



June Mining News inside



The June issue of North of 60 Mining News is enclosed.

Conoco's Lance says Alaska has advantages in selling LNG to world

The worldwide demand for natural gas supplied as LNG is growing 6 to 7 percent a year and existing supply is falling 2 to 2.5 percent a year, creating an opportunity for some 36 billion cubic feet per day of new supply by 2025, Ryan Lance told the Resource Development Council's annual meeting luncheon June 24.

There is, however, a large supply overhang, said Lance, chairman and CEO of ConocoPhillips: Of the expected need to which supplies are not yet committed the United States and Canada will

see **LANCE ON LNG** page 16

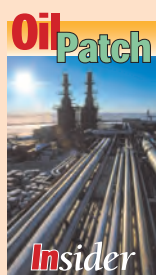
In new book, former BP chief exec describes start in gritty Alaska

On May 1, 2007, BP issued a bombshell announcement: Lord John Browne would step down as chief executive, effective immediately.

The resignation came amid allegations that Browne had favored an ex-boyfriend with the use of company resources. Browne denied any misconduct relating to BP, and the board chairman said a review found no substantive impropriety. But Browne admitted he had given "an untruthful account" in court proceedings of how he first met the boyfriend.

On the day of his resignation, Browne said he would have no further comment about his sexuality and personal life.

see **INSIDER** page 14



FINANCE & ECONOMY

Auction requested

Buccaneer Energy seeks at least \$58.5 million for 'substantially all' assets

By **ERIC LIDJI**

For Petroleum News

Buccaneer Energy Ltd. wants to hold an auction later this summer to sell its Alaska assets, as part of ongoing bankruptcy proceedings for the company and its subsidiaries.

The Australian independent has asked the U.S. Bankruptcy Court for the Southern District of Texas to schedule an auction in Houston, Texas, starting the morning of Aug. 4.

The court is set to hold a hearing on the matter on July 8.

According to Buccaneer, AIX Energy LLC has

If Buccaneer gets no bids, the company would ask the court to approve the sales agreement with AIX Energy.

agreed to be the "stalking horse bidder" for the auction, purchasing "substantially all" of Buccaneer's assets for an aggregate price of \$58,476,264.71. A stalking horse bidder makes an initial bid in a bankruptcy auction as a way to ensure that the seller gets a certain minimum value for its assets.

AIX Energy is one of the largest creditors in the

see **ASSET AUCTION** page 15

EXPLORATION & PRODUCTION

Development continuing

Plan says Nuna project progressing but commercial viability yet to be confirmed

By **ALAN BAILEY**

Petroleum News

Work will proceed on Caelus Energy Alaska's Nuna project in anticipation of project sanction, according to the company's latest plan of development for the Oooguruk field, offshore the North Slope. The plan, which covers the period Aug. 31, 2014, to Aug. 30, 2015, and was filed with Alaska's Division of Oil and Gas on June 2, says that work will continue on onshore drill sites, roads and flow-line designs, and on the integration of the Nuna development with existing Oooguruk and Kuparuk River unit facilities.

During the period of the new plan Caelus will "integrate the results from drilling, engineering and permitting into determining the commercial viability

Nuna involves the construction of a new onshore gravel well pad, drilling multiple new wells from the pad and hooking the new production into an existing onshore tie-in between Oooguruk and the neighboring Kuparuk field infrastructure.

of the Nuna onshore development," the plan says.

Onshore pad

Nuna involves the construction of a new onshore gravel well pad, drilling multiple new wells from the pad and hooking the new production into an existing

see **NUNA PROJECT** page 16

PIPELINES & DOWNSTREAM

Call to arms in BC

Leader of Indian chiefs says 'some' will to go jail to block Northern Gateway

By **GARY PARK**

For Petroleum News

"The war is on." With that declaration one of British Columbia's aboriginal leaders moved in for the kill on the weakened Enbridge Northern Gateway project.

In issuing his call to arms, Grand Chief Stewart Phillip, president of the Union of B.C. Indian Chiefs, said opponents of the pipeline system must now be prepared to "go out onto the land and onto the waters and physically stop any effort on the part of Enbridge to do preparatory work, site preparation and survey while this matter is in the courts."

"Some of us are going to jail because that's what it's going to take," he said.

Harper's crusade to open world markets for Canada's energy and his overhaul of regulatory legislation to give his cabinet an enhanced role in approving projects, now lies in tatters.

Phillip said the Canadian government's decision to open the door for certification of Northern Gateway while telling Enbridge it must engage in more consultations with aboriginal communities, issued an even more ominous warning.

He said Prime Minister Stephen Harper will "absolutely not be welcome into (British Columbia) in the future."

"It means more protests and demonstrations and

see **CALL TO ARMS** page 15

contents

Petroleum News

North America's source for oil and gas news

ON THE COVER

Auction requested

Buccaneer Energy seeks at least \$58.5 million for 'substantially all' assets

Development continuing

Plan says Nuna project progressing but commercial viability yet to be confirmed

Call to arms in BC

Leader of Indian chiefs says 'some' will go jail to block Northern Gateway

Conoco's Lance says Alaska has advantages in selling LNG to world

OIL PATCH INSIDER

- 1** In new book, former BP chief exec describes start in gritty Alaska

EXPLORATION & PRODUCTION

- 4** Miller Energy sharpens its Alaska focus
- 5** **AOGCC approves West Sak pool expansion**
Adds 200 feet of Schrader Bluff sands above the existing pool and allows the use of VRWAG technique for enhanced oil recovery
- 11** **AOGCC changes Beaver Creek well spacing**
Hilcorp requested changes for gas wells at Kenai Peninsula field; increase in vertical depth of Beluga gas pool previously approved
- 14** **Endicott field still shows some kick**
BP progress report details recent work in the Alaska North Slope legacy field as Hilcorp prepares to take reigns as operator

FINANCE & ECONOMY

- 4** **Canada enters the spin cycle**
Following Encana's successful PrairieSky Royalty spinoff, Canadian Natural Resources looks at something similar

GOVERNMENT

- 3** **Huggins positive on Alaska LNG project**
Senate president says Exxon's enthusiasm for North Slope LNG bodes well for project; opposes SB 21 tax repeal, return to ACES
- 5** Supreme Court rules on GHG emissions
- 6** **Judge orders responses on CD-5 case**
Parties disagree on whether Corps of Engineers permit should be cancelled while issue court has raised is addressed
- 10** **Exxon Valdez, Alaska LNG turn BC edgy**
British Columbia leaders still believe province has edge in LNG, but First Nations leaders warn Northern Gateway could sour LNG
- 14** More time for critical habitat rule comments

LAND & LEASING

- 6** Cook Inlet license draws competitive bids
- 11** **Preliminary BIF out for Alaska Peninsula**
Division of Oil and Gas more positive about petroleum potential based on work done by DGGS and DO&G since first BIF in 2005

NATURAL GAS

- 8** Sloshing disadvantage of membrane tankers
SIDEBAR, Page 9: Caution—loading zone

PIPELINES & DOWNSTREAM

- 7** **State worried about quality bank**
Attorney General's office believes recent FERC decision could place Alaska refineries at a competitive disadvantage

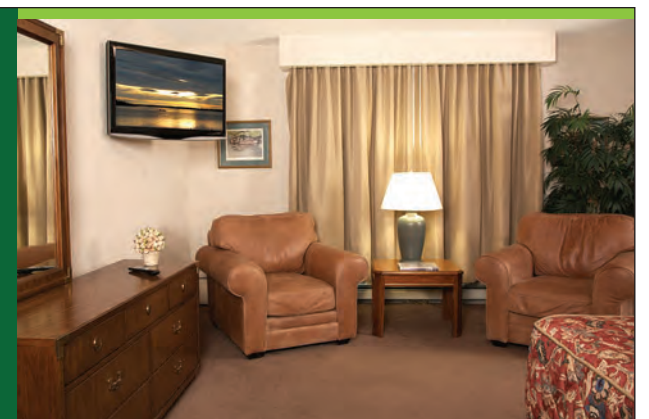


Stay for a day, a week or a month.

**SPECIAL RATES for
EXTENDED STAY GUESTS.**



Sophie Station Suites
Your Best Choice in Fairbanks.



- Zach's Restaurant & Catering
- Express Room Lounge
- Large flat screen cable TV
- Free WiFi & 24 hr. fitness room

Experience the finest in locally owned accommodations & service | Reservations 800.528.4916 | FountainheadHotels.com | Fairbanks

• GOVERNMENT

Huggins positive on Alaska LNG project

Senate president says Exxon's enthusiasm for North Slope LNG bodes well for project; opposes SB 21 tax repeal, return to ACES

By **STEVE QUINN**
For *Petroleum News*

Senate President Charlie Huggins says several years from now Alaskans may look back on the Legislature's recent effort to rewrite tax laws and advance a large-diameter gas line as the most pivotal. He believes historians will trace a robust economy and a magnificent LNG export business stemming from the gas line to this past session. But he also warns against unraveling the Legislature's work at the polls in August when voters will decide whether to repeal Senate Bill 21, Gov. Sean Parnell's tax rewrite.

Huggins, a Wasilla Republican, spoke to *Petroleum News* about the upcoming vote as well as what he believes are significant accomplishments in passing SB 138, Parnell's LNG, gas line legislation that allows the administration to negotiate a project development agreement with North Slope leaseholders ExxonMobil, BP and ConocoPhillips, plus pipeline company TransCanada.

Petroleum News: You noted this state's past and failed efforts to advance a gas pipeline project. Why do you like this version?

Huggins: I think from the macro perspective, this is the fourth pipeline plan we've addressed. As you recall I voted against TransCanada which was really a vote against AGIA in the second round of review. It wouldn't work. There was only one competitor and we were stuck with whatever the terms were. So there was lingering effect of that because of TransCanada. TransCanada is a good company. I don't have anything against them. There just wasn't any competition. To be quite frank, the way SB 138 is laid out there is a stepped approach so there are multiple reviews of where we are and where we are going.

I think the average Alaskan, if they sat down and looked at it, which I hope they have other things to do, but if they did, they would say here we have multiple bites of this apple and there are multiple places we can say yes, maybe or no. I like that. The number one trait, in my estimation of SB 138 is the fact that Exxon is exuberantly excited about this. Number two is the other two producers are on board.

They have chosen a destination, which I think is good. Plus the work that TransCanada has done in the past for quite a price tag — about 330 million if I recall — we can use some of that data. I think we have a full deck of cards. The players sitting around the table quite frankly are committed. I think the state is in a good place to capitalize. There are some elements with Dan Fauske (Alaska Gasline Development Corp. CEO) and company at the table and us having ownership in a couple of facilities. I'm very optimistic.

Petroleum News: Exxon seems to be quietly taking steps toward this project, be it signing on for the gas treatment plant in 2009, the Point Thomson settlement in 2012 or looking to lease real estate on the Kenai Peninsula. Is that what you're driving at?

Huggins: Number one, anyone who is paying attention, realizes that it's a hugely valuable field. If we had three produc-

ers sitting down at one table and asked what do you think some of the key elements for making the pipeline happen are, they would say number one you've got to have Point Thomson in the production cycle and number two you've got to have a healthy oil industry because whether we like it or not there is cross subsidization for the pipeline on the producer side, and the state, too, since 90 percent of our revenue is coming from oil.

Plus, when Exxon has made a decision that this is a good project and they have enthusiasm for that project, a world-class team working on that project, I would be willing to risk my money on Exxon's solutions to things as an individual. When you're looking to make money, they have a pretty good track record for coming in on time and on budget. There are exceptions to that, but they are exceptions, not the norm.

Petroleum News: So what do you believe the Legislature should be doing between now and the time an agreement comes back for legislative review?

Huggins: One of the things I've asked members of the Senate to keep in mind is when it comes to things that are multi-year, in this case the LNG project, the committees the bills go through, that we have some continuity on those committees. Let's take the Resources Committee, for example. Cathy Giessel is the chairwoman and I would be a supporter of Cathy Giessel being chair of Resources again because that particular multistep project will come back through Resources. And that's important. The same thing goes for the Finance Committee. I'm not saying we have to have both co-chairs, but one of them and we certainly want some members returning. Those are all important. The other part is keeping members up to date. One of the important tasks going that we will



SEN. CHARLIE HUGGINS

have after the elections and going into the next session is to make sure we have members up to date on what progress has been made and what variables will be in question.

Petroleum News: You spoke of continuity. You placed Anna Fairclough in a position to track the oil and gas bills from one committee to the next. Would you like to see something like that, too, next session?

Huggins: Maybe I should have used her as an example. I was one of the guys who put together what committees people would be on. She's very talented. As LB&A chair, she got the consultants and saw that through the process. She could be a consultant for the rest of the Senate but she could bring continuity from committee to committee and remind members what's been discussed so you would be redundant. Instead you could build on what's been made in other committees.

Petroleum News: Now as LB&A (Legislative Budget & Audit) chair, Sen. Fairclough assembled consultants and analysts to educate lawmakers on the LNG markets last summer. This being an election season is it likely you won't see anything until after November if at all before next session?


Huggins: It's a little tougher this year. That brings up a good point. One of the things we normally do is have a caucus (meeting), and that can still potentially be done in December, if not January, then we can work the cornerstones of the caucus to give an update on SB 138.

Petroleum News: What would you like to see AGDC do during that same period, between now and when the contract comes before you at the end of 2015, be it actively marketing or keeping the Legislature informed?

Huggins: They have to continue to pursue the ASAP (in-state) line if for some reason the LNG project got in trouble or for whatever reasons it's not what was supposed to be. You always have to have another option. My background is you always have to be prepared with an option if your primary course of action gets in trouble, if you will. You can't be defenseless. You can't come to the table without multiple solutions. Number two is sharing data that AGDC has and continually being an integrated member with the producers and TransCanada so the state is well represented if any changes come forward. They have to sort of serve as a consultant to the Legislature and the administration because they are a player at the time. I'm sure they've done some things I'm not aware of. Dan Fauske is a good man. Good people hire capable people. Dan Fauske shares our confidence. Though he is a problem solver just by general nature, he's not outside his league in the players he's dealing with. It's a little different experience but the reason we chose him is all those things I just got done saying.

Petroleum News: On to oil taxes. You don't always thrust yourself into an argument in public, often deferring to


see **HUGGINS Q&A** page 13


 TDS Tire Distribution Systems, Inc.	COMPLETE TIRE SERVICE
	PASSENGER
	TRUCK
	INDUSTRIAL
	OFF THE ROAD
Toll Free: 800 478-2010 Anchorage: 907 562-2010 Fairbanks: 907 452-7131	Bridgestone, General, Bandag, Cooper, Firestone, Yokohama

Remember

the heat, the mosquitos, all your buddies from the crew and the satisfaction from a hard day's work? You loved it.

When you're ready to get back to work, remember Arctic Spine.





ARCTICSPINE

3650 Lake Otis Pkwy
Suite 202
Anchorage, Alaska

arcticspine.com

(907) 222-6500

Getting Alaskans Moving Again Marius Maxwell M.D., PhD., FAANS

EXPLORATION & PRODUCTION

Miller Energy sharpens its Alaska focus

Miller Energy Resources Inc. dropped two significant announcements recently.

First, the company said a newly completed sidetrack well had boosted production from its West McArthur River unit in Alaska's Cook Inlet basin by 50 percent.

Second, Miller said it was engaged in "strategic discussions" to sell its assets in Tennessee, where the company is headquartered.

The company said it was implementing "an internal restructuring and cost reduction program" meant to cut annual expenses by up to \$5 million.

"The targeted reduction is aggressive but we think appropriate and achievable, driven in large part by the elimination of our Tennessee operations and the favorable resolution of several outstanding lawsuits and the recent proxy contest," Scott Boruff, Miller's chief executive, said in a June 24 press release.

Miller is a publicly traded company listed on the New York Stock Exchange. Recently, it settled with dissident shareholders who had criticized senior management.

Minor Tennessee production

Miller has operated in Alaska since late 2009 through its Anchorage-based subsidiary, Cook Inlet Energy LLC.

The company's Cook Inlet properties include the offshore Redoubt unit and Osprey platform, the West McArthur River oil field and the North Fork natural gas field on the Kenai Peninsula.

The company currently is working to close a \$9 million cash deal to buy a controlling interest in the small Badami oil field on the North Slope.

see **MILLER FOCUS** page 14

FINANCE & ECONOMY

Canada enters the spin cycle

Following Encana's successful PrairieSky Royalty spinoff, Canadian Natural Resources looks at whether it could do something similar

By **GARY PARK**

For *Petroleum News*

Leading producers in Canada's oil patch are being drawn to spinoffs in their efforts to raise cash for ongoing operations and to develop a leaner profile.

Natural gas operator Encana has made the biggest splash by launching PrairieSky Royalty in the fourth biggest initial public offering in Canadian history and the largest IPO in 14 years, raking in \$1.46 billion in the process.

It sold the shares for \$28 each, easily beating its original projection of \$23-\$26.50 and will retain 60 percent of the new company, less than the 75 percent initially planned, by increasing the offering to 52 million shares from the planned 32.5 million. PrairieSky is now trading on the Toronto Stock Exchange at above \$39.

Enticed by the results, Canadian Natural Resources (also known as CNQ) is weighing its own PrairieSky-style spinoff.

The share price for PrairieSky is seen in the investment community as proof that investors are targeting companies that are expected to yield cash.

Encana could raise even more money with the bank running the transaction holding options to buy and sell 7.8 million more shares, raising the deal value to \$1.67 billion.

Within the oil patch, the results make PrairieSky more valuable than Athabasca Oil Corp.'s \$1.35 billion IPO in 2010.

Encana made the spinoff move as part of its strategy to concentrate on fewer assets in North America.

No government royalties

PrairieSky consists of mineral fee title land covering 5.2 million acres in southern Alberta.

Encana does not pay government royalties from resources extracted on the property because they are part of an 1880s land grant from the Canadian government to Canadian Pacific Railway, which once owned PanCanadian Energy, one of Encana's predecessors.

Encana does not pay government royalties from resources extracted on the property because they are part of an 1880s land grant from the Canadian government to Canadian Pacific Railway, which once owned PanCanadian Energy, one of Encana's predecessors.

This arrangement will allow PrairieSky to collect royalties and fees from other energy companies operating on the land, and distribute a large portion of those returns to its shareholders.

"The offering was significantly oversubscribed, with essentially no price sensitivity in the range," said Sante Corona, the executive in charge of IPOs at TD Securities — the joint underwriter with CIBC World Markets — after a 15-day road show.

"There was significant demand to support the upsize," Corona said.

Dean Orrico, chief investment officer at Middlefield Capital, noted that PrairieSky is debt-free, offers a healthy yield and has growth potential because a large portion of its land is unleased.

The only concern is whether some investors will flip their PrairieSky shares, eroding the gains, although analysts are confident the underwriters will have pushed as much as possible into the hands of long-term investors who are likely to sit tight.

CNQ evaluating options

CNQ President Steve Laut told a company investor open house in mid-June that "we're in the process of understanding exactly what we have and we're going to evaluate all the options, including the PrairieSky option, which obviously looks attractive."

"Whichever creates the most value for shareholders, that's the one we'll choose," he said.

Early this year CNQ increased its landholdings similar to those of

see **SPIN CYCLE** page 6

SUBSCRIBE to Petroleum News

Don't miss another issue, call: **907 522.9469**

Petroleum
NEWS

www.PetroleumNews.com

Kay Cashman	PUBLISHER & EXECUTIVE EDITOR
Mary Mack	CEO & GENERAL MANAGER
Kristen Nelson	EDITOR-IN-CHIEF
Susan Crane	ADVERTISING DIRECTOR
Bonnie Yonker	AK / NATL ADVERTISING SPECIALIST
Heather Yates	BOOKKEEPER & CIRCULATION MANAGER
Shane Lasley	IT CHIEF
Marti Reeve	SPECIAL PUBLICATIONS DIRECTOR
Steven Merritt	PRODUCTION DIRECTOR
Alan Bailey	SENIOR STAFF WRITER
Eric Lidji	CONTRIBUTING WRITER
Wesley Loy	CONTRIBUTING WRITER
Gary Park	CONTRIBUTING WRITER (CANADA)
Rose Ragsdale	CONTRIBUTING WRITER
Ray Tyson	CONTRIBUTING WRITER
Judy Patrick Photography	CONTRACT PHOTOGRAPHER
Mapmakers Alaska	CARTOGRAPHY
Forrest Crane	CONTRACT PHOTOGRAPHER
Tom Kearney	ADVERTISING DESIGN MANAGER
Renee Garbutt	CIRCULATION SALES
Ashley Lindly	RESEARCH ASSOCIATE
Dec Cashman	RESEARCH ASSOCIATE

ADDRESS
P.O. Box 231647
Anchorage, AK 99523-1647

NEWS
907.522.9469
publisher@petroleumnews.com

CIRCULATION
907.522.9469
circulation@petroleumnews.com

ADVERTISING
Susan Crane • 907.770.5592
scrane@petroleumnews.com

Bonnie Yonker • 425.483.9705
byonker@petroleumnews.com

FAX FOR ALL DEPARTMENTS
907.522.9583

Petroleum News and its supplement, Petroleum Directory, are owned by Petroleum Newspapers of Alaska LLC. The newspaper is published weekly. Several of the individuals listed above work for independent companies that contract services to Petroleum Newspapers of Alaska LLC or are freelance writers.

OWNER: Petroleum Newspapers of Alaska LLC (PNA)
Petroleum News (ISSN 1544-3612) • Vol. 19, No. 26 • Week of June 29, 2014
Published weekly. Address: 5441 Old Seward, #3, Anchorage, AK 99518
(Please mail ALL correspondence to:
P.O. Box 231647 Anchorage, AK 99523-1647)
Subscription prices in U.S. — \$98.00 1 year, \$176.00 2 years
Canada — \$185.95 1 year, \$334.95 2 years
Overseas (sent air mail) — \$220.00 1 year, \$396.00 2 years
"Periodicals postage paid at Anchorage, AK 99502-9986."
POSTMASTER: Send address changes to Petroleum News, P.O. Box 231647 Anchorage, AK 99523-1647.

LAW OFFICES OF
Guess & Rudd
ESTABLISHED 1961 P.C.

SERVING THE LEGAL NEEDS OF ALASKA'S OIL INDUSTRY FOR OVER 50 YEARS

OIL & GAS • COMMERCIAL • ENVIRONMENTAL
EMPLOYMENT • INSURANCE • MINING
TIMBER • ALASKA NATIVE LAW • PIPELINES
ADMINISTRATIVE LAW AND LITIGATION

ANCHORAGE

510 L ST., SUITE 700 • ANCHORAGE, AK 99501
PHONE: **907-793-2200** • FAX: **907-793-2299**

FAIRBANKS

100 CUSHMAN ST., SUITE 500 • FAIRBANKS, AK 99701
PHONE: **907-452-8986** • FAX: **907-452-7015**

www.guessrudd.com

● EXPLORATION & PRODUCTION

AOGCC approves West Sak pool expansion

Adds 200 feet of Schrader Bluff sands above the existing pool and allows the use of VRWAG technique for enhanced oil recovery

By ALAN BAILEY
Petroleum News

The Alaska Oil and Gas Conservation Commission has approved an expansion to the West Sak oil pool in the Kuparuk River unit. The commission has also approved the use of a technique called viscosity reducing water alternating gas, or VRWAG, for producing oil from the pool.

ConocoPhillips, operator of the unit, had requested the unit expansion primarily to enable the development of additional oil in the West Sak by bringing the vertical extent of the pool into line with equivalent oil-bearing rocks in what is referred to as the Schrader Bluff formation in adjacent oil and gas units. The expansion also involves some horizontal adjustments to the extent of the oil pool, to bring the pool boundary into line with the

current unit boundary.

Specialized techniques

West Sak and Schrader Bluff contain thick, viscous oil and lie at relatively shallow levels above the deeper reservoir rocks of the traditional oil fields of the North Slope. Teasing the thick oil out of the sandstone reservoirs has required specialized techniques, including the use of high-tech horizontal drilling.

Since 2009 ConocoPhillips has been conducting a large-scale pilot program to test the use of VRWAG techniques in the West Sak viscous oil pool. And, having achieved success with that pilot, the company asked the commission for approval for full-scale use of the technique. The technique involves flushing of oil from the reservoir, alternately using water and a mixture of gas and gas liquids. The gas mixture causes the oil to swell

and hence become less viscous — ConocoPhillips says that VRWAG could increase viscous oil recovery by 5.2 percent of original oil in place.

200-foot expansion

The rock formation called West Sak in the Kuparuk River unit is equivalent to what is referred to as the Schrader Bluff O sands in adjacent units. The vertical expansion of the viscous oil pool at Kuparuk involves adding the Schrader Bluff N sands, a sequence of rocks about 200 feet thick, equivalent to similar N sands in the other units and lying directly above the West Sak. ConocoPhillips told the commission that the main oil bearing sand unit in the N sands at Kuparuk may contain 320 million barrels of oil. ●

Contact Alan Bailey at abailey@petroleumnews.com

● GOVERNMENT

Supreme Court rules on GHG emissions

Says that the EPA can only regulate these emissions from stationary sources that already require air permits for other reasons

By ALAN BAILEY
Petroleum News

On June 23 the U.S. Supreme Court issued a ruling which, at first sight, appeared to vindicate those who argue that the Environmental Protection Agency does not have the legal authority to regulate the emission of greenhouse gases from stationary industrial emissions sources. But, by also opening an avenue for the type of regulation that EPA is seeking, the ruling contains a sting in the tail for the multiple organizations that had appealed the validity of EPA's regulatory efforts to limit the discharge of carbon dioxide from industrial facilities.

Regulations appealed

Following an appeal against EPA regulation of greenhouse gas emissions from car exhaust pipes, in 2007 the court had declared that carbon dioxide and other greenhouse gases are pollutants under the terms of the Clean Air Act. But when EPA then proceeded to introduce regulations setting limits to greenhouse gas discharges from stationary sources, several states and industry groups appealed the agency's actions, saying that the agency does not have the authority to impose this type of regulation, and that there is inadequate evidence that greenhouse gases are harmful.

After the U.S. Court of Appeals for the District of Columbia rejected the appeals in 2012, the plaintiffs elevated the case to the Supreme Court. In November 2013 the Supreme Court agreed to take the case, but limited its review to the question of whether the regulation of

greenhouse gases from motor vehicles triggered the need for similar regulations for stationary sources.

No authority under the act

In a majority decision delivered by Justice Scalia the Supreme Court has now said that the Clean Air Act "neither compels nor permits" EPA to require an air permit solely on the basis of greenhouse gas emissions. Although the act provides scope for interpretation of what constitutes a regulated air pollutant, some emissions, such as steam, from industrial processes are not harmful, Scalia wrote. And the regulation of greenhouse gases which are emitted from industrial sources in "vast quantities" would render the regulatory programs conducted under the Clean Air Act unworkable.

The regulatory programs "are designed to apply to, and cannot rationally be extended beyond, a relative handful of large sources capable of shouldering heavy substantive and procedural burdens," Scalia wrote.

Recognizing this problem, EPA had introduced a special rule, setting relatively high emissions thresholds at which greenhouse gas regulation would kick in.

But the Clean Air Act does not give EPA the statutory authority to implement such a rule, Scalia wrote.

"We conclude that EPA's rewriting of the statutory thresholds was impermissible and therefore could not validate the agency's interpretation of the triggering provisions," Scalia wrote. "An agency has no power to 'tailor' legislation to bureaucratic policy goals by rewriting unambiguous statutory terms."

Can add GHG to permits

Having apparently rejected EPA's moves to regulate greenhouse gas emissions, the court proceeded to rule that the agency can require an emissions-generating plant to implement the best available technology for controlling greenhouse gases, if that plant already requires a permit for the emission of other pollutants. And, since air emissions permits are normally only required for large emissions sources, this aspect of the court ruling appears to open the door to EPA's intent to regulate greenhouse gases from large industrial facilities, albeit by a different regulatory route than what the agency had planned.

Dissenting opinions

Justice Breyer, supported by Justices Ginsburg, Sotomayor and Kagan, issued a partially dissenting opinion, saying that EPA does have the legal right to set a high emissions threshold for the regulation of greenhouse gases. And Justice Alito, supported by Justice Thomas, issued another dissenting opinion saying that EPA should not have regulatory authority over greenhouse gas emissions from a stationary source, regardless of whether the source requires an air emissions permit for other reason.

"BACT (best available control technology) analysis, like the rest of the Clean Air Act, was developed for use in regulating the emission of conventional pollutants and is simply not suited for use with respect to greenhouse gases," Alito wrote. ●

Contact Alan Bailey at abailey@petroleumnews.com



We offer personalized service, catering to the busy professional.

- 11am — 7pm (Late night appointments by pre-arrangement only)
- Each stylist has a separate, enclosed work area for your privacy and comfort

700 W Northern Lights Blvd., Anchorage, Alaska 99503

• Call for appointments • 561-9499

Mention
this ad and
receive a 10%
discount on
hair services!

LAND & LEASING

Cook Inlet license draws competitive bids

In a finding issued June 20 the director of the Alaska Division of Oil and Gas has called for competitive bids for an Iniskin Peninsula exploration license.

In April 2013 the division received a proposal for an exploration license in Southwest Cook Inlet onshore and offshore in the Chinitna Bay and Iniskin Bay area. In May 2013 the state issued a notice of intent to evaluate the proposal and asked for comments and competing proposals (see story in June 9, 2013, issue).

One competing proposal was received.

The decision, signed by Bill Barron, director of the Division of Oil and Gas, offers a four-year oil and gas exploration license covering some 169,000 acres to the winner of the competitive bid process. The invitation to bid was sent to the applicants concurrent with issuance of the decision. The two applicants have 20 days to return the bid application.

The division is not releasing either the name of either bidder.

The minimum work commitment bid is \$1 million.

Seeps in area

Oil seeps have been known on the Iniskin Peninsula since at least 1853, the division said. The earliest exploration wells in Cook Inlet were drilled near Oil Bay and oil seeps at Well Creek by the Alaska Petroleum Co. in 1902. The division said there are no official records, but the well is reported to have encountered gas and a "considerable" oil flow, cut off when water was encountered in further drilling. A second well northwest of the first, drilled in 1903, encountered oil shows but was abandoned due to collapsing shale. A third well to the south encountered oil and gas in three thin sandstones, while no information is available on the company's fourth and final well, drilled north of the second hole.

The Alaska Oil Co. drilled near a seep on Brown Creek north of Dry Bay in 1902, but the well was abandoned without oil shows when drilling tools were lost in the hole. A second attempt by the company was abandoned at a shallow depth after an equipment mishap.

No additional wells have been drilled at either Oil Bay or Dry Bay since these early wells.

Later wells

Exploration activity in the license area between 1903 and 1934 was limited to geologic field studies by U.S. Geological Survey geologists.

The Iniskin Bay Association obtained exploration rights to 51,000 acres on the anticline near the Fitz Creek oil seep, built a road into the interior of the peninsula and began drilling in 1936, with drilling on the well continuing over four summers. The

see **LICENSE BIDDING** page 10

GOVERNMENT

Judge orders responses on CD-5 permit case

Parties disagree on whether Corps of Engineers permit should be cancelled while issue court has raised is addressed

By **ALAN BAILEY**

Petroleum News

In a June 18 court order U.S. District Court Judge Sharon Gleason set a deadline of July 1 for the parties in an appeal against a permit for ConocoPhillips' CD-5 oilfield development to respond to a series of motions that have been filed in the case. The permit in question is the U.S. Army Corps of Engineers' dredge-and-fill permit for the project.

A group of villagers from Nuiqsut near the Colville River Delta on the North Slope have appealed the permit in federal court in Alaska, claiming that the permit violates the National Environmental Policy Act and the Clean Water Act. The CD-5 development, the first oilfield development in the National Petroleum Reserve-Alaska, involves the construction of several bridges, including a bridge over a channel of the Colville River.

Questions over the possible environmental impacts of the bridge construction previously delayed the issue of the Corps' permit and hence delayed work on the development for several years. However, with the permit having been issued in 2011, work has started moving forward.

The villagers launched their appeal against the permit in February 2013.

Arbitrary conclusion

Gleason has not determined whether

the permit violated either of the statutes cited in the appeal. But the judge has found that the Corps had been "arbitrary" in concluding, without explanation, that changes to the design of the CD-5 project and the arrival of some new information relating to the project did not warrant a revision to the environmental impact statement for the project. And on May 27 Gleason ordered the parties in the case to file motions on how the case should proceed.

The environmental impact statement in question was published in 2004 and encompassed the planned development of several satellite fields to the Alpine oil field, including CD-5.

The Corps subsequently filed a motion, offering to provide an explanation for its decision not to modify the EIS and asking that the permit remain in place meantime. Preparing the explanation would take up to 90 days, with a further 60 days then being required for briefs and responses by parties in the case, the Corps said. CD-5 activities planned for this summer will have little environmental impact and do not warrant an injunction against the work proceeding, the Corps argued.

The villagers, however, asked that the permit be cancelled, pending a reconsideration of the permit decision. The federal Administrative Procedures Act requires that any agency action found to be "arbi-

see **CD-5 CASE** page 10

continued from page 4

SPIN CYCLE

PrairieSky when it acquired Devon Energy's Canadian conventional oil and gas operations in a \$3.1 billion deal.

Chris Feltin, an analyst with Macquarie Capital Markets, said assets that could be candidates for spinoffs could be worth \$2 billion to \$2.5 billion.

Laut said CNQ has yet to decide whether to retain part of its royalty lands or unload the whole package.

Even without the royalty stream, CNQ's other operations are generating sufficient free cash flow that it can contemplate share buybacks, dividend hikes and acquisitions.

Feltin said the message from the market, based on the PrairieSky valuation, is that royalty income lands are an attractive investment vehicle, suggesting that an outright sale would probably realize a lower multiple than an outright sale. ●

Contact Gary Park through publisher@petroleumnews.com



Creative photography for the oil & gas industry.
judypatrickphotography.com
907.258.4704

JUDY PATRICK
PHOTOGRAPHY

Transmissions

ALL OFF-HIGHWAY & ON-HIGHWAY ALLISON AND ZF TRANSMISSIONS



- Factory Trained Technicians
- Genuine Parts
- Decades of Experience
- No-Hassle Core Policy

Proven Expertise. Guaranteed



PACIFIC TORQUE (800) 726-5300
PACIFICTORQUE.COM
INFO@PACIFICTORQUE.COM
DRIVEN TO PERFORM

• PIPELINES & DOWNSTREAM

State worried about quality bank

Attorney General's office believes recent FERC decision could place Alaska refineries at a competitive disadvantage

By ERIC LIDJI

For Petroleum News

The state of Alaska is worried that a recent federal ruling to uphold the existing Quality Bank methodology may further harm Alaska's already fragile oil refining industry.

The state is "very concerned" that the May 8 ruling could have the effect of "locking into place competitive distortions" by prohibiting parties from proposing alternative methodologies. "Free and open competition is important to protecting the interests of all consumers of refined products in Alaska," the office of Alaska Attorney General Michael C. Geraghty wrote in a June 9 response to an initial Federal Energy Regulatory Commission ruling on the matter. "The Commission should not adopt a ruling that could allow the TAPS Quality Bank methodology to negatively impact such competition."

Last September, Flint Hills Resources Alaska LLC filed a complaint against the owners of the trans-Alaska oil pipeline, saying that the existing Quality Bank methodology undervalued Resid, a residual product left behind after lighter petroleum products have been distilled from crude oil. FERC dismissed the complaint on technical grounds, but launched an investigation into some of the questions Flint Hill raised in its complaint.

At any given time, the pipeline contains numerous oil shipments of various qualities. The Quality Bank system prevents oil companies from profiting when they ship lower quality crude. Without such a mechanism, a company shipping less-than-average crude through the pipeline would unfairly collect average crude from the other end. Instead, those companies now pay into a "bank" to compensate shippers of greater-than-average crude.

Established with the beginning of the pipeline in

The Quality Bank system prevents oil companies from profiting when they ship lower quality crude. Without such a mechanism, a company shipping less-than-average crude through the pipeline would unfairly collect average crude from the other end.

1977, the system has been debated and tweaked ever since to reflect changing market conditions. The current formula breaks the crude oil production stream into seven distillate products and values each separately.

Disconnected from market

Among Flint Hills' main arguments against the existing methodology was the relationship between the price of Alaska North Slope crude oil and the price of its constituent products. Given that finished products should be more valuable than raw materials, the combined value of all the products included in the Quality Bank should be greater than the price of Alaska North Slope crude. But since 2009, they have not.

At a February 2014 hearing, a Flint Hills witness said that this inversion should have prevented West Coast refiners from purchasing Alaska crude — presumably because it would be cheaper to buy the products individually. Seeing as how those refiners continue to use Alaska crude, the methodology must be "broken," according to the witness.

FERC Administrative Law Judge H. Peter Young rejected this argument. In his decision, he said only the Quality Bank valuation of Alaska North Slope crude — as opposed to the actual market value — was relevant to a discussion of the Quality Bank methodology.

Additionally, Flint Hills said the methodology should stop deducting certain capital costs when it calculates

the value of Resid, given that many refiners simply ignore such "sunk" costs. But Young also rejected this argument, saying it would create a disparity between those products that require additional processing, such as Resid, and those that do not.

By upholding the methodology this way, Young essentially said that future parties could not challenge the methodology by proposing a superior one, according to the state.

Given that the current Quality Bank methodology is based on a "simplified hypothetical distillation refinery," as opposed to actual refiners under actual market conditions, "parties should be free to challenge the TAPS Quality Bank methodology by proving that an alternative methodology is superior to the existing methodology," the state wrote.

If users have the ability to propose "superior alternatives," the Quality Bank methodology could be changed to promote better competition, according to the state. This ability is especially important, the state added, given the "fragile and small" state of the Alaska refining industry. While the matter was under review, the state noted, Flint Hills ceased its Alaska refining operation due to "extremely difficult refining market conditions."

The state wants the system to be flexible enough to respond to market conditions. "To be sure, the State is not advocating that the methodology needs to be adjusted for changes in market circumstances that prevent the recovery of capital costs for a transitory period of time," the state wrote. "Parties should be allowed to prove, however, that market circumstances will not allow the recovery of capital costs for a material time period."

Flint Hills Resources and PetroStar Inc. challenged the decision on similar grounds. ●

Contact Eric Lidji at ericlidji@mac.com

Chemistry Delivered™

UNIVAR
OIL & GAS

No matter what segment of the Oil & Gas industry, we leverage our global reach, innovative service solutions, and synergistic partnerships to help secure the long term success of your business.

+1 855 888 8648
univar.com

ACHIEVE MORE

Alaska's Community Bank
+ BUSINESS +
LOANS
TRUSTED * FOCUSED ON * EXPERTS

EXPLORATION
TRANSPORTATION 100% 907
★ SOLID ★ SUPPLY CHAIN
INTEGRITY OIL & GAS
UNDERSTAND ALASKA'S ECONOMY
PROSPER AK

Mark Edwards
Vice President, Commercial
Loan Unit Manager & Bank
Economist

WE'RE INVESTING IN ALASKA

For decades, our expert loan officers have worked with Alaska's vital industries. When it comes to resource development, you won't find a more knowledgeable or dedicated lending team. If you're ready to explore new opportunities, pull up a chair at Northrim Bank.

Northrim Bank
northrim.com

MEMBER FDIC EQUAL HOUSING LENDER

I want in!

To advertise in Petroleum News, please contact Susan Crane at 907-770-5592, or Bonnie Yonker at 425-483-9705.

● NATURAL GAS

Sloshing disadvantage of membrane tankers

By STAN JONES

Researcher/writer for the Office of the Federal Coordinator

Surf's up

But membrane tankers come with their own disadvantages, perhaps most of important of which is susceptibility to sloshing.

Sloshing refers to waves being generated inside an LNG tank as the vessel rides the ocean.

Given the right combination of sea conditions, tank and vessel characteristics, and LNG volume in a tank, sloshing waves can become so big they damage the tank. This can include not only the walls or cap of the tank, but also the tall vertical pump mast used to move LNG in and out at the dock.

This is a fluid dynamics problem so complex that even the marvels of modern computer technology have yet to produce a complete answer to the challenge of designing a slosh-proof LNG membrane tanker. Nonetheless, some general rules have emerged that seem to work.

One tactic is to use smaller tanks — meaning more tanks are required for a given size vessel. Another is to limit loading levels. The basic rule is that a tank should always be either less than 10 percent full (too little liquid to hurt the tank) or more than 70 percent full (too little open space to allow damaging waves to build up inside the tank). However, operational considerations unrelated to slosh-

ing often rule out running the tanks completely empty, as discussed below.

The forbidden zone between the numbers is known as the barred fill range, a result of both research and experience over the years.

"There's some science and some practice that comes into it," said Peter Noble, former chief naval architect for ConocoPhillips, in a December 2013 interview. Noble is now president of the Society of Naval Architects and Marine Engineers and principal adviser with Noble Associates.

The first recorded incident of sloshing damage to an LNG tanker came when the industry was barely a decade old. The vessel involved was the Polar Alaska, one of the two tankers built to export Cook Inlet LNG out of Nikiski. Damage to one of its tanks was discovered when it returned home to Alaska from its very first trip in 1969.

Nearly two years later, the Arctic Tokyo — sister ship to the Polar Alaska — also sustained damage to a single tank after surviving two typhoons in Tokyo Bay.

Neither incident resulted in a threat of sinking or release of any LNG cargo.

In both cases, the damaged tank had been 20 percent full as the ship returned home from delivering its load. That was before the industry figured out that 10 percent was the safest lower loading limit.

As is often the case, the Polar tankers had unloaded and kept some cargo aboard, known as heel. Heel serves two purposes. For one, the fact that some of

the gas evaporates from the tanks — no matter how well insulated — helps keep them cold, which speeds up loading for the next cargo.

For another, many LNG tankers recover that evaporating gas, called boil-off, for engine fuel on the trip back to port for the next load.

The first response to the incidents on the Alaska and Tokyo was to reduce heel levels, though not to the specifications used today.

The second response was to study the problem in an attempt to determine what combination of tank design, loading levels and sea conditions would produce sloshing damage. This led to a recommendation that the shape of LNG tanks be altered by reducing the size of the bevels at the corners of the tanks, but no further advice on loading levels.

The problem, however, was far from solved. It cropped up again in 1978 on a 130,000-cubic-meter vessel that was the largest of its kind at the time. This time, all five of its tanks were damaged. Again, the ship was never in danger of sinking and no cargo was released.

The sloshing club convenes

The new evidence that sloshing still stalked the LNG shipping industry set off a fresh round of scrutiny and the formation of a group called the "Sloshing Club."

The club was led by Gaztransport — the French company that had designed the tanks damaged in the 1978 incident — with help from two Japanese shipyards, the American aeronautics and aerospace giant McDonnell Douglas, and a ship classification society (a non-governmental organization that establishes and maintains technical standards for building and operating ships).

The group's first recommendation was for more study, and a research program was launched. One finding was that changing the shape of LNG tanks, as recommended after the Polar Alaska and Arctic Tokyo incidents, had made the problem worse, not better. It turned out that the bigger bevels in the old design had served to clip the waves and reduce turbulence in the LNG.

Now things were back to about where they were right after the Alaska and Tokyo incidents: use the old tank shape, and keep heel levels low.

Time passed, and hopes grew that the sloshing monster had been driven permanently back into its cave. Wrong again.

"This," as a 2009 sloshing paper by Gaztransport and Technigaz (successor to Gaztransport as a result of a merger) put it, "is why the information from Navantia shipyard in El Ferrol, Spain, during spring 2006 came as such a shock."

The news from Navantia shipyard? An LNG tanker called the Cataluña Spirit had dry-docked and three tanks were found to have sloshing damage, apparently from side-to-side waves. The ensuing analysis triggered a re-thinking of how sloshing occurs inside a tank.

Until then, it had been assumed that the biggest waves caused the worst damage by producing the most violent motion of the LNG. Consequently, previous studies had focused on what happened in the stormiest seas.

In fact, the analysis showed, stormy seas were less of a threat than intermediate seas — not too big, not too small. That was because big sloshing waves, rather than slamming into the walls, tended to break in mid-tank, much like big surf breaks offshore rather than hitting the beach. And when the decaying wave finally did hit the wall, it was a mixture of LNG and gas rather than pure LNG.

How, then, could smaller sea waves damage a tank if big waves weren't the problem?

It turned out that one of the most crucial factors was the period of the ocean waves — the time between crests. If the timing was just right, the LNG wave could start at one wall of the tank, build up and up, then crash into the opposite wall of the steel tank at full power and inflict the kind of damage seen in the Cataluña Spirit.

Not surprisingly, yet more research ensued, resulting in indications that loading tanks just above the lower limit of the forbidden zone might have been the culprit.

The sloshing monster put in its last reported appearance in 2008, this time in a type of vessel with tanks of a design that had never experienced sloshing damage before. A total of three such tankers turned up with sloshing damage.

"Again," the 2009 paper said, "the LNG industry was strongly surprised."

Over the years, the practice of not loading below 70 percent had begun to emerge, and ship classification societies like Lloyd's Register endorsed it in 2009.

Nowadays, the operators of membrane tankers are getting a boost from high technology. At least one company mar-

see MEMBRANE TANKERS page 9



Alaska's Premier Equipment Dealer and Rental Company



Craig Taylor Equipment Co., a locally owned and operated Alaskan corporation, was founded back in 1954. We service the entire state with four convenient locations (Anchorage, Fairbanks, Wasilla, Soldotna). Each facility is fully staffed with product specialists, dedicated to provide complete parts, sales and service for all products we sell and rent.

Serving Alaska
CTE
Since 1954

ANCHORAGE 907-276-5050	SOLDOTNA 907-262-5977	FAIRBANKS 907-452-1192	WASILLA 907-376-3838
---------------------------	--------------------------	---------------------------	-------------------------

SALES PARTS RENTALS

CRAIG TAYLOR EQUIPMENT COMPANY

"We Service What We Sell"

craigtailorequipment.com



American Marine Services Group

6000 A Street, Anchorage, AK 99518

907-562-5420

Deadhorse, AK

907-659-9010

www.amarinecorp.com • www.penco.org
alaska@amarinecorp.com



- Commercial Diving
- Marine Construction Services
- Platform Installation, Maintenance and Repair
- Pipeline Installation, Maintenance and Repair
- Underwater Certified Welding
- NDT Services
- Salvage Operations
- Vessel Support and Operations



- Environmental Services
- Oil-Spill Response, Containment and Clean-Up
- Hazardous Wastes and Contaminated Site Clean-Up and Remediation
- Petroleum Vessel Services, e.g. Fuel Transfer
- Bulk Fuel Oil Facility and Storage Tank Maintenance, Management, and Operations

Anchorage

Honolulu

Los Angeles

continued from page 8

MEMBRANE TANKERS

kets a shipboard software product designed to help avoid sloshing in two major ways. One is to analyze weather forecasts and identify the route least likely to take the vessel through slosh-inducing seas. The other is to advise the captain if he starts to encounter such conditions on mitigation actions such as changing course or speed.

“Sloshing is not a major problem in the LNG trade today in ships that are well built, well maintained, and operated in a proper way,” Noble said.

The trip to market and back

Once under way, the tanker crew faces the issue of boil-off, as discussed above. LNG tankers don’t have refrigeration units on board to keep the LNG at minus 260, so they rely on the insulation around the tanks.

As no insulation system is perfect, the LNG starts to warm up and some of it evaporates — or boils off. (The current industry standard is to limit boil-off to a rate of 0.1 percent to 0.15 percent a day.) Boil-off cools the rest of the LNG and keeps it liquid, just as evaporating sweat keeps people cool on a hot day.

But how to manage boil-off?

Many LNG tankers use it for engine power. If there’s not enough boil-off for the purpose, they can make more from the LNG cargo with their on-board vaporizers.

But boil-off management is changing. Builders of LNG tankers are switching to fuel-efficient low-speed diesels for power, permitting more of the valuable cargo to reach market. Small onboard liquefaction plants return the boil-off to the tanks as LNG.

Some new tanker engines can even burn a mixture of diesel and LNG, in any ratio.

In the destination port, the tanker unloads using pumps immersed in the tanks, then starts the trip home.

But are they safe?

Given the complexity of building and sailing these huge tankers filled with a liquid cargo awaiting the chance to boil off into a flammable gas, what about their safety record?

The LNG tanker industry has essentially no history of such problems. As of

2011, more than 135,000 LNG tanker trips had taken place without a major accident in port or at sea.

While there have been minor LNG spills in loading and unloading operations while in port, none involved fatalities or more than minor damage to the ship.

And, in some cases where disaster might have been expected, none occurred.

In 1979, for example, the El Paso Paul Kayser was heading out of the Mediterranean at 19 knots (22 mph) when it hit a submerged rock outcropping in the Strait of Gibraltar. The result was a 750-foot scar in the hull. While damage to the ship was substantial, none of the LNG was lost.

Experts and the industry alike attribute this safety record to a number of factors. One is that LNG tankers, like oil tankers, have double hulls to reduce the chances that a collision or grounding will breach the cargo space. In the case of LNG tankers, each hull is made of inch-thick steel and they are about 10 feet apart — space that is used for ballast water when needed.

Another factor is the elaborate precautions taken to prevent the LNG from mixing with air to create an explosive combination, as described above. LNG itself is not explosive or flammable.

The layer of insulation that separates the ship’s inner hull from the LNG tanks is filled with nitrogen, so that any leak from the tank will enter an inert atmosphere. Additionally, the insulation is monitored for any intrusion of gas so that immediate action can be taken.

In port, federal rules require safety zones around LNG tankers, as well as around the facilities where they dock.

“LNG has been handled safely for many years and the industry has maintained an enviable safety record,” wrote Michelle Michot Foss, chief energy economist at the University of Texas’s Center for Energy Economics, in a 2012 briefing paper. “Engineering and design and increasing security measures are constantly improved to ensure the safety and security of LNG facilities and ships.” ●

Editor’s note: Parts 1 and 2 of this story ran in the June 8 and June 15 issues. This is a reprint from the Office of the Federal Coordinator, Alaska Natural Gas Transportation Projects, available online at www.arcticgas.gov/lng-carriers-called-floating-pipelines

Caution—loading zone

Building an LNG tanker is complicated enough. Getting one safely loaded, across the ocean, and back again can be even more exacting.

Take loading. In some cases, the vessel returns home with heel or methane vapor in the tanks and the tanks still cold, ready to receive its next load and sail away.

In other cases, all of the LNG is taken off in the delivery port, and the ship starts for home with nothing but residual methane vapors in the tanks. As these will warm up during the passage home, the tanks are likely to need gradual re-cooling, as described below, before they can take on a new load of LNG at minus 260 degrees Fahrenheit.

In still other cases, the LNG tanks will need inspection or maintenance once in port, so the tanker is expected to arrive in a methane-free state with warm tanks full of air so workers can safely enter them. This requires a multi-stage process during the voyage.

First, the tanks are warmed up by using equipment on the ship to heat and circulate the gas they contain.

Next, the tanks are purged of that methane using carbon dioxide produced by burning diesel on the ship. This is called inerting the tanks; otherwise, introducing air (containing oxygen) would create a dangerous explosive mixture with the residual methane.

Finally, the tanks are filled with air and the at-sea part of the process is complete.

Once in port, any necessary maintenance and inspections are performed, then actual loading begins. The process can take almost three days if the tanks have been warmed and filled with air.

The first step in loading is to force out the air so it won’t mix with LNG. Carbon dioxide is again used to purge and inert the tanks, a process that takes about 20 hours for a standard-size tanker.

Next, the tanks have to be purged of carbon dioxide and cooled to about minus 220 degrees Fahrenheit before they can take LNG at minus 260 degrees. Otherwise, the incoming LNG could freeze the carbon dioxide solid — into dry ice — possibly damaging pumps and equipment in the tanks.

Warm natural gas in its vapor form is used to force out the carbon dioxide. To achieve that, LNG is brought onto the ship from the terminal on shore, vaporized, heated to about 70 degrees, and pumped into the tanks.

At first, the carbon dioxide coming out of the tanks is vented to the atmosphere (at least in foreign terminals; at present, there are no LNG export terminals operating in the United States), with the methane level of the emerging mixture carefully monitored. Once the methane level reaches 5 percent, the threshold of flammability, the mixture is redirected to the terminal on shore and burned to prevent creating an explosive mixture around the ship.

This part of the loading process takes another 20 hours or so.

Now the tanks are full of natural gas, with all traces of air and carbon dioxide removed. But it’s warm natural gas, still at 70 degrees or so.

Now the cooling process begins. (This phase is also necessary if the vessel docked with warm methane, but no air, in its tanks.) LNG is sprayed into the tanks, where it vaporizes and cools them. This forces the warm natural gas out of the tanks; it’s pumped ashore to be reliquefied or burned off in a flare stack.

This phase takes about 10 hours.

Finally, the tanks are at about minus 220 degrees Fahrenheit — cold enough to take the LNG cargo. It’s pumped in from the terminal until the tanks are full, with the expelled methane vapors continuing to be pumped ashore. This step takes about 15 hours. When it’s done, the ship is ready to sail.

—STAN JONES

WHAT'S THE BIG ATTRACTION?



- A. an industry institution
- B. quality, accurate reporting
- C. attractive, readable design

To advertise in Petroleum News call Susan Crane at 907-770-5592, or Bonnie Yonker at 425-483-9705.

Subscribe at: www.petroleumnews.com

Leader In All We Do



DOYON
Limited®



Proud members of the Doyon Family of Companies

www.doyondrilling.com

www.doyonremotefacilities.com



www.doyonassociated.com



www.doyonanvil.com



www.doyonuniversal.com



● GOVERNMENT

Exxon Valdez, Alaska LNG turn BC edgy

British Columbia leaders still believe province has edge in LNG, but First Nations leaders warn Northern Gateway could sour LNG

By GARY PARK

For Petroleum News

Alaska is suddenly taking an influential, if indirect role in settling the future of Enbridge's Northern Gateway project.

The specter of the Exxon Valdez and the prospect of LNG exports from Alaska are playing a part in eroding the outlook for Northern Gateway and Canada's chances of shipping 525,000 barrels per day of diluted bitumen from Alberta through British Columbia to Asia.

Scientists and aboriginal leaders from British Columbia, Alaska, Washington and California met June 18 to celebrate the return of sea otters to the West Coast of North America, but abruptly switched their focus to the threat posed by Northern Gateway tankers and devastation of the marine ecosystem caused by the 1989 grounding of the Exxon Valdez.

Violet Yeaton, an environmental planner from the village of Port Graham, Alaska, told the conference that the spill of 11 million gallons of crude from the Exxon Valdez killed 2,800 sea otters, 900 eagles and 250,000 sea birds and shut down a portion of a king crab fishery that has yet to reopen.

Letter to Clark

In a letter to British Columbia Premier Christy Clark — all but one of the 50 delegates decided there was no point in contacting Prime Minister Stephen Harper — the Native leaders and scientists said the risks of Northern Gateway “threaten coastal ecosystems, livelihoods and economies.”

“We reject the proposition that there are any conditions

that make the Enbridge project acceptable,” they wrote.

Guujaaw (who uses only one name), past president of the Council of Haida Nation, which claims it is still impacted by the Exxon Valdez disaster, said the Canadian government has now “forfeited the moral authority to manage these lands and these waters.”

Concern over Alaska LNG

More disturbing for the British Columbia government is the threat posed by Northern Gateway to its grand plans for an LNG industry that are designed to pump billions of dollars into the provincial economy.

Compounding that concern is the sudden awakening in British Columbia to the possible commercialization of Alaska's natural gas through the LNG venture that started taking shape two years ago when ExxonMobil, ConocoPhillips and BP along with the state joined forces to exploit 35 trillion cubic feet of North Slope reserves.

British Columbia's Natural Gas Development Minister Rich Coleman, the cabinet's point man on LNG, downplays any talk that his government is wary of what is happening in Alaska if the massive project comes onstream in 2023.

“There are multiple LNG export projects being proposed internationally, including the Alaska LNG project,” said a statement issued from Coleman's office. “We are confident our competitive advantages make B.C. the best place to build new natural gas export facilities.”

Coleman refuses to get drawn into debate on the comparative merits of British Columbia's promise to provide the “most competitive LNG jurisdiction in the world,” and Alaska's blending of state and industry in a deal for the state to collect 25 percent of the gas in lieu of taxes and

royalties.

In addition, British Columbia aboriginal leaders are hailing the progress Alaska has been made in settling Native land claims and offering Native corporations and municipal governments' investment options in the Alaska LNG Project — all elements British Columbia is still grappling with.

Dead end with First Nations

What little success British Columbia has achieved in bringing First Nations on board has suddenly encountered a dead end, pending a resolution of Northern Gateway's future.

Although there is no formal arrangement in place, some First Nations have endorsed aboriginal equity stakes in pipelines and LNG terminals and have praised the efforts by international LNG companies to consult with aboriginal communities on their projects.

But Terry Teegee, tribal chair with the Carrier Sekani Tribal Council, said any sign that the British Columbia government is ready to sign off on Northern Gateway could have a “potential domino effect on any” major LNG, mining or pipeline project.

If British Columbia softens the five conditions it says Enbridge must meet that could “sour the relationship” between the province and First Nations, Teegee said.

Grand Chief Stewart Phillip, president of the Union of B.C. Indian Chiefs, was less emphatic.

He said that talk of linking LNG support with the outcome of Northern Gateway “has not been widely embraced” by First Nations. ●

Contact Gary Park through publisher@petroleumnews.com

continued from page 6

CD-5 CASE

trary, capricious ... or otherwise not in accordance with the law” be set aside, the villagers argued. Moreover, the cancellation of the permit would avoid a situation in which the agency would “simply

defend a pre-ordained conclusion,” an attorney for the villagers wrote.

And, if the court does not cancel the permit, the court should place an injunction on the permitted work until the Corps complies with the National Environmental Policy Act and the court's order, the attorney wrote. Were work on CD-5 to proceed without a valid environ-

mental analysis, irreparable environmental damage could result, the attorney wrote.

Work already under way

ConocoPhillips, the other main participant in the appeal case, essentially supported the Corps' position, asking the court to allow the Corps 90 days in which to remedy the problem that the court had identified. And ConocoPhillips urged an expeditious schedule for the case, given the fact that the project, a complex Arctic operation, is already under way.

At this point, the entire gravel footprint authorized by the Corps permit has been established, an attorney for ConocoPhillips wrote. There are four bridges associated with the CD-5 project: structures for all of these bridges have

been installed, with one bridge complete and two bridges structurally complete, the attorney wrote. An ice-pad has been installed for use as a staging area. No work planned for the proposed 90-day remand decision period involves in-water activities or the disturbance of aquatic resources, the attorney wrote.

And, while there is no mandatory requirement to cancel the permit in the circumstances of the appeal, cancellation would result in disruption to the project that would be significant, irreparable and inequitable, ConocoPhillips said.

In her June 18 order Judge Gleason asked each party in the case to file a single, consolidated response to all of the motions that have been submitted. ●

Contact Alan Bailey
at abailey@petroleumnews.com

CraneSafe's Multi Purpose Crane
Phantom Mouse®
ACCESS Casing Slips
Safety Clamps
Bottleneck Elevators
Tubing Tongs
FLOAT VALVES
ACCESS Drill Collar Slips
AOI Instrumentation
Mud Pump Fluid End Assem-
Fluid End Expendable Pump Parts
Drill Pipe and Casing Tongs
Mud Line Gate Valves

BEARINGS, SEALS AND WIRE LINE SHEAVES
Stabbing Guides

PETROLEUM EQUIPMENT & SERVICES, INC
DOWNSTREAM DIVISION
Phone 907-248-0066 Fax 907-248-8878
www.PESIAK.COM

FLARUM™
ENERGY TECHNOLOGIES

continued from page 6

LICENSE BIDDING

well encountered trace oil and gas shows and 12 barrels of high gravity oil were recovered. When the well was abandoned in 1939 it was flowing 240 barrels of water a day with minor oil and gas shows.

A new group of investors, the Iniskin

Unit Operators, drilled in the area after World War II, drilling the Beal No. 1 well in 1954 and 1955, east of the Fitz Creek fault. The well had oil and gas shows, with a computed gas flow of 4,000 cubic feet per day, but further efforts to achieve commercial flow rates were unsuccessful.

Alaska Consolidated Oil Co. drilled the Antonio Zappa No. 1 in 1958-59 west of the Beal No. 1, and encountered minor to fair oil shows.

The division said the most recent exploration activity in the area was two-dimensional seismic acquisition conducted mostly onshore in the summer of 2013.

The division did not identify the company doing the 2-D seismic, but as previously reported by Petroleum News that shoot was a project of Hilcorp Alaska and was proposed to cover 41 miles in the area between Chinitna Bay and Iniskin Bay, with the work done by SAExploration Inc.

—KRISTEN NELSON

Contact Kristen Nelson
at knelson@petroleumnews.com

MOTION INDUSTRIES

**COMPLETE HYDRAULIC SALES & SERVICE
REPAIR, DESIGN, FIELD SERVICE
PUMPS, MOTORS, VALVES, CYLINDERS**

Tel: 907.563.3000 • Fax: 907.563.1003

611 E. International Airport Rd., Anchorage, AK 99518-1302 USA

www.motionindustries.com

• EXPLORATION & PRODUCTION

AOGCC changes Beaver Creek well spacing

Hilcorp requested changes for gas wells at Kenai Peninsula field; increase in vertical depth of Beluga gas pool previously approved

By KRISTEN NELSON
Petroleum News

As Hilcorp Alaska Inc. works on properties it acquired in Cook Inlet from Chevron and Marathon, it has requested and received some rule changes from the Alaska Oil and Gas Conservation Commission.

Most recently, the commission made changes in gas well spacing requirements Hilcorp requested for the Sterling and Beluga gas pools at Beaver Creek north of Kenai on the Kenai Peninsula.

The commission said 160-acre spacing has been required for gas wells at the field, and a distance of 1,320 feet from the nearest open wellbore in the same pool, spacing requirements which were established in 1988 based on geological and reservoir information available at that time. Production began at Beaver Creek in 1972. In 1988 there were four wells at the field producing gas.

Marathon, the previous field operator, drilled 10 wells after the pool rules were established, resulting in a better understanding of the Sterling and Beluga gas pools.

The commission said that, as is common in the Cook Inlet basin, gas pools in the Beaver Creek unit "are comprised of discontinuous sand lenses that were deposited in a

braided to meandering stream environment and thus there is little lateral continuity between individual sands within the defined gas pools."

Issue 'efficient development'

"Information gathered since 1988 demonstrates that the existing well spacing requirements for the Sterling and Beluga Gas Pools prevent efficient development" of the Beaver Creek unit, the commission said.

In a June 18 ruling the commission said it will not restrict gas well spacing in the Sterling and Beluga gas pools, "except that no pay shall be opened in a well within 1,500 feet from the exterior boundary of the Beaver Creek Unit where owners and landowners are not the same on both sides of the line," protecting correlative rights.

Spacing for the Beaver Creek oil pool remains at 40 acres, as established in 1988, along with the restriction of no wellbore within 660 feet of the nearest open wellbore and no wellbore within 500 feet of the Beaver Creek unit boundary where owners and landowners are not the same on both sides of the line.

Vertical expansion

The commission has approved two other recent

changes at Beaver Creek.

In March it approved a Hilcorp request to produce a single gas well closer than 1,320 feet from the nearest wellbore and said in its order that the well would "recover reserves that are not accessible to existing development gas wells" and that development of the well was "consistent with sound engineering and geoscience principles."

In April the commission approved a vertical expansion of the Beluga gas pool, based on revisions Hilcorp made to geologic and reservoir description which identified "productive and potentially productive sands" within the Beluga but between the Sterling and Beluga gas pool as defined in the 1988 pool rules for the field.

In its application for the vertical expansion Hilcorp said it plans up to six well workovers and eight new wells or sidetracks at Beaver Creek within the next few years. Hilcorp told the commission production at Beaver Creek peaked in December 1985 at 10,067 barrels of oil for the month and 1,588 million cubic feet of natural gas, dropping to 4,732 barrels of oil and 175 million cubic feet of natural gas in January 2014. ●

Contact Kristen Nelson at knelson@petroleumnews.com

• LAND & LEASING

Preliminary BIF out for Alaska Peninsula

Division of Oil and Gas more positive about petroleum potential based on work done by DGGS and DO&G since first BIF in 2005

By KRISTEN NELSON
Petroleum News

The Alaska Department of Natural Resources, Division of Oil and Gas, has issued a preliminary best interest finding for proposed Alaska Peninsula areawide oil and gas lease sales from 2015 through 2024.

The division has concluded that the Alaska Peninsula sale area "likely contains all the essential elements of petroleum systems," although there is uncertainty about whether those elements combined in a timely fashion "to create major economic hydrocarbon accumulations," a more positive conclusion than the division reached in the original 2005 best interest finding.

The Alaska Peninsula areawide sale covers some 4 million gross acres onshore and 1.75 million gross acres of offshore state waters, with 1,047 tracts from 640 to 5,760 acres on the north side of the Alaska Peninsula.

Bill Barron, director of the Division of Oil and Gas, has preliminarily found that holding the Alaska Peninsula areawide oil and gas lease sales from 2015-24 is in the best interest of the state. Comments on the preliminary finding are due Aug. 29; a final best interest finding will be issued at least 90 days before a lease sale is held in 2015.

The decision also includes a preliminary finding that potential benefits of the exploration phase outweigh possi-

ble negative effects.

Significant new oil and gas information

The decision says that significant new information on the petroleum resource potential of the Alaska Peninsula has become available since the previous best interest finding was issued in 2005.

The new information is the result of several years of "integrated field and subsurface research" in the region led by geologists from DNR's Division of Geological and Geophysical Surveys and the Division of Oil and Gas.

The division said an estimated mean undiscovered, technically recoverable onshore estimate for Alaska Peninsula resources by the U.S. Geological Survey in 1996 of 9 million stock tank barrels of oil and 188 billion cubic feet of natural gas was based "on very little data." The division said that its staff, having participated in field and subsurface petroleum systems research in the area, "are of the opinion that future resource assessments, if informed by a robust, regionally extensive grid of modern seismic data, would likely result in much higher estimates of undiscovered oil and gas."

In its 2005 best interest finding the division said, "Hydrocarbon potential for the northern coastal plain between Becharof Lake and a narrow strip of coastline opposite Cold Bay is expected to be moderate to locally

high for gas, and low to moderate for oil."

Previous exploration

The Alaska Peninsula was first explored in the early 1900s, the division said, with the first wells drilled on the southeast side near active oil and gas seeps. From the late 1950s through the early 1980s, exploration shifted to the northwest side of the Alaska Peninsula. In all, 35 exploration wells were drilled, 11 within the sale area.

The state offered its first areawide sale on the Alaska Peninsula in 2005 and received bids on 37 tracts, 33 from Shell Offshore Inc. and four from Hewitt Mineral Corp. All these tracts were in the Nelson Lagoon, Herendeen Bay and Port Moller areas.

Hewitt Mineral acquired one tract in 2007, southwest of Herendeen Bay, adjacent to their other acreage.

All these leases were relinquished, in 2008 by Shell and in 2010 by Hewitt.

The state has received no bids on Alaska Peninsula tracts since 2007.

The division said nearly all wells in the area had at least modest shows of oil and gas, but there have been no commercial oil or gas discoveries or sustained production from state lands on the peninsula. ●

Contact Kristen Nelson at knelson@petroleumnews.com

AIR LIQUIDE

WELDING SUPPLIES

Lincoln Stoody Mathey	Miller Tweco ESAB & Victor Gas Equipment	Milwaukee Thermal Norton
-----------------------------	---	--------------------------------

CYLINDER GASES
Industrial, Blueshield Productivity Mixes, Medical and Specialty
Cylinders for rent, lease, and purchase

BULK LIQUID GASES
Oxygen, Nitrogen, Argon, Carbon Dioxide, and Dry Ice

Toll Free 800 478.1520

Anchorage - 6415 Arctic Blvd. • 907 562.2080
Fairbanks - 2089 Van Horn Rd. • 907 452.4781
Homer - 1104 Ocean Dr. #3 • 907 235.0693
Kenai - Mi. 15.1 Spur Hwy. • 907 283.7141
Wasilla - 301 Centaur Ave. • 907 376.6000

korbana®
Protective Apparel

- Designed for Alaska's North Slope
- Unbeatable Quality
- Mens & Womens FRC
- Superior Technology
- Preferred Comfort
- Market-Proven Performance
- Designed in Anchorage Built in Kentucky
- NFPA 2112 Certified Fabrics

korbana.com Made in U.S.A.

Alaska Textiles

WHEN IT COMES TO SAFETY...
THE PROVIDER MATTERS

- Alaska's Largest FRC Inventory
- 30,000+ Items Ready for Quick Ship
- Industry Leader
- Proven Performance

THAT'S WHY SO MANY COMPANIES CHOOSE
ALASKA TEXTILES FOR THEIR FRC NEEDS

alaskatextiles.com (907) 265 - 4880



Appleby joins URS as environmental planner

URS Corp. said that Elizabeth Appleby has joined its team as an environmental planner with eight years of professional experience, including two years spent in Alaska. She recently earned a Master's Degree in environmental planning from the University of Minnesota after previously completing a B.S. in biological aspects of conservation at the University of Wisconsin-Madison. Appleby has been a valuable asset to URS as a department intern since June of 2013 and continues to assist with multiple projects in her new permanent position.



ELIZABETH APPLEBY

CGG and Sovcomflot announce Arctic joint venture

CGG, world leader in geoscience, and Sovcomflot, Russia's largest energy shipping company, have signed an agreement to form a joint venture company dedicated to conducting high-end 3D marine seismic acquisition services with a focus on Arctic and sub-Arctic waters.

The joint venture, to be called Arctic Geophysical Exploration, will be 51 percent owned by Sovcomflot and 49 percent owned by CGG. The company will be incorporated in Russia with its headquarters in Moscow. Under the terms of the agreement, CGG will charter a 14-

streamer ice-class vessel while Sovcomflot will add the capabilities of an eight-streamer ice-class vessel.

The primary aim of the joint venture company is to offer world-class 3-D marine seismic acquisition services to operators during the Arctic navigation season. In addition, the new company will offer its highly advanced vessel capabilities to the international market for the remainder of the year while benefiting from access to the most advanced seismic technologies from CGG's worldwide operational and technical support.

CGG and Sovcomflot will have a combined total of four vessels scheduled to operate on client projects during the 2014 Arctic navigation season and expect the joint venture to be fully operational by fourth quarter 2014 in order to capture the growing 3-D seismic market in this region.

The primary aim of the joint venture company is to offer world-class 3-D marine seismic acquisition services to operators during the Arctic navigation season.

Editor's note: All of these news items — some in expanded form — will appear in the next Arctic Oil & Gas Directory, a full color magazine that serves as a marketing tool for Petroleum News' contracted advertisers. The next edition will be released in September.

Companies involved in Alaska and northern Canada's oil and gas industry

ADVERTISER	PAGE AD APPEARS	ADVERTISER	PAGE AD APPEARS	ADVERTISER	PAGE AD APPEARS
				A	
Acuren USA		Delta Leasing			
AECOM Environment		Denali Industrial			
Aggreko LLC		Dowland-Bach Corp.			
Air Liquide	11	Doyon Anvil			
Aircraft Rubber Mfg. (ARM-USA)		Doyon Drilling			
Alaska Air Cargo		Doyon, Limited	9		
Alaska Analytical Laboratory		Doyon Universal Services			
Alaska Clean Seas (ACS)		Egli Air Haul			
Alaska Communications		Engineered Fire & Safety			
Alaska Dreams		Expro Americas LLC			
Alaska Marine Lines		ExxonMobil			
Alaska Railroad	16	F. Robert Bell and Associates			
Alaska Rubber		Fairweather			
Alaska Steel Co.		Five Star Oilfield Services			
Alaska Textiles	11	Flowline Alaska			
Alaska West Express		Fluor			
All Pro Alaska		Foss Maritime			
Alpha Seismic Compressors		Fugro			
American Marine	8			G-M	
Arctic Controls		GBR Oilfield Services			
Arctic Foundations		GCI Industrial Telecom			
Arctic Slope Telephone Assoc. Co-op.		GCR Tires & Service			
Arctic Wire Rope & Supply		Global Diving & Salvage			
ARCTOS		GMW Fire Protection			
Armstrong		Golder Associates			
Aspen Hotels		Greer Tank & Welding			
ASRC Energy Services		Guess & Rudd, PC	4		
AT&T		Hawk Consultants			
Avalon Development		HDR Alaska			
		IFR Workwear			
		Inspirations	5		
		Ironclad Co.			
		Judy Patrick Photography	6		
		Kakivik Asset Management LLC			
		Kenworth Alaska			
		Kuukpik Arctic Services			
		Last Frontier Air Ventures			
		Lister Industries			
		Little Red Services, Inc. (LRS)			
		Lounsbury & Associates			
		LW Survey			
		Lynden Air Cargo			
		Lynden Air Freight			
		Lynden Inc.			
		Lynden International			
		Lynden Logistics			
		Lynden Transport			
		MagTec Alaska			
		Mapmakers of Alaska			
		MAPPA Testlab			
		Maritime Helicopters			
		M-I Swaco			
		Miller Energy			
		Motion Industries	10		
				N-P	
				Nabors Alaska Drilling	
				Nalco	
				NANA WorleyParsons	
				NASCO Industries Inc.	
				Nature Conservancy, The	
				NEI Fluid Technology	
				NMS Lodging	
				Nordic Calista	
				North Slope Telecom	
				Northern Air Cargo	
				Northern Electric Inc.	
				Northrim Bank	7
				Northwest Technical Services	
				Oil & Gas Supply	
				Opti Staffing Group	
				PacWest Drilling Supply	
				PENCO	8
				Pebble Partnership	
				Petroleum Equipment & Services	10
				PND Engineers Inc.	
				Polyguard Products	
				PRA (Petrotechnical Resources of Alaska)	
				Price Gregory International	
				Remote Access Technology (RAT)	
				Resource Development Council	
				Ravn Alaska (formerly Era Alaska)	
				Q-Z	
				SAExploration	
				Security Aviation	
				Shell Exploration & Production	
				Sophie Station Suites	2
				Sourdough Express Inc.	
				STEELFAB	
				Stoel Rives	
				Taiga Ventures	
				Tanks-A-Lot	
				TEAM Industrial Services	
				The Local Pages	
				Think Office	
				Total Safety U.S. Inc.	
				TOTE-Totem Ocean Trailer Express	
				Totem Equipment & Supply	
				TTT Environmental	
				Udelhoven Oilfield Systems Services	
				UMIAQ	
				Unique Machine	
				Univar USA	7
				URS Alaska	
				Usibelli	
				Verizon	
				Vigor Alaska	
				Weston Solutions	13

All of the companies listed above advertise on a regular basis with Petroleum News

continued from page 3

HUGGINS Q&A

committee chairs for comment, but with oil taxes that seems to be different. You've even taken to social media. What's changed?

Huggins: Well, number one it's not naturally my style. No, two just because you don't see it in the social media doesn't mean I'm not circulating and talking to people. I'm one of those people who are confident Vote No is going to prevail. The only question is what the margin is going to be. It's one thing to hype that it's a \$2 billion giveaway and on and on and on. It's another thing when people start hearing the facts and the variables and the consequences. They recognize the traits of ACES and they recognize the traits of SB 21.

It's interesting to me that some of the people who were big ACES supporters and huge TransCanada supporters like Hollis French as an example. I heard him talk about maybe we need to look at a different partner than TransCanada when he was a big supporter of them during the AGIA process. Now that's it's a different venue and he's not more integral to the development on the LNG project he appears to be critical of them. That's way too much politics for me.

Petroleum news: So what do you like about the new tax system we are under?

Huggins: Number one, it's like any problem solving equation. You have to identify the problem. And the problem was when you looked at the construct of ACES, the incentives and credits, you could go out and spend — and a lot of it was infrastructure renewal, which was important — but what we needed was exploration, development and infrastructure renewal. You could see the investment the state needed to get those kinds of things wasn't happening. Quite frankly the producers are smart people. They recognized what the traits of ACES were and they leveraged it to their advantage. They could make their money and do infrastructure renewal.

In the last year of ACES being in effect, we had a decline rate of 8 percent. The momentum of production descending is alarming. In SB 21, and I'm sure you could make a case that it's not perfect, but low and behold if you look at the traits of it, it projects us on the low side. Now we are going to additional production, but I would just ask Alaskans to keep in mind the gold pot at the end of the rainbow for Alaska is OCS (the outer continental shelf).

Whatever we are doing now in stemming decline and increasing production, what we should be thinking about is OCS and how important that is for us in the future. You have to assume there will be revenue sharing and a significant amount will go through a pipeline. I always believed that some of it will go on ships. That's must my opinion.

One of the things that disappoints me is when I heard radio commentary and read news accounts of people who are yes on repeal of SB 21 suddenly want to defame former Gov. Tony Knowles. To be quite frank, I don't see eye-to-eye with him on a number of issues, but (Knowles) having been mayor and having been governor, well that really disappointed me. When I see people stooping to that sort of desperation, that gave one of the bigger boosts to the Just Say No to Prop 1 side than you could have gotten. People don't like that. I don't like that. It makes me angry. You don't have to attack people personally. It's sad. People talk about being tolerant of the other people's perspective.

"The number one trait, in my estimation of SB 138 is the fact that Exxon is exuberantly excited about this. Number two is the other two producers are on board." —Senate President Charlie Huggins

Petroleum News: Some of your own caucus colleagues still believe SB 21 went too far, not calling it a giveaway but still too far in favor of the industry.

Huggins: I have confidence in SB 21. It's been in effect for less than a year. You're only basing experience on half a year. My assumption is SB 21 produced as much revenue, if not more revenue than ACES would have. The difference is we have additional rigs exploring and we have the expectation of increased production. I am fully confident that the job growth has been good for Alaska under SB 21. For those who talked about the job growth under ACES, I guarantee you there is more job growth under SB 21 than under ACES. Guarantee you.

Petroleum News: If the repeal does pass, what's next?

Huggins: I haven't really thought about that. I'm fully confident the repeal will pass. What's sad is we do know that we will be back under ACES. I don't know anybody, even the most fervent supporter of ACES, who won't sit and tell you that ACES doesn't need to change. So to repeal back to something that nobody in the Legislature supports is an odd way to do business. I've talked to (Hollis) French; I've talked to (Bill) Wielechowski; I've talked to Les Gara. It needs to be changed. It wasn't in the form of change that some of the people thought it needed. That's the

way life is. We had a vote. They lost. We won.

Petroleum News: You talked about OCS oil production being our future. The Legislature has been very active on Arctic issues. How do you feel about the way the Legislature has advanced Alaska's position on Arctic development?

Huggins: there will be a report out from the Arctic commission. I've talked to Sen. McGuire (Arctic Policy Commission co-chair) and others members of the House, but let's be blunt our obstacle on OCS is the federal government. I'm not confident under the present regime — and this is one of my biggest disappointments in Mark Begich. He created expectations that he was going to help Alaska get into some areas that had been off limits. Shell as you know is not drilling in 2014. Neither is ConocoPhillips. Who knows what Repsol is going to do, but they are not drilling in 2014. If you looked across the way in Russian waters, they have some activity going on. So our federal government is our number one obstacle and we need some help in that.

Petroleum News: There was also the federal court driving the delays, so do you see this as the judicial branch throwing up roadblocks or the executive branch?

Huggins: It's all of the above if it's external to the state of Alaska. I'm hearing news accounts whereby some of the outer continental shelf is being put off limits. We have to be frankly honest with ourselves. Our president and many of his supporters are counter to what Alaska needs.

Petroleum News: From a macro view, taking all these under consideration, many of your colleagues believe these last two years could be among the most pivotal in oil and gas development. What are your thoughts on that?

Huggins: I agree. Hopefully, a majority of the people in Alaska recognize where the revenue comes from: oil. And where 30 percent of the jobs come from and you have descending production and questioning the viability of TAPS. They need to see all of that. I think SB 21 facilitated the LNG project. That's the other part. That's another leg under the stool of the viability of the state of Alaska. We continue to re-inject gas into the ground. With Point Thomson coming into production, the condensates there are very, very valuable. We have Exxon in the lead on this project; I'm just excited. ●

Contact Steve Quinn at squinnwrite@gmail.com

SUBSCRIBE to Petroleum News

Don't miss another issue, call: **907 522.9469**

No one understands Alaska better.

LOCAL TEAMS SOLVING LOCAL CHALLENGES WITH A GLOBAL PRESENCE.

Project Design and Management • Regulatory Expertise • Incident Response • Construction Oversight • Habitat Restoration



Contact: Bob Hunter • 907.276.6610 • www.westonsolutions.com

Providing integrated environmental and engineering solutions for the oil and gas industry



VFWpost9981@aol.com | www.VFWpost9981.org



VFW POST 9981 12870 Old Seward Hwy., Suite 109, Anchorage, Alaska 99515

As Commander of Post 9981 you are invited to visit the Post in supporting our efforts in helping our Veterans of Anchorage. Please feel free to come by and we will sign you in as a guest at any time. You may be eligible to join as well! We have Friday Steak Night with entertainment to follow. We also have many special events that support our cause in serving our Veterans.

Steve Hubbard – Post 9981 Commander | 907-770-5095 (Post) | 907-382-6506 (Cell)

● EXPLORATION & PRODUCTION

Endicott field still shows some kick

By WESLEY LOY

For Petroleum News

The BP-operated Endicott oil field on Alaska's North Slope has been producing since 1987.

While the field peaked years ago, the old dog can still hunt.

That's that sense you get from reading BP's latest annual progress report and plan of development for the Duck Island unit, which includes the Endicott reservoir.

The document, submitted on May 1 to the state Division of Oil and Gas, surely will be of interest to Hilcorp, the Houston-based independent poised to take over as operator of Endicott as part of a pending deal to purchase a package of North Slope assets from BP.

A well workover program was completed in 2013 in Endicott, BP said, adding that the owners intended to continue monitor-

ing reservoir performance with an eye toward additional drilling opportunities.

Endicott production is based on an artificial island about three miles offshore in the Beaufort Sea. A causeway connects the 45-acre island to the mainland.

BP has called Endicott the first continuously producing offshore field in the Arctic.

Discovered in 1978, the field reached its peak production of 118,000 barrels per day in the early 1990s.

Over their lifetime, Endicott and related pools have produced more than 477 million barrels of crude oil, state figures show.

Endicott's oil-bearing rocks lie in the Kekiktuk formation, a shale and sandstone formation similar to the Sadlerochit in the giant Prudhoe Bay field nearby. The oil column is about 10,000 feet down.

BP currently owns about 68 percent of Endicott field, with ExxonMobil holding

21 percent and Chevron almost 11 percent.

BP says its average net production from Endicott in 2013 was about 5,000 barrels of oil equivalent per day.

Hilcorp has a reputation for reviving mature fields, and Endicott would seem an ideal challenge for the company.

The Duck Island unit has a number of participating areas including Endicott, Eider and Sag Delta North, plus the Minke tract operations.

BP, in its progress report and plan of development for the coming year, said no drilling activity occurred in the Endicott participating area in 2013.

However, rig workovers were completed on three Endicott wells. And a planned maintenance event took place in 2013 to update water and gas injection systems.

Historically, BP has enhanced oil recovery by injecting water into the Endicott reservoir. It also has used a technique

called miscible water-alternating-gas flood.

Engineering studies are under way to evaluate the initiation of gas cap water injection at Endicott, BP's development plan says.

"The Endicott owners will continue to monitor production trends of oil, gas and water for all producing wells, and maintain reservoir pressure through gas and water injection," the plan says.

In the Eider participating area, BP in recent years has made significant moves with two wells.

In 2013, the Ivishak formation in the Eider No. 1 well was isolated due to high water cut and perforations were added to begin production from the Sag River formation. In 2009, the Eider No. 2 well was sidetracked to the Minke target. ●

Contact Wesley Loy
at wloy@petroleumnews.com

continued from page 1

INSIDER

But now, Browne is saying a great deal in a candid new book, "The Glass Closet: Why Coming Out is Good Business."

He discusses lingering homophobia in business, and why corporations are begin-

ning to embrace change.

The Cambridge-educated Browne also writes colorfully about the start of his BP career, working on Alaska's North Slope.

"My double life began in Anchorage, Alaska, in 1969," Browne writes. "I spent my first weeks in a dump of a hotel with walls so thin that you could not help but

get to know the other guests. The city was recovering from an earthquake, which had destroyed much of the downtown area.

You could still see that a large amount of the city centre had just sunk away. There was a street of bars where people would get beaten up and occasionally shot. Even so, they would go there nightly to drink. At one of the bars of choice, the management covered the floor in peanut shells so that you would make a crunching sound with every step. People danced on pianos.

"Amid all this commotion, I started my first job, assisting with the flow testing of exploration wells. The men with whom I worked were big and burly and came from Texas and Oklahoma. They could have passed for escaped convicts. In the many hours we spent in the frozen north waiting

for the next thing to do, I began to develop a method of hiding my personality. It was a matter of behaving completely normally and not rocking the boat. I was polite and helpful. I was twenty-one but looked all of seventeen. I was not only the youngest person on the team but also a foreigner, so people generally wanted to support me. Whenever anyone asked if I had a girlfriend, I would say 'yes' and that was that."

The publisher is HarperCollins.

These days, Browne is a partner at Riverstone Holdings, an energy investment firm.

—WESLEY LOY

Contact Wesley Loy
at wloy@petroleumnews.com

GOVERNMENT

More time for critical habitat rule comments

The U.S. Fish and Wildlife Service has announced that it is extending the public comment periods for two proposed new rules and a new policy, designed to improve the process for designating areas of critical habitat for animals listed under the Endangered Species Act, or ESA. The comment periods were due to close on July 11 but have been extended to midnight on Oct. 9.

The proposed rules revise the definition of what is meant by "adverse modification," a concept used in assessing the potential impact of an action on an area of critical habitat. Essentially, a planned activity that involves a federal agency in some way, through for example a federal permitting requirement, and that may impact the critical habitat of an ESA-listed species, must not cause an adverse modification to the habitat. The rules would also clarify the procedures and standards used for designating critical habitat, Fish and Wildlife said.

"The proposed policy would provide greater predictability, transparency and consistency regarding how the services consider exclusions from critical habitat designations under section 4(b)(2) of the ESA," Fish and Wildlife said.

—ALAN BAILEY

continued from page 4

MILLER FOCUS

Miller and its founder, Deloy Miller, have a long history of oil and gas operations in eastern Tennessee. But Tennessee wells account for only a minor percentage of the company's overall production.

"While we still believe Tennessee has significant growth potential, our capital is

clearly better allocated to our Alaskan operations and the investment opportunities that exist there," Boruff said.

Company executives did not specify when they hoped to complete the Tennessee divestiture, or who might be interested in buying the assets.

Successful sidetrack

Miller announced it brought a new sidetrack online June 7 in the West McArthur River unit, and the well tested at about 630 barrels of oil equivalent per day with a water cut of 63 percent.

The well, known as WMRU-2B, was sidetracked at around 7,000 feet from the unused, nonproducing WMRU-2A wellbore, which had been shut-in since 2001, Miller said. The new sidetrack was drilled to a final measured depth of 14,470 feet with the Patterson-UTI 191 drilling rig.

The sidetrack has increased fieldwide West McArthur River unit production by more than 50 percent, and the initial production rate is "substantially above what we originally anticipated," said David Hall, Miller's point man in Alaska.

"Our team has done a great job of transforming the WMRU-2B from a backup disposal well into a substantial revenue generator for Miller," Boruff said.

The Patterson rig was relocated to the West Foreland gas field, where the WF-3 well has been spudded and drilled to 8,200 feet, Miller said. The planned final depth is 13,500 feet, with the Tyonek gas sands being the primary target.

—WESLEY LOY

Contact Wesley Loy
at wloy@petroleumnews.com

Where the road ends...
Our Work Begins



We can get your drill rig and project materials to any remote location, build ice pads and ice roads, and provide logistics support for the duration of the project.

From preliminary site work to successful finish, we are a partner who can deliver what you need, when and where you need it.

Anywhere you need it. Any season of the year.



cruzconstruct.com
Main Office (907) 746-3144
North Slope (907) 659-2866

continued from page 1

CALL TO ARMS

rallies wherever he speaks and wherever he visits,” Phillip told hundreds of protesters in downtown Vancouver, describing the upcoming battle to stop the pipeline and protect the environment as “the fight of a lifetime.”

Balance of approvals shifts

A news release signed by 31 First Nations and aboriginal groups said they “will immediately go to court to vigorously pursue all lawful means to stop the Enbridge project.”

So far three, along with two environmental groups, have launched cases in the Federal Court of Appeal and another seven appellants are expected to start actions.

With that Phillip and his compatriots have upended 60 years of regulatory approvals in Canada for energy pipelines — a process that was ruled by the economic and engineering aspects of a proposal, more recently expanded to include the social and environmental impacts.

The balance of power has tilted dramatically to passion, legal test cases and raw politics over the last 15 years, starting with a Supreme Court of Canada ruling that requires government and companies to consult with First Nations on resource development projects.

Three lines at brink

The aboriginal communities have indirectly aligned themselves with well-funded environmental and non-government organizations that have pushed three major pipelines to the brink of extinction — Northern Gateway, TransCanada’s Keystone XL and the Mackenzie Gas Project — all of which were gummed up in regulatory wrangling.

Northern Gateway has now been before regulators (including the Canadian government) for four years, which is longer than it took in the early 1950s to plan, build and activate the original Trans Mountain line from Edmonton to

Vancouver, which is now facing a replay of the Northern Gateway ruckus as it applies to triple capacity to 890,000 bpd.

The understanding within the Harper administration of what lies ahead for Northern Gateway and its own political future was captured in how the government chose to endorse the findings of a Joint Review Panel, JRP, drawn from the National Energy Board and the Canadian Environmental Assessment Agency.

Harper’s crusade to open world markets for Canada’s energy and his overhaul of regulatory legislation to give his cabinet an enhanced role in approving projects, now lies in tatters.

After taking six months to ponder the JRP’s recommendations, the government merely rubberstamped two years of regulatory work and signed off on the panel’s 209 conditions.

Enbridge must meet conditions

Harper said the government based its decision on the JRP’s findings and it’s now up to the “proponent” — he never mentions Enbridge by name these days — to meet those conditions.

“The government is acting on the advice of an independent, scientific panel that thoroughly reviewed these matters. The government has applied the conditions demanded by that panel,” he said under a barrage of questions in the House of Commons.

“The government has to base its findings on the facts and on the hearings as they transpired.”

Natural Resources Minister Greg Rickford made only one minor observation in his prepared statement.

“The proponent clearly has more work to do in order to fulfill the public commitment it has made to engage with aboriginal groups and local communities along the (pipeline) route,” he said.

Neither Rickford, nor government Members of Parliament (notably the 21 from British Columbia whose jobs are now on the line in the October 2015 federal election), made an appearance to explain their position or answer questions.

Effectively, the government tossed the

The sale would also include the farm-out Buccaneer previously made on the deep oil rights at the five leases at the ConocoPhillips-operated North Cook Inlet unit.

Buccaneer still owns six leases at the terminated West Eagle unit in the southern Kenai Peninsula, although four expire on Oct. 1. (The other two expire in March 2018).

The sale would also cover a scattering of leases across Cook Inlet, including one at the West Nicolai prospect, set to expire in March 2018; one at the former Northwest Cook Inlet unit, set to expire in February 2018; four at the former Southern Cross unit (two of which Buccaneer owns only 50 percent working interest), set to expire in October 2014; and an overriding royalty interest on seven leases at the Cosmopolitan prospect.

The sale also includes six wells. Those are the four wells at the Kenai Loop field (the producing Kenai Loop No. 1-1 and No. 1-3, the Kenai Loop No. 1-2 disposal well and the Kenai Loop No. 1-4, which is shut-in due to the legal dispute at the field), and the plugged and abandoned West Eagle No. 1 and Southern Cross No. 1 wells.

So far, the sale advisor, Global Hunter Securities LLC, has already started marketing the assets to “a targeted group of interested parties,” according to a June 20 filing. ●

Contact Eric Lidji
at ericlidji@mac.com

issue back in Enbridge’s lap, prompting many to suggest that Harper is trying to distance himself from Northern Gateway as the lead project to achieve his cherished goal of making Canada an energy superpower.

Low-key view from Enbridge CEO

Even Enbridge Chief Executive Officer Al Monaco, in a conference call, offered a low-key view of the odds for Northern Gateway.

Before a sanctioning decision can be made “we need to undertake a few more steps over the next 12 to 15 months, including satisfaction of the Joint Review Panel conditions.”

“As we move through that, we will be continually evaluating where we are on the project and, at some point, when we get satisfied one way or the other, we will make that call. That’s not today,” he said.

Without using the same language, Monaco’s phrasing sounded like an echo of corporate comments in the dying days of the Mackenzie Gas Project, the C\$16 billion plan to ship natural gas from the Northwest Territories to southern Canadian and U.S. markets — a scheme that first got bogged down in a protracted regulatory process, then overtaken by the rapid emergence of shale gas.

Monaco would not assign a timeline or cost to Northern Gateway, other than conceding that the 2010 estimate of C\$6.5 billion will be “significantly higher.”

Steven Paget, an analyst with FirstEnergy Capital, said Northern Gateway’s capital cost would add only 20 percent to Enbridge’s current lineup of projects and is not included in the company’s target of holding assets valued at C\$80 billion by 2017.

Monaco echoed that lukewarm assessment by noting that Enbridge is not counting on Northern Gateway to sustain its

growth beyond 2017.

Regulatory phases by late 2018

He said the company still hopes to complete the regulatory phases, including the approval of federal and provincial permits, by late 2018, but added “we are taking the project one step at a time.”

Enbridge holds 50 percent of the Northern Gateway limited partnership, with the rest belonging to 10 oil sands producers, including France’s Total, Suncor Energy, MEG Energy, Cenovus Energy, Nexen (a unit of China National Offshore Oil Co.), Sinopec and four others who have not been publicly identified.

Suncor Chief Executive Officer Steve Williams conceded there is “hard work ahead” for the project, while Cenovus said it was confident Enbridge would “work with landowners and aboriginal communities along the route to ensure this project meets the highest safety and environmental standards and supports working families and people in the area.”

Enbridge, which says it has been approached by 25 First Nations interested in securing pipeline-related business contracts, has repeatedly claimed that 15 of 18 Alberta First Nations and 11 of 22 in British Columbia — all of them with land on the right of way — are ready to take an equity stake in Northern Gateway. But neither Enbridge nor the First Nations have disclosed who they are.

From the sidelines, Canadian Natural Resources, which operates the Horizon oil sands project, is not a contracted shipper on Northern Gateway, although President Steve Laut views Northern Gateway, along with the Trans Mountain expansion, Keystone XL and Energy East as important to Canada’s economic well-being. ●

Contact Gary Park through
publisher@petroleumnews.com



Young minds are the key to Alaska’s future.

At Alaska Resource Education, our mission is to educate students and teachers about Alaska’s natural resources and how our mineral, timber and oil and gas resources are used everyday. By supporting resource education you are ensuring Alaska’s resource industry continues to be a healthy part of our economy and help provide for the next generation. With your help, we can inspire young minds and ignite an interest in Alaska and its resources.

The learning process never ends.
Donate now. Visit our website today!



907 276 5487 www.akresource.org

continued from page 1

NUNA PROJECT

onshore tie-in between Oooguruk and the neighboring Kuparuk field infrastructure.

In April Jim Musselman, Caelus president and CEO, told Petroleum News that Caelus was engaged in activities such as engineering for Nuna and planned to start laying gravel and doing other site work in the fall.

“We’ve got the funds committed and we’re moving forward as quickly as we can,” Musselman said.

Caelus has estimated a total development and drilling cost of around \$1.4 billion for the project, with the possibility of first oil flowing in the third quarter of 2016.

Online in 2008

The Oooguruk field, which came online in 2008, has production facilities on an artificial gravel island in the nearshore waters of the Beaufort Sea. Pioneer Natural Resources Alaska developed the field but has sold the field to Caelus, with a sale completion date of April 15, 2014.

The field has three distinct oil reservoirs at different levels in the subsurface: the Nuiqsut, the Kuparuk and the Torok. Initial production focused on the Kuparuk and the Nuiqsut. Some production from the Torok started in 2010. But, with the Torok, the shallowest of the reservoirs, extending well south of the production island, full development of this reservoir requires an onshore well pad. The Nuna project targets the Torok, with the onshore pad a key element of the project design.

In its new plan of operations, the first that it has filed as field operator, Caelus

said that Pioneer had already conducted some activities in preparation for the Nuna development, including some environmental studies and conceptual engineering. Pioneer also added three leases to the Oooguruk unit, the plan says.

Field upgrades

The plan also says that in the past year Pioneer had completed a number of upgrades to the existing field facilities, including the installation of new lift gas heating capacity; the replacement of some pipelines in the drilling mud system; and the installation of a new supply line for water injection for well fracture stimulations. Maintenance activities included “smart pigging” of some oil and water flowlines; replacement of worn piping and valves; and general mechanical integrity inspection of piping and safety systems. Pioneer also directed engineering activities aimed at optimizing processes, including produced water handling and the supply of injection water, the plan says.

Well remediation work has included the repair of electric submersible pumps and the maintenance of a disposal well.

Reservoir management

In terms of field reservoir management in the past year, Pioneer expanded operations involving the injection of water into the Nuiqsut while continuing the injection of gas for enhanced oil production from the reservoir, the plan says. Similar operations were started in the Torok reservoir. Waterflood was used in the Kuparuk reservoir, using two primary injection wells and with strong performances from two horizontal production wells. Another Kuparuk

production well, the first to go into operation when the field started up, has been shut in because of issues relating to water production, the plan says.

A program designed to trace the passage of water in the reservoir, enabling the evaluation of options for improved oil recovery using waterflood, continues in the Kuparuk, the plan says.

Nuiqsut development

Continuing development in the Nuiqsut is focusing on horizontal drilling in a fault block in the northwestern portion of the reservoir, although a well was also drilled to the southwest. Four wells drilled during the winter of 2014 were hydraulically fractured and have recently demonstrated the highest initial oil flow rates yet seen in the Nuiqsut, the plan says. A new injection well was completed in the northwestern fault block. And stimulation of four existing injection wells improved their performances.

Some production and injection surveillance work was conducted in Nuiqsut wells. Updates to reservoir simulation models will assist in reservoir management, the plan says.

In the portion of the Torok accessed from the Oooguruk island, production continues from two horizontal fracture-stimulated wells, while a third production well has been shut in for repair. One injection well is performing effectively, while a second injector had to be shut in to accommodate a drilling operation, the plan says.

Five wells planned

Caelus anticipates drilling five new Nuiqsut horizontal wells during the 12-

month duration of the new plan, the plan says. No new wells are planned on the production island for the other reservoirs, although there may be five well recompletions. One of the new Nuiqsut wells will target the southwestern part of the reservoir, two will be sidetracks to existing wells, one will be an injection well and one will be an appraisal well in the southern part of the reservoir.

Caelus says that it also anticipates further optimization of the waterflood operations in the Kuparuk reservoir; an expansion of the enhanced oil recovery operation in the Nuiqsut; and continuing enhancement of oil recovery in the Torok.

But, although gas injection is desirable for enhanced oil recovery in both the Nuiqsut and the Torok, only limited volumes of gas are available for this purpose, with the availability of gas being dependent on the acquisition of an adequate gas supply from a third party, the plan says.

Planned upgrades

Caelus says that it anticipates using a planned field shutdown in September to make some minor facility upgrades. Additional maintenance work during the period of the new plan will include some further pigging of a water flowline. And Caelus will continue to endeavor to optimize production and water injection operations, the plan says.

Caelus also plans to continue geologic and geophysical analyses to assess development opportunities in acreage outside current development areas and at various geologic horizons, the plan says. ●

Contact Alan Bailey
at abailey@petroleumnews.com

continued from page 1

LANCE ON LNG

probably only capture some 40 percent.

Lance’s talk was entitled “The U.S. Oil & Gas Renaissance — Alaska’s Role,” and he said the development of natural gas from North American shale plays has resulted in such an increase in natural gas production in North America that by 2016 supply will exceed demand, enabling LNG exports.

Even with the growth in Lower 48 and Canadian gas production, Alaska has advantages in selling its LNG into the world market, he said: LNG has been exported from Alaska for more than 40

years; Alaska is closer to major Asian Pacific markets than competing projects; and buyers want diversity of supply.

“This LNG clearly represents an opportunity for the state,” Lance said, but for an Alaska project to compete, “it’s going to take reasonable supply cost and reasonable fiscal terms” because there will be competition for partners and projects, with 40 LNG terminals proposed to date just in North American, and more around the world.

ConocoPhillips is partnering with BP, ExxonMobil, TransCanada and the Alaska Gasline Development Corp. on a North Slope LNG project. The Legislature passed enabling legislation in April allowing the

state to participate as a 25 percent equity owner by taking its royalty and its production tax on natural gas in kind.

Oil production

Lance cited passage in 2013 of the governor’s oil tax reform, Senate Bill 21, as encouraging new investment in oil production, as well as setting the stage for a North Slope LNG project.

SB 21 made investment in oil and gas projects in the state more attractive than it had been under the previous tax system, Alaska’s Clear and Equitable Share or ACES, and passage of the bill allowed focus back on the oil and gas industry in Alaska, Lance said. He said he hopes that

continues “because Alaska has a pretty important role to play in the U.S. energy renaissance that’s going on today.”

Under ACES, while investment grew elsewhere as oil prices rose, it stayed flat in Alaska and production continued to decline, Lance said.

“We have enormous remaining potential here in Alaska,” he said. “The legacy fields are still world-class resources” and technological progress allowing more of the oil to be produced will continue.

With the improvement in the fiscal climate following passage of SB 21, activity is picking up, Lance said, with ConocoPhillips’ Alaska 2014 budget of \$1.7 billion up 50 percent from 2013 and double the average from 2008-12.

Two rigs have been added to the Kuparuk fleet (ConocoPhillips is the Kuparuk operator) and the company has announced some \$2 billion in new projects, three of which are up for approval at the end of this year: a new drill site at Kuparuk; development of Greater Mooses Tooth 1 in the National Petroleum Reserve-Alaska; and viscous oil development at Kuparuk, the NEWS or Northeast West Sak project.


Asked whether ConocoPhillips has any interest in shale in Alaska, Lance said they continue to look at it, and said extending the limits at Alpine involves developing tighter and tighter rock. Some of the technology used at Alpine, Kuparuk and Prudhoe is some of the technology used in the Lower 48 to get oil out of tight rocks, he said.

Lance noted that there are people testing source rock in Alaska, trying to see if they can be made productive, but said “the source rock in Alaska does look different than what’s being successfully developed in the Lower 48, so time will tell if the technology” can make it productive in Alaska.

—KRISTEN NELSON

Contact Kristen Nelson
at knelson@petroleumnews.com

ALASKA RAILROAD



KEEP YOUR BUDGET & SCHEDULE
ON TRACK

Alaska Railroad’s Rail/Marine Service is one of the most affordable and efficient ways to transport resources, equipment and supplies. We can ship to and from anywhere in North America with no transloading, and no headaches. Visit AlaskaRailroad.com or call 800.321.6518 for more information.

EASY. AFFORDABLE. EFFICIENT.

