT
ATQASUK
NATIONAL PETROLEUM RESERVE
ALASKA
NORTH SLOPE
Legend
ANADARKO PETROLEUM CORPORATION
ARMSTRONG ALASKA INC
AVCG LLC
CHEVRONTEXACO INC
CONOCO PHILLIPS ALASKA INC
DEVON ENERGY PRODUCTION COMPANY LP
ENCANA OIL & GAS (USA) INC
FORTUNA EXPLORATION LLC
KERR-McGEE OIL & GAS CORPORATION
PETRO-CANADA (ALASKA) INC
PIONEER NATURAL RESOURCES ALASKA INC
TOTAL E&P (USA) INC
ULTRASTAR EXPLORATION LLC
UNION OIL COMPANY OF CALIFORNIA
WINSTAR PETROLEUM LLC
Working Interest Ownership Percentage Not Shown
Symbols overlap in case of lease partnerships
MAPMAKERS
ALASKA
50 Miles

Arctic EXPLORERS

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Houston
PIONEER
Knik Arm
LEWIS RIVER
PRETTY CREEK
STUMP LAKE
IVAN RIVER
THREE MILE CREEK
MOQUAWKIE
BELUGA RIVER
Anchorage
NORTH COOK INLET
Turnagain Arm
Tyonek
NIKOLAI CREEK
N TRADING BAY
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TRADING BAY
BIRCH HILL
W MCARTHUR RIVER
S MGS
Kustatan
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SWANSON RIVER
WOLF LAKE
REDOUBT
BEAVER CREEK
Drift River
CANNERY LOOP
STERLING
Kenai
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AURORA GAS LLC
CHEVRON USA INC
CONOCOPHILLIPS ALASKA INC
DEVON ENERGY PRODUCTION CO LP
ESCOPETA OIL CO LLC
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PELICAN HILL OIL & GAS INC
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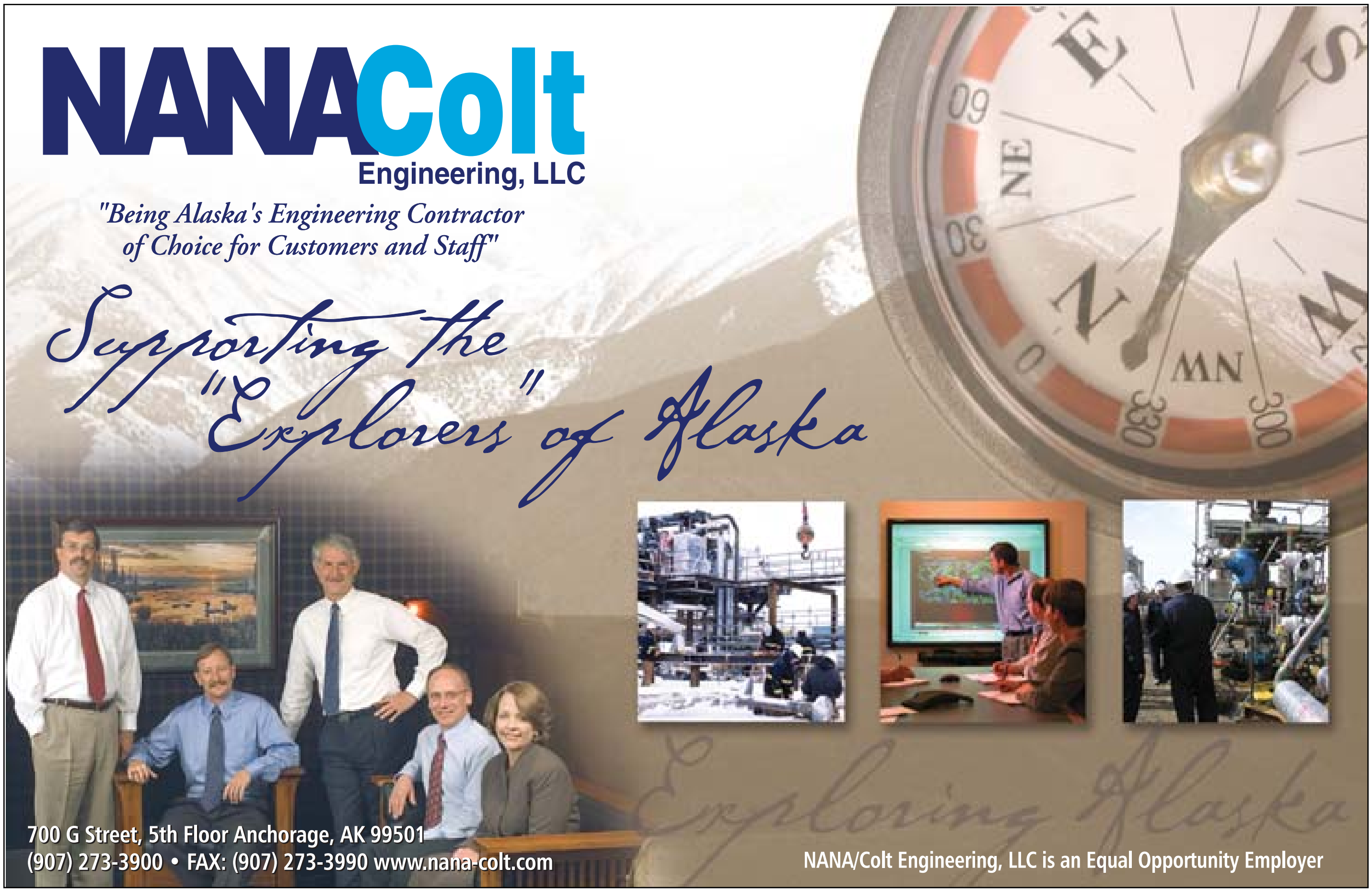
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Seen here serving the Cook Inlet Pipeline terminal

Forest Oil's future in Alaska unknown

By KAY CASHMAN
Petroleum News

Forest Oil Corp.'s new game plan, announced in September 2003 after several quarters of disappointing financial results, did not bode well for Alaska.

Newly appointed CEO Craig Clark's four-pronged strategy to improve Forest's financial position included, among other things, less emphasis on frontier drilling and more focus on acquiring producing properties. The Denver-based independent's portfolio in Alaska included a number of prospective "ready to drill" frontier prospects and producing properties for sale in Alaska were few and far between.


CEO CRAIG CLARK

One other element of Clark's strategy was cost-cutting in all the company's business units, which had serious implications for Alaska because of Forest's less-than-profitable experience at offshore Redoubt Shoal field in Southcentral Alaska's Cook Inlet basin.

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ALASKA EXECUTIVE: Leonard Gurule
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TELEPHONE: (907) 258-8600
WEB SITE: www.forestoil.com

Disappointing results

Months before Clark revealed his new game plan, the dream that was Redoubt Shoal — solid new oil production from Alaska's mature Cook Inlet basin — had started to fade. Forest admitted its disappointment publicly in August 2003 when it announced unsatisfactory results from two Redoubt wells and said it was reevaluating the reservoir.

At about the same time, the hard-charging Clark replaced chairman and CEO Robert Boswell, who resigned after 17 years with Forest.

Forest's top executive in Alaska, Gary Carlson, also left the company in 2003.

Carlson was replaced with Leonard Gurule, a former manager of ARCO Alaska's Prudhoe Bay operations and construction activities.


LEONARD GURULE

Final wake-up call

The final wake-up call for Alaska came Jan. 27, 2004, when Clark told analysts Forest had cut proved recoverable reserves at Redoubt from 49 million barrels (the May 2002 number of 100 million barrels was not mentioned), to 8 million barrels.

Clark said in a conference call that Forest had completed an integrated field study of the Redoubt Shoal field and was "very disappointed" in the reduction in recoverable reserves. He said the company had finished its detailed technical review of the field and also had results back from an independent third-party review. The technical review combined geological and geophysical data gathered in 2003 with previous data and the reservoir was remapped using new seismic and new well data.

Clark said the new data, including production to date of more than a million barrels and the drilling of the No. 7 well close to the earliest producers, the No. 1 and No. 2 wells, "was helpful in providing additional oil-in-place calculations to compare to the 2002 data."

Clark also said Forest had replaced the traditional drilling

see **FOREST OIL** *page 56*

continued from page 55

FOREST OIL

rig it was using at Redoubt with a less expensive hydraulic workover rig from the Gulf Coast. "We have a rig that's basically allowing for remedial work and testing."

The smaller rig, he said, represented a 15 to 20 percent cost savings. "By eliminating the rig it gave us room and it also stops the meter running with a $100,000 a day spread."

The new reserves estimate reflected both lower-than-expected production rates and new data evaluations showing "significantly lower oil in place … lower overall recovery efficiencies and economic cutoffs," the company said in a written statement. (Boswell had previously indicated oil in place of 550 million barrels, but Clark did not offer a new number.)

Lower productivity, which had become apparent earlier in 2003, combined with lower reserves and high drilling costs made it "apparent that there was some oil that could not be recovered on the fringe or lower productive areas due to economic cost," he said.

"All of those factors contributed to lowering the total recovery factor to 18 percent." Cook Inlet fields have been averaging in the range of 25 percent to 42 percent oil recovery rates.

JUDY PATRICK

Osprey platform at the Redoubt Shoal field

Forest relatively quiet under Gurule

Gurule, Forest's new senior vice president of Alaska operations, arrived in the state with a positive message, despite the challenges he faced at Redoubt.

"I can tell you," he told Petroleum News Oct. 27, 2003, "that Forest is bullish on Alaska." Gurule, whose background includes 19 years with ARCO, (including postings at Prudhoe Bay and Kuparuk) was tasked with going through the company's Alaska assets, determining what looks good for Forest to drill, and what it should hold off on, where it should drill itself and where it should take partners.

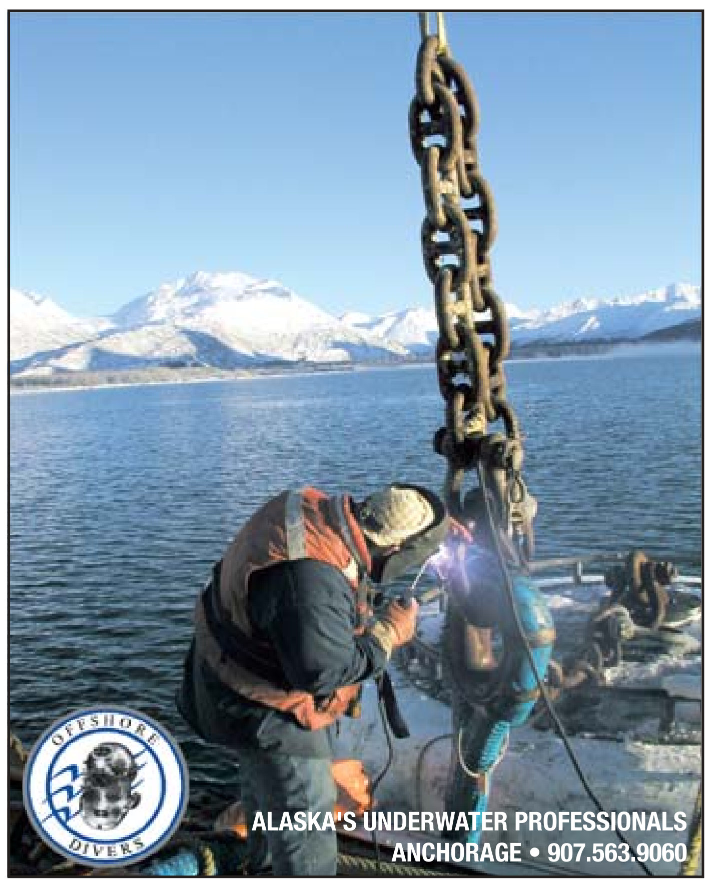
Between October 2003 and October 2004, Forest reduced its ownership in the ConocoPhillips Cosmopolitan prospect, increased partnership spending in Cook Inlet units operated by Aurora and Unocal, plans to drill a West Forelands gas well in the near future, and dropped eight Cook Inlet area leases.

Between October 2003 and October 2004, the company reduced its ownership in the ConocoPhillips Cosmopolitan prospect (see Devon story in this issue), increased partnership spending in Cook Inlet units operated by Aurora and Unocal, plans to drill a West Forelands gas well in the near future, and dropped eight Cook Inlet area leases — three on the southeastern edge of Redoubt and five onshore, southwest of the West McArthur River unit, which Forest operates.

And what does Gurule expect in the future?

In October 2003 he said, "I see us growing in Alaska."

But Gurule was not ready to talk about Forest's future in Alaska in late October 2004, when The Explorers went to press.◆

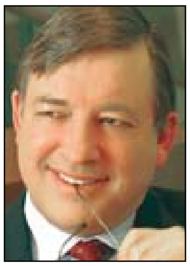


Talisman looks to drill North Slope well

By KAY CASHMAN

Petroleum News

Talisman Energy's U.S. subsidiary increased its land position on Alaska's North Slope at the June 2004 northwest National Petroleum Reserve-Alaska lease sale. Fortuna Energy had a North Slope acreage position before the sale, but the $26,480,300 spent by Talisman in the U.S. Bureau of Land Management's June sale represented more than a simple acreage increase.



JIM BUCKEE

For Talisman, which farmed into Total's NPR-A acreage last year as a minority partner, the NPR-A leases represented its first acreage as an operator.

To drill well in winter of 2005-06

Despite the fact the leases cannot be assigned until — and if — BLM wins a lawsuit filed by environmental groups against the northwest NPR-A sale, Talisman's Fortuna still sees Alaska as a bright prospect in its group of international assets and expects to drill a well in NPR-A in the winter of 2005-2006.

John 'tHart, Talisman's executive vice president of international exploration, is in charge of the company's Alaska exploration program.

David Mann, manager of investor relations and corporate communications for Talisman, told Petroleum News July 15, 2004, "The view within the company is that the next well we drill in Alaska will be in the winter of 2005-06."

When asked if the well would be on the acreage it shares with Total, the new NPR-A acreage in just picked up on the eastern edge of the northwest NPR-A planning area, or elsewhere, Mann said he didn't know.

"Obviously we already have seismic on the Total acreage where Total is the operator," he said, and no seismic has been shot in recent years on Talisman's new NPR-A acreage.

"And obviously we have our own views on geology and prospectivity," he said in regard to the 9,362 foot, Caribou 26-11 No. 1 well Total drilled on their joint acreage this past winter. (See July 4, 2004 article in Petroleum News.)

Mann said Talisman "is in the middle of the budgeting and planning process right now," and is looking at all its "high impact, albeit higher risk prospects," including the NPR-A. "Typically we finalize our budget in September or October. We think there is a lot of prospectivity in Alaska," he said, noting that the company was also looking at its portfolio of "higher impact, higher risk prospects, in Trinidad, Columbia and Qatar.

"We typically spend 5 to 10 to 15 percent of our capital budget on some of the larger, higher potential prospects. … For an oil and gas company, a successful exploration program is the best way to add shareholder value," Mann said. Talisman's capex budget is expected to be $2.5 billion next year.

As The Explorers was getting ready to go to press in mid-October 2004, Petroleum News queried Mann again. His response: "We are still in the process of putting together our budget for 2005. Fortuna is still bullish on Alaska and expects to drill a well in the winter of 2005-2006. In the meantime, the analysis leading up to picking a well location is ongoing. We still aren't saying anything about the Caribou well because of the competitive environment."

When asked in July if the company was looking at other investment opportunities in Alaska, Mann said, "It's a relatively new area for Fortuna, and

see TALISMAN page 58

TALISMAN ENERGY

TALISMAN ENERGY & U.S. SUBSIDIARY FORTUNA EXPLORATION LLC

HQ: Calgary, Alberta
CEO: Jim Buckee
ALASKA EXECUTIVE: John 'tHart
TELEPHONE: 403-237-1234
EMAIL: tlm@talisman-energy.com
WEB SITE: www.talisman-energy.com

Talisman takes first Alaska steps in NPR-A with Total as operator

Talisman's U.S. subsidiary, Fortuna, took its first step into Alaska's Arctic in 2003 with Total, which had just acquired leases in the National Petroleum Reserve-Alaska.

Talisman CEO Jim Buckee told analysts on May 7, 2003 that his company was close to a deal that would make Fortuna a significant player in Alaska. He said Fortuna has its eye on at least four prospects of 300 million to 500 million barrels each.

Calgary analysts said Alaska had special appeal to Buckee because infrastructure was in place and there was none of the negative fallout from Sudan that had been a drag on Talisman stock values.

see STEP page 58

David Mann, manager of investor relations and corporate communications for Talisman, told Petroleum News July 15, 2004, “The view within the company is that the next well we drill in Alaska will be in the winter of 2005-06.”

continued from page 57

TALISMAN

indirectly for Talisman. We … drilled the first well and are starting to get a feel for the play fairway in that part of Alaska. If there are attractive deals to be done, we’d be happy to do them.”

Mann’s final comment in mid-October? “Stay tuned.” ◆

JUDY PATRICK

In the winter of 2003-2004 operator Total drilled, plugged and abandoned the 9,362 foot, Caribou 26-11 No. 1 exploration well in NPR-A.

continued from page 57

STEP

At the time Talisman had an international portfolio that included the North Sea, Algeria, Malaysia, Vietnam, Indonesia, Colombia and Qatar — locations that Buckee conceded were riskier than those in North America, while holding the promise of much greater returns.

On June 24, Buckee announced the deal with Total, which he said represented an opportunity, through farm-in options, to farm-in to 360 square miles in NPR-A and build production at minimal political risk.

Fortuna was committed to drill an exploration well on a selected prospect to earn a 30 percent interest, with the right to earn a similar interest in the remaining prospects.

Total spud the Caribou 26-11 No. 1 on Jan. 29, 2004. A vertical hole, it was drilled to 9,362 feet and completed on Feb. 25. The well, on federal lease A084170, was in section 26, township 10 north, range 5 west, Umiat Meridian, in NPR-A.

Four months later Total announced it would not drill another well in Alaska the following winter and said it was moving its Alaska manager, Jack Bergeron, back to Houston by Aug. 1.

Total’s Houston-based communications manager, Jenna Wright, told Petroleum News July 1, 2004 that Total’s “Anchorage-based personnel would be reduced to one full-time and one part-time representative “as Alaskan operations move from the drilling stage to an evaluation and planning period.”

Total was “focusing on the evaluation of data gained from the first well and developing plans for its remaining” Alaska acreage, she said. (See Total story on page 64.)

Winstar continues to evaluate seismic data

Independent evaluating data for leases near Point McIntyre and between Liberty and Badami

By ALAN BAILEY
Petroleum News

Jim Weeks, former senior ARCO Alaska executive and president and CEO of Winstar Petroleum LLC, told Petroleum News in October 2004 that Winstar is continuing to evaluate seismic data for several of its North Slope leases. Weeks said the evaluations have not yet reached a point where company officials can decide on additional drilling.

Founded in 1997 by Petersburg fisherman John Winther and Seward businessman Dale Lindsey, Winstar spud its first North Slope well, the Oliktok Point State No. 1, in June 2003.

JUDY PATRICK

JIM WEEKS

Although the well, drilled by ConocoPhillips for Winstar, came up dry, the company and its sister firm, UltraStar Exploration, have continued to monetize their asset base on Alaska's North Slope and hope to be the first independent founded by Alaskans to produce oil from the slope.

The two firms hold more than 20,000 acres of state leases on the slope, including an override on a 2,000 acre lease that is part of the Pioneer Natural Resources-operated Ooguruk unit which is slated for possible production next year.

The well, which was drilled onshore from Kuparuk unit drill site 3-R to an offshore target, was "a huge disappointment," Weeks said, but, "We paid the price we wanted to pay ($6 million). At least it didn't cost us three times what we had planned to spend."

Winstar's efforts to get the Oliktok Point well drilled represented the first complete test of a 1999 charter agreement with the state of Alaska which obligates two (ConocoPhillips and BP) of the three major facility and pipeline owners on the North Slope to provide reasonable access to its infrastructure for non-owners.

WINSTAR PETROLEUM LLC
HQ: Anchorage, AK
CEO: Jim Weeks
TELEPHONE: (907) 258-2969
EMAIL: jweeks@winstarpetroleum.com

Weeks didn't just negotiate an exploration agreement with ConocoPhillips and its partners at Kuparuk. He negotiated a deal all the way through production, so that Winstar could be assured of reasonable terms if it found oil.

West of Point McIntyre

The company is currently evaluating data for leases near Point McIntyre and between Liberty and Badami

Weeks said Winstar has purchased a license to use some 3-D seismic data for an area in the Prudhoe Bay unit just west of the Point McIntyre operating area. The seismic was originally shot by ARCO and is now owned by ConocoPhillips, BP and ExxonMobil.

"We were successful in obtaining a license to that data from the owners … and that data is currently being analyzed by … Petrotechnical Resources of Alaska (PRA)," Weeks said.

Winstar has two leases in the area west of Point McIntyre and has obtained enough seismic to assess whether there's a promising-looking prospect. We already had some 2-D seismic, but you really need the 3-D data, he said.

The need to negotiate access to existing oil and gas facilities would impact the timeframe for any development in this area — 100 percent agreement from the owners of the Lisburne and Point McIntyre facilities would be essential. However, Weeks doesn't see that agreement as a major obstacle because the same owners approved the Oliktok Point deal.

"We do have a precedent out there," he said.

The Liberty/Badami area

Winstar also has two sets of leases between BP (Exploration) Alaska's offshore Liberty prospect and BP's onshore/offshore Badami unit. The company has two to three prospects between the two groups of leases, Weeks said. The two Liberty leases are offshore in Foggy Island Bay southwest of Liberty, but Weeks said they can be drilled from shore.

A subsidiary of Chroma Energy of Sugar Land, Texas, has completed an analysis of some 3-D seismic data that Winstar obtained from BP for much of the Liberty and Badami areas. PRA is doing further analysis of the data.

Weeks expects that any development in this area would require access to the Badami facilities, currently in warm shutdown. There would need to be a sizable oil find for the economics of using the Badami pipeline to work, he said.

"If PRA identifies the structure or structures that justify drilling investments, we'll start serious negotiations with BP to get access," Weeks said. ◆

UltraStar, Winstar partner on slope

Many of Winstar Petroleum's North Slope leases are partly held by UltraStar Exploration LLC, founded in 2003.

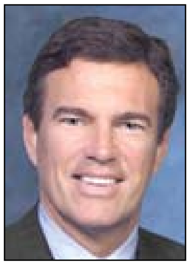
"Dale Lindsey and John Winther each own one-third of UltraStar. A company I run, called North-South Connections owns the other one-third. North-South is owned 50-50 by a friend in Arizona and me," said CEO Jim Weeks.

Hanley: Alaska a growth area for Anadarko

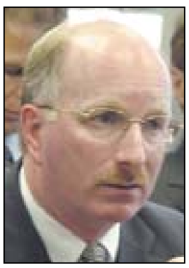
By RAY TYSON
Petroleum News

Anadarko Petroleum says Alaska is a growth area for the big exploration and production independent, despite a companywide realignment of E&P activities that spawned rumors of a pull back on the North Slope.

The fact Anadarko Alaska was not included in a $2.5 billion property divestiture program in North America alone should demonstrate that the Houston-based company is not in an asset-cutting mode in Alaska, Anadarko Alaska spokesman Mark Hanley said in an October 2004 interview with Petroleum News.



JIM HACKETT



FORREST CRANE

MARK HANLEY

"We're not divesting of anything in Alaska and that should indicate to you that there is an interest in staying here," Hanley asserted. "In fact, since that decision was made we participated in at least one lease sale, and I suspect you'll see us participating in more lease sales."

Fueling the rumor was an 80 percent reduction in Anadarko's Anchorage staff, followed by a strong indication from the company that it would not be drilling a well of its own on the slope this winter.

"Because we were not drilling a well this winter, they weren't going to let these guys just sit up here and not have anything to do," Hanley explained. "I fully expect that if we get a program going that we will see some people up here again."

However, as winter approached, Anadarko was still in the process of devising a multi-year drilling program and specifically looking for a partner to help shoulder the cost of exploring its Jacob's Ladder oil prospect. Hanley said it was just too late in the year to plan for any well this winter.

Working on partners and strategies

"We're working right now on partners and strategies," he added, "and I would say the hope is to be able to start the program the following winter, but we'll see where that goes."

Both Hanley and Jim Hackett, Anadarko's chief executive officer, made it clear that the company intends to fulfill its drilling and operational obligations on acreage shared and operated by ConocoPhillips, Anadarko's partner for more than a decade on the North Slope. However, the commitment comes with a slightly new twist.

"We decided not to double up on G&A (general and administrative) costs to help them," Hackett told analysts at the Lehman Brothers energy conference in September 2004. "We've decided to let them do that. In Alaska, ConocoPhillips … has looked out for our interests. We've proved it over the years."

That means Anadarko is doing "a little less double checking" or "looking over their shoulder," particularly on drilling operations, Hanley explained.

"But we still have our technical people doing work alongside them (in Houston) on the exploration side, looking at prospects and evaluating them," he added.

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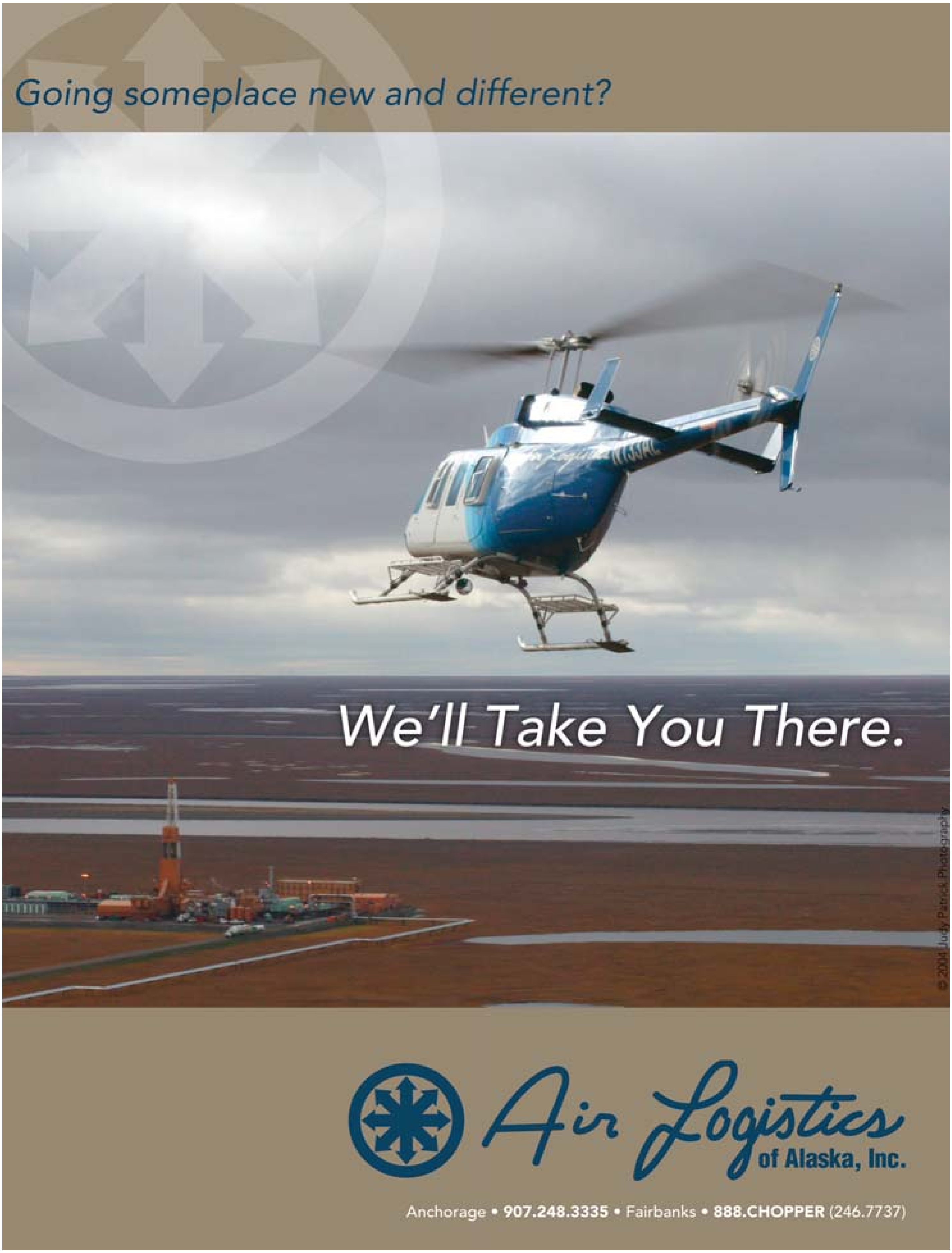
Waiting for gasline

On the natural gas side, Anadarko's decision to wait for regulatory and construction approvals for a major pipeline to carry North Slope gas to the U.S. Lower 48 before launching a drilling program on its North Slope Foothills acreage also has fueled speculation over the company's future in Alaska.

"It's more of a strategic hold and see position," Hanley said. "We think we have some good potential. But obviously, until we see a gas line, it's pretty hard to invest much more money in going out there and drilling prospects."

see **ANADARKO** *page 62*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ANADARKO

The sudden departure of Anadarko's former chief executive officer, John Seitz, in March 2003 brought the company's troubles to a boil. Seitz reportedly was pressured by the board of directors to resign because of Anadarko's sagging stock price, which had plummeted from a peak of $76 per share to the $40 per share range. The company's stock has since rebounded into the $70 per share range.

Seitz was replaced temporarily by chairman and former CEO Robert Allison, who over the years played a leading role in transforming Anadarko into one of North America's largest and most respected exploration and production companies.

However, analysts had come to be highly critical of Anadarko's high cost structure and lagging production and even questioned the accuracy of the company's reported oil and gas reserves.

While conceding that Anadarko had some "real issues to deal with," Allison lashed out at the critics, saying the company's strong balance sheet "flies in the face of recent reports" and the "unjustifiable negativity out there."

Company under a cloud of takeover speculation

Still, Anadarko was squirming beneath a cloud of takeover speculation, which began mushrooming when the company started cutting drilling rigs and laying off workers, in what appeared to be a financial dressing up of the company for a possible sale.

Market sources said the Houston-based independent had opened a data room in Houston to prospective buyers that included Shell, ConocoPhillips, ChevronTexaco, Eni's Agip, Talisman Energy, EnCana and Apache.

But Anadarko has taken steps to improve the company's performance and image. In a well publicized effort to save $100 million a year, Anadarko last year cut 15 percent of its workforce and closed two offices in Texas. The Alaska staff was reduced from 10 to two.

Allison conceded that the company was top heavy with employees who were not directly associated with finding hydrocarbons. He said "layers of management" were peeled back so exploration and production managers could report to him directly.

The company also began working on reducing its long-term debt and high finding and development costs, as well as cleaning up the company's portfolio of high-cost and non-core oil and gas properties.

Rumors about the company's future appeared to subside around the time Allison announced his retirement in December 2003 and Hackett was named the new president and chief executive officer of Anadarko.

Hackett brought a solid reputation and considerable experience to Anadarko. He came directly from the largest U.S.-based independent of them all, Devon Energy, where he served as president and chief operating officer, following the merger of Devon and Ocean Energy. Hackett also served as president and CEO of Ocean following its merger with Seagull Energy in 1999.

Hackett was at the forefront of two major developments this year designed to improve the company's performance: ridding Anadarko of non-core properties and diversifying into territory unfamiliar to most exploration and production independents, the liquefied natural gas business.

LNG home in Canada

In August, Anadarko announced that it was acquiring Canada's Access Northeast Energy and its rights to build an LNG receiving terminal on the coast of Nova Scotia.

The deal will provide Anadarko with a home for its own future overseas natural gas production from Algeria and Qatar, while keeping the company on the leading edge of one of the fastest-growing segments in industry.

By the middle of September, Anadarko also had signed agreements to sell roughly $2.3 billion worth of unwanted oil and gas properties in the Gulf of Mexico, onshore Lower 48 and Canada, bringing the company close to its $2.5 billion divestiture goal. Anadarko said it

see **ANADARKO** *page 63*

JUDY PATRICK

Anadarko's Arctic platform prototype performed well on North Slope

Anadarko Petroleum's Arctic platform prototype performed "very well" on Alaska's North Slope, company spokesman Mark Hanley said in August 2004. "We didn't have any real problems … it didn't subside," pointing out that it had been left out over the two previous winter drilling seasons.

The unit, tested at a gas hydrate project, is up for sale, Hanley said. A larger model will have to be built for conventional North Slope oil and gas wells, incorporating the "lessons learned" from the prototype — something that won't happen until Anadarko has "several drillable North Slope prospects."

The unit, built for use in remote areas of the slope where water supplies and steep terrain make ice roads and pads impractical and too costly, incorporates the concept of an offshore drilling platform.

Keith Millheim, Anadarko's Houston-based manager of operations technology, said that if you look at old offshore jack-up rigs used in the Gulf of Mexico you could get a feel for the dimensions of the Arctic platform, which could be as large as 32 modules, each 50 feet by 12.5 feet. (The prototype had 21 modules.)

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ANADARKO

would use the proceeds to reduce debt and to repurchase stock. The board of directors authorized the buy back of up to \$2 billion of Anadarko common stock.

Anadarko's new strategy largely entails using profits from proven "foundation assets" onshore U.S. and Canada to fuel "growth platforms" in deepwater Gulf of Mexico, Algeria and Qatar, the company said.

"The divestiture of non-strategic properties allows Anadarko to focus on areas that have consistently produced the best results for us, as well as new growth areas," Hackett added.

Although Alaska was not included in Anadarko's divestiture package, Hackett made no mention of the North Slope being a growth area for the company.

"Frankly, if we weren't interested in Alaska we would have divested as part of the whole divestiture," Hanley said. "So I think (this) should give you a signal that after having gone through a full review of all the company's assets, we are considered a growth asset within the company. That alone should suggest to you that it's something we want to develop." ◆

Total's position in Alaska uncertain

By KAY CASHMAN
Petroleum News

JUDY PATRICK

The Caribou 26-11 No. 1 well

The bad news: Total E&P USA plugged and abandoned its first Alaska exploratory well, completed Feb. 25, 2004, and four months later relocated its top man in Alaska, Jack Bergeron, to Houston.

While there was some indication that Talisman's U.S. subsidiary Fortuna Energy, Total's partner in its National Petroleum Reserve-Alaska acreage, wanted to drill a sidetrack because its geologists had their own views on the geology and prospectivity of the Caribou 26-11 No. 1 well, Total still does not intend to drill a sidetrack from the Caribou well.

JUDY PATRICK

Jack Bergeron, Total's Alaska manager, was a popular figure among Alaskans during his brief stint in the state.

The company's Houston-based communications manager, Jenna Wright, said Total has "no definitive plans" to bid in any Alaska lease sales "at this time."

The good news: Following the plugging and abandonment of the Caribou well, Fortuna spent a chunk of money on more NPR-A leases, albeit not in the same vicinity as the Caribou prospect. Plus, Fortuna intends to drill an exploratory well in the winter of 2005-2006 on either one of Total's three NPR-A prospects or on its own acreage.

More good news: Total's Alaska oil and gas acreage is not up for sale and the company (as of Oct. 19, 2004) has kept its Anchorage office opened, manned by one full-time person.

Still some hope

And, there is still some hope for Total in Alaska: Total "is continuing to evaluate the data gained from the Caribou 26-11 No. 1 well. We have not publicly disclosed the drilling results from that well and have no plans to do so at this time. … Total is currently focusing its resources on other projects and areas within its U.S. asset portfolio, but continues to monitor both the Arctic area and NPR-A as the industry determines more about its potential from new and ongoing exploration and production activities there," Wright, told Petroleum News Oct. 19, 2004.

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The Anchorage office is manned by office manager Lianne Hopper. George Snodgrass works as a private contractor on a part-time basis for the company in Anchorage, Wright said.

Total acquired its NPR-A acreage in 2002, paying $53 million for 20 tracts. The company's investment in Alaska, including seismic purchases prior to land acquisition, 230,000 acres in NPR-A, subsequent 2D and 3D seismic acquisitions, and the well the company drilled at its Caribou prospect, was estimated by Bergeron to be in excess of $100 million by the end of 2004.

Total drilled the Caribou 26-11 with Nabors Alaska 14E rig on federal lease A084170 in section 26, township 10 north, range 5 west, Umiat Meridian. Because the Caribou prospect was "80-plus miles from the nearest road," the company used rolligons to move the rig and equipment to the site to save the time it would have taken to build ice roads. The whole distance, Bergeron said, was 70 miles from Deadhorse to the end of the road, and then the 80 miles by rolligon.

Within NPR-A, the companies built an ice road from the old Inigok test well, where there is a 5,000-foot gravel runway, so personnel and supplies could come in by air.

The well was spud Jan. 29 and work was completed Feb. 25. The Alaska Oil and Gas Conservation Commission said the vertical hole was drilled to its planned total depth of 9,362 feet. ◆

Pioneer to explore for gas in Alaska

By KAY CASHMAN
Petroleum News

A May 2004 state lease sale for the Cook Inlet basin drew a new player to Alaska, Pioneer Oil Co. of Lawrenceville, Ill., an independent that operates more than 800 wells in the United States

The family-run firm submitted high bids totaling $793,152 on 27 tracts in primarily two onshore lease blocks — one west of Knik Arm, across from Anchorage, from north of Point MacKenzie to southwest of Wasilla, and the other on the west side of Cook Inlet, inland from Trading Bay and west of Aurora's Nikolai Creek gas field. Looking for both conventional gas and nonconventional gas in coal seams (coalbed methane), Pioneer plans to drill two exploratory wells in 2005 – one in the Point MacKenzie area and one at Trading Bay.

Pioneer founder and President Don Jones, a fourth-generation oilman who first visited Alaska in September 2004, said his company was intrigued with the state's thick coal seams and the presence of gas bearing sands, previously overlooked by major companies.

"We've been looking in the continental U.S. for the biggest reserves of natural gas … and it became apparent Alaska was an oasis of natural gas in several different formations," he told Petroleum News after the May 2004 sale.

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Jones became interested in Alaska after a presentation from John Mackey, a consulting geologist his company frequently uses to find new prospective gas properties.

"There are tremendous gas reserves up there; not only where we took leases but farther north," Jones said.

Pioneer has "worked with coals in Indiana, Illinois and Kentucky where you might have 35-40 feet of combined thickness. … At 3,000 feet in Alaska you have 400 feet combined footage of coal. … The farther north you go, the thicker they get. … And there is definitely a market for the gas up there," Jones said.

"I feel Alaska has been overlooked by the producers here in the continental U.S. … I feel like we're just the first of many to come."

No heavily populated areas

When asked about Evergreen Resources, which was beset with political problems as a result of a deluge of complaints from private landowners in Southcentral Alaska, Jones responded, "I thought it was most unfortunate for Alaska that Evergreen would pick an area that was heavily populated, especially when it appeared they could do the same thing in less populated areas. We took our leases away from populated areas."

Jones said he intends to bring his technology, integrity and sensitivity to the environment to Alaska.

Looking for a drilling rig

Pioneer Oil Co. founder and President Don Jones isn't interested in taking on a partner in his Alaska leases, but he is looking for a local drilling rig.

"It seemed like everyone up there with a rig was pretty busy, so if we can't find a rig in Alaska, we're going to bring up one of our own rigs," he told Petroleum News in October 2004 following a trip to Alaska.

Jones invited anyone with a rig available in Alaska to contact him.

Roger Meier, the general manager of Pioneer's sister company, Franklin Well Services, has supervised drilling operations on Alaska's North Slope for other service companies.

"We hope to be welcomed by the locals there. We'll do everything aboveboard, like we do down here. We want to be a part of the growth, in the development of Alaska's huge oil and gas reserves. Our goal is to employ and train Alaskan residents; after all the gas is theirs."

Jones said his goal with the two 2005 wells is to test the coals for gas content and recoverability.

"It's a geologic structure test. … We'll be looking at both the sands and the coals to confirm the structures we see in the seismic we purchased. The first well will be in the Point MacKenzie area; the second well will probably be at Trading Bay," he told Petroleum News in October 2004.◆

ConocoPhillips dominates Alaska exploration

Has drilled or participated in 47 Alaska exploration wells in 6 years, acquired 1 million-plus exploration acres

By KRISTEN NELSON
Petroleum News

In the last six years — 1999 to 2004 — ConocoPhillips Alaska drilled 47 exploration wells in Alaska. Rick Mott, the company's vice president of exploration and land, said that number, which includes wildcats and step-outs, "is a very significant proportion" of all such wells drilled in the state during this period.

In addition, ConocoPhillips shot some 3,400 square miles of 3-D seismic from 1999 through March 2004.

"And we've leased over 1 million acres of exploration acreage," Mott said of the same period. "There's no one else in the industry that comes close in my opinion to that sort of commitment to Alaska."

JUDY PATRICK

RICK MOTT

Well count can be misleading

Mott noted that some people track the company by the number of exploration wells it drills.

But, he said, that's misleading, because the number of wells is not a measure of what the company is spending on exploration.

Mott said the company does not release its exploration budget for Alaska, but 2004 was "a fairly typical year, with respect to budget years for Alaska. What changes from year to year, though, is what our working interest is in wells and where they're located."

For example, a few years back, he said, the company had a 20 percent interest in the Trailblazer well in NPR-A, with partners Chevron and BP. In 2004's wells, however, ConocoPhillips had a 78 percent working interest.

Because of the higher working interest, Mott said, one of the company's wells in 2004 was the equivalent of its cost to participate in four Trailblazer wells.

The company's exploration investment in Alaska is not down, he said, "it's our working interest that varies from year to year."

Location is also an important cost factor.

Compared to a well within a field, a well "maybe five miles away" will cost twice as much, Mott said.

"If you go more than 20 miles away, you're probably talking about four times as expensive."

At 50 miles away, he said, the cost can be 10 times that of a well within a field.

"And if you go offshore you're talking about 20 times as expensive."

People who want to play the well-count game, Mott said, "should look at where the wells are located."

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For instance at Puviaq, in northwestern NPR-A, the company moved equipment by rolligon from both Deadhorse and Barrow, driving "over 26,000 miles in rolligons at 10 miles an hour," he said.

Competition strong for company dollars

Mott said what really drives Alaska costs home to him is a comparison with costs at the company's prospects worldwide.

Offshore West Africa, ConocoPhillips can drill a well "in 2,000 feet of water depth less expensively than we can drill a well, say, 50 miles out in the NPR-A. Significantly less expensively — like two-thirds the cost."

Alaska is a sanctioned exploration play for ConocoPhillips, Mott said, but that doesn't mean cost isn't a factor.

The company looks "at the opportunities in plays and basins" and does "screening-level evaluations of those basins and those plays."

There are only a handful of sanctioned plays in the world.

"It's not like Alaska is number 28 out of 50," he said, there are "only a few in the world."

"So Alaska's very important to ConocoPhillips in its exploration program."

"And in essence that gives us a hunting license, if you will, that we can go out and look for opportunities in those plays because we think they have economic potential to be interesting to us."

But the expense of drilling in Alaska should be of concern to Alaskans, Mott said, because once prospects are identified, ConocoPhillips looks at reserve size, risk and "the value per barrel and the cost."

We can't impact the reserve size, we "have to take what the basin gives us."

Technology and the skill of its people enable the company "to try and understand the risk … and reduce it to the irreducible point."

Then there is the element of cost. ConocoPhillips' engineering and drilling staff work on the most cost-effective way to go after a prospect.

But, Mott said, "the attractiveness of the basin will also be driven by the natural logistics problems of Alaska and … by the

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CONOCOPHILLIPS

cost of our contractors."

The bottom line, he said, is that "we all have a stake in cost" and ConocoPhillips needs the "help and assistance and cooperation" of its contractors in the cost area.

When the value per barrel is evaluated, engineering has a role to play, but "we do have a natural challenge" — an 800-mile pipeline and "then a several-thousand mile boat trip to get to market." And both contractors and state government have a role there.

ConocoPhillips will "continue to try to be creative and we'll work on our job part and try and find significant reserves and minimize the risk, and we'll try and be smart in our engineering approaches to drive down cost, but we need the help of our contractors and certainly state government."

Because, Mott said, "If costs go up … or value goes down, value per barrel goes down (and) it makes Alaska less attractive."

"It sounds like a political statement," he said, "but it's not a political statement — it's reality."

Right now Alaska is still one of ConocoPhillips' "favorite plays and favorite localities in the world. And we hope everyone will

see **CONOCOPHILLIPS** *page 68*

Meyers to head Russia operations, Bowles takes over in Alaska

JAMES BOWLES

KEVIN MEYERS

JUDY PATRICK

ConocoPhillips has named Kevin Meyers president of its exploration and production operations in Russia and the Caspian Sea region. James Bowles will replace Meyers as president of ConocoPhillips Alaska. The company said Oct. 6 that following "a brief transition period," Meyers will be based in Moscow and Bowles in Anchorage.

Meyers will be responsible for "executing the company's strategy as it relates to ConocoPhillips' newly created strategic alliance and joint-venture agreement with Lukoil," for the company's interests in the Polar Lights Co. and the North Caspian Sea Production-Sharing Consortium, which is managing the development of the giant Kashagan field offshore Kazakhstan.

Meyers has been with ARCO, Phillips Petroleum and ConocoPhillips, since 1980 in Texas and Alaska, and has been head of Alaska operations under three owners of the Alaska assets: ARCO Alaska, Phillips Petroleum and ConocoPhillips.

Bowles is rejoining the company after retiring from Phillips Petroleum in 2002 with 28 years of service. He held drilling and production assignments for Phillips, was vice president of the company's gas gathering and processing subsidiary, deputy managing director of the Norway division, and president of Phillips' Americas division, which included the company's Alaska operations prior to the ARCO Alaska acquisition.

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MOVES

Bowles has a bachelor's degree in mechanical engineering from the University of Arkansas and completed the Kellogg School of Management's Advanced Executive Program in 1999.

As president, ConocoPhillips Alaska, Bowles will have responsibility for all of the company's operations in the state. ConocoPhillips has a major ownership position in Prudhoe Bay and Kuparuk, and operates Kuparuk and Alpine. The company also has interests in Southcentral Alaska.

ConocoPhillips said Meyers and Bowles will report to Bill Berry, executive vice president, Exploration & Production.

BUREAU OF LAND MANAGEMENT

ConocoPhillips' Puviaq prospect, west of Teshekpuk Lake and south of Smith Bay, holds the western most well drilled in recent years in NPR-A. Kokoda is about halfway back to the eastern edge of NPR-A from Puviaq and southwest of the Trailblazer prospect, now owned by ConocoPhillips (78%) and partner Anadarko (22%).

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CONOCOPHILLIPS

work with us to keep it that way."

Next drilling season

In the 2004-2005 winter drilling season ConocoPhillips Alaska has told state and federal agencies it is looking at drilling four to nine exploration wells on the North Slope, including an 85-mile ice road to the Kokoda prospect in NPR-A.

As of Oct. 25, 2004, ConocoPhillips had interests in 1.9 million acres in NPR-A – 1.2 million acres if you look at just ConocoPhillips' share of the leases. Its other federal acreage was on the outer continental shelf, some 100,000 net acres, "almost all Beaufort Sea," with just some 5,000 net acres in Cook Inlet, company spokeswoman Dawn Patience told Petroleum News.

The company's interest in state exploration acreage as of Oct. 25, 2004, was approximately 560,000 net acres, 110,000 net acres of which are offshore, Patience said. ◆

ConocoPhillips' Spark well shines

ConocoPhillips and Anadarko Petroleum said Sept. 10, 2004 that they have successfully appraised the 2001 Spark discovery in the National Petroleum Reserve-Alaska on Alaska's North Slope.

The companies drilled two appraisal wells in the Spark accumulation in the winter of 2003-2004, the Carbon No. 1 and the Spark No. 4 wells.

The Carbon No. 1 well, about five miles northwest of the Spark No. 1A discovery well, encountered an Upper Jurassic reservoir, the companies said. An unstimulated well test flowed at a maximum rate of 24 million cubic feet per day of gas and 1,250 barrels per day of condensate. The condensate fluid gravity was 59 degrees API, and the flowing tubing pressure was measured at 905 psi. State records show the well was suspended April 23, 2004, at a true vertical depth of 8,193 feet and a measured depth of 8,196 feet.

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The Spark No. 4 well was drilled about three miles northeast of Carbon No. 1 and penetrated a similar hydrocarbon-bearing reservoir interval, but was not tested. That well was plugged and abandoned April 13, 2004, at a true vertical depth of 7,997 feet and a measured depth of 8,005 feet.

The Spark accumulation is adjacent to the 2001 Lookout discovery, which was successfully appraised in 2002. The Lookout No. 2 appraisal well tested at a rate of 4,000 bpd of oil and 8 million cubic feet per day of natural gas after fracture stimulation. The oil and gas also were produced from an Upper Jurassic reservoir interval. The oil had an API gravity of 40 degrees, and a flowing tubing pressure of 1,025 psi.

Technical and commercial evaluation of the Lookout (the proposed CD-6 pad) and Spark (the proposed CD-7 pad) discoveries was already under way on Sept. 10 as part of the Alpine satellites environmental impact statement.

Spark and Lookout are 15 and 24 miles, respectively, southwest of the Alpine oil field.

Ownership in these discoveries and the Alpine oil field are: ConocoPhillips (operator) 78 percent and Anadarko 22 percent.

Discoveries in 2000, 2001

The companies' original NPR-A discoveries were announced in the spring of 2001, and reflected drilling in 1999-2000 and 2000-01. Five wells and a sidetrack, which targeted the Alpine producing horizon, all encountered oil or gas and condensate: Spark No. 1 and No. 1A, Moose's Tooth C, Lookout No. 1, Rendezvous A and Rendezvous No. 2. A sixth well, targeting a different interval, was a dry hole.

The Spark No. 1A well tested 1,550 bpd of liquid hydrocarbons and 26.5 million cubic feet per day of gas. The Rendezvous A well tested at an unstimulated rate of 360 bpd of liquid hydrocarbons and 6.6 million cubic feet per day of natural gas.

Kevin Meyers, president of ConocoPhillips Alaska predecessor Phillips Alaska, said in May 2001 that the companies were "confident the discoveries will prove to be of commercial quantities. We believe that the five successful wells have encountered three separate hydrocarbon accumulations."

The Spark No. 1A well tested 1,550 bpd of liquid hydrocarbons and 26.5 million cubic feet per day of gas. The Rendezvous A well tested at an unstimulated rate of 360 bpd of liquid hydrocarbons and 6.6 million cubic feet per day of natural gas.

—reprinted from the Sept. 29, 2004 edition of Petroleum News

Petro-Canada: waiting on gasline, lawsuit

By KAY CASHMAN
Petroleum News

As of Oct. 15, 2004, Calgary-based Petro-Canada had an oil and gas lease position in northern Alaska of almost 700,000 acres.

But the company is waiting on two things to happen before it decides what to do with that acreage, which lies in two areas of the North Slope — the gas-prone foothills to the south and the oil-prone area close to the coast in the northeastern quadrant of the National Petroleum Reserve-Alaska.

In the gas-prone foothills of the North Slope, Petro-Canada is waiting for a definite signal that a gas pipeline will be built from the North Slope, giving the company an outlet for any gas it discovers in Alaska.

In NPR-A, Petro-Canada is waiting on the outcome of a lawsuit filed by environmentalists against the U.S. Bureau of Land Management that involves the planning area in which it won leases at a BLM sale in June 2004.

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First, natural gas

It all began in May 2001. Already a significant player in northern Canada's gas-rich Mackenzie Delta, Petro-Canada decided to get a foot in both Arctic gas camps by bidding in the first North Slope Foothills Areawide Oil and Gas Lease Sale on May 9 of that year. It emerged with 56 tracts, encompassing 322,560 acres for $2,471,040, which represented 23 percent of the high bids.

A company spokesman said the purchase was "another card in our deck. We're positioning ourselves for future exploration and development and the prospect of getting gas out of Alaska to the North American market."

The leases had a term of 10 years without any work commitment.

Petro-Canada's move across the border was also seen as an extension of its gas activities in the Alberta foothills and Northeast British Columbia, where "geological prospects … are similar" to those in Alaska, a company representative told Petroleum News.

The most recent gas-prone acreage picked up by Petro-Canada was 28,800 acres south of Prudhoe Bay in the May 19, 2004, state North Slope Foothills areawide sale, bringing its tally to 430,000 acres.

"What we got supplements our existing acreage," company spokeswoman Michelle Harries said.

Next, crude oil

Petro-Canada's next step was a move into the oil-prone NPR-A.

It successfully won bids on 28 blocks for $13,614,835 in the June 2004 federal NPR-A oil and gas lease sale for the northwest planning area.

Petro-Canada spokeswoman Susan Braungart told Petroleum News that the "oil prime" NPR-A acreage would give the company an additional base for operations in Alaska and possibly something to work on "while we await news on a gas pipeline. … We're hopeful that once the leases have been issued that the BLM will have resolved any legal issues with the leases and we can continue interpretation efforts with the data available."

Derek Evoy, manager of frontier exploration for Petro-Canada, is in charge of the firm's Alaska assets. ◆

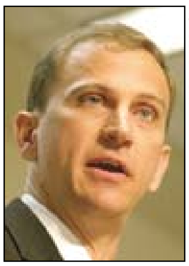
Pioneer building an Alaska drilling portfolio

Dallas independent opens permanent Alaska office, has concerns about cost of doing business on North Slope

By **KAY CASHMAN**
Petroleum News

Ken Sheffield has repeatedly said Alaska is one of four key exploration hot spots for Pioneer Natural Resources. Sheffield, based in Anchorage and president of Pioneer Natural Resource's Alaska subsidiary, said his company is looking for more drilling prospects in the state.

The Dallas-independent opened a permanent, 15-person office in the ConocoPhillips tower in downtown Anchorage in the summer of 2004.



JUDY PATRICK

Ken Sheffield, president

But Sheffield has been quick to point out that his company's interest in Alaska could change if the state of Alaska increases the tax burden on the oil and gas industry.

"We came to Alaska because it has a world-class petroleum system. … It's a great place to find oil, but sometimes it's not such a great place to make money," Sheffield said in May 2004 following the adjournment of the Alaska Legislature.

Sheffield acknowledged the state has been "improving the regulatory environment in the last couple of years" since Pioneer first entered Alaska in October 2002.

PIONEER NATURAL RESOURCES CO.

HQ: Irving, Texas
CEO: Scott D. Sheffield
EXECUTIVES IN CHARGE OF ALASKA:
Ken Sheffield, president, Pioneer Natural Resources Alaska, Chris Cheatwood, executive VP of worldwide exploration
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PIONEER NATURAL RESOURCES

Nonetheless, the North Slope is challenging for independents such as Pioneer, he said.

"It's the most expensive basin in the world," Sheffield said, citing the geologic risk common in any oil province, as well as Alaska's unique situations that add to the risk, including the high cost of transporting crude oil to West Coast markets; protracted project timelines because of limited winter access; and low activity levels which reduce the number of oilfield service and supply contractors in the state and ultimately drive up costs because of a lack of competition.

The stability of the state's fiscal policy is also a concern, Sheffield said, and could change his company's enthusiasm for Alaska.

"I'm concerned about the talk of increasing taxes. It would be hard for us to move forward if there were any new taxes. The margins are too thin on the projects we're looking at."

Alaska's competition

Alaska's competition for Pioneer's investment dollars — i.e. the company's other three key exploration hotspots — are the Gulf of Mexico, particularly the deepwater Gulf, North Africa and West Africa, Sheffield said.

In Alaska, Pioneer hopes to build a "portfolio" of drilling prospects: "We're not just looking to drill one to two wells per year," he said, noting the company would achieve an "economy of scale" by drilling several wells each year. Sheffield said possibilities for the future include "continued step-out exploration" on the central North Slope, which "offers attractive reserve target sizes for independent companies."

Pioneer currently has four North Slope prospects that it has either drilled or hopes to drill, including Storms, south of Prudhoe Bay where Pioneer plans to shoot 3-D seismic in the winter of 2004-2005; Gwydyr Bay, north of the ConocoPhillips-operated Kuparuk field; Caribou, which is "north of Point McIntyre on trend with (BP's) Northstar" (unit); the new Oooguruk unit, which Pioneer successfully drilled the winter of 2002-2005 and, according to Sheffield, expects to sanction for development either in the fourth quarter of 2004 or the first

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quarter 2005.

Goal to achieve step change

One of Pioneer's goals in Alaska is to "achieve a step change in the North Slope cost structure," Sheffield said.

"In looking for big reservoirs, you're going to find small reservoirs," against which Pioneer is applying what he calls the "independent mindset," which involves "challenging existing methods."

One thing that needs to be done, Sheffield said, is to "decrease project cycle times," from the time of the lease sale until a project is in production. He believes this can be done without jeopardizing the environment.

Leveraging existing North Slope infrastructure is another way to bring down costs — something Pioneer is looking at doing in order to bring the Oooguruk unit online.

More than one Oooguruk development scenario

The unit is offshore the North Slope, north and west of, and contiguous with, the ConocoPhillips-operated Kuparuk River unit. Due to a farm-in executed earlier this year by operator Pioneer and partner Armstrong, ConocoPhillips retains the right to participate in any Oooguruk project sanctioned by Pioneer and Armstrong. Pioneer executives have talked about possible production synergies with the Kuparuk unit's existing facilities versus a standalone production facility.

Pioneer and Kerr-McGee have also talked about developing their two unit discoveries together. Kerr-McGee's Nikaitchuq unit and Pioneer's are located within 46,000 acres of state leases pulled together by Armstrong in the shallow waters of Harrison Bay. The acreage forms an arc over the

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JUDY PATRICK

Oooguruk ice island.

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PIONEER

top of the producing Kuparuk River and Milne Point units.

Armstrong enlisted Pioneer and Kerr-McGee as majority owners and operators of exploration units situated on either side of its leasehold. Armstrong first brought in Pioneer as a 70 percent partner at Ooguruk, the unit on the westerly side of the acreage. A discovery was announced there after the companies drilled three wells in the winter of 2002-03.

Armstrong then brought in Kerr-McGee as a 70 percent partner in the Nikaitchuq unit on the east side, where a discovery was announced after drilling two wells in the winter of 2003-04. Separately, Armstrong applied for the Tuvaaq exploration unit on 14,560 acres between Ooguruk and Nikaitchuq, where Kerr-McGee will drill at least one exploration well in the winter of 2004-05. ◆

Pioneer drops Evergreen's shallow gas leases in Alaska; retains 48,000 acres of conventional oil, gas leases

—abbreviated version of an Oct. 3, 2004 article from Petroleum News

Independent Pioneer Natural Resources said Sept. 30, 2004 that it was releasing all existing shallow gas leases in Alaska's "Matanuska-Susitna Valley acquired as part of its merger with Evergreen Resources."

Alaska Gov. Frank Murkowski said the relinquishment was a result of the merger, and of negotiations with the state, noting that the shallow gas leasing program, which has been abolished by the Legislature, was a program that his administration inherited.

Petroleum news
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www.PetroleumNews.com

The released leases cover approximately 235,500 acres and include farm-outs and a Mental Health Trust lease.

Pioneer said in statement that it decided to relinquish the non-conventional leases and withdraw an Evergreen exploration license application for 30,000 acres as a part of its strategic planning and due diligence associated with the merger.

Pioneer also said it "believes regulatory certainty is critical to any development program" it undertakes, referring to the state of Alaska's decision this past year to abolish its over-the-counter leasing program for shallow gas, and a changing regulatory regime for coalbed methane exploration and development.

Scott Sheffield, Pioneer's chairman and chief executive officer said, "We strongly support the state's new gas-only leasing program defined by HB531, and we encourage them to continue the Best Interest Finding process for the Mat-Su."

Pioneer retained 48,000 acres of conventional Matanuska-Susitna oil and gas leases in the Pioneer unit.

Alaska Division of Oil and Gas Director Mark Myers noted that Mat-Su areas leased under the shallow gas program had "discontinuous coal seams and lack of proper kind of fracturing" for coalbed methane, but said the geology in the areas of conventional oil and gas leases in the Pioneer unit "suggest it could be commercial."

Unocal continues to drill on southern peninsula

PETROLEUM NEWS

Unocal Alaska's natural gas exploration and development in Alaska's Cook Inlet basin is focused onshore at its Deep Creek and Nikolaevsk units, and the company continues to invest at the Ninilchik unit with its partner and Ninilchik operator Marathon Oil, Chuck Pierce, vice president of Unocal Alaska, told Petroleum News in 2004.

JUDY PATRICK

CHARLES PIERCE

Unocal, which made its first Cook Inlet basin gas discovery in 1959, is dealing with maturing oil and gas fields in the basin, and the challenge of finding new reserves to replace the decline.

Three units on same trend

The company has had a number of successes in its gas exploration programs at the three southern Kenai Peninsula units, Pierce said. Ninilchik, Deep Creek and Nikolaevsk, from north to south, are all on the same geologic trend.

The three developments are targeted to provide gas under Unocal's agreement with Enstar Natural Gas, he said, which essentially pays Unocal a Henry Hub price for natural gas. Enstar, which serves more than 115,000 customers in Southcentral Alaska, is a division of Semco Energy Gas Company.

As of Oct. 15, 2004, Unocal has drilled three wells from Nikolaevsk's Red Pad, approximately 14 miles southeast of Ninilchik and four miles northeast of the community of Nikolaevsk in an upland logged area.

The company had another Red pad well permitted for 2004 drilling.

Unocal has drilled one well from the Star pad and has another permitted for possible drilling in the fourth quarter of 2004.

The company is also in the process of permitting a well from Blue pad and plans to drill at least one well from it in November or December 2004.

Unocal said in applications to the state in March that the Nikolaevsk wells are "essentially a gas exploration program," but said the Nikolaevsk unit agreement requires it "to test at potential oil-producing intervals, which may include the Hemlock, West Forelands and Upper Cretaceous formations." Unocal said those formations lie below the gas target zone at the Red No. 1 well.

Inside the Deep Creek unit at Happy Valley, Unocal drilled two wells in 2002, and, as of Oct. 1, five wells in 2004. The company has another well permitted at Happy Valley that will likely be drilled by the end of 2004.

UNOCAL

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In 2004, Unocal built a line connecting the field to Ninilchik, the terminus of the Kenai Kachemak Pipeline, which carries natural gas from Ninilchik north to the more populated areas of Southcentral Alaska.

Facilities are also under construction within the Deep Creek unit, scheduled to be complete by November 2004 when Happy Valley is expected to go online.

Information for construction project

Unocal has been doing some innovative information work for its Happy Valley natural gas development project at the Deep Creek unit, where a pipeline was needed to bring the gas to the Ninilchik unit to connect with the Kenai Kachemak Pipeline. The pipeline runs along Oilwell Road out of Ninilchik.

Pierce said Unocal has been working with local residents and is assuring residents along the road and those with businesses there, that "the road will never be closed."

Unocal was "going to meet or has met with every person, one-on-one, who has property on that road to make sure they understand what the plan is. We want minimal disruption to their lives and their

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JUDY PATRICK

Aerial photo of Nabors Alaska rig 129 on the Red Pad in Unocal's Nikolaevsk exploration unit south of Happy Valley on Alaska's Kenai Peninsula.

business there," he said.

Unocal spokeswoman Roxanne Sinz said that Unocal has had community meetings, but in addition to that hired a person to go door to door along Oilwell Road. "There are about 40 landowners there that are truly affected by what we're doing out there and he has gone at least once to every single house in the area" and sat down with the residents to talk about the project, answer questions and address issues.

In addition, Unocal has an 800 number set up so that people in the area who have questions can call. Unocal has posters up in the Ninilchik community, giving the 800 number. The number is staffed "24/7," and callers will get answers within 24 hours. People working on the project are also armed with information, she said, and have cards with the 800 number that they can hand out.

"So people are — hopefully they're saturated with information."

Traditional gas business

Unocal's older gas fields are dedicated to supplying gas to the Agrium fertilizer plant.

There is ongoing work at Swanson River, Pierce said.

Two infield wells, part of ongoing development, were drilled at Swanson in 2004; three more are due to be drilled in the next year.

The field was discovered in the late 1950s, and so this is just getting "the last bit of the development done there," Pierce said.

On the west side of Cook Inlet Unocal has two small gas fields, Lewis River and Stump Lake. "All the gas from the west side properties, and from Swanson, and from Steelhead (in Cook Inlet)," goes to the Agrium fertilizer plant.

As at Swanson River, Unocal is doing work at Steelhead – "some compressor work," just typical on-going work, Pierce said. "And we may drill another well out there … that's under evaluation."

The oil piece

The oil piece of Unocal's Cook Inlet business is primarily offshore, although Pierce said "we have a little bit of oil production from Swanson River." The oil comes from the McArthur River field and the Granite Point field on the west side, and that oil goes to the Drift River terminal and then across the inlet to the Tesoro refinery.

Unocal's oil business is "fully developed and what we're focused on there is optimization," he said: projects to optimize the wells, de-bottleneck the facilities. "So we really aren't looking at new wells, we're focused on optimization."

North Slope and Foothills

On the North Slope Unocal has about a 5 percent interest at ConocoPhillips-operated Kuparuk and about a 10.5 percent interest at BP-operated Endicott.

The company has exploration acreage in the Foothills area, "we took it back in May of 2001, and it's more gas-oriented than oil and it doesn't make sense to drill any exploration wells until such time as there's a pipeline so we can get the gas to market," Pierce said.

While the company isn't interested in frontier exploration in areas such as the National Petroleum Reserve-Alaska, "we are interested in what I'd call close-in exploration, step outs from the existing field structure. … So we are looking for satellite-type opportunities adjacent to the existing infrastructure and fields."

And, of course, he said, Unocal continues to participate in exploration within the Kuparuk unit.

Working with EPA on NPDES permit renewal

In addition to Cook Inlet natural gas exploration and development, and work at its offshore oil fields, Unocal has been working with the Environmental Protection Agency for the past 24 months on the renewal for its National Pollutant Discharge Elimination System permit for its Cook Inlet platform operations.

The NPDES permit is renewed every five years, Pierce said. Unocal has been

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working internally on the renewal for about three years, he said, and has been working with the EPA for two years in on-going project planning.

The company applied for a renewal of its NPDES permit in September 2003. The old permit expired April 1, 2004.

"Once they accept your application you get an automatic extension as it's under consideration," he said.

Pierce said the EPA wants to issue a renewal by the end of 2004. "We're really working on their timeframe," he said.

Unocal would like to get its permit renewed with the existing parts per million limitations, Pierce said, and is working through permit renewal issues with the EPA.

"I'm optimistic that we're going to come out with a workable permit at the end of this process that allows us to continue to produce these assets that are very important for us," as well as for the local community and for the state, he said.

Public process under way

The EPA is working through a public process for permit renewal, he said, meeting with Native organizations and environmental groups.

Cook Inlet Keeper, an environmental group, filed a petition with the EPA in mid-2004 to have all of Unocal's facilities shut down immediately. It filed on behalf of itself, the Native Village of Port Graham, the Chickaloon Village Traditional Council, the Native Village of Nanwalek and the Native Village of Eklutna.

The petition asked the EPA to revoke Unocal's general permit for its Cook Inlet oil and gas operations, and to issue individual permits for the facilities, asserting that "Unocal's violations harm the traditional resources the tribes of Cook Inlet depend on."

Pierce said he "can only assume they're referring to somehow affecting the salmon fishing… And the bottom line is, that's just flat not true, not substantiated by any kind of science, any kind of study."

Unocal tracks discharges and studies done on inlet conditions, he said, "and the fact is these allegations are totally unsupported by any studies and unsupported in fact."

Permit regulates discharge points

The NPDES permit regulates multiple discharge points, Pierce said, ranging from sanitary waste to water from dishwashers to treated produced water discharge. "So it handles anything that we put into the water — into Cook Inlet — as part of our operations."

The permit provides for limits on a parts-per-million basis, "for how much of a certain constituent can be in the water," and then the company tests and reports the results of its tests for the discharge points.

Pierce said that Unocal has exceeded the permitted limits at times, which it reported to the EPA as those events occurred, "as per the permit requirements, but the EPA didn't fine us for them."

So as a first step in getting the permit renewed, Unocal wanted "to clean up any outstanding issues," Pierce said.

Unocal did an audit to make sure "that all of our reporting was right, and to verify that our system was in compliance.

"And we found a couple of areas where the system was out of compliance through this audit process."

Unocal told the EPA it wanted to pay the fines for the outstanding issues that it had reported, but the agency hadn't taken action on, "before we move into the renewal permit process."

And it told the EPA that in

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Safety a focus

Safety is the number one focus for the Happy Valley development work, Pierce said.

In fact, he said, safety is the number one priority within the company.

"We've got priorities for our business posted on the wall around the building, and the number one priority is safety," he said.

In 2002 the Alaska business unit, for the first time, had zero Occupational Safety and Health Administration recordable incidents for Unocal employees. In 2003, Pierce said, the company had four recordable incidents, but they were minor.

The company started an operations management system in about 1999, "a comprehensive risk management program … designed to identify and prioritize risks in the business unit and then to verify that we have procedures in place — designed and in place … to mitigate the risks and then have an ongoing follow-up management of those risks," he said.

The operations management system is a company-wide Unocal program, and is audited by corporate every other year.

About two and a half years ago the company started "what we call field-focused risk management," and the focus there, Pierce said, is "the guys in the field who have to do the work."

Part of that field-focus is "building on a culture of safety and risk management," and Unocal is using the DuPont STOP program — safety, training and observation program.

All of the company's offshore employees and most of its office employees have been through the seven-hour training for the first phase of STOP, which "trains everyone … to observe safe and unsafe conditions and behaviors" and to take steps to change something unsafe when they see it, and also to write it down so that the information is in a database, shared with everyone.

"It's a job requirement that we put safety as our first priority," Pierce said, and the STOP program helps implement that priority.

Then, senior management rotates through weekly safety meetings with field facilities, that "gives everyone an opportunity twice a year to talk to management" about

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The Steelhead platform in Alaska's Cook Inlet.

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SAFETY

safety issues — and to be specifically asked if they have safety issues to bring up.

"Safety's a never-ending … quest for improvement — and our goal is continuous improvement," Pierce said.

Pierce said that some of Unocal's contractors — Nabors and Kuukpik for example — already used the STOP program, and other contractors are implementing the program.

"I think it's fair to say that we are working closer than ever with our contractors to ensure that their … programs and ours work together to create the safest possible work environment."

—Kristen Nelson, Petroleum News

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UNOCAL

the course of doing a self audit it found that two pipes coming off the platforms which carried water from its dishwashers, and were supposed to be below the surface of the water, stopped above the water.

Unocal fixed that problem immediately, he said, as well as reporting it to the EPA.

Then the company negotiated with the EPA "a fine and penalty for those issues, under our previous permit, so we could make sure we were current."

Goal is total compliance

Unocal takes its permit seriously, he said, denying statements by Cook Inlet Keeper that the company doesn't take its permit seriously and just pays the fines and keeps polluting.

Pierce said such claims bother "a lot of the employees, because they're out there really dedicated to having a safe and environmentally friendly operation" on Unocal's platforms in Cook Inlet.

"And so that's a little disheartening to the 200 dedicated guys offshore, who report individual drops of hydraulic fluid if they happen to blow over with the wind while they're changing a pump or something."

Pierce said that while Unocal's goal is total compliance, "the reality is you're going to have one or two (exceedances)."

Unocal reports "down to the drop" … "and I believe we're in compliance with our permit — but it's a challenge to achieve a zero exceedance, I'll just tell you that: it's a challenge."

Pierce compared exceeding permit allowances to a traffic violation: "If you get a speeding ticket, you're out of compliance with the law, but they don't impound your car" but — if you have multiple violations, "well then you will lose the car." ◆

Prodigy seeking Cook Inlet partners

Paul Fenemore heading up effort to find partners for Northern Lights project in Alaska

By **KAY CASHMAN**
Petroleum News

Prodigy Alaska is seeking partners to participate in the drilling of two test wells to a depth of around 16,700 feet TVD and, if successful, the development of its Northern Lights project in the upper Cook Inlet basin of Southcentral Alaska.

The Irving, Texas-based independent's new president, Paul Fenemore, is spearheading the firm's effort to bring in partners for its Northern Lights project which he says has "estimated gross recoverable oil reserves and resource potential in the range of 111-358 million barrels of oil equivalent."

Prodigy Alaska LLC was formed in 2001 for the purpose of exploring for and developing oil and gas reserves in the Cook Inlet basin. Prodigy has acquired a 100 percent working interest in 15 leases on 36,205 gross acres in the upper Cook Inlet basin. All of the leases are located in water depths of 100 feet or less and are close to pipelines and oil and gas infrastructure, Fenemore told Petroleum News Oct. 28.

Dave Doherty, Prodigy Alaska's exploration manager, spent 14 years in Alaska with ARCO, during which time he was responsible for taking a new look at the geology of the Cook Inlet basin.

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Fenemore, who is also president of Prodigy Oil and Gas, has spent much of his 27 years in the oil business involved in both domestic U.S. and international projects, including a significant amount of time on North Sea projects.

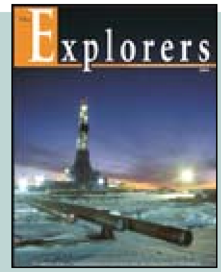
"In many ways the Cook Inlet is very similar to the North Sea, with regard to operations and the related costs involved, but is very much less explored," Fenemore said.

"The Cook Inlet has a lot in common with the East Irish Sea in the UK. They're both relatively remote basins; if you bring a rig in, it is likely that it will remain active there for several years," he said, referring to Cook Inlet's need for a jack-up rig.

"It's been difficult getting people interested in Alaska. Everyone thinks of the North Slope and its extreme climate and the costs involved in doing business there. … They don't quite seem to grasp that the Cook Inlet is not in the Arctic, not of the same mold," Fenemore said. "There's a lot of room in Cook Inlet for medium-sized independent oil companies to cut their teeth.

Northern Lights is on the central part of the North Cook Inlet structure. Fenemore said this anticline is approximately 23 miles long, 3 to 6 miles wide, and is characterized by pronounced, steep-sided domes at both ends. "Notably, the northern dome of the North Cook Inlet structure contains the Tyonek Deep oil field and in the opinion of Prodigy there is strong technical support for a significant extension of this undeveloped field into the Northern Lights project area." Of the 17 wells drilled into the Tyonek Deep on the structure, 15 were deemed productive, and eight tested at initial rates of up to 3,600 barrels of oil per day, per zone, Fenemore said. ◆

Other Players



The companies in this section represent just a few of the "other players" in Alaska. They represent a wide spectrum of companies, from those in the pre-permit stage looking for investment partners; to Native-owned firms poised to explore; to independents taking a close look at Alaska.

Missing are several companies who have been here a long time but have been quiet on the exploration front, including ChevronTexaco, Shell (see page 14), Trading Bay, Andex and Lapp Resources. Also missing is newcomer Rutter and Wilbanks, partner with Forest Oil in a Copper River exploration license project, and Merlin Oil & Gas, which is taking a serious look at Alaska.

Devon in scoping mode, ups Cosmo stake

By KAY CASHMAN
Petroleum News

Starting in the fourth quarter of 2003 and continuing to the press date for The Explorers in October 2004, Houston-based independent Devon Energy has been sending representatives to Alaska from its Canadian subsidiary, Calgary-based Devon Canada. These scouting expeditions were confirmed in a July 8, 2004, interview with Michel Scott, Devon Canada's vice president, frontiers, who said Devon was in "scoping mode" in Alaska.

"There appears to be some synergy" between Alaska's North Slope and Devon's interest in the Mackenzie Delta, he said.

A northern front-runner in Canada's Mackenzie Delta, Devon Canada already has a 10 percent interest in two leases in the eastern North Slope's Point Thomson unit — the product of a merger, not a decision to get involved in Alaska. The adjoining leases are in the western quarter of the unit.


EAGLE EYE HELICOPTERS

Devon Energy increased its interest in the ConocoPhillips operated Cosmopolitan prospect in 2004 from 5 percent to 17.5 percent.

On July 8, Scott said no decisions to expand Devon's presence in Alaska had been made to date, but "if something makes sense, it could be an area we could get more active in."

Shortly after this interview, parent Devon Energy announced it had increased its working interest in the ConocoPhillips-operated Starichkof unit. That unit contains the Cosmopolitan prospect in southern Alaska's Cook Inlet basin.

Devon Energy picked up half of the working interest of Forest Oil in the exploration unit in Cook Inlet's lower Kenai Peninsula.

Devon Energy had held a 5 percent interest in the seven state leases in the unit — the result of a merger. Effective Aug. 1, Devon Energy acquired half of Forest's 25 percent working interest. Unit operator ConocoPhillips retained a 70 percent working interest.

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Devon now has a 17.5 percent and Forest 12.5 percent.

The discovery well, Starichkof State No. 1, was drilled by Pennzoil Co. in 1967, northeast of the targets in the current drilling program, the Hansen No. 1 and a sidetrack, the Hansen No. 1-A, drilled in 2001-02 and 2003 from an onshore pad.

The Hansen 1 was plugged and abandoned with a measured depth of 18,630 feet and a true vertical depth of 7,418. The Hansen 1A sidetrack was completed as an oil well June 13, 2003, with a measured depth of 20,789 feet and a true vertical depth of 7,102 feet.

ConocoPhillips has been shopping for a partner in its 70 percent interest in Cosmopolitan, offering to trade working interest ownership for future 3-D seismic and a delineation well. No partnership deal had been announced as of Oct. 15, 2004. ◆

The search for Cook Inlet's 'missing giants'

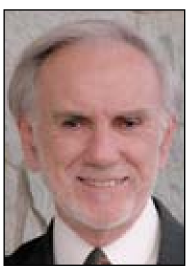
Independent Escopeta Oil shopping offshore Alaska prospects, using new seismic technology

PETROLEUM NEWS

The U.S. Department of Energy's recently published report on Alaska Cook Inlet natural gas hypothesizes that there are missing giants — large oil and natural gas fields that remain to be found in Cook Inlet.

Houston-based independent Escopeta Oil, one of the inlet's largest state oil and gas leaseholders, thinks it has identified two of these missing giants in its Kitchen and East Kitchen prospects. The company is looking for a partner so that it can bring in a jackup rig to drill an exploration well.


DANNY DAVIS


FORREST CRANE

BOB WARTHEN

Escopeta President Danny Davis told Petroleum News in July 2004 that the company hopes to have partners in place in time to begin permitting this fall and bring a jackup rig to the inlet next year to drill the prospects, which are offshore the Kenai Peninsula, north of Nikiski.

Ten years of work

The Kitchen and East Kitchen prospects are in 70 feet of water close to the Kenai industrial complex. They represent 10 years of work by the company, including studies by geologists with Cook Inlet experience and, more recently, the reprocessing of seismic by Houston-based Apex Metalink Inc. with its proprietary technology.

ESCOPETA OIL & GAS/BBI

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How could there be missing giants in Cook Inlet, a hydrocarbon basin which has been in production for nearly 50 years?

"There were always a few questions that were unanswered when we were doing work in the inlet, in relation to the fields," said Bob Warthen, a consulting geologist working with Escopeta. Warthen has worked the inlet since 1967, first for Union Oil where he was a regional geologist for 26 years, and then as a consultant.

"And after Prudhoe Bay was discovered, the inlet became a stepchild, so the working scenarios in the inlet were strictly a development-type scenario. … Consequently very little exploration work has been done," he said. ..Then you had the oil problems in '85 and '86 — the oil price collapse; then more restructuring; then you had company mergers.

"I'm probably one of the few guys left working the inlet that started in the early days," Warthen said.

The 'play book'

After Warthen took an early retirement from Unocal in 1992, he began working all the available data on the inlet, including well information and seismic, and looked at rocks, trying "to get a better understanding of the intricacies of the formations."

And he developed a basin map, "let's just call it an idea map, or as Danny (Davis) calls it, our 'play book'," he said.

That idea map, in different iterations, identified acreage acquired by Escopeta, which began looking for opportunities in Alaska in 1993 and bought its first leases in the state in 1994. The company now owns some 128,000 acres of oil and gas leases in the Cook Inlet basin.

Reevaluating Cook Inlet

The work Warthen originated on the inlet was focused on the petroleum system and potential untested habitats and traps for hydrocarbons. In addition to Warthen, geologists Walter Wells and Frank Banar, retired from Mobil, contributed to Escopeta's "idea map," hiring on as consultants for Escopeta.

"Reservoir rocks are not a problem in Cook Inlet: every horizon has reservoir rocks with varying porosities and permeabilities that are basically reasonable," Warthen said. "Trapping was not really a problem either," since available seismic provides "a decent understanding of the style of traps and accumulation mechanisms."

Walter Wells did a search for everything written on the petroleum systems in the inlet, Warthen said. "When we started looking at the three things that you need for a prospect — the trap, the reservoir and the charge — we started really focusing on the petroleum system, on the migration path, the generating area, and we looked at a lot of the seminal USGS reports from some of the real experts in that field, and even interviewed some of them."

The theory on migration of oil, Warthen said, is that the

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ESCOPETA

migrating oil finds a path, and then travels along that path, not deviating from it.

"When it leaves the source area, it migrates up dip and fills the deepest traps first," he said. "As these are filled the oil continues to migrate up dip filling the shallowest traps in turn."

Only 4% of oil identified

U.S. Geological Survey had theorized that only 4 percent of the volume of oil that theoretically generated from Cook Inlet source rock has ever been identified.

Some of the oil could have leaked out of the basin, Warthen said. And there has been a theory that the basin tilted and the oil remigrated. If the basin tilted, he said, some traps would be pretty well filled and others are going to be only 15-20 percent filled.

But the known traps are filled between 58 and 65 percent, except Middle Ground Shoal, which Warthen said was filled 80 to 85 percent.

The Escopeta acreage position at Kitchen and East Kitchen is "just to the east of Middle Ground Shoal and situated directly overlying the Tertiary/Mesozoic depocenter and we believe the early oil is migrating in an east-west direction," Warthen said.

Because of the known migration path of oil in the inlet, it is believed that oil migrated into the Kitchen prospect traps, filled those, and subsequently migrated on to Middle Ground Shoal and then into other fields, and "that's the reason why Middle Ground Shoal is about 80 to 85 percent filled and the rest of these (farther along the migration path) are less (filled)," Warthen said. "We believe that these prospects are among the missing giants postulated by the U.S. Department of Energy," he said.

"We kept referring to this area here as the area where the oil was 'cooked', i.e. being the 'kitchen'" – hence, the names Kitchen and East Kitchen, Warthen said.

Reprocessing and remapping

Escopeta has purchased seismic from a number of companies and used those lines to delineate the area, to look at the prospect from "a structural standpoint," Warthen said.

The company has had the seismic lines reprocessed and, based on that reprocessing, remapped the Kitchen complex area.

The southern part of the prospect that contains East Kitchen has never been identified, Davis said, "and this feature extends another eight miles beyond the original tested anticline." The South Cook Inlet anticline has been remapped and is now "about 15 to 16 miles long and about three to four miles wide," he said. The Shell SRS No. 1 well on the northern flanks tested 360 barrels of oil per day from a lower Tyonek sand, he said. Other prospective pays were never tested due to collapsed casing.

"The southern half of the anticline is what we're calling our East Kitchen prospect, and it has never been drilled. In effect, it is a major anticline with demonstrated hydrocarbons that have not been adequately tested," Davis said.

So what do the combined studies indicate to Escopeta about potential Kitchen and East Kitchen reserves?

Escopeta consultants estimate potential reserves at East Kitchen as 2.33 trillion cubic feet of gas and 457 million barrels of oil, Davis said. For Kitchen the numbers are 3.95 tcf of gas and 829 million barrels of oil.

A new processing technique

Banar said one very important thing Escopeta did was to have the data reprocessed using a process called wavelet energy absorption, which has been used in Asia, West Africa and Siberia. In China, he said, the process was used in basins which have both coal and gas, and where the gas needed to be identified on the seismic.

Because Cook Inlet has both coal and gas, the process seemed appropriate, he said. In addition to the seismic processing for gas, Apex Metalink also has a process for fluids identification.

The wavelet energy absorption processing "showed some significant gas reserves on the Kitchen and East Kitchen structures, especially in the Tertiary section, where abundant coal beds have generated major dry gas reserves," Banar said.

Current Cook Inlet production is from Tertiary formations: dry gas from Sterling, Beluga, and upper Tyonek; oil from the lower Tyonek and Hemlock. There is no production from the older Cretaceous and Jurassic in the upper Cook Inlet basin, although surface oil seeps are known from the Jurassic Tuxedni formation. The Tuxedni, said Warthen, has been identified by the USGS as the source rock for all of the oil present in the Hemlock.

Davis said potential deep gas below the Tertiary is a separate prospect. The objectives at Kitchen and East Kitchen are the major producing Cook Inlet formations, the Sterling, Beluga, Tyonek and Hemlock. Escopeta does not attribute any reserves to pre-Tertiary, he said, but considers them a very viable future target.

One of the things the Department of Energy report says is that the inlet has been explored for structural traps but not for stratigraphic traps. "There was no concentrated exploration for stratigraphic-type plays or potential below where they've found everything in the Hemlock (formation)." East Kitchen is a structural trap, he said, while Kitchen is a faulted stratigraphic trap first proposed by the USGS.

Matches DOE's hypothesis

What Escopeta is doing matches up with the Department of Energy report's description of two-phase exploration history in mature basins, first exploration for structural traps like the company's East Kitchen prospect, Davis said, and then a second phase focused on stratigraphic plays like the company's Kitchen prospect.

"At this point in time Cook Inlet exploration is still in the structural prospect phase," he said. "Few if any exploration plays have been pursued and drilled solely on stratigraphic trapping concepts. Based on exploration results in basins elsewhere, this implies as much as 50 percent or more of the basin's reserve potential has not been investigated," Davis said. ◆

Burlington Resources drops Alaska leases

By KAY CASHMAN
Petroleum News

In mid-2004, Burlington Resources dropped the 183,000 acres it won in Alaska's first areawide North Slope Foothills lease sale in May 2001 for just under $2 million.

An annual rent payment of $367,002 was due on the 32 leases on July 1, 2004, but Burlington elected not to pay it.

"There were several factors involved in our decision," Burlington Resources Houston spokesman James Bartlett told Petroleum News Aug. 13, 2004. "The Alaska gas line appears to be at least seven to eight years away and it already has plenty of gas behind it and in the interim we would have incurred carrying the cost if we had retained the leases. There is a lot of opportunity in other areas of the world. Alaska is unlikely to become a core area for Burlington any time soon."

The state's lease rents are progressive: $1 an acre the first year; $1.50 the second; $2 for the third year; $2.50 in the fourth year; $3 in the fifth and following years, so the rental payment would have continued to increase.

Ellen DeSanctis, Burlington's vice president of corporate communications, said after the 2001 sale that its bids were a low-risk way to enter an emerging gas opportunity: "We are trying to get a toehold in some opportunities in the far northwest of North America that would be in concert with our efforts in the Mackenzie Delta to build a position in what could be future opportunities in North American, particularly gas." ◆

St. Mary looking at Alaska properties

By KAY CASHMAN
Petroleum News

Denver-based St. Mary Land & Exploration Co., whose history dates to the turn of the last century, has been looking at the possibility of investing in Alaska oil and gas properties. Petroleum News sources indicate the mid-sized independent has looked at both the possibility of operating its own leases or investing in properties owned by other operators.

St. Mary secured the advisory services of North Slope exploration guru Michael Richter, formerly ARCO Alaska and Phillips Alaska's vice president of exploration and land. Richter and his team were credited with more than a billion barrels worth of discoveries on the North Slope, including the first 1990s NPR-A discoveries.

The mid-sized independent first confirmed its interest in the state in June 2004, with the arrival of Richter as its representative.

On Oct. 19, 2004, Bob Hanley, vice president of investor relations for St, Mary said the company had "not seen anything real attractive yet" and "probably won't be bidding in the near term" in Alaska oil and gas lease sales, but is still interested in potential investments in the state.

The company, Hanley said, has its focus elsewhere, referring to St. Mary's Oct. 20 announcement that it had just signed three separate agreements for corporate and property acquisitions in the Lower 48 states. ◆

ASRC buys into its first prospect

In first year as an independent oil and gas company, Native corporation takes a 35% interest in Placer

By KAY CASHMAN
Petroleum News

In early 2004, Arctic Slope Regional Corp. quietly entered into what was its first North Slope investment as an independent oil and gas company under its mentoring agreement with BP Exploration (Alaska).

The Native regional corporation that represents the business interests of 9,000 Inupiat Eskimos in Arctic Alaska appeared as a working interest owner on state documents for the Placer No. 1 well. Drilled in February 2004 by operator ConocoPhillips, the well was in a unit expansion area in the western part of the Kuparuk River unit, southwest of ConocoPhillips' successful Palm discovery and development. BP, Unocal,

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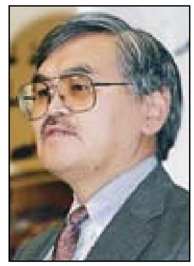
ChevronTexaco, ExxonMobil and unit operator ConocoPhillips are partners in the Placer area. ASRC farmed into BP's acreage, assuming a portion of the cost of the well in exchange for a 35 percent working interest.

ConocoPhillips negotiated unit expansions to include leases believed to contain oil and gas, with the proviso that wells must be drilled by certain dates or the tracts would contract out of the unit. If that happened, the state would be owed a penalty to make up for what the leases might have earned in bonus bids at a lease sale had they not been incorporated into the unit extending the term of the leases.


JUDY PATRICK
TERESA IMM


JACOB ADAMS

Drilling was under way at Placer No. 1 on March 4, 2004 (surface casing had been run and was below 3,000 feet), when Rick Mott, ConocoPhillips Alaska's vice president of exploration and land, told Petroleum News the company had permitted a second well at Placer as a contingency.

ConocoPhillips "would try and expedite a development there … if we possibly could," he said. If it has encouraging results at the first well, it could go ahead with a second well.

"We could cut a whole year off the cycle time by doing that."

A second well was drilled, then plugged and abandoned as a confidential well on April 8, 2004. But Placer No. 1 was suspended April 11; its status was also confidential. It had a true vertical depth of 6,289 feet and a measured depth of 7,761 feet.

ConocoPhillips has until 2007 to either relinquish the Placer leases back to the state or get them into a participating area and submit a plan of development.

The mentoring agreement

In July 2003, ASRC announced it was expanding its scope to become an inde-

see **ASRC** *page 85*

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ASRC

pendent oil and gas producer on the North Slope and had entered into a "mentoring" agreement with North Slope producer BP. The agreement, signed March 20, 2003, includes sharing information on unit and near-unit oil and gas investment opportunities, ASRC and BP told Petroleum News.

BP said the mentoring arrangement would help get unit and near-unit North Slope prospects explored and developed that might not get approved by BP's board in London due to stiff competition from investment opportunities outside Alaska.

For ASRC, the deal was expected to provide badly needed jobs close to home for its shareholders.

FORREST CRANE

The ASRC building in Anchorage.

A slice of Alpine line

Teresa Imm heads up both ASRC's E&P interests and is president of ASRC Pipeline Co.

A royalty owner in the Alpine field, the Alpine leases include an option for ASRC to purchase a portion of the transportation system.

ASRC acquired 16.667 percent of Alpine Transportation Co., the entity which owns the 34 mile, 14 inch pipeline connecting ConocoPhillips' Alpine field (in the Colville unit) to the main North Slope pipelines to the east.

The deal, which cost ASRC $15.9 million, was announced in November 2003 but was effective Jan. 31, 2003. ◆

Eradicating poverty with natural gas

Bristol Bay residents ask state of Alaska to open poverty-stricken region to exploration and development

By **KAY CASHMAN**
Petroleum News

In 2003, the people living in the Bristol Bay region of Southwestern Alaska asked Alaska Gov. Frank Murkowski to open their area to oil and gas leasing. Their goal was to eradicate the poverty brought on by the decline of the Bristol Bay fisheries by creating new jobs and finding local sources of cheap energy in what was considered a gas-prone geological area of Alaska.

The governor responded with enthusiasm, as did Alaska's congressional delegation. A number of things began to happen. The state Division of Oil and Gas designated a study area in the northern portion of the Bristol Bay geological basin in July 2003, and solicited exploration license proposals for 3 million acres in the area.

Four Native elders from the Dillingham area formed Bristol Shores LLC and filed for a 329,113 acre, 10-year license with a $3.2 million work commitment. The area included part of Nushagak Bay and a substantial area of land east of Dillingham.

George Shade, president of Bristol Shores, told the state that the four owners of his company planned to help the environment as well as the economy, "to boost jobs and basically concentrate on local hire and concentrate on producing."

Evergreen Resources also submitted a proposal, but for a different area of the basin and for half the work commitment. That proposal was withdrawn when Pioneer Natural Resources moved to purchase the company.

In the division's March 2004 preliminary best interest finding on Bristol Shores proposed license, the agency proposed amending a 1996 ruling by the Alaska Department of Natural Resources that excluded "all submerged land in and around Bristol Bay, from Ugashik Bay north to the western boundary of Kulukak Bay…" from exploration licensing — a ruling which excluded what some industry observers believe is a prospective area for gas, and possibly oil.

A portion of Nushagak Bay was in the exclusion area in the 1996 ruling, and was included in Bristol Shores' proposed exploration license.

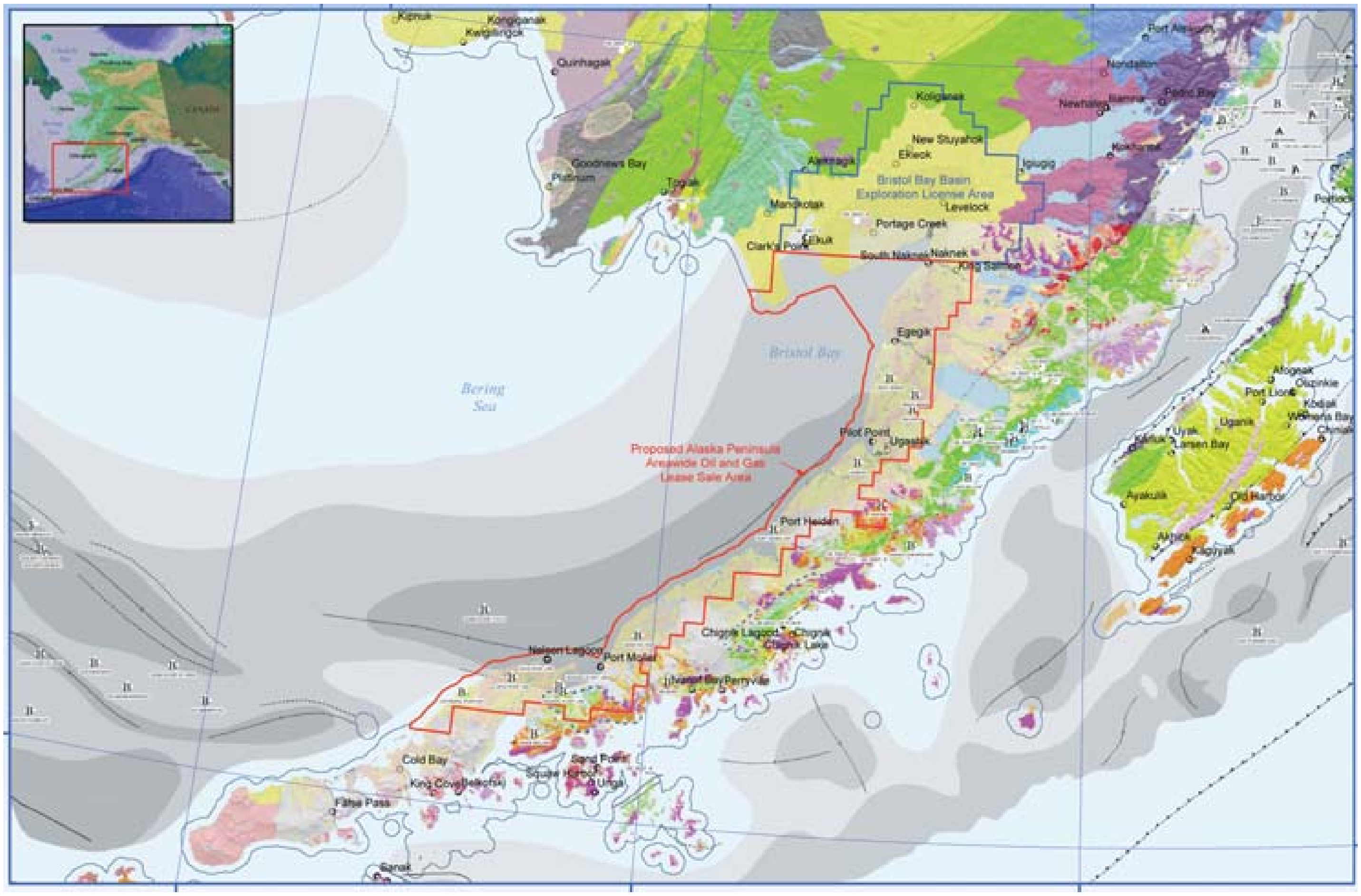
The division proposed to allow exploration licensing within the bay, but with the stipulation that exploratory drilling could only be conducted "directionally" from onshore locations.

Area believed to be gas prone

The area of Bristol Shores proposed license, the Bristol Bay lowlands, has the greatest potential as a gas province, the division said. No petroleum exploratory wells have been drilled in the Bristol Bay/Nushagak lowlands, although 10 wells have been drilled farther to the southwest along the Alaska Peninsula into the onshore extension of the Bristol Bay basin.

None of the wells was a commercial

see **BRISTOL BAY** *page 87*



Pirtle Bates of the Division of Oil and Gas told Petroleum News that Bristol Bay's application contains 829,440 gross acres. However, he said, the area in the exploration license application contains significant non-state acreage, and the state is limited to 500,000 acres when it awards an exploration license. Net state land in the license is 329,113 acres.

continued from page 86

BRISTOL BAY

success, "but most had fair to moderate shows to gas and/or oil." The division said it would seem reasonable to hypothesize a natural gas resource in the multiple billions of cubic feet up to 1 trillion cubic feet in the area.

A world of possibilities

While the state reviews a Sept. 27 request from an environmental law firm for reconsideration of Bristol Shore's exploration license, Bristol Shores is assessing the relative merits of joint venturing the exploration work versus having a major oil company carry out the exploration and development.

"We're currently talking to a major integrated oil company," said Jere Allan, president of the Bay Group, a management firm working for Bristol Shores.

Shade expected Bristol Shore's profits to come initially from natural gas liquids sales — the company was looking at building an NGL plant at a convenient and suitable location.

Shade also talked about the possibility of exporting liquefied natural gas.

"You've got to understand, because of where we're sitting … we virtually have the whole Asian market at our fingertips," he said. Allan said they had already located potential markets.

"We are talking to a Japanese trading company, LNG Japan USA — they're interested in all the LNG (liquefied natural gas) that we could get," he said.

Bristol Shores would also allocate some of the gas for local use in the Bristol Bay area, to replace the use of diesel fuel in power plants, for example.

Shade also saw possibilities for piping natural gas to other parts of Alaska. He had already researched a route for a pipeline from Portage Creek near Dillingham to Bruin Bay on the Cook Inlet and had submitted his plan for this route to the state. From Bruin Bay that pipeline could connect with the pipeline systems in the Cook Inlet, he said.

There was also a possibility of supplying gas to the Alaska Interior by building a pipeline north to McGrath and then, from there, down the Iditarod trail, Shade said.

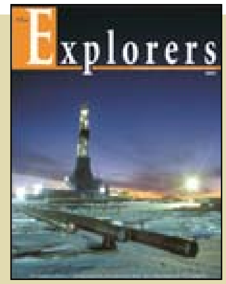
He was also investigating other clean forms of energy, such as gas-driven fuel cells. ◆

XTO steps up pace of Cook Inlet drilling

Fort Worth-based independent buys existing fields with complex geology, adds to production

By KAY CASHMAN
Petroleum News

Finding new oil in old places



With at least 20 billion barrels of discovered oil in Alaska deemed unrecoverable, a few companies, including ConocoPhillips, are working to create technology that will produce some of that oil. Two of them, however, do not explore for new oil in Alaska. One company's contribution is relatively small – XTO in Cook Inlet. The other, BP, is taking small steps towards recovery of billions of barrels of North Slope viscous oil. Here are their stories.

Activity for XTO Energy's operations in Cook Inlet was up in 2004. The company, which employs 30 people in its Nikiski office on Alaska's Kenai Peninsula, drilled just one well in 2003, a horizontal sidetrack, as compared to three sidetracks expected to be drilled by the end of 2004 from its two offshore platforms.

XTO's wells are expected to be the only wells drilled offshore in the Cook Inlet basin in 2004.


KYLE HAMMOND

Lindsey Dingmore, Fort Worth, Texas-based XTO's manager of governmental and regulatory affairs, told an Alaska legislative committee in April 2004 that decline curve management is important for XTO and that at its Middle Ground Shoal platforms production is long-lived and, along with oil production from the Permian basin, helps the Fort Worth company balance its quickly declining East Texas gas wells.

XTO is "not really an exploration company," Dingmore said, but is "the kind of company that the majors look to when they are selling assets" that no longer fit their portfolios, but where a smaller company can come in and do "a lot of the work in terms of in-fill drilling and development."

Goal to keep production flat

"A good acquisition company must be a great development company," and XTO tries to double reserves at the properties that it buys, Kyle Hammond, XTO's top executive for Alaska, told the same committee.

That is close to what has happened at Middle Ground Shoal, he said, and as a result, production from the A and C platforms has remained almost constant since the company acquired the platforms in 1998 from Shell.

Shell installed the platforms in 1964 and 1967; Unocal installed the other two platforms at the field, Baker and Dillon, in 1965 and 1966. Both of Unocal's platforms have since been shut-in.

About 90 percent of XTO's production is natural gas, Hammond said, and its oil properties in Alaska and the Permian basin in Texas have flatter decline curves that help balance declines from other areas.

XTO doesn't buy companies, it buys oil and gas and it looks for "long-lived, high-margin-properties," he said. The high-margin part of the company's equation is important, so it can "continue to operate in a low-price environment."

XTO also looks for geologically complex reservoirs. If "it's very simple, anybody can find it," but "in geologically complex reservoirs, the probability that the previous operator missed something goes up dramatically," Hammond said. "We want to buy properties that as we continue to add capital into these properties, we can keep the decline essentially at zero."

Combined, the company's two Cook Inlet platforms average 3,700 barrels per day, Hammond said in April 2004.

Output dropped to 3,600 barrels per day in mid-2004; something Hammond said he expected the 2004 sidetracks being drilled in the second half of the year to correct.

XTO has invested some $50 million to keep the decline curve flat, and plans

see XTO page 90

XTO ENERGY

XTO ENERGY

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XTO purchased the Middle Ground Shoal field and its two platforms, A and C, from Shell in 1998.

XTO Energy decides not to test Cook Inlet shallow coal seam; getting gas from onshore

—reprinted from Petroleum News, Sept 5, 2004

Petroleum news
FROM THE ARCHIVES
www.PetroleumNews.com

In October 2003, Doug Schultze of XTO Energy told Petroleum News that XTO was thinking about testing a shallow coal seam in a shut-in well on C platform in the company's Middle Ground Shoal oil field in Alaska's Cook Inlet.

XTO needed a cheap source of gas for its two platforms, something it had lost when Unocal shut down operations at the nearby Baker platform.

Kyle Hammond, XTO's vice president of operations for Alaska and the Permian basin, told Petroleum News Aug. 26, 2004, that the company decided not to test the coal seam.

"The amount of fuel we needed and were going to get (from the coal) just did not make economic sense."

XTO, a major coalbed methane producer in the continental United States, is getting gas from shore to run its platforms, something Schultze said has more than doubled the cost of fuel for the platforms.

—Kay Cashman

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XTO

to invest $8 million in 2004 and $7 million in 2005 at Middle Ground Shoal. (in 2005 Hammond said two sidetracks are planned.)

West flank tipped on end

Shell had developed the east side of the reservoir at Middle Ground Shoal. Hammond said on the east side "the rock is significantly better rock, with more oil in place and more permeability — the ability of the oil to flow to the wells — and it's much easier to drill." On the east flank, where Shell worked, the structure is "relatively flat."

The west flank, where XTO has worked, is on the other side of a major north-south trending fault, and tectonic activity has essentially turned the strata on the west side of the field "on end," he said, so when XTO drills on the west side, it drills directionally, penetrates the formation, then goes back and penetrates it again on the bottom side of the well.

"The wells are a lot more expensive to drill that way and technically more of a challenge," Hammond said, "but it's what makes drilling a well on the west flank economically viable."

Costs vary from $2-$4 million a well to as high as $7 million, he said. The company had drilled eight wells as of Oct. 1, 2004, including some drilled as injection wells, and has also converted wells to injection to "artificially pressure the reservoir and move the oil to our producing wells."

That's another thing the company liked about Middle Ground Shoal: "This is essentially a water flood that's out under the water. It's a very similar water flood to what we do in the Permian basin of West Texas," Hammond said, "it just happens to be in a little bit more challenging environment, but the basic reservoir rocks and the basic water flood is something that this company's done for years …," and the field fits well with XTO's portfolio.

Although, he said, it's a bit of a challenge to water flood in a vertical environment.

Costs going up

The Alaska Legislature passed a royalty reduction bill for Cook Inlet oil and gas properties in 2003, and Dingmore said XTO's properties ended up in a category where royalty relief would be

see **XTO** *page 91*

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XTO

applied at 975 barrels.

He said XTO anticipates that it is a few years away from that production level, but said costs are a concern.

Since Unocal has shut-in its Baker and Dillon platforms at Middle Ground Shoal, "that's caused us to take control of some onshore properties, some pipelines that we were sharing with them," and thus taking on additional cost (see sidebar on coalbed methane).

Average production from its new wells has been 400 barrels per day, but that ranges from zero (one well was a dry hole) to 1,200 bpd, with average reserves per well drilled of 750,000 barrels, ranging from zero to some that are "much greater," Hammond said.

We like being here, he told the committee, but "one of the things that I try to explain to people is this reservoir has an inherent risk that does make it very challenging for us to present projects to our management." ◆

Editor's note: Cook Inlet production — onshore and offshore — declined from a peak of 225,701 barrels per day in 1970 to 29,267 bpd in 2003, according to the 2003 annual report from the Alaska Division of Oil and Gas.

XTO buys tiny piece of Kuparuk field

—reprinted from Petroleum News, Aug. 29, 2004

In August 2004, XTO Energy closed on a tiny piece of the Alaska North Slope's second largest oil field. The Kuparuk River field acquisition was part of a larger acquisition outside Alaska from ChevronTexaco and not reported when the larger deal was announced in May.

Petroleum news
FROM THE ARCHIVES
www.PetroleumNews.com

The Alaska purchase — one-tenth of one percent of Kuparuk — was "an incidental part of the acquisition, not something we were targeting," Kyle Hammond, XTO's vice president of operations for Alaska and the Permian basin, told Petroleum News Aug. 26, 2004.

The ConocoPhillips-operated Kuparuk River unit averaged 185,921 barrels of oil per day in July. Hammond said XTO's share will be about 200 barrels per day.

He also said XTO is not actively seeking properties on the North Slope.

—Kay Cashman

BP investing in innovation

North Slope operator opts out of exploration game, focuses on developing known conventional and heavy oil resources, with eye on future gas

By **KRISTEN NELSON**
Petroleum News

BP EXPLORATION (ALASKA) INC.
HQ: Anchorage
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While no longer an exploration player on Alaska's North Slope, BP Exploration (Alaska) remains a dominant developer as it targets known light oil accumulations around its existing infrastructure, and puts what it calls "risk dollars" into technology development aimed at producing at least a portion of the slope's 15 billion barrel heavy oil resource.


JUDY PATRICK
STEVE MARSHALL

Steve Marshall, named president of BP Exploration (Alaska) in September 2001, told an audience in January 2002 that BP's recent success on the slope hasn't been from exploration: over 10 years BP found and commercialized 160 million barrels from frontier exploration: 16 million barrels a year at a cost of $40 million a year.

"In the same period," he said, "we've added almost 900 million barrels of extensions in our existing fields — five times that reserve. That's where we've had the greatest success. And the exploration successes we have had are from satellites — in and around Prudhoe, Milne, Kuparuk. That's what we're going to continue doing."

BP sold off what it could of its exploration acreage in 2003 to Anadarko Petroleum, Armstrong Resources and ConocoPhillips Alaska and dropped the remainder, with the exception of that in the Arctic National Wildlife Refuge, which was never put up for sale.

Five billion barrels

Marshall reinforced the message in January 2004.

BP has "5 billion barrels of known oil and gas in our Alaskan reserves," a resource that will continue to attract capital investment "for many years to come," he said, with an investment of more than $650 million in Alaska in 2004, including more than $200 million in double-hulled tankers.

And, he said, the company will "drill more than 100 new penetrations in fields we operate" on the North Slope, including 19 viscous wells. While the company hasn't had any high-profile projects since Northstar, "our focus on drilling generates new production and new state revenues today — not five, 10 or 15 years from today."

The company's ongoing investments have resulted in a 13 percent increase in BP's production over the last two years, he said, a production level the

see **BP INNOVATION** page 93

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BP INNOVATION

company expects to sustain for several years, and over that same two-year period the company has reduced its "total cash cost by more than 10 percent."

Company officials have stressed the importance of reducing its costs in Alaska to make investment in the state competitive with other BP opporetunities.

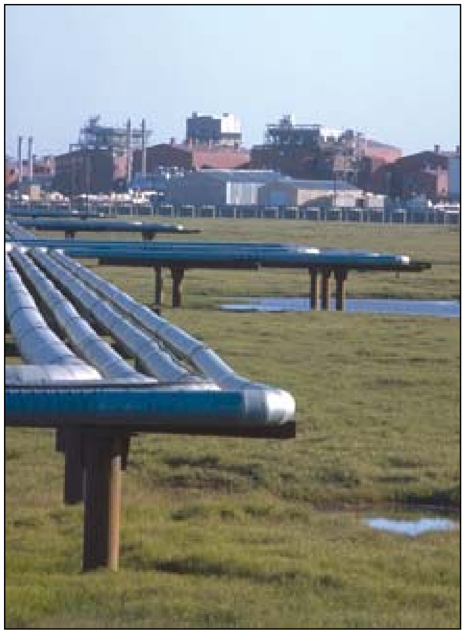
Drilling expected to continue

BP's group vice president for technology, Tony Meggs, said in January 2004 that in the 1970s original Prudhoe Bay field development called for 500 wells. "We've already drilled 1,300 penetrations and plan another 200. Ten years from now I predict we'll have another 200 to drill, regardless of all the drilling we'll do in the meantime."

Of the 5 billion barrels, about 2 billion is proven, and about half of it is light oil.

"To transform the potential into production," he said, BP must continue "to research ways to produce viscous oil competitively. And we must move North Slope natural gas to market."

On the viscous side, BP completed a $180 million viscous project at Milne Point, Meggs said, and the Prudhoe owners will spend $500 million on the Orion project over the next four to five years.



JUDY PATRICK

Prudhoe Bay facilities

Viscous breakthrough

BP made a significant breakthrough in viscous development when it drilled a single horizontal well on the North Slope in 1999, and since then new drilling and completion technology have tripled productivity from the shallow viscous accumulations, Ed LaFehr, BP Exploration (Alaska)'s Milne Point asset manager said in April.

Viscous oil accounts for a third of BP's North Slope resources, he said, and will bridge the gap to gas.

While BP has "essentially shut down exploration," it is "still spending risk capital — but we've shifted it from exploration over into the viscous arena and other areas … but we're spending $400 million plus or minus inside the fields on things that are challenging, that require enormous innovation and a lot of scientific and engineering envelope pushing off that," LaFehr said.

BP has spent more than $300 million on viscous since 2000, he said, "largely developing S pad at Milne Point," and in 2004 will spend more than $100 million as its share of more than 30 (viscous) wells, some 13 of those at Milne Point, 15 or so at Prudhoe Bay and others at Kuparuk."

With development success at S pad in Milne, "if we start seeing signs that the next evolution of technology works, and the economics are there … there are hundreds of millions of dollars over the next decade that we would spend…"

Horizontal wells and multi-laterals have

see **BP INNOVATION** *page 94*

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BP INNOVATION

been successful in drilling viscous accumulations, he said, but there are new challenges: long-rate delivery; issues around how water flood in the field is run; understanding the reservoir; and how sand is managed through the facilities.

Sand management is part of issues around "cost of operations and operability (that) have started to creep in," LaFehr said, with something like 35 barrels of sand a day now being trucked off S pad (viscous oil reservoirs aren't well consolidated, so sand, bits of the reservoir, is produced along with the oil.)

LaFehr said they knew there would be sand, but "it's a bit more challenging than we had thought."

Kuparuk approved; Liberty MOU signed

This August, BP and Kuparuk field operator ConocoPhillips, said they have approved the first large-scale development of viscous oil at West Sak: a $500 million two-pad, 44-well program which will increase West Sak production to approximately 45,000 barrels per day by 2007.

Expansion of Drill Site 1E is expected to add about 10,000 barrels per day, with first production expected in 2004.

And Liberty, BP's discovery offshore east of Endicott, may be moving forward.

In late September, BP signed a memorandum of understanding for development plan and permitting issues with the U.S. Minerals Management Service, from whom BP holds the Liberty leases.

And field operator ExxonMobil and working interest owners, including BP, have yet to come up with a commercial plan to produce the high-pressure condensate at Point Thomson, farther east, adjacent to ANWR,

The BP Energy Center in Anchorage has two purposes: to serve as a training, meeting and conference center for nonprofits and education organizations, and to allow Alaskans to become more familiar with the energy industry in their state. Interpretive and interactive displays provide information on many aspects of the industry. Teachers can bring students to the center to use these displays and other materials as teaching tools, as well as request a personal presentation.

Focus on oil in place

Company spokesman Daren Beaudo recently summarized what BP is doing in Alaska this way: "BP is focused on oil in place… our commitment and … our sweat equity and all our brain power is going to trying to find these pockets… to share information, to apply learnings, to apply technology…

"Viscous oil fills a part of the decline wedge in North Slope production until we get to what we think is Alaska's future, and that's gas sales down the line…"

BP is putting both money and effort into viscous "to economically produce this important (viscous oil) resource," Beaudo said. "We're not just sitting here, we're not just drawing down (and) we're not just resting on out laurels. We're putting a lot of time, money and effort into continuing to produce tougher and tougher oil." ◆

State's non-competitive CBM program abolished

A one-time opportunity to convert shallow gas lease applications to exploration license saves day for Holitna Energy, which is looking to tap remote gas to power Donlin Creek mine in southwestern Alaska

By KAY CASHMAN
Petroleum News

Companies interested in tapping Alaska's shallow gas experienced a setback in mid-2004 when the state of Alaska legislated out of existence its non-competitive, first-come first-served, shallow gas leasing program, also known as the coalbed methane program.

Alaska's non-competitive shallow gas leasing program started in the mid-1990s with the goal of providing access to cleaner, less expensive natural gas resources in isolated rural areas of the state, replacing diesel. But after the Alaska Legislature approved the program in 1996 and the state Division of Oil and Gas started taking applications for the over-the-counter leasing program, it became evident that much of the interest was not in small blocks in rural areas, but in large blocks on the state's road system.

The Legislature amended the program to better cover the state's leasing costs and to accommodate the larger blocks of land needed for commercial development. But, unlike the state's competitive leasing programs, shallow gas did not require a best interest finding and the large amount of shallow gas acreage in the Matanuska-Susitna Borough created public concerns about surface use issues.

In response to these concerns, the Legislature passed House Bill 531 on May 11, 2004, abolishing the state's shallow gas leasing program. This left a number of pending shallow gas applications, including companies looking to tap shallow gas for remote mining operations.

Holita Energy Co.'s was one of those applicants. Its four pending shallow gas leases in southwestern Alaska were about 50 miles from the Donlin Creek mine project, which would need a low-cost source of power to help make the proposed gold mine financially feasible.

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One year process

Fortunately for Holitna Energy and other applicants, HB 531 carried a one-time opportunity for conversion of pending shallow gas lease applications to exploration license applications.

On July 2, 2004, Holitna Energy, and its Native corporation partner, TKC, submitted a request to the division to convert its shallow gas applications to a Holitna basin exploration license under the state's conventional gas leasing pro-

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gram.

On Oct. 22, 2004, the division issued a public notice saying it intended to evaluate Holitna Energy's proposal, which encompassed 26,880 gross acres.

In its public notice the agency asked for comments on the proposed license area. The 60-day comment period ends Dec. 21.

Before issuing an exploration license the division also will have to issue a finding to determine if an exploration license in the area is in the state's best interests, which typically takes about a year to complete.

Pat Galvin, the division's permitting and leasing manager, told Petroleum News Oct. 22 that even though the agency had hired a private contractor to help with the workload related to con-

The company's top executive, Phil St. George, told Petroleum News that Donlin Creek may not be the only potential large mine customer for Holitna basin gas. St. George said he was approached by state development employees interested in taking Holitna gas about 100 miles south to Iliamna Lake, to the giant Pebble gold-copper-molybdenum project

verting shallow gas lease applications to exploration licenses, the one year time period could likely not be shortened.

Pebble power possible

Holitna Energy has said the gas produced on its acreage will likely be used to supply power and heat for the southwestern Alaska Donlin Creek mining project and for nearby villages.

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Despite the loss of the non-competitive, shallow gas leasing program, which was designed to help bring low-cost energy to rural Alaska, St. George remains positive about his company's chances of finding gas to supply power and heat for Donlin Creek.

"We've got new information that there's a good possibility of finding conventional gas, so we think there's a better chance," he said on May 25, 2004. "We've got some more data on the basin and I don't want to say any more about that." ◆

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ARMSTRONG

dent of operations, Stu Gustafson, told Petroleum News July 13, 2004.

Armstrong has filed, and received approval on, a plan of operation with the division for up to three exploration wells just off the western edge of Kuparuk. Armstrong calls it the "Two Bits" prospect — it took the tract with a bid of 27 cents an acre higher than a competing bid from AVCG at an October 2003 state lease sale.

The wells will be drilled "from an existing gravel pad" that will be accessed by a three mile ice road from the Kuparuk River unit 2M pad, which is connected to the North Slope gravel road system.

Finding oil at Two Bits wouldn't just be a win for Armstrong, Gustafson said. "If Two Bits works, there's not enough drill rigs (on the North Slope)." Success at Two Bits, he said, would be better for the industry than discovery of a huge new field, because it would mean companies can make money from developing smaller fields than the 50 million barrel size that is the standard now.

Cracking the 50 million barrel nut

The lure of cracking the 50 million barrel paradigm was what brought Armstrong Oil and Gas to Alaska where it founded Armstrong Alaska, Bill Armstrong, president of both companies, told the Resource Development Council of Alaska in November 2002.

Matt Furin, the Armstrong vice president in charge of geoscience, told Petroleum News July 13, 2004 that the company picked up the Two Bits tract looking "to extend the Kuparuk field … Cretaceous section … farther to the west."

"With ideas that Stu (Gustafson) has, what we're trying to do is significantly lower the reserves threshold for economic development around the North Slope fields."

Until Two Bits, most of the targets Armstrong has gone after on the North Slope have been larger, Furin said, the traditional economic threshold of 50 million barrels.

What Armstrong is looking for at Two Bits is 15-30 million barrels.

The ultimate goal, Furin said, is to get that economic threshold for making money on the North Slope down to 10-20 million barrels, equivalent to what was done in the North Sea and the Gulf of Mexico, he said.

"Once we attack that it doesn't have to be just huge independents" working on the North Slope, Furin said.

The process of moving from all majors to majors and independents took about seven years in the Gulf of Mexico, he said

If Armstrong finds the oil it expects to find at Two Bits, its will use its "production in a box" system, which the company first revealed in May 2004. (See latest news on this system in the On Deadline section.) ◆

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