



page 10 Apache secures rig, prepares to drill well on west side this year

## Inside: Petroleum News Bakken



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### Right on track

Apache drilling in Montana's Daniels County on fringe of Bakken

By KAT CASIMAN  
Petroleum News Bakken

When Apache Corp. announced its entry into Daniels County, Montana in mid-June with a massive land grab of 300,000 net acres, the Houston independent promised five new wells by the end of the year. It is on its way to meeting that promise. Although a company spokesman declined to provide an update on drilling activities, public records and town meeting reports filed in some of the Basins.

New to the Williston Basin's Bakken play, John Boedingfield, Apache vice-president for central part of Daniels and the county seat.

see APACHE DRILLING page 13

### Flushed out of hiding

ETP plans reversal of Trunkline to carry Bakken, other products to Gulf Coast

By GARY PARK  
For Petroleum News Bakken

Operating in the shadows, Energy Transfer Partners, ETP, is trying to gain an edge over others — notably TransCanada and the partnership of Enbridge and Enterprise Products Partners, EPP — to offer pipeline access from the Bakken, Alberta oil sands and the Utica shale plays to Gulf Coast refineries. Industry sources say its plan is pinned on reversing its 770-mile Trunkline system to a south-bound operation from the Midwest, shifting from the declining natural gas business to the shale-rich core of the United States and beyond to Alberta.

Although ETP has kept tight-lipped about its plans, a Raymond James analyst believes the current inventory glut into and out of PADD II would evaporate by 2014 if all of the existing pipeline proposals, excluding Trunkline, proceed.

They are projecting that the switch to a Gulf-bound crude pipeline could expand Trunkline's capacity to 400,000 barrels per day from 150,000 bpd.

Michigan governor protests

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### Production keeps growing

ND's rig count falls to lowest levels in months; leasing also down, but permits up

By KAT TYSON  
Petroleum News Bakken

North Dakota oil production, though growing at its slowest month-to-month pace in more than a year, set new highs for July, even as the number of drilling rigs declined and leasing slowed. But for the first time, daily oil production from North Dakota's portion of the Bakken petroleum system topped 600,000 barrels, state Industrial Commission reports show. The commission reported that on average in July, the most recent month for which production statistics were available, the Bakken and Three Forks play produced 609,579 barrels per day, representing 90.4 percent of 674,066 barrels per day of total North Dakota oil production during the same month. The remaining 9.6 percent of oil production came from conventional reservoirs. Natural gas production for July also set an all-time high, averaging 718,796 cubic feet per day compared to 699,945 cubic feet per day in June, an increase of about 2.6 percent.

Meanwhile, the North Dakota drilling rig count statistics were available, the Bakken and Three Forks play produced 609,579 barrels per day, representing 90.4 percent of 674,066 barrels per day of total North Dakota oil production during the same month. The remaining 9.6 percent of oil production came from conventional reservoirs.

Natural gas production for July also set an all-time high, averaging 718,796 cubic feet per day compared to 699,945 cubic feet per day in June, an increase of about 2.6 percent.

see OIL PRODUCTION page 12

## EXPLORATION & PRODUCTION

# The oil's there

Great Bear says it wants to accelerate its North Slope shale oil program

By ALAN BAILEY  
Petroleum News

Great Bear's results so far from its Alcor No. 1 shale oil test well on Alaska's North Slope have met expectations for finding oil in North Slope source rocks, Ed Duncan, the company's president and CEO, told the Alaska Oil and Gas Congress on Sept. 19.

"I can tell you with absolute confidence that where we thought we would find oil in these source rocks, we found oil," Duncan said.

The section is very thick in the Cretaceous; it's very thick in the Jurassic; it's a little thicker than expected in the Triassic Shublik, Duncan said. The Shublik is the source rock thought to have the highest shale oil potential on the North Slope, with



Great Bear's Alcor No. 1 well, taken in July

the two other main source rocks, the HRZ/GRZ and the Lower Kingak, occurring in the Cretaceous and Jurassic sections.

see GREAT BEAR RESULTS page 15

## EXPLORATION & PRODUCTION

# No oil this year

Following damage to containment dome Shell opts for top hole drilling

By ALAN BAILEY  
Petroleum News

Shell's plans to complete at least some oil exploration wells in Alaska's Chukchi and Beaufort seas this year have finally come to naught, following damage to the company's new Arctic oil containment dome during testing of the Arctic Challenger containment barge, the company announced Sept. 16.

The company has decided not to proceed with the complete drilling of two planned exploration wells, one in the Chukchi Sea and one in the Beaufort Sea, and is instead going to drill a series of "top holes," the upper sections of wells that terminate a long way above any likely hydrocarbon



The Noble Discoverer

zones. The drilling of top holes will enable the more rapid completion of wells during the 2013 drilling season.

see SHELL DRILLING page 16

## NATURAL GAS

# Careful haste in BC

Government needs LNG revenues; proposals need time for FEED, approvals

By GARY PARK  
For Petroleum News

It would be easy for the British Columbia government to get swept up in the tsunami of announced and planned LNG export projects, given that tens of billions of investment dollars are on the line and the proposals offer the only viable hope of developing trillions of cubic feet of stranded shale gas resources.

But the realities are also being hammered home by partners in the various projects and by analysts.

A spokesman for Apache, the 40 percent operator of the Kitimat LNG venture, with EOG Resources and Encana holding 30 percent each, and EOG Chief Executive Officer Mark Papa have

Pickering noted that power generation resources are not sufficient in parts of the United States to support the growth and development of LNG plants, identifying the Jordon Cove Energy project at Coos Bay harbor in Oregon as one example.

delivered a plain message about what obstacles have yet to be cleared, even though preliminary work has started on a terminal at Kitimat.

They are backing away from initial forecasts that exports would start in 2015, emphasizing that the "to-do" list includes front-end engineering and

see BC LNG page 14

## Armstrong Cook Inlet drilling at North Fork, second well planned

Armstrong Cook Inlet LLC plans to drill two wells at its North Fork unit this fall.

The subsidiary of Denver independent Armstrong Oil & Gas Inc. is currently drilling the NFU No. 23-25 well to increase natural gas production at the southern Kenai Peninsula field and plans to subsequently drill the NFU 22-35 well for the same purpose, Vice President of Land and Business Development Ed Kerr told Petroleum News Sept. 18.

"We're drilling through a package of sands."

—Armstrong Vice President of Land and Business Development Ed Kerr

see ARMSTRONG page 13

## As Canadian as possible ... under the circumstances

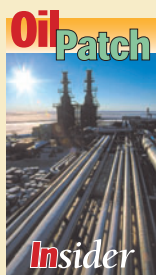
WAS IT A MISPEAK? A misstep? A mistake?

Whatever, Canada's Natural Resources Minister Joe Oliver stumbled in attempting to state his view on Alberta Premier Alison Redford's dream of a national energy strategy to develop Canada's natural resources in a responsible, cooperative manner.

Following a meeting of provincial energy ministers, who broadly endorsed the objective, Oliver said he hadn't heard any thoughts about a strategy that weren't being dealt with already.

He then appeared to heap scorn on Redford's efforts to

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• FACILITIES

# Roads to Resources: Susitna RFP out

Alaska Department of Transportation and Public Facilities initiative would identify options for road-based access west of river

By KRISTEN NELSON  
Petroleum News

What's one of the most inaccessible areas of Alaska? Try the west side of Cook Inlet in Southcentral, west of the Susitna River. You can barge in across Cook Inlet; you can fly in; you can build ice roads in the winter.

One Cook Inlet oil and gas producer has described working on the west side of Cook Inlet as more expensive than working on the North Slope, because at least there is a road to the North Slope.

Perhaps that might be changed? The Alaska Department of Transportation and Public Facilities' Division of Program Development has a request for proposals out under the Roads to Resources initiative for a reconnaissance study of west Susitna access to resource development.

The work is estimated to begin Nov. 1 and end April 30; the cost is estimated at less than \$100,000.

The RFP is for "an evaluation of one or more potential transportation corridors and river crossings to provide surface access to resource development opportunities west of the Susitna River," specifically evaluation of road access options.

This is a preliminary analysis and does not include field work, the RFP says. Instead, work is to be based on published sources and interviews with "responsible parties."

The state's Roads to Resources initiative began under former Gov. Frank Murkowski and has been a priority for Gov. Sean Parnell with \$34 million spent through early this year on proposals for roads to Ambler, Nome and Umiat. Umiat is furthest along, with the U.S. Army Corps of Engineers preparing an environmental impact statement for the project. The road to Umiat would serve both the Gubik and Umiat fields, currently under evaluation.

## Cook Inlet access issues

Access in Cook Inlet "stands between a lot of potential prospects and what could be real projects," JR Wilcox, presi-

*Documents resulting from the study may be used in preparation of a capital budget request and development of formal documentation for environmental and permitting efforts.*

dent of Cook Inlet Energy, told the Alaska Support Industry Alliance Meet Alaska conference in January of 2011.

You can build ice roads, he said, but they aren't cheap and because of weather variations they don't work every winter — and don't give you long to work even when you can build them.

When it comes to development, use of gravel is prohibited "except by exception" and "if you don't have gravel roads and pads it's really hard to have an oil field."

In addition there are refuges and state game refuges and critical habitat areas, which make access "very difficult," Wilcox said.

He said the governor's Roads to Resources "is a great initiative," but said he thinks "the poster child of the whole program ought to be the 28 miles linking the Mat-Su to the Beluga-Tyonek area. That's a very short road; it's across state land in a permitted right of way; it's been on the books since the late '60s and that would immediately lower the operating cost for ... a lot of the western side of Cook Inlet because you could actually access things by truck."

He said it's a surprise to people that doing business on the west side of Cook Inlet can cost more than on the North Slope. One of the reasons for that, Wilcox said, is that there is a road to the North Slope, while there isn't a road to the west side of Cook Inlet.

## Resources, routes

The RFP describes a resource component of the Susitna River access study west of the river, bounded in the north by Denali National Park, on the south by the Lake Clark Preserve and Wilderness and to the west by the ridgeline of the Alaska

Range, with "consideration for possible routes through the Alaska Range to access the area further to the west."

The access component of the study is the area "east of the Susitna River to the Parks Highway, and south of the Parks Highway Bridge on the Susitna."

The resource component involves documenting potential opportunities on the west side of the Susitna River, including prospective mines; timber harvest; energy recovery such as oil and gas and geothermal; land that could be developed for residential or other uses; community benefits such as lower delivery costs; recreational access benefits; and long-term opportunities "such as surface access further to the west."

For specific pending projects, such as mines in active exploration, or ore body definition, the study would include content, timing and mapping of the project.

The access component of the study includes documenting existing transportation and energy networks on the east side of the Susitna River from which access to a crossing would originate; existing rights of way, including unbuilt and unused ROW, including mapping and

original granting instruments. All state and local government owned lands would be mapped.

Previous facility extension studies and surveys, barriers to surface transportation extensions and all energy facilities including transmission lines, pipelines and other generation, handling and delivery facilities would also be included.

## Crossing location options

A first-round selection would identify and evaluate one or more crossings of the Susitna River for access to the west, including the existing Parks Highway bridge south of Talkeetna.

Also included in the study are preliminary material site reconnaissance, preliminary hydrology reconnaissance, preliminary environmental review and transportation analysis and recommendation.

Documents resulting from the study may be used in preparation of a capital budget request and development of formal documentation for environmental and permitting efforts. ●

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*James Udelhoven*



● LAND & LEASING

# Minnow swims with Beaufort whales

Franklin Petroleum only bidder in Canadian Beaufort Sea/Mackenzie Delta round; has assembled 2.7 million acres; plans seismic

By GARY PARK

For Petroleum News

It needed Franklin Petroleum — a little-known, two-employee, privately held United Kingdom company — to prevent a total industry cold shoulder of exploration rights in this year's Canadian Beaufort Sea/Mackenzie Delta bidding round.

But the overriding message is that companies have decisively pulled back from the region after making heavy work commitments in recent years and turned their attention from the Arctic region to the liquids-rich prospects in the Central Mackenzie Valley of the Northwest Territories.

Franklin, in expanding its northern foothold, made a successful bid of C\$7.5 million for a 100 percent interest in more than 2.2 million acres of parcels, the Canadian government's Aboriginal Affairs and Northern Development Department reported.

*Franklin is run by Paul Barrett, whose most recent company has a market capitalization of about C\$11 million and produced about 200 barrels per day of oil and gas equivalent last year.*

The company has now assembled about 2.7 million acres in the Beaufort, making it one of the biggest players in the Canadian Arctic.

The Canadian government is "not required to issue an interest" based on its Call for Bids, but a spokesman for John Duncan, the federal cabinet minister in charge of the bidding process, said "it's a market-driven competitive process and there would have to be a compelling reason (to reject the top bid), otherwise we undermine the process."

But the results this year and in 2011, when the only successful

Beaufort/Mackenzie bid was C\$2 million for six parcels covering a combined 5.22 million acres from Arctic Energy & Minerals Ltd., also a low-profile player, which transferred the rights to Franklin.

## Sharp contrast to 2008

That level of interest is in sharp contrast to the C\$1.18 billion bid by BP Exploration in 2008 for a parcel covering 5 million acres and the joint venture of Imperial Oil and ExxonMobil Canada which secured 507,000 acres in 2007 for a total work commitment of C\$585 million.

The slide started after 2010 when Chevron Canada was awarded a 100 percent stake in a 5.08 million acre parcel for a bid of C\$103 million and junior explorer MGM Energy committed C\$5.69 million for four licenses totaling 7.18 million acres.

At the same time the Central Mackenzie came into focus, attracting C\$536 million in winning bids in 2011, led by Husky Energy's commitment of C\$386 million for two parcels, while last year's sale saw Shell Canada secure two parcels for C\$92 million, followed this year by Shell Canada bids totaling C\$92 million for two parcels.

The shift southward has been led by major operators such as Husky Energy, Imperial, ExxonMobil, Chevron Canada and Shell, who are chasing a highly rated tight oil play while doubts build over whether a natural gas pipeline will ever be built from the Mackenzie Delta.

## Seismic work next summer

Franklin is run by Paul Barrett, whose most recent company has a market capitalization of about C\$11 million

and produced about 200 barrels per day of oil and gas equivalent last year.

He told the Globe and Mail that Franklin's current funding comes from a "personal kind of investment to kick-start the company."

Having landed the Beaufort rights, the company is required to make a deposit for one quarter of the C\$7.5 million and must spend the balance on qualifying exploration work to extend its license from five years to nine years.

Barrett indicated he plans to start seismic exploration work next summer, estimating the cost for one month at C\$10 million to C\$15 million.

But, lacking the financial means to embark on a full-scale drilling program that would cost a minimum C\$500 million, he hopes to identify enough oil prospects to attract investments from others, including Asian or Russian companies.

Barrett said his interest was stirred by data gathered and published by Houston-based ION Geophysical Corp., whose ship-towed sensors pointed to structures in the same league as Prudhoe Bay.

He conceded the whole process is a gamble, while adding there is a "tangible possibility ... of coming up trumps."

Franklin's best current hope of bolstering outside interest also rests partly on results from a ship-borne marine 3-D seismic program by Chevron on the exploration license it acquired in 2010, although Chevron and others are not yet clear how they can meet new safety standards set by the National Energy Board. ●

Contact Gary Park through publisher@petroleumnews.com



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## ENVIRONMENT & SAFETY

### Satellite record set for low ice extent

Arctic sea ice cover likely melted to its seasonal low Sept. 16, at 1.32 million square miles the lowest summer minimum extent in the satellite record.

“We are now in uncharted territory,” National Snow and Ice Data Center Director Mark Serreze said Sept. 19. “While we’ve long known that as the planet warms up, changes would be seen first and be most pronounced in the Arctic, few of us were prepared for how rapidly the changes would actually occur.”

Useful satellite data on sea ice became available in late 1978 with the launch of NASA’s Scanning Multichannel Microwave Radiometer satellite, NSIDC says on its website.

The center said the Arctic used to be dominated by multiyear ice, ice that survived through several years, but in recent years “the Arctic is increasingly characterized by seasonal ice cover and large areas are now prone to completely melt away in summer.”

NSIDC defines the Arctic’s sea ice extent as the total area covered by at least 15 percent of ice. That sea ice extent varies from year to year due to weather conditions, but has shown “a dramatic overall decline” in the last 30 years, with this year’s minimum nearly 50 percent lower than the 1979 to 2000 average.

Arctic sea ice cover grows in the winter when the sun sets in the Arctic for several months, and shrinks in the summer as the sun rises higher in the northern sky, NSIDC said, with the Arctic sea ice reaching its minimum extent in September.

NSIDC said minimum extent number was preliminary, as changing weather conditions could push the ice extent lower.

—PETROLEUM NEWS

## FINANCE & ECONOMY

# Rig to be offered at foreclosure sale

The rig belongs to Naknek Electric Association, a small Alaska co-op that found mainly trouble with geothermal drilling effort

By **WESLEY LOY**

For *Petroleum News*

A U.S. Bankruptcy Court judge has approved a foreclosure sale for a drilling rig used in a failed geothermal exploration effort in Southwest Alaska.

The rig belongs to Naknek Electric Association, which was forced to file for Chapter 11 bankruptcy protection from creditors in September 2010. The small cooperative serves villages in the Bristol Bay region.

As *Petroleum News* went to press, it was unclear exactly when the foreclosure sale would be held.

Anchorage Bankruptcy Judge Donald MacDonald’s Sept. 11 order indicates the sale could occur as soon as Sept. 28.

The sale will be held at the law offices of Burr Pease & Kurtz in Anchorage, the judge’s order says.

### How sale will work

The rig is a National 1320 model that Naknek Electric purchased to conduct geothermal drilling.

The rig remains at the site of the one and only well the co-op managed to drill during its troubled geothermal campaign. The well, known as G-1, is near the village of King Salmon.

The expectation is that one of the co-op’s major creditors, oilfield services company Baker Hughes, will prevail at the foreclosure sale.

Unlike other prospective buyers, Baker Hughes will be entitled to credit bid, MacDonald’s order says.

Baker Hughes is offering to help plug and abandon the problem-plagued G-1 well, something the co-op can’t itself afford to do.

Others bidding at the foreclosure sale will have to offer all cash, starting at \$7.5 million, the judge’s order says.

If no one offers more than that, the rig

will go to Baker Hughes under a complex “collateral disposition and settlement agreement” negotiated among parties to the bankruptcy case.

### Rig resale expected

After the foreclosure sale, Baker Hughes is expected to resell the rig, most likely to an oil and gas explorer in the Cook Inlet basin.

Two companies, Cook Inlet Energy LLC and NordAq Energy Inc., have indicated an interest in the rig and have sent people to examine it, court papers show.

Before the rig is barged out of the region, Naknek Electric is hoping to use it to plug and abandon the G-1 well. The co-op has applied to the Alaska Oil and Gas Conservation Commission for permission to conduct the operation.

The judge’s order says if the co-op “does not timely commence or complete” the plugging and abandonment, Baker Hughes will be permitted to make a “substitute equipment election.”

Proceeds from the sale of the rig and accessories are not expected to nearly cover the co-op’s financial obligations.

By the date it filed for bankruptcy, Naknek Electric said it had run up some \$40 million in debt that was “in one way or another associated with the geothermal project.”

The co-op embarked on the geothermal drilling effort in hopes of establishing an alternative to burning expensive diesel to generate electricity. It had hoped to drill multiple geothermal wells, and spent \$11.5 million to buy and improve the rig.

The co-op’s geothermal prospects looked decent, with the volcanic Katmai National Park and Preserve not far from its service area.

But Naknek Electric encountered all manner of money and technical problems. ●

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● PIPELINES & DOWNSTREAM

# Lawmakers question high Alaska fuel prices

Alaska Senate Energy Working Group takes testimony from industry, government officials on Alaska fuel prices at Fairbanks hearing

By **STEFAN MILKOWSKI**

For Petroleum News

**H**ow can a state with massive oil fields and multiple refineries end up with fuel prices consistently higher than the national average?

The question has puzzled Alaskans for years and led to legislative initiatives and state investigations. The Attorney General's office found no evidence of illegal activity by in-state refiners when it investigated fuel pricing in 2002 and again in 2008, but lawmakers have continued to study the issue and look for ways to reduce prices.

The three-member Senate Energy Working Group, comprised of Sens. Joe Thomas, Bill Wielechowski, and Lyman Hoffman, dove into the issue at a daylong hearing Sept. 10 in Fairbanks.

James Tangaro, a vice president of Tesoro Alaska Co., the state's largest refiner of gasoline, defended his company's pricing

practices. "The bottom line here is markets set the price for fuel," he told lawmakers. "Prices are determined by the forces of supply and demand like they are for any other commodity."

Tangaro offered a long list of reasons for Alaska's above-average prices, starting with the high cost of crude oil. Since the beginning of 2011, the Alaska North Slope crude price has been significantly higher than the West Texas Intermediate price. Tangaro said that premium is now about \$18 per barrel, or 43 cents per gallon.

## Cook Inlet crude issue

When Tesoro built its Kenai refinery in 1969, it could rely on Cook Inlet crude oil; now it's forced to buy most its crude from the North Slope, requiring costly transportation from Valdez, and from foreign sources. "Having a high price for that helps Alaska of course, but it also hurts in some cases because our energy is derived from

that," Tangaro said.

The cost of energy used in the refining process is high and rising, the cost of labor is higher than elsewhere, and a diminished industrial base means specialized contractors are harder to find locally, he said. Highly variable seasonal demand and small market size force refiners and distributors to spread fixed costs over fewer barrels.

Tangaro stressed that refiners are not like utilities that add a regulated profit margin on top of costs. Instead, prices are set by the market, and refiners make money when they can and try to hold on when they can't.

## Wielechowski: Market isn't working

Wielechowski, who has sponsored legislation barring refiners from selling at "unconscionable" prices, suggested the market isn't working. He pointed to a Legislative Research analysis showing refiner "margins" spiking in 2008 in relation other states.

"Part of the problem is we really don't have a free market," he said. "We don't have the competition we'd like."

Tangaro replied that the spike might have been related to the unprecedented volatility of oil prices. And he argued the market was working — profits are low enough that other refineries have shut down, and the only other refiner of gasoline, Flint Hills Resources Alaska, has reduced its output.

Sen. Joe Paskvan asked if increased North Slope production would reduce the price of crude to the refinery.

"If there was more supply, it couldn't hurt," Tangaro replied.

Sen. Donny Olson asked if Tesoro would be interested in buying state royalty oil at a discounted rate.

Tangaro replied that Tesoro is a business that operates in the free market. "That's a state decision," he said.

## State opposes discounting royalty oil

Division of Oil and Gas Director Bill Barron and Ed Sniffen, senior assistant to the Attorney General, seemed to shoot down the idea of selling royalty oil at a discounted rate or capping fuel prices.

Barron explained that in order to take its royalty share as oil rather than cash, the state must show that doing so is in the public interest and that the value to the state is at least as great. If the state sold oil below market value to one refiner, trade laws might require it to offer the same price to anyone, he said.

Sniffen added that because refiners aren't regulated like utilities, just lowering the price of crude might not make a difference. "There is no law that says a business can't make 1000 percent profit on its product," he said. "There is no law that says they have to pass on any savings they receive to the consumer."

Sniffen said fuel markets are very difficult to regulate. Hawaii tried a few years ago, but quickly gave up. Many states have some form of price-gouging legislation, but in most cases the law only applies after natural disasters, he said.

When asked what might help, Sniffen replied that he didn't know. Increased oil and gas production might be the best option, he said.

## No evidence found in 2008

In its 2008 investigation, the Attorney General's office found no evidence of collusion or price-fixing among the state's refiners. But it noted that the small number of refiners and high barriers to new entrants likely reduced competitive forces. "Based on this market structure alone, it is unrealistic to expect that gasoline prices in Alaska should be the same as in other parts of the country," read its report.

In written testimony, Jeff Cook of Flint Hills Resources Alaska, which operates the North Pole refinery, also pointed to high crude prices and refining costs. He wrote that increased oil production would help, and he warned against attempts to regulate refiners or control prices. "That is not a path we recommend because price controls invariably harm consumers," he wrote.

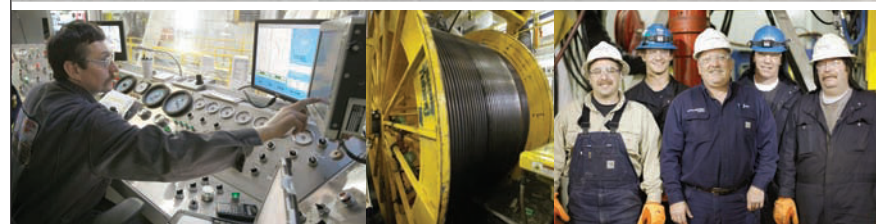
Other presenters included Jim Dodson of the Fairbanks Economic Development Corp., Antony Scott of the Alaska Center for Energy and Power and Bill O'Leary of the Alaska Railroad.

In an interview Sept. 19, Thomas, who chaired the Fairbanks hearing, said he

see **FUEL PRICES** page 7



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● FINANCE & ECONOMY

# Canada faces shrinking US oil market

By GARY PARK

For Petroleum News

The stage is being set in Canada for an arm wrestle without parallel over the future of the country's oil exports.

It will pit the opponents of oil sands growth and pipeline expansions against an industry that is desperate to open new markets in Asia.

The stakes were outlined in a new report by analysts at Bentek Energy that conveys one troubling message to Canadian oil producers: Their chances of increasing shipments to the United States will come to a halt in 2018.

That's when the combination of rising U.S. domestic production and pipeline constraints will create the possibility of Canadian oil getting pushed out of its only serious export destination, said Jodi Quinnell, who helped write the Bentek report.

"What comes in to the U.S. will slow and basically remain flat from 2018 to 2025," she said.

## U.S. self sufficiency

A rapid political swing in favor of making the U.S. self sufficient in oil and advances in multi-stage fracking of horizontal wells that have opened up new crude sources in North Dakota, Oklahoma, Colorado, Michigan and even Florida will see U.S. production soar by 5 million barrels per day, or 74 percent, over the next decade, Bentek said.

The report predicts the U.S. will easily surpass its previous domestic production peak of 9.6 million bpd in 1970, reaching 11.6 million bpd in 2022.

Over that period, reliance on countries outside Canada will largely fade from current levels which see the U.S. rely on imports for 45 percent of its petroleum needs, about half from OPEC countries.

## 1 million bpd by tanker by 2022

Bentek estimates that by 2022, only 1 million bpd will be delivered to the U.S. by tanker, compared with 6.7 million bpd in 2011, with much greater reliance on countries such as Mexico and Brazil.

Wayne Chodzicki, the Calgary-based global head of oil and gas for KPMG, the consulting firm, told the Globe and Mail that this outlook should "cause us to, even more than we are today, realize the importance of creating additional channels to

continued from page 6

## FUEL PRICES

would continue to look for a way to reduce the price of royalty oil to refiners despite the Department of Law's assessment that doing so would be illegal.

"I'm going to keep after them about it," he said. "It's hard to say you're getting the maximum benefit to the people simply by selling it for the most money."

Thomas said the working group hired the University of Alaska Anchorage's Institute of Social and Economic Research to complete a study on fuel pricing and royalty oil. A preliminary report is due late this year. ●

Contact Stefan Milkowski at stefanmilkowski@gmail.com

*The U.S. Energy Information Administration target lags a full 5 million bpd behind Bentek's estimate for 2022. ...*

the world."

However, not everyone agrees with the Bentek forecast. The U.S. Energy Information Administration target lags a full 5 million bpd behind Bentek's estimate for 2022 and the Canadian Association of Petroleum Producers remains hopeful that Canadian oil will remain in high demand in the U.S.

There is also a question about whether the U.S. will be able to attract the \$125 billion of investment it will require to produce an additional 5 million bpd. ●

Contact Gary Park through publisher@petroleumnews.com

## ENVIRONMENT & SAFETY

### Alberta pollution limits being tested

As quickly as the Alberta government enacted legal limits on air and water pollutants in its oil sands region, Shell Canada undermined the effort.

In a document submitted to the Canadian Environmental Assessment Agency, Shell said annual emissions of sulfur dioxide and nitrogen dioxide from its proposed additional of 100,000 barrels per day at its Jackpine mine would exceed the Alberta threshold.

The provincial standards, intended to place a fixed limit on the overall environmental impact by industry, were announced in August and accompanied by assurances that the caps would be legally binding.

However, the Shell report indicates that planned oil sands development could see the two gases that contribute to acid rain acidify 23 small lakes and possibly wipe out a caribou population.

Simon Dyer, policy director at the Pembina Institute, a Calgary-based environmental lobby group, said the Shell report will force regulators to "start turning down projects to stay under the limits, or they are seriously going to have to ratchet back on the performance of all the existing operators to try to get those pollutants down to levels to enable the industry to grow."

He said the Shell disclosure "validates the concern that many stakeholders have raised about the cumulative pace and scale of (oil sands) development. It's the first real test of the Alberta plan."

The Shell report, written by environmental consultants Golder and Associates, estimates that annual levels of sulfur dioxide are about 20 times what they would naturally be over a large area of the Athabasca formation, while nitrogen dioxide is esti-

see POLLUTION LIMITS page 9



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## ENVIRONMENT &amp; SAFETY

# New barnacle found at Alyeska terminal

The nonindigenous species could have arrived via oil tanker; unclear whether crustacean is widely established in Alaska waters

By **WESLEY LOY**

For *Petroleum News*

Scientists like making new discoveries. But Greg Ruiz and his colleagues would have been content not to have found what they did recently at the Valdez oil terminal.

During a summer 2011 survey to test for evidence of invasive species in Prince William Sound, the scientists found a kind of barnacle never before seen in Alaska.

The barnacle, with the scientific name *Amphibalanus improvisus*, is sometimes called by the common name bay barnacle.

It is native to the Atlantic Ocean and is known to be established on the Pacific coast as far north as British Columbia.

"To our knowledge ... (this) occurrence of *A. improvisus* is the first record for Alaska," said a report Ruiz and another researcher submitted to the Prince William Sound Regional Citizens' Advisory Council.

## Looking for hitchhikers

The Valdez-based council is a congressionally mandated nonprofit organization that monitors the oil industry in Prince William Sound.

The council long has been concerned about potentially harmful nonindigenous species entering Alaska waters as hitchhikers on or inside tankers, which arrive regularly at the Valdez oil terminal to load Alaska North Slope crude for delivery to West Coast refineries. Alyeska Pipeline



**Barnacle species *Amphibalanus improvisus***

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Service Co., which runs the trans-Alaska pipeline, operates the terminal.

Nonindigenous species including fish, crabs and microorganisms can travel in ballast water that's pumped on and off ships.

Ruiz is a marine biologist with the Smithsonian Environmental Research Center at Edgewater, Md. He and Jon Geller, of the California State University system's Moss Landing Marine Laboratories, were the principal investigators on the report submitted to the citizens' council.

The council was to consider the report at its Sept. 20-21 board meeting in Seward.

The report notes that, to date, relatively few nonindigenous species have been detected in coastal marine waters of Alaska compared to other regions of North America.

That's somewhat surprising for Prince William Sound, given all the tankers arriving from ports such as Long Beach, Calif., San Francisco and Washington's Puget Sound, places where hundreds of nonindigenous species have been documented, the report said.

But the tanker arrivals began relatively recently, when the terminal opened in the late 1970s.

"There is often a lag time in detecting new invasions," the report said, due to the time it takes for populations to grow and be discovered.

"In the case of PWS, the time has been short, and the search effort has been low," the report said.

## Only one found

In a Sept. 19 interview with *Petroleum News*, Ruiz said the newly discovered barnacle isn't a particularly noxious variety. It can do what barnacles do, such as foul vessel hulls or industrial water inlet pipes. Removing the crustaceans can be a costly chore.

Alaska has its own native species of barnacles, Ruiz said.

In conducting the invasive species survey, the scientists deployed PVC panels at six sites around Prince William Sound during May 2011, and retrieved them three months later. The panels worked as "passive collectors," allowing marine invertebrates to colonize.

The six sites included the Valdez small-boat harbor, the Valdez ferry dock, the

Alyeska oil terminal, the Solomon Gulch salmon hatchery, Tatitlek and Ellamar in Virgin Bay.

The researchers found only one specimen of the barnacle *Amphibalanus improvisus*. It was at the Alyeska terminal site. But Ruiz noted the survey covered only a small area. It's not clear whether the barnacle is now established and self-sustaining in Prince William Sound.

"This species may have arrived on the hulls of vessels (as adults) or in the ballast water of vessels (as larvae)," the report to the citizens' council said. "If the species becomes established, the potential impacts are not well understood at the present time."

The carriers can be commercial or recreational vessels, Ruiz said.

The researchers hope to conduct more work to test for the presence and persistence of the barnacle.

"This is one of many species that we've seen moving northward into the state of Alaska," Ruiz said.

What's happening is species unable to reach Alaska under their own power are finding transportation to the young state, he said.

As a marine biologist, Ruiz said, discovering the new barnacle was "kind of bittersweet."

"It'd be better if we didn't find anything new," he said. ●

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<b>The Hon. Joe Manchin</b> , U.S. Senator, West Virginia (scheduled to appear)	<b>Stephen T. Starbuck</b> , Partner, Ernst & Young LLP
<b>Frank McAllister</b> , Chairman and CEO, Stillwater Mining Co.	<b>The Hon. Earl Ray Tomblin</b> , Governor, West Virginia (scheduled to appear)
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● PIPELINES & DOWNSTREAM

# Cleaning pig runs amok at Alyeska terminal

Refrigerator-sized device diverts into manifold, breaks up; incident doesn't stop oil movement as operator uses alternate flow path

By WESLEY LOY

For Petroleum News

The operator of the trans-Alaska pipeline has a stuck pig at the Valdez oil terminal. And it's likely to stay stuck.

A pig is a tool that slides through the pipeline to clean it, or to test for problems such as corrosion.

Back in the spring, a cleaner pig ran off course and was "ingested" into a manifold, an arrangement of piping and valves designed to control oil flow.

The pig broke apart, and much of it remains stuck. The incident didn't interrupt the flow of oil into the terminal or onto tankers, said a spokeswoman for system operator Alyeska Pipeline Service Co.

But a nonprofit organization that monitors oil industry activity at Valdez said "efforts to recover the pig and reestablish normal operations including the resumption of routine pigging were both extensive and protracted."

## Tool temporarily lost

Alyeska spokeswoman Michelle Egan provided details to Petroleum News about the incident.

The pig was about the size of a refrigerator and was built from fairly flexible polyurethane parts, she said. The device is designed to break into smaller pieces if it encounters significant barriers or pressure.

Alyeska sends cleaner pigs down the pipeline about once a week to scrap out wax that can build up inside the line, which is 48 inches in diameter.

On May 10, a pig arrived as scheduled at the Valdez Marine Terminal at the end of the 800-mile pipeline.

But something happened to divert the pig's path.

"As the pig arrived, the pressure relief

*The device is designed to break into smaller pieces if it encounters significant barriers or pressure.*

system was triggered, likely by the incoming wax cloud," Egan said.

The pig should have gone to a trap, or chamber, where it can be retrieved after a run through the pipeline. But on this occasion, operators found no pig when they opened the trap.

A search determined the pig had followed the oil on a "path of least resistance," going into what's known as the relief system manifold in the terminal's East Metering building.

Pig parts blocked some of the relief valve piping.

The incident did not force a terminal shutdown. Rather, Alyeska was able to use an approved alternate flow path to take oil around the relief system, Egan said.

Alyeska removed a portion of the obstruction, an investigation was conducted, and regulators were kept informed, she said.

## 'Encased in concrete'

Alyeska officials were scheduled to provide a briefing on the pigging incident at the Prince William Sound Regional Citizens' Advisory Council board meeting on Sept. 20-21 in Seward.

The council monitors the terminal and the tankers that load crude oil in Valdez.

In a memo prepared in advance of the board meeting, council staffers provided their own understanding of what happened with the errant pig.

"In May, a pig approaching the Valdez Marine Terminal happened to be forced into a section of piping buried under reinforced concrete rather than continuing on to its intended destination, the VMT's pig

see **CLEANING PIG** page 13

## NATURAL GAS

### Sasol study backs GTL

South Africa's Sasol has not abandoned its hopes for building Canada's first gas-to-liquids project, despite the loss of Talisman Energy as a 50-50 partner.

A company official has disclosed that a feasibility study made a "compelling argument" in favor of a GTL operation and will now go to Sasol's board for a decision on whether to start front-end engineering and design, or FEED.

He said that if FEED work proceeds it will take up to 50 months from a final investment decision until the first product is "in the tank," with a commercial business coming on stream by late this decade.

The initial phase of a GTL operation would yield 48,000 barrels per day of diesel fuel and naphtha, which would be sold as diluents for oil sands bitumen, with ultimate capacity targeted at 96,000 bpd.

Sasol's Canadian unit has also obtained an option to buy 1,300 acres in the Alberta Heartland area near Edmonton from Total E&P Canada for a GTL plant.

Talisman has decided not to participate in the FEED phase, but Sasol has retained its 50 percent stake in Talisman's Farrell Creek and Cypress natural gas assets in northeastern British Columbia that would likely be a key source of gas for a GTL operation.

—GARY PARK

## FINANCE & ECONOMY

### Justices affirm Exxon Valdez case dismissal

The Alaska Supreme Court has upheld the dismissal of a lawsuit in which a woman alleged she and her unborn child suffered harm from exposure to oil during the Exxon Valdez spill cleanup.

During the summer of 1989, Betty G. Carey worked for Veco, an oilfield services company involved in the cleanup of crude oil that spilled from the grounded tanker Exxon Valdez in March of that year.

In September 2010, Carey sued Alyeska Pipeline Service Co., the Anchorage-based operator of the trans-Alaska pipeline. The 800-mile pipeline delivers Alaska North Slope crude to tankers calling at Valdez.

The suit alleged Carey became ill while working on the oil spill and had suffered lifelong health complications as a result. It also alleged Alyeska exacerbated the harm by failing to fully disclose the toxins in the oil pursuant to Occupational Safety and Health Administration regulations and "right-to-know" laws.

Alyeska argued it had never employed Carey, and that the oil spill was not its fault or responsibility.

On April 11, 2011, a Juneau Superior Court judge dismissed the case, concluding that Carey could not establish a cause of action against Alyeska "even if all the facts in her complaint are true."

Carey, of Auke Bay, appealed to the state Supreme Court, representing herself.

She argued Alyeska should be held liable as it was the "product manager," handling the oil delivered via the pipeline to the tanker that ultimately spilled the toxic crude.

On Sept. 12, the Supreme Court issued a six-page memorandum opinion noting Carey's claims depended on an essential element missing from her suit: an employer-employee relationship.

The justices affirmed the Superior Court dismissal of the case because Alyeska was not Carey's employer and "did not own or have custody of the oil when it spilled."

—WESLEY LOY

continued from page 7

## POLLUTION LIMITS

mated to be at least 10 times pre-development levels.

Randall Barrett, director of the Alberta Environment Department's northern region, said the projections are derived from models deliberately designed to overestimate emissions as a way to ensure caution.

He said the actual air monitoring data continues to show both gases actually remain well under the government caps.

But if the gases rise as more oil sands operations come on stream, the government plan includes "trigger" levels that would require the industry to improve its pollution controls.

Environment Minister Diana McQueen, in announcing the new limits in late August, said the plan was a "legally binding commitment that holds government accountable to Albertans."

—GARY PARK

Contact Gary Park through publisher@petroleumnews.com

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• NATURAL GAS

# BP-GVEA contract supplies 20 years of gas

By KRISTEN NELSON  
Petroleum News

Alaska North Slope gas could be fueling some of Fairbanks' electric power generation by 2015 if a proposal by Golden Valley Electric Association moves forward.

The project now has a crucial element — a natural gas supply contract with BP Exploration (Alaska) Inc.

GVEA, the Fairbanks area electric utility, said it has contracted with BP for a 20-year natural gas supply. The utility said the contract allows it to purchase up to 23 billion cubic feet a year.

The project, to use natural gas to produce liquefied natural gas on the North Slope and truck the LNG to Fairbanks, was announced by GVEA and Flint Hills Resources Alaska in 2011. The LNG would provide gas to power GVEA's North Pole Power Plant, while Flint Hills would use the gas as a supply fuel for crude oil refining operations at its North Pole refinery.

"This positions GVEA as the aggregator, which is

kind of like a wholesaler," the utility said Sept. 18 in announcing the contract, with all fuel purchases flowing through GVEA.

Cory Borgeson, GVEA interim president and CEO, told the Alaska Oil and Gas Congress in Anchorage Sept. 19 the project includes purchasing natural gas, liquefying it, transporting it and then regasifying it at a North Pole facility.

The North Slope LNG facility would be built on a site on Spine Road in the Prudhoe Bay unit; 17 acres would need to be developed with gravel for the project, he said.

GVEA has already acquired a 20-acre site at North Pole for the project, which will include a 1 million gallon LNG storage tank on the North Slope, a one-half mile pipeline to the site and a 2.4 million gallon storage tank in North Pole, which Borgeson said would provide about five days storage.

## The trucking segment

Borgeson said additional trains could be added to the North Slope facility in the future if more LNG is needed.

Once the facility is in operation, currently projected for 2015, 23 trucks a day will make the 513-mile trip, and there will be 50 jobs in the Interior, Borgeson said.

GVEA is looking at 13,500-gallon LNG tankers, and plans for them to be LNG-fueled, he said.

Borgeson said GVEA and Flint Hills each have so far invested some \$1 million in the project. He said engineering for the project is at the 30 percent plus-or-minus confidence level for cost.

In its Sept. 18 statement GVEA said it can convert the North Pole Expansion Power Plant to burn natural gas, displacing expensive oil-fired generation.

The cost of natural gas from the project will be about \$14 per thousand cubic feet delivered, Borgeson said, with about one-third of that cost from transportation; he estimated that would save GVEA some \$15 million a year.

The North Slope facility will also extract some 10,000 gallons of propane a day, he said. •

Contact Kristen Nelson at [knelson@petroleumnews.com](mailto:knelson@petroleumnews.com)

• EXPLORATION & PRODUCTION

# Apache preparing to drill first inlet well

By ALAN BAILEY  
Petroleum News

Apache Corp. has secured a suitable drilling rig and is preparing to drill its first Cook Inlet exploration well, the company said Sept. 17. The drilling location is near the village of Tyonek on the west side of the inlet — Apache has scheduled a meeting with village resi-

dents on Oct. 10 to discuss the drilling operation, which should start before the end of the year.

Apache has been conducting a major 3-D seismic program in the Cook Inlet basin, to identify exploration drilling targets in the company's approximately 1 million acres of Cook Inlet leases. The company is primarily interested in finding oil.

"This is an important step in Apache's exploration program in Cook Inlet," said John Hendrix, general manager of Apache's Alaska operations, when announcing the drilling operation. "First, we started building a large acreage position in a proven hydrocarbon basin with material oil potential; then, we initiated a 3-D seismic program to image the subsurface. Now we are preparing to drill our

first wells."

Apache says that it has obtained the use of the Patterson-UTI drilling rig, transporting the rig by truck and barge from the Bakken play in North Dakota. The company says that about 100 people will be employed by its contractors and subcontractors for the drilling operation.

"Apache is committed to safe and environmentally responsible operations and open communications with all of our stakeholders," Hendrix said. "At the Oct. 10 meeting we plan to explain to the village what we will be doing in the months ahead since residents will see an increase in activity in the area."

Apache began buying leases in Cook Inlet in July 2010. Acreage includes lease-



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see **APACHE WELL** page 15



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**NOTIFICATION OF PUBLIC DISPOSITION OF COLLATERAL**

National Rural Utilities Cooperative Finance Corporation ("CFC") is the owner and holder of a claim against Naknek Electric Association, Inc. ("NEA") in the approximate amount of \$26,700,000 evidenced by Proof of Claim No. 42 filed in Case No. 10-00824-DMD, styled *In re Naknek Electric Association, Inc., Debtor*, pending in the United States Bankruptcy Court for the District of Alaska ("Base Claim"). The CFC Base Claim is secured by a Security Agreement, dated October 10, 2009, by and between NEA and CFC, as amended by the First Amendment to Security Agreement, dated June 4, 2010, together with applicable financing statements ("Security Agreement"). CFC has assigned to Baker Process, Inc. ("BPI") (i) a portion of the Base Claim, and (ii) all right, title and interest in and to the Security Agreement, solely as it relates to and encumbers certain equipment generally described below which are components of a drill rig owned by NEA:

Draw works	National	1320-M	N-236	Motor Shed House		35.5'X10.7'X11.4'	
Auxiliary Brake	Parmag Inc	D631422	N/A	Motor Shed House		35.5'X8'X11.4'	
Deadline Anchor	National	Type-E	N/A	Motor Shed House		35.5'X9.8'X11.4'	
Compound	National	3-Hole	TOD-4879	Mud Pump House		33'X11'X14'	
Torque Converter	National	C-300-80 Type	1205	Mud Pump House		33'X11'X14'	
Torque Converter	National	C-300-80 Type	1207	Boiler House		37'X10'X10'	
Torque Converter	National	C-300-80 Type	1206	Filter/Pump Parts House		20.7'X10'X12'	
Torque Converter	National	C-300-80 Type	3131	Pipe Spinners	Oilworks	AC-325	
# 1 Light Plant Engine	CAT	3456	3FG01737	Derrick	Lee C Moore	T3831-27X814	2W575-500017
# 2 Light Plant Engine	CAT	3456	3PG01076	B.O.P. Accumulator	Cameron	TYPE-80	
Mud Pump Engine	CAT	3512	LLF00107	B.O.P. - Double Gate	Cameron	14711302	
Mud Pump Engine	CAT	3512	LLF00115	B.O.P. - Single Gate	Cameron	43-429-2-51 / 13 5/8 09100004	
Draw Works Engine	CAT	3508	CBB00314	B.O.P. Annular	Hydril 13	R-6186 TAG / H 5/8 70056	
Draw Works Engine	CAT	3508	CBB0302	Choke Manifold		Series Of High Pressure Valves	
Draw Works Engine	CAT	3508	CBB00323	Master Remote Control Panel			
Tugger Air Hoist	Ingersoll Rand	K6UL	8806	Boiler		6-X-1250	14643
Tugger Air Hoist	Ingersoll Rand	K6UL	PPF8806	Steam Heaters X 12			
Mud Pump	BOMCO	FB 1300		Electric Heater Top Dog House	Superior	Q Mark	MUH108
Mud Pump	BOMCO	FB 1300		Electric Heater Top Dog House	Ruffneck	Q Mark	MUH078
Driller Console	National	1320-M		Electric Heater Bottom Dog House		Q Mark	MUH108
Weight Indicator	Martin Decker	TYPE-E		Electric Heater Bottom Dog House		Q Mark	MUH078
Generator		LCB	46B00784	Electric Heater Derrick Shack		Q Mark	MUH108
Generator		SR4	CEA00552	Substructure		Box On Box + Pony Sub	
Air Compressor	NAPA AC	80-25T	09K00L	Vee Door Ramp			67"WX33"L
Air Compressor	Sullivan Pallitex	25DT-te	5.00E+30	Vee Door Gate			70"X36"
Rotary Table	National	C-27 1/2"	T3125	1 Set Of Bridle Lines			
Crown Blocks	LCM	# Of Sheaves 7	2-737367	5" D.P.	G-105		
Traveling Blocks	Gardner Denver	550 Ton		5" D.P.	S-135		
Hydro Hook	BJ		26952	Pipe Racks		4'HX30'L	
Swivel	BJ	P-500	649488	Junk Basket		21.7'X10'X6.5'	
Kelly		6 5/8 HEX		#1 Pop Offs	Sheer Relief	QHV 30559	
D.P. Elevators	5" PCT 350 Ton	65-c6	476D	#2 Pop Offs	Sheer Relief	QHV 30559	
D.P. Slips	WTM	7370000700		Agitator # 1	Oilworks	Pit Boss	1466
D.C. Slips	Wooly Tool	4 1/4 - 5 3/4	8826-6	Agitator # 2	Oilworks	Pit Boss	1498
Elevators	BJ	250 Ton	50322	Agitator # 3	Oilworks	Pit Boss	1465
Elevator Links		500 Ton		Agitator # 4	Oilworks	Pit Boss	1455
Elevator Links		500 Ton		Agitator # 5	Oilworks	Pit Boss	1454
D.P. Elevators		150 Ton	18538	Agitator # 6	Oilworks	Pit Boss	1452
Rotary Tong	BJ	Type DB	25854	Agitator # 7	Oilworks	Pit Boss	1453
Rotary Tong	WTM	Type A	C929C	Stairs To Top Dog House X 2			42' Long
Derrick Stand				Stairs F/Rig Floor To Motor Shed X2			15' Long
Block Stand				Stairs F/ Motor Shed To Pitt			12' Long
Conventional Catwalk		4' Tall		Stairs F/ Motor Shed To Ground			26' Long
Hydraulic Catwalk	Pipe Wrangler	1203-0100	FPW-011	Stairs F/ Pitts To Ground			12' Long
Wireline Unit	Mathey	RET	719	Caustic Barrel			1 BBL
Shaker Tank		50'X10'X9.5'		Kelly Hose	National	53' Long	4"
Suction Tank		50'X10'X9.5'		Bumper Hose	National	15' Long	4"
Intermediate Tank		50'X10'X9.5'		Gas Buster	Zeco	With Super Choke	
Trip Tank		10'X10'X8'		Mud Cross	Daton	10 M	
Water Tank		35'X10.6'X10.6'	39065	Hcr Valve	No Tag	10 M	
Fuel Tank		50'X7.3'X9.4'		Choke Side Valves On Mud Cross X 2		10 M	
Roof For Pitts X 3		1-41'X11' 2-49.1'X11.15' 3-42.15'X11.15'		Check Valves On Kill Line		5 M	
Light Plant House		50'X10'X9.4'		Kill Line Side Valves On Mud Cross X 2		10 M	27129 / 27159
Accumulator House		50'X10'X9.4'		T.D. Engine	CAT	3508	OF202869
Top Dog House		36'X10'X8.4'		Transformer For V.F.D.	Hammond	NEMA-3R	ME05G
Top Drive House		34'X8'X11'		T.D. Gen		SR4-B	2DN02223
Top Drive Unit	Varco	TDS-11SA	552				

("Subject Property"). The subject property is currently located at NEA's drill site near King Salmon, AK. BPI, by virtue of the Assignment from CFC, is now the owner and holder of a claim against NEA in the amount of \$2,039,883.50 and the security interest in the Subject Property arising pursuant to the Security Agreement.

BPI's address and phone number are:

Christopher J. Ryan  
Baker Hughes Oilfield Operations, Inc.  
2929 Allen Parkway, Suite 2300  
Houston, TX 77019  
Phone: (713) 439-8771

NEA's address and phone number are:

Donna Vukich  
Naknek Electric Association, Inc.  
101 School Road  
Naknek, AK 99633  
Phone: (907) 439.4261

Notice is hereby given that BPI will exercise its rights under the Security Agreement to sell the Subject Property. The Subject Property will be sold to the highest qualified bidder at a public sale to be held on Tuesday, October 2, 2012, at 10:00 a.m. at the offices of Burr, Pease & Kurtz located at 810 N Street, Suite 300, Anchorage AK 99501. BPI shall be entitled to credit bid at the sale in accordance with the Order Authorizing and Approving (i) Collateral Disposition and Settlement Agreement, (ii) Foreclosure Sale of Certain Rig Assets, (iii) Sale Free and Clear of All Liens, Claims, Interests and Encumbrances, (iv) Plugging and Abandonment of Well, (v) Use of Sale Proceeds to Fund Plugging and Abandonment Operations and Distribution to Lien Creditors, and (vi) Settlement of Claims entered on September 11, 2012 in Case No. 10-00824-DMD, styled *In re Naknek Electric Association, Inc., Debtor*, pending in the United States Bankruptcy Court for the District of Alaska ("Sale Order"). In accordance with the Sale Order, the minimum cash bid by any bidder other than BPI is \$7,500,000.

An accounting of the unpaid indebtedness owed by NEA to BPI which is secured by the Subject Property is available for a charge of \$10.00. To obtain the accounting, contact Laura Terrell at 713-335-4856.

BAKER PROCESS, INC.

By: /s/ Christopher J. Ryan

Christopher J. Ryan, Authorized Agent







• ENVIRONMENT & SAFETY

# Buccaneer jack-up survives windstorm

*Despite a local prohibition, rig legs are lowered to seafloor to stabilize the behemoth as mooring lines begin to snap dangerously*

By **WESLEY LOY**

For Petroleum News

A recent windstorm caused some tense moments for Buccaneer Energy's massive jack-up drilling rig, but the story ended happily.

The rig, known as Endeavour — Spirit of Independence, has been in port at Homer since Aug. 24, undergoing some modifications and inspections before going to work in Cook Inlet.

On Sept. 16, anxiety began to rise as high winds buffeted the rig, which was tied up at the city's deepwater dock, said Bryan Hawkins, the Homer harbormaster.

"It got to be a safety issue," he said. Two mooring lines snapped, a dangerous situation. The floating leviathan bumped the dock, breaking a fendering timber.

Two powerful tugs pulled on the rig in a delicate attempt to hold it off the dock, but not so far as to strain mooring lines, Hawkins said. The tugs experienced sustained 50-knot winds.

Finally, Buccaneer and Archer Drilling, which will operate the rig, made the decision to drop the Endeavour's three legs to the seafloor to stabilize it.

That worked and worked well, Hawkins said.

"I think we all took a deep breath," he said. No injuries were reported, and Hawkins said he hadn't heard of any damage to the rig.

The dropping of the rig legs was a bit of an issue, as the storage of jack-up rigs or the

**On Sept. 16, anxiety began to rise as high winds buffeted the rig, which was tied up at the city's deepwater dock, said Bryan Hawkins, the Homer harbormaster.**

pinning of their legs to the seafloor is prohibited in Kachemak Bay, which is designated as a critical habitat area for fish and wildlife.

The Alaska Department of Fish and Game was dealing with this aspect of the Endeavour's windstorm rescue, Hawkins said.

In most any other port in the world, jack-up rigs routinely drop their legs rather than simply float at the dock, he said.

But "emergencies are emergencies," and it made sense to lower the legs during the high winds at Homer, Hawkins said.

"Frankly, I'm glad we had the option to put the legs down," he said.

The Endeavour remained at the Homer dock on Sept. 20, its legs still on the seafloor, Hawkins said.

Buccaneer, an Australian independent, and its partners brought over the rig from Singapore, where it underwent upgrades.

Once the final details are finished at Homer, the rig is expected to drill first in Buccaneer's North West Cook Inlet unit, then at the Cosmopolitan prospect off the southern Kenai Peninsula coast. ●

Contact Wesley Loy at [wloy@petroleumnews.com](mailto:wloy@petroleumnews.com)

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## CLEANING PIG

trap," the memo said. "That section of piping was the header piping for the relief system. From subsequent investigatory efforts, the pig appears to be located at the tail end of the relief header piping, blocking flow through one of the four relief valves. Alyeska has not attempted to extract the pig from the header as the piping is encased in several feet of concrete. ...."

The memo continued: "Initially, regulators permitted Alyeska to continue moving oil into the terminal by using a longstanding alternate operating procedure that does not require the relief or backpressure system for safe operation. Once the relief system was confirmed operational with three relief valves, normal routing of oil was resumed. Regulators were engaged throughout the process." ●

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## INSIDER

develop support for her campaign, referring to several conversations the two had over the summer.

"I've asked her about what she had in mind and I haven't heard anything that suggested something new," Oliver said. "If you want to put a bow on it (Redford's proposal) and call it a Canadian Energy Strategy, go ahead. But we (the federal government) are not applying that labeling to it."

Redford, who was in China on a trade mission, was not available for comment, but the startled response from within Alberta government circles forced Oliver to clarify his position.

"The province of Alberta is putting forward a Canadian Energy Strategy," he said in a statement. "In my discussions with (Alberta Energy Minister) Ken Hughes and also with the premier, what they were talking about

collectively was an approach which related to areas of provincial jurisdiction and didn't involve the federal government.

"They of course are entirely free to do that. It's within their jurisdictional competence. It's a very positive thing. They have every right to do it and we're encouraging of whatever cooperation they arrive at together."

Hughes offered the most diplomatic response he could muster by saying the "underpinnings of the Canadian Energy Strategy are evolving. There is immense goodwill on all sides to collaborate, work together and build a strategy."

Observers, however, were left wondering how there could ever be a strategy without the Canadian government as a partner, not to mention British Columbia Premier Christy Clark, who has emphatically spurned the idea.

—GARY PARK

Contact Gary Park through [publisher@petroleumnews.com](mailto:publisher@petroleumnews.com)

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## ARMSTRONG

Additionally, Armstrong plans to upgrade facilities to accommodate the changing composition of its production stream and install compression to increase deliverability.

NFU No. 23-25 begins at the North Fork pad and extends to the northwest.

In previous filings, Armstrong described NFU 22-35 as also extending to the northwest.

The North Fork field currently produces between 2.5 million cubic feet and 10 million cubic feet per day, depending on the season and the market needs, according to Kerr.

Armstrong is currently producing from four wells and six separate Tyonek sandstones at North Fork, according to Alaska Division of Oil and Gas information. The most productive, accounting for almost half of cumulative production, is the NFU No. 41-35 well that Standard Oil Co. of California drilled in 1965 and Armstrong re-entered in 2010.

The NFU No. 41-35 produces from the Tyonek 8000 and Tyonek 8500 sands.

The other three producing wells at North Fork are the NFU No. 34-26 which Armstrong drilled in 2008 and the NFU No. 14-25 and NFU No. 32-35 Armstrong drilled in 2010.

The two-well program this fall goes

beyond its requirements to the state.

Under its current plan of development — the 47th for North Fork, in place until March 2013 — Armstrong must test additional zones in NFU No. 34-26 well and drill at least one additional well at the field to target a previously untested segment of the Tyonek.

As it begins to test these additional zones, Armstrong is propelled by two recent developments at the North Fork unit: one technical and one administrative.

Armstrong recently shot 3-D seismic that "greatly improved the regional structural definition of the four-way anticlinal North Fork closure," according to state filings.

The trick at North Fork is to find productive patches within the sandstones.

"Depositionally, these are lenticular sands, so they come and go," Kerr told Petroleum News, referring to layers of sands and mud. "We're drilling through a package of sands."

Additionally, and in part because of the seismic results, the state recently agreed to expand the North Fork unit and its Gas Pool No. 1 participating area to the west.

Armstrong brought North Fork online in April 2011.

—ERIC LIDJI

Contact Eric Lidji at [ericlidji@mac.com](mailto:ericlidji@mac.com)

# INSPIRATIONS

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## BC LNG

development, or FEED, costs for the plant and pipeline, obtaining all of the necessary permits and negotiating contracts with off-take customers before a final investment decision will be made.

Bill Gwozd, vice president of gas services with Ziff Energy Group and one of the closest observers of the LNG business, told a recent Infocast LNG webinar that "it's good news that Apache has taken the time to do due diligence with EOG and Encana."

"It's so easy for companies to jump the gun and just put money in the ground and not have all the I's dotted and T's crossed.

"By taking time, it just shows the prudence and the detailed level of internal-review and scrutiny that these large companies are going through to ensure that they actually have markets lined up so they don't spent money and have a low load factor," he said.

### Deepwater ports 'prime locations'

Gwozd said that the deepwater ports at Kitimat and Prince Rupert, which are competing for the LNG business, are "prime

locations for exporting gas. The LNG projects will have country-to-country arbitrage whereby it's important to look at the price differentials between different countries."

Gordon Pickering, director of energy with Navigant Consulting, agreed with Gwozd that one of the biggest challenges is ensuring there is sufficient electricity to power liquefaction plants, although the British Columbia government has already proposed to exempt those sources of power from its Clean Energy Act, giving the LNG sector access to a reliable, timely and cost-competitive mix of gas-fired and renewable power generation.

Gwozd said that in addition to British Columbia's hydro power, the province could also use natural gas to fire its power plants.

Pickering noted that power generation resources are not sufficient in parts of the United States to support the growth and development of LNG plants, identifying the Jordon Cove Energy project at Coos Bay harbor in Oregon as one example.

He suggested that ultimately U.S. LNG exports will be in the range of 5 billion-6 billion cubic feet per day based on an assessment of the global natural gas and LNG market, along with firms that are in the marketplace.

### Multiple projects

Currently 16 U.S. (two West Coast, two East Coast, 11 Gulf and one Alaska) and three Canadian projects (with about five others joining the preliminary line-up) are going through the export and construction approval process to handle 29 billion cubic feet per day of gas.

The plans by the Kitimat partnership, Canada LNG (with Shell Canada, Mitsubishi, PetroChina and Korea gas as partners) and now the joint venture by Spectra Energy and BG Group would likely export at least 6.9 billion cubic feet per day, only 800 million cubic feet per day short of Canada's total domestic consumption.

Pickering said the development of LNG export projects in the U.S. will be constrained by a number of factors, including proliferation of emerging global shale gas resources, including countries in Europe and the Asia-Pacific region; the existence of plentiful gas supplies and LNG resources in Qatar and Australia; the likelihood of the Panama Canal expansion being limited by passage rates tied to the arbitrage value of commodities going through the canal; and the possible delinkage of international LNG prices to oil over the

long term.

### Qatar, Australia main rivals

He rated Qatar and Australia as North America's main LNG rivals, but said Russian gas should not be overlooked, while China's potential shale gas resources could enter the equation.

Hal Kvisle, newly appointed chief executive officer of Talisman Energy and previously CEO of TransCanada, said the raft of LNG projects "underscores that there is a lot of continuing potential in the Asian LNG market and there are a lot of big players that have come in."

British Columbia Energy Minister Rich Coleman said gas supply is not an issue in his province.

"We have the reserves," he said. "That's the key. We have lots of gas. We could probably supply half of North America for the next 80 years with what we've got today."

For a province which has been forced to admit that its revenues face a possible hit of C\$1.1 billion over three years because of weak natural gas prices, LNG exports represent more than just a valuable budget cushion. They could save British Columbia from toppling into a financial hole.

### B.C. groundwork

That prospect explains why the government of Premier Christy Clark is doing all it can to lay the groundwork for LNG projects.

Its latest move was to strike a deal with the Haisla First Nation, giving the aboriginal community rights to lease or buy almost 2,000 acres of land and "submerged" foreshore that could facilitate planning for an LNG export project.

Failure to win over the Haisla and other First Nations on the LNG plans is not guaranteed, but failure could see the LNG plans face the same threats of legal action and blockades that confront the efforts by Enbridge and Kinder Morgan to gain approval for exports of oil sands crude from the British Columbia coast.

The Haisla agreement involves property in the Douglas Channel near the deepwater port at Kitimat which three partnerships have identified as a possible location for their planned LNG terminals.

But the Haisla land is outside specific areas selected by the Apache-operated Kitimat LNG project, the Shell Canada-operated LNG Canada venture and a small project by a consortium of natural gas producers.

However, a partnership of Imperial Oil and ExxonMobil is in the "early stages" of an LNG feasibility study, although it has yet to release any indications of where it might locate a terminal.

### Agreement provides certainty

British Columbia Aboriginal Relations Minister Ida Chong said in a statement that the Haisla agreement will "provide certainty for investors. It will also ensure that First Nations have a meaningful role in the decisions about land and resources that could affect their rights."

The deal gives the Haisla rights to secure leases for up to 60 years, or the ability to buy the land outright, although the price in either case will not be made public.

Haisla chief councilor Ellis Ross said the land is viewed as an "essential element in building a strong and sustainable economic future for the Haisla people."

The agreement could pre-empt any disagreement between the Haisla and LNG proponents and head off the opposition from First Nations that post one of the biggest hurdles to Enbridge's plans to build its Northern Gateway oil sands crude

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continued from page 1

## GREAT BEAR RESULTS

“To date, at least, the outcome has been very, very, very good,” Duncan said.

### Accelerate program

Given the results of the testing, Duncan said that his permitting team is now working with the state on a change in plan, to potentially proceed with some long-term production testing of the wells, in hopes of accelerating the shale oil development program.

There is still much work to do “but we’re working hard to bring the decision forward, for ourselves and for the state of Alaska, for regional development by as much as a year,” Duncan said.

That would move a decision on whether to proceed with a full-scale shale oil development from 2014 to the middle of 2013.

Great Bear has previously said that, if the testing of source rock cores proves successful, it would conduct production tests by drilling and fracturing horizontal lateral wells through the source rocks from the initial vertical wells used for source-rock coring.

### Second well

Great Bear is currently drilling its second test well, the Merak No. 1 well, next to the North Slope Haul Road. That well has reached the bottom of the GRZ/HRZ, the shallowest of the North Slope source rock horizons, and on Sept. 19 the drillers took a core sample from that horizon at a depth of about 9,100 feet, Duncan said.

“We’ll drill the rest of the section over the coming few weeks,” he said.

The Alcor well penetrated all three of the major North Slope source rocks.

### Petroleum system model

Duncan said that he had determined what leases to purchase and where to drill test wells using a model of the North Slope petroleum system developed by Schlumberger, based on science done by the U.S. Geological Survey and Stanford University. That model had proved very successful in explaining the mix of oils found in the North Slope oil fields. The model had predicted the locations of “liquids fairways” in the source rocks, and the results so far of Great Bear’s drilling have substantiated those predictions, Duncan said, adding that Great Bear is testing all three of the source rock units.

In support of its drilling program, Great Bear conducted a 3-D seismic survey last winter and the company anticipates expanding that survey during the coming exploration season.

### Lidar survey

The company has also conducted a Lidar survey, a laser-based system for measuring surface topography but which, in the form used by Great Bear, can also measure the bathymetry of lakes. The results of the Lidar survey will feed into an environmental assessment for the shale oil project and eventually into an environmental impact statement, or EIS, for a full-scale development program.

“This is a core part of our program to move towards a regional environmental assessment and EIS to support regional development planning,” Duncan said. “It’s a huge piece of work on our part. We’re just starting the EA (environmental assessment) as well as a regional aquifer study here in the coming months.”

### Thick aquifer

With plentiful supplies of water being critical to the type of hydraulic fracking used in shale oil development, Duncan

*“I can tell you with absolute confidence that where we thought we would find oil in these source rocks, we found oil.”*

—Ed Duncan, Great Bear president and CEO

said that the presence of a major aquifer under the North Slope is particularly fortunate. The shallow aquifer, charged with brackish and salty water, unsuitable for drinking but usable for fracking, consists of multiple sands 50 to 100 feet thick, with a total thickness of 2,000 to 3,000 feet and representing a massive amount of subsurface water.

“That aquifer is one of the gifts that Mother Nature has given this area, in addition to having great source rocks,” Duncan said.

Shale oil development in the area of Great Bear’s leases, a few miles south of the Prudhoe Bay and Kuparuk River fields, would enjoy the dual benefits of being close to an existing oil infrastructure and having access to the trans-Alaska oil pipeline, a line that is currently running well below capacity and that has declining throughput. And oil service companies with the technical expertise required for the envisaged development already operate in the state, Duncan said.

### High costs

Among the challenges for North Slope shale oil development is the high cost of operating in the region. Duncan questioned whether these high costs are somewhat self-inflicted, with a need for more service competition to drive costs down.

And industry needs to work with the state to reduce the complexities and redundancies of the permitting system.

“It’s very expensive,” Duncan said. “Time is money and it takes a long time to get just about anything through the permitting system.”

### Many wells needed

This permitting issue will become especially critical when it comes to development drilling in a shale oil play, with perhaps 200 new wells needed every year, Duncan said, commenting that people need to take a hard look at the regulatory systems in the Lower 48 states, where thousands of wells may be permitted in a year in a single play.

Duncan also suggested extending the Alaska railroad north to Prudhoe Bay. A railroad would enable the transportation of equipment and material to Prudhoe Bay more quickly than at present, and year round; it could act as a backup to the pipeline system for transporting oil south, and might also provide a means of exporting potential North Slope products such as heavy oil or the products from a gas-to-liquids plant, Duncan suggested.

### Workforce an issue

Duncan sees the availability of the necessary workforce in Alaska as a huge problem, as activity in a shale oil development ramps up. The “brain drain” from Alaska to the Lower 48 needs to be reversed, and it is important to be proactive rather than re-active in dealing with this issue, Duncan said. People need to be appropriately educated and trained. Is there scope for Alaska becoming a center of technical expertise and innovation, Duncan asked? And relocation incentives may be necessary to persuade people to move north, he said.

“We’re going to need lots of people,” Duncan said. “We’ve got a big thing, we believe, that’s about to happen.” ●

Contact Alan Bailey  
at abailey@petroleumnews.com

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## BC LNG

pipeline to Kitimat.

### Spectra-BG pipeline

The other most recent LNG-related development occurred Sept. 10 when Spectra Energy and the BG Group announced a deal for a pipeline to carry natural gas to Prince Rupert on the British Columbia coast to support an LNG project that could cost C\$20 billion.

The 510-mile, 42-inch-diameter pipeline is being designed to carry 4.2 billion cubic feet per day. A final investment decision is expected in 2015 and the tentative in-service date is 2019.

The BG Group and Malaysia’s Petronas are both considering a terminal at Prince Rupert, 120 miles northwest of Kitimat.

The British Columbia government said that two other companies it would not name are also interested in the Prince Rupert region and Doug Bloom, president of Spectra’s Western Canadian transmission operations, confirmed other companies are also interested in

B.C.’s export gas potential, but “have chosen to not yet make themselves public.”

“The government has done a very good job of putting British Columbia on the map and there are a lot of good companies looking at where and how they can do business in the province,” he said.

Bloom said that in the end it is possible that several LNG export terminals will be developed in British Columbia beyond the government’s declared goal of having three projects up and running by 2020.

Spectra Chief Executive Officer Greg Ebel said in August that the pipeline planned for BG Group will likely spur further investment in B.C. by his company, which currently transports 60 percent of the gas produced in the province.

“We are ideally positioned to create further value for our investors by leveraging surplus B.C. natural gas supplies and facilitating export to high-demand markets in Asia,” generating multiple opportunities to increase Spectra’s gas gathering and processing facilities. ●

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## APACHE WELL

es with private mineral owners, the State of Alaska and the Alaska Mental Health Trust. In April and May 2011 the company shot test seismic on the west side of the inlet, trying out new nodal seismic technology that does not require the laying of seismic cables.

Following a successful test, the com-

pany began shooting 3-D seismic in the fall of 2011 over an area near Tyonek and has also begun shooting seismic offshore.

The company plans extensive 3-D seismic covering large areas of Cook Inlet, onshore and offshore, spread over three years. Apache said it has acquired some 300 square miles of 3-D seismic in the first year of the multi-year program. ●

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## SHELL DRILLING

“Over the last several days, Shell has successfully completed a series of tests of the first-ever Arctic containment system,” Shell said in a Sept. 16 press release. “However, during a final test, the containment dome aboard the Arctic Challenger barge was damaged. It is clear that some days will be required to repair and fully assess dome readiness. We are disappointed that the dome has not yet met our stringent acceptance standards; but, as we have said all along, we will not conduct any operation until we are satisfied that we are fully prepared to do it safely.”

### Delays

This latest setback comes after a series of delay-causing glitches, starting with an abnormally large amount of sea ice in the northern Chukchi Sea at around the time that Shell had planned to send its drilling fleet north into the Arctic in early July.

The company had hoped to drill up to three wells in the Burger prospect in the Chukchi Sea, about 80 miles west of the northwestern end of the North Slope, and up to two wells in the Sivulliq and Torpedo prospects, on the western side of Camden Bay in the Beaufort Sea. But with the Arctic Challenger stuck in Bellingham, Wash., while a retrofit of the containment system was being completed, Shell had to further delay the start of drilling. And in early August Shell announced that, because of the delays, it was trimming back its drilling plan to a single well in the Burger prospect and a single well in the Sivulliq prospect.

But the approval of drilling permits by the Bureau of Safety and Environmental Enforcement, or BSEE, depended on the successful testing of the Arctic Challenger and Coast Guard certification of the vessel.

The retrofit of the Arctic Challenger began last December and, although Shell had presumably expected to have the vessel operational and certified before the start of the drilling season, apparently some design issues emerged late in the retrofit process, pushing back project completion.

### Drilling starts

Meanwhile, around the beginning of August, three vessels from Shell's fleet departed Dutch Harbor for the Chukchi and Beaufort seas to start preparing Shell's drilling sites. On Aug. 20 Shell's floating drilling platform, the Kulluk departed

## Interior reviewing Shell applications

The Bureau of Safety and Environmental Enforcement, or BSEE, is reviewing nine Shell applications for permits to drill top-hole wells in the Chukchi and Beaufort seas, Marcilynn Burke, acting assistant secretary, lands and mineral management, U.S. Department of the Interior, told the Arctic Oil and Gas Congress on Sept. 18. Shell submitted applications for 10 wells and BSEE has already issued one of those permits, Burke said, presumably referring to the permit for the Burger-A well that Shell has already started drilling.

“Shell submitted a total of 10 APDs (applications for permits to drill), six for the Chukchi, four for the Beaufort, and BSEE is reviewing now the remaining nine APDs,” Burke said.

BSEE will have an inspector on board Shell's drilling vessel for each of the drilling operations, she said. Shell, having abandoned its plan to complete some exploration wells in the Beaufort and Chukchi seas this year, now wants to drill some top-hole wells to depths above any hydrocarbon bearing zones, to enable wells to be drilled more quickly in 2013.

“We will continue to work with Shell as we oversee that drill work and also gather more information in preparation for next year's season,” Burke said. “While many are disappointed in the sequence of events that occurred, we are still moving forward with Shell ... with some activities, and that is something that will be useful for all of us in the future,” she said.

Burke said that both BSEE and the Bureau of Ocean Energy Management are continuing to hold conversations with ConocoPhillips and Statoil about their future submissions of exploration plans and oil spill response plans for Chukchi Sea drilling. ConocoPhillips is interested in drilling in 2014, while Statoil may drill in 2015.

“We'll all sit back and look at what we've learned this year and be prepared to move forward,” Burke said.

On Sept. 20 BSEE announced that it had issued a permit, allowing Shell to prepare mudline cellars and to drill and set the first two strings of casings in shallow non-oil-bearing zones for wells in the Beaufort Sea. Mudline cellars, in the seafloor, accommodate the wellhead equipment for subsea wells.

“BSEE has set the bar high for exploration activities in the Arctic, and any approved operations must meet those standards,” said BSEE Director Jim Watson in announcing the issue of the permit. “BSEE continues to closely monitor Shell's ongoing approved preparatory drilling activities in the Chukchi Sea, and today's approval of limited work in the Beaufort Sea must also meet the same rigorous safety, environmental protection and emergency response standards.”

—ALAN BAILEY

Dutch Harbor for the Beaufort Sea and on Aug. 25 the Noble Discover left for the Chukchi Sea. And, following a request by Shell, on Aug. 30 BSEE issued a drilling permit, enabling the drilling of the top section of Shell's first Burger well without the containment barge in place, with drilling limited to depths substantially above any potential hydrocarbon bearing zones.

With all of the permits now in place to at least start drilling in the Chukchi, Shell moved the Noble Discover into place at Burger and finally started drilling at 4:30 a.m. on Sept. 9. But with time running short before a Sept. 24 drilling deadline in Shell's Chukchi Sea exploration plan, Shell asked BSEE if, in the light of up-to-date Chukchi Sea ice forecasts, the deadline could be extended by nearly two weeks — the pur-

pose of the deadline was to allow sufficient time to drill a relief well before the encroachment of winter sea ice at the drilling site, should there be a well blowout.

While drilling started in the Chukchi Sea, the Kulluk sat in a holding position in the Beaufort Sea, waiting for the completion of the annual subsistence whale hunt near Shell's planned drilling sites. Shell is allowed to continue drilling until the end of October in the Beaufort.

### Ice floe

On Sept. 10, less than two days after the start of drilling, Shell had to move the Noble Discover off the well site, as a 12-mile by 30-mile ice floe started drifting towards the Burger area. The company had been tracking the floe using satellite

## On the web



See previous Petroleum News coverage:

“Starting and stopping,” in Sept. 16, 2012, issue at [www.petroleumnews.com/pnads/892105677.shtml](http://www.petroleumnews.com/pnads/892105677.shtml)

“Interior gives go-ahead for Shell's preparatory drilling in Arctic,” in Sept. 2, 2012, issue at [www.petroleumnews.com/pnads/321877509.shtml](http://www.petroleumnews.com/pnads/321877509.shtml)

“Shell continues to delay drilling, waiting for containment barge,” in Aug. 19, 2012, issue at [www.petroleumnews.com/pnads/716117739.shtml](http://www.petroleumnews.com/pnads/716117739.shtml)

images, radar and reconnaissance, and decided to move the drilling fleet out of the area when there was a shift in the wind direction.

A few days later, following the damage to the containment dome, the company finally gave up on trying to drill into any potential oil-bearing reservoir rocks in 2012.

Shell spokesman Curtis Smith told Petroleum News in a Sept. 17 email that 1,800 to 2,000 people are involved in the company's offshore drilling program and that, with the drilling of top holes potentially continuing until the end of October in both the Beaufort and the Chukchi, the decision not to drill into oil would have very little impact on this year's employment levels. Smith would not speculate on which specific top holes Shell would drill this year but he said that this year's drilling “will position us nicely for total depth drilling in 2013.”

Although Shell must have gleaned some satisfaction at having finally negotiated the regulatory process and litigation-related hurdles to reach the point of starting a Chukchi Sea well, the company must also be very disappointed not to complete any wells this year.

This year's drilling project will end up costing several hundred million dollars, Smith said. In May Shell said that, at that point, the company had invested about \$4 billion in its Alaska venture, since returning to the state in 2005.

### Environmentalist response

Environmental groups have seized on Shell's problems to bolster their arguments that oil drilling in the Arctic offshore poses unacceptable risks to the Arctic marine environment.

“Responding to an oil spill in frigid Arctic waters is nearly impossible, as Shell's announcement today makes clear,” said Nicole Whittington-Evans, Alaska regional director for the Wilderness Society, in response to Shell's announcement about the damage to the containment dome. “If they couldn't operate the spill response ship in the comparatively calm waters of Bellingham, Wash., what hope could they have had in the rough seas of the Arctic Ocean? Things go wrong during complex technical activities, so for Shell to say they can drill in the Arctic Ocean without a problem isn't just wrong, it's dangerous.”

“Shell spent nearly \$5 billion to exploit global warming for profit this summer, but the Arctic is proving to be the company's Waterloo,” said Greenpeace U.S. Deputy Campaigns Director Dan Howells. “History will show what a catastrophic miscalculation the company has made in the region, and that it has ignored the world's top scientists as well as the nearly two million people around the world who have joined the Greenpeace's Save the Arctic campaign at its peril.” ●

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