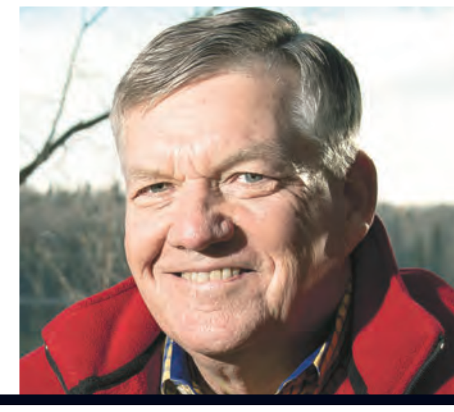
Petroleum news



page 5 Q&A: Huggins relieved at Shell permitting, sees oil & gas progress

Vol. 20, No. 35 • www.PetroleumNews.com *A weekly oil & gas newspaper based in Anchorage, Alaska* Week of August 30, 2015 • $2.50

This week's Mining News

NORTH OF 60 MINING news

page 10 Continued uptrend in gold price needed to jumpstart exploration

www.MiningNewsNorth.com *The weekly mining newspaper for Alaska and Canada's North* Week of August 30, 2015

NORTHERN NEIGHBORS

Compiled by Shane Lasley

AGNICO EAGLE MINES LTD.

After completing an initial 50,000 meters of drilling this year, Agnico Eagle Mines Ltd. has outlined 1.9 million ounces of gold at the Whale Tail deposit at Amaruq.

Amaruq resource expands, drilling continues

Agnico Eagle Mines Ltd. Aug. 20 provided an update on exploration at its Amaruq gold project in Nunavut, including an expanded resource of the project's Whale Tail deposit. A 50,000-meter drill program completed during the first half of 2015 resulted in an updated inferred resource of 9.7 million metric tons grading 6.47 grams per metric ton (2 million ounces) gold for Amaruq, a 35 percent increase in gold content since the end of 2014. Most of this resource – 9.1 million metric tons grading 6.56 g/t (1.9 million oz) gold – is located in the Whale Tail deposit. The company is continuing to explore Amaruq with a second 50,000-meter drill program initiated in July. At Whale Tail, this drilling has encountered an open-ended high-grade ore shoot that has yielded intersections of 6.7 g/t gold over 32.3 meters from a depth of 284 meters in hole AMQ15-310; and 10.4 g/t gold over 21.9 meters from a depth of 311 meters in hole AMQ15-330. Gold mineralization has been found in a gap between the Whale Tail deposit and the eastern part of Mammoth Lake, including 10.8 g/t gold over 6.9 meters in hole AMQ15-351; and 9.3 g/t gold over 4.2 meters in hole AMQ15-302. The company said that infill and deep exploration drilling continues to cut multiple intercepts of high-grade gold amenable to both open-pit and underground mining. Engineering and environmental baseline studies are underway to support the permitting process for Amaruq as a potential satellite to Agnico's Meadowbank mine, located about 50 kilometers (31 miles) to the southeast. The application to construct an all-weather access road between Meadowbank and Amaruq was filed in the first quarter of 2015.

Spectrum drilling exceeds expectations

Skeena Resources Ltd. Aug. 20 said the first six holes of its 12,000-meter drill program at the Spectrum gold-copper property in northwestern British Columbia has cut multiple high-grade intercepts. One of the best examples is S15-012 cut 10.59 grams per metric ton gold over 6.6 meters beginning at 102 meters, 25.27 g/t gold over 3.9 meters at 197.6 meters, and four meters grading 7.08 g/t gold at 234 meters; and S15-017, which cut 85 meters grading 9.79 g/t gold and 430 g/t silver starting at 103.2 meters, eight meters grading 10.46 g/t gold starting at 128 meters, and 3.6 meters grading 11.68 g/t gold starting at 157.4 meters. "The results from the first few holes have exceeded our expectations and demonstrate the potential of the deposit to deliver high-grade gold intercepts," said Skeena Chairman Ron Netolitzky. This year's 60-hole program at Spectrum is primarily focused on expanding the 500 Colour and Central zones and the information will be used to calculate an NI 43-101-compliant mineral resource by early 2016. Additionally, Skeena has

see **NORTHERN NEIGHBORS** *page 12*

STATE OF ALASKA

British Columbia Energy and Mines Minister Bill Bennett joined Alaska Lt. Gov. Byron Mallott and Alaska Fish & Game Biologist Jeff Williams on a trip up the Taku River, which flows from Northwest B.C. through Southeast Alaska near Juneau.

INTERNATIONAL RELATIONS

Trans-boundary bonds

Tough meetings with SE Alaskans lay groundwork for potential BC-AK MOU

By SHANE LASLEY

Mining News

British Columbia Energy and Mines Minister Bill Bennett spent the week of Aug. 23 working to build bonds with Southeast Alaskans worried about potential downstream effects of mining copper- and gold-rich deposits located in northwestern B.C.

Bennett's visit comes one year after a tailings dam burst at the Mount Polley Mine in central British Columbia, sending a deluge of mining waste and untreated water into the surrounding watershed. While the spill did not affect Alaska waterways, it stoked fears about the potential development of mines being planned at deposits located in watersheds that do run through Southeast Alaska.

At least six Northwest B.C. projects located upstream of Alaska – Brucejack (Pretium Resources), Kerr-Sulphurets-Mitchell (Seabridge Gold), Schaft Creek (Copper Fox Metals-Teck Resources), Galore Creek (Novagold-Teck), Kisault (Avanti Mining) and Tulsequah Chief (Chieftain Metals) – are currently in various stages of advanced exploration.

Alaska Lt. Gov. Byron Mallott, who is leading a trans-boundary working group that is tackling the northwestern B.C. mining issues on Alaska's behalf, took early steps to find a diplomatic resolution of tensions that have erupted over the issue. He met with Bennett and other provincial leaders during a trip to British Columbia in May.

"As neighbors, we have many things in common, and I want to strengthen the relationships we, Alaskans, have with British Columbia," Mallott said before his trip.

The lieutenant governor also toured the site of the tailings storage dam failure at the Mount Polley Mine during his B.C. trip.

Bennett's visit to Alaska is a continuation of this diplomatic effort and dialogue, including tough meetings with Southeast Alaska tribal, conservation and fishing groups that have been most outspoken about their distrust of British Columbia and its ability to protect rivers that flow through Southeast Alaska.

"We … are glad that Minister Bennett has made the effort to visit Southeast Alaska and to engage with us directly." **—Heather Hardcastle, Salmon Beyond Borders**

"We thank Lt. Gov. Mallott and the Walker Administration for their continued attention to our transboundary mining concerns and are glad that Minister Bennett has made the effort to visit Southeast Alaska and to engage with us directly," Heather Hardcastle, a coordinator for Salmon Beyond Borders, said in a statement.

Bennett and Mallott said British Columbia and Alaska are working out details of a memorandum of understanding that would codify Alaskans' engagement in the permitting and monitoring of future northwestern B.C. mines upstream of Alaska.

"We have had some really excellent discussions with the State of Alaska on what we can do to enhance their already existing role in our environmental assessment process," Bennett said during an Aug. 26 press conference with Mallott.

Such an MOU is expected to include provisions that would further entrench Alaska's Large Mine Review Team in the process for permitting northern B.C. mines, including a role in monitoring and oversight once the mine goes into production.

The agreement also is expected to include enhanced engagement and information-sharing with Southeast Alaskan tribes, fishermen and conservationists, when it comes to these trans-boundary projects.

Mallott emphasized the point that any MOU signed by Alaska would be a "living document" that can be modified as circumstances dictate.

Salmon Beyond Borders and other concerned

see **BENNETT VISIT** *page 12*

A visit last week by British Columbia Energy and Mines Minister Bill Bennett sought to build bonds with Southeast Alaskans. Page 9

ASRC plans one Placer winter well

ASRC Exploration LLC, a subsidiary of Arctic Slope Regional Corp., plans to drill one new exploration well, the Placer No. 3, in the Placer unit on the North Slope during the coming winter, according to an oil discharge prevention and contingency plan that AEX has filed with the Alaska Department of Environmental Conservation. The well will be located in section 33, township 12 north, range 7 east of the Umiat meridian, the contingency plan says.

The Placer unit lies between the Colville River, to the west, and the Kuparuk River unit, to the east.

Drilling would be conducted from a board-covered ice pad, accessible by ice road, the plan says.

AEX has committed to drilling a well in the Placer unit by May 2016 as one of the conditions associated with a unit

see **WINTER WELL** *page 18*

Duncan leaving Great Bear; Mason to take over as company CEO

JUDY PATRICK

ED DUNCAN

Ed Duncan is stepping down as president and CEO of Great Bear Petroleum Operating LLC, the company that has been spearheading oil source rock exploration on Alaska's North Slope, Patrick Galvin, the company's vice president for external affairs and deputy general counsel, told Petroleum News in an Aug. 20 email.

"Following another successful exploration season, it is timely for Great Bear to expand our capabilities in a number of areas," Galvin said. "As part of the transition, Ed Duncan is stepping down as

see **GREAT BEAR MOVES** *page 19*

EXPLORATION & PRODUCTION

Condensate then gas

ExxonMobil applies for approval of pool rules for Point Thomson field

By ALAN BAILEY

Petroleum News

The Alaska Oil and Gas Conservation Commission has published an application by ExxonMobil for pool rules for the Point Thomson gas-condensate field that the company is developing on the North Slope. The initial development of the field is targeting the production of condensate by the recycling of natural gas through the field reservoir, but the company is asking permission for a subsequent offtake up to 1,100 million cubic feet per day of gas, if a proposed plan for the export of North Slope gas through a major gas pipeline and liquefied natural gas facility comes to fruition.

AOGCC has scheduled a public hearing on Sept. 1 to gather testimony on the pool rule proposal.

In its pool rule application, ExxonMobil says that it favors moving straight from the IPS to a Point Thomson gas export project, rather than expanding the gas cycling arrangements.

Gas and condensate

The massive Point Thomson field contains both natural gas and condensate, a mixture of low-density hydrocarbons, at exceptionally high pressure. And, over the years, the relative merits of producing gas versus condensate from the field have been much debated. In the absence of a means of shipping North Slope gas to market, the question of producing gas from the field has been something

see **THOMSON POOL RULES** *page 20*

EXPLORATION & PRODUCTION

Unit expansion unresolved

2013 appeal hampers efforts to explore acreage between Badami, Point Thomson

By ERIC LIDJI

For Petroleum News

A partially rejected expansion of the Badami unit from several years ago continues to slow development of the eastern North Slope, according to operator Savant Alaska LLC.

In a plan of development for the unit, submitted to the state in May 2015, Savant said that an outstanding appeal and an associated request for a stay of an earlier plan of exploration "makes planning difficult for further delineating and developing the field."

The regulatory kerfuffle started in late 2012, when Savant and the Alaska Venture Capital Group LLC asked the state to add seven leases covering some

The seven proposed expansion leases occupy the entire area between the Badami and Point Thomson units.

10,121 acres to the Badami unit to incorporate the East Mikkelsen prospect. Instead, in March 2013, the Alaska Department of Natural Resources agreed to include only two of the seven leases.

The ruling also approved an exploration plan that required Savant to drill a directional well through the entire Canning formation and into the underlying Hue shale to evaluate the potential of the hydrocar-

see **UNIT EXPANSION** *page 15*

NATURAL GAS

BC upstart joins LNG field

Steelhead LNG, Malahat First Nation propose Vancouver Island floating facility

By GARY PARK

For Petroleum News

Yet another little-known proponent has squeezed its way into British Columbia's jam-packed LNG field, with plans to build a floating liquefaction facility on Vancouver Island, 25 miles north of the provincial capital of Victoria.

Vancouver-based Steelhead LNG Corp. has teamed up with the Malahat First Nation, following a deal announced earlier this year by Steelhead to partner with Huu-ay-aht First Nation to build a terminal, also on Vancouver Island.

Steelhead, which hopes to file an LNG export license for its latest scheme with Canada's National Energy Board by late October, plans capacity of 6 million metric tons a year of LNG.

It said the facility would generate revenue for at least 30 years for the 300-member Malahat Nation and create 200 full-time jobs when it is fully operational.

But Steelhead provided no details on where it will source its natural gas for the project, how it will deliver the gas to Vancouver Island and where it hopes to market the LNG.

CEO says company 'on the map'

But Steelhead Chief Executive Officer Nigel Kuzemko declared his company is "on the map and we'll be here for a while."

see **LNG UPSTART** *page 18*

contents

Petroleum News *North America's source for oil and gas news*

Congratulations

Congratulations
Furie on the completion of Kitchen Lights platform!

Hats off to **Furie Operating Alaska** on the completion of its platform offshore in Cook Inlet. The platform will support new natural gas production from the company's Kitchen Lights field. Furie anticipates production starting in early January when the first of the company's gas supply contracts comes into play.

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FURIE
Operating Alaska LLC

Bruce Webb, Furie senior vice president

● FINANCE & ECONOMY

Greening of investments

Canadian churches, universities push to divest fossil-fuel shares, regardless of companies' efforts to reduce greenhouse gas emissions

By GARY PARK

For Petroleum News

Activist factions within Canadian churches and universities are leading a drive to pressure their institutions to divest any shares they hold in the fossil fuel industry.

The latest move has been made by the United Church of Canada, one of Canada's largest religions, whose general council has voted 67 percent to shift C$5.9 million from its fossil fuel portfolio into green renewable energy ventures.

The motion encourages a church foundation to drop its fossil fuel shares and asks the church's pension board to determine if its holdings "align with the Christian imperative of seeking justice, resisting evil and living with respect in Creation."

The directive applies to the top 200 fossil fuel firms in the world.

Christine Boyle, a Vancouver church member, said the church's outreach programs work with people in countries such as the Philippines where it is claimed that human-induced climate change is contributing to poverty.

"The impacts of climate change are being felt most strongly right now by marginalized communities and many are communities we are working with to create more just systems," she said.

Boyle argued there is a strong moral case against holding fossil fuel shares based on biblical references in Genesis that humans are entrusted to guard God's creation.

No relation to emission reductions

But Dave Pollard, a United Church clergyman in the City of Airdrie, on the northern outskirts of Calgary, opposed the motion because it made no concession to oil and natural gas companies that are working on technology to reduce greenhouse gas emissions and are more environmentally responsible.

"To make a blanket statement that we are going to divest may perhaps be punitive to those companies that are working hard and doing their level best to make themselves somewhat sustainable," he said.

Pollard said he worries about the reaction he will face from petroleum industry workers in his congregation, adding "they have families and they have feelings and they have concerns about their livelihoods, especially now."

Erik Mathieson, the United Church's chief financial officer, said he will convene the church's investment committee in September to identify possible investment options in the green energy sector.

"It is certainly doable (but) we will leave it to the investment professionals to evaluate risk and return," he said, noting that there is no deadline to complete the process.

University endowment funds withdrawn

Meanwhile, Queen's University in Ontario has joined a movement among Canadian post-secondary institutions to withdraw university endowment funds from oil, natural gas and coal companies.

A university advisory committee has until the end of this year to recommend what action to take, based on a vote of one-third of students who gave 73.5 percent support to divestment without calling for any action against a number of major Queen's facilities and programs that have been financed by alumni in the energy industry.

University of Chicago Professor Daniel Fischel issued a report this year that was based on two hypothetical portfolios and found that one which invested in fossil fuels in the 1965-2014 period returned 23 percent more than the non-fossil fuel stocks.

However, what the shift in investment strategies does reflect is a long-time, but relatively low-key practice of preferring to buy stocks, bonds or guaranteed investment certificates in companies that score well for their behavior in the community, the boardroom, the environment and in how they treat their employees.

RI hot trend

What has been known as responsible investing or RI is quickly becoming a hot trend.

Patti Dolan, an adviser who specializes in RI with Raymond James in Calgary, told the Globe and Mail that "it's the fastest growing area of my business. I don't actually prospect (for clients) ... people call me."

The Responsible Investment Association, drawn from investment companies, advisers, research firms and others, says retail and institutional assets that have a degree of RI scrutiny applied to them soared 68 percent to more than C$1 trillion in 2012-13, while RI mutual funds grew 52 percent.

Dolan believes interest in RI gained momentum after the financial crisis of 2008 left people disenchanted and angry over the behavior of large companies and their executives.

Now she is observing social media playing a role in making people aware of RI which has resulted in her being asked to speak on RI to a group of lawyers later this year. ●

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EXPLORATION & PRODUCTION

Proposed GMT1-B2 an 'oil well'

The U.S. Bureau of Land Management has changed the listing of the proposed GMT1-B2 development well in the National Petroleum Reserve-Alaska to an "oil well."

In a recent notice on its website, the federal agency had originally listed the proposed well in the Greater Mooses Tooth unit as a "gas well," as reported in the Aug. 23 issue of Petroleum News. The agency subsequently changed the listing to an oil well.

ConocoPhillips began permitting the well in 2013 and recently revised the permitting application to reflect the conclusions of a supplemental environmental impact statement.

The proposed drilling GMT-1 drilling pad, which ConocoPhillips has yet to sanction, would primarily be an oil development feeding into existing Alpine field infrastructure.

—ERIC LIDJI

● GOVERNMENT

Huggins relieved at Shell's permitting

Wasilla Republican, former Senate Resources chair says progress being made on the oil and gas front, awaits call for special session

By STEVE QUINN
For Petroleum News

Senate Rules Chair Charlie Huggins may not have seat on the Senate Resources Committee this year, but the one-time committee chair still keeps a watchful eye on resource development.

The Wasilla Republican remains engaged and hopeful that Alaska will continue to advance a natural gas pipeline that delivers gas to an export facility in Nikiski. But he understands there remains plenty of heavy lifting.

Huggins addressed this issue, plus the pending visit from President Obama and tax credits with Petroleum News.

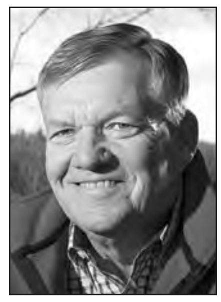
Petroleum News: Let's start with some recent news. Shell got its final permits to drill in the Arctic. Were you surprised given that it comes just a few weeks before the president brings a climate change agenda to Alaska?

Huggins: In my mind, from the Alaskan perspective, everything we are doing right now is to bridge our economics until Shell and other oil and gas companies can bring offshore oil and gas production into play, and you have to make the assumption that we will get some revenue sharing out of it. So it was wonderful news. I was pleasantly surprised. It would be an understatement that Shell, thus far, has been snake bit with bad luck, so maybe they burned up all of their bad luck right now.

The other part of Shell's story that I would be remiss if I didn't mention is that what happened down in the West Coast in the Washington and Oregon area is a travesty. We supposedly are a nation of laws and there you had people breaking the law and in fact impeding the economic activity of the state of Alaska and/or Shell.

Petroleum News: It wasn't just environmentalists protesting. Protests came from your elected peers, city and state leaders including the governor (Jay Inslee). What are your thoughts on that? Were they meddling in Alaska's business or standing up for their constituents?

Huggins: Well, I mean number one, what they were doing had to do with Alaska and not about them other than it was a port, which is open to all. It's a sad commentary when you think about, even if they were emotional and dedicated to what they are doing, they were breaking what I call quote-unquote the rules. Were there state and local officials cooperating on that effort? I think the answer to that is yes, and shame on them. The other part, as I recall, Shell as a company cleared up a whole bunch of mess that those protesters made in the area. Mess, as in debris and the aftermath of what they brought there and didn't take away: trash and junk.


SEN. CHARLIE HUGGINS

Petroleum News: Some believed it was hypocritical for the protesters to arrive on flotation devices made from petroleum products, particularly the kayaks. Were you seeing that, too?

Huggins: Exactly. I'm sure their kayaks were derivative of some petroleum products somewhere, maybe even China. The production may have been powered by a coal-fired plant.

Petroleum News: Looking ahead, you've got President Obama coming to the state in a few days. You've said before that the military has taught you that there are times when it's important to respect the position held even if you don't agree with the person holding that position. Is this a time for that kind of approach?

Huggins: Exactly. We can't prejudge what we think his actions are going to be. We have to realize he occupies the office that's important to our country, the number one position.

Now, in the aftermath, if there is something he does and he takes credit for it or takes responsibility for it and should be held accountable, then if there is a difference opinion in what he did, then the time to bring it forward is afterward not as a prelude to his visit.

I'll be the eternal optimist. We have to assume the president is going to come up here. It's an important visit. It's precedent-setting, his visit. Assuming he has good intentions, we'll see how it works out for us.

Petroleum News: What would you like for the president's takeaway to be from his visit?

Huggins: Number one I hope he gets out into the Bush area and realizes the living conditions and the challenges, and the logistical difficulties based on distance, weather and other factors. Number two, I would certainly hope he would fly over a place like ANWR, maybe land on the North Slope and recognize what the challenges are. Look out to where Shell is operating and see what the challenges are because the federal government under his leadership is one of the obstacles of getting things done, because they burn up a lot of time in permitting in the prelude before Shell and other companies can do something.

Q AND A

This is particularly important to Alaska. To say that there are ambiguities about what the state controls and what the federal government controls would be an understatement. No matter what, sorting through that, the EPA, the FERC or other permitting agencies, the more we can streamline that process while being safe and respectful of the environment and feel comfortable with what we are doing, the better off we are.

But it can't be just a process that's endless. The endless one that I can think of right now is the Keystone XL pipeline. It will probably exceed his term. I can pretty much assume it will be unanswered — the status of the pipeline — when he leaves office.

People who are producing oil and gas in Canada are putting it on rail.

That's no secret. Same thing for the people in North Dakota and some of those areas. That is not the least safe, but it leans right up against the least safe with pipelines being the safest ways to transport petroleum products. What we've done in the name of I'm not sure what — maybe carbon footprint — we've put in peril and raised the costs of doing business for maybe some unknown reasons, at least to me.

Petroleum News: Now the president comes here with a climate change agenda. That's very clear. Most of Alaska wants the agenda to be that of economic development. Can that be reconciled?

Huggins: That's the important part. The Supreme Court ruled in the case of the EPA, that the economic impact of what they were declaring had to be taken into account. We don't live in a utopia. Just because we unilaterally do something, it's not going to change the earth per se. Leading by example may be a good technique but we've come out on record and said we're leading from behind.

Simply said, there has to be a balance and there has to be responsible acts when it comes to the environment, but there can't be just a showstopper when it comes to making things happen.

Quite frankly if you look at some of the economic activity that the state has suffered through, look at the forestry industry.

It's not defunct. It's only one example. Go to Usibelli and ask them how much coal they are going to export this year. They are almost out of business. I say that lightly because I hope they aren't. Their two main recipients are Japan and Korea. As I recall Chile was one of the recipients and that's been reduced dramatically.

Petroleum News: Will you get to see the president at all, not necessarily to shake his hand, but perhaps at some event or venue?

Huggins: I'd be surprised if that were to happen. To be quite frank, I think the president's time could be better spent on getting an appreciation and letting him hear directly from people who are affected be it a villager or be it from someone in the industry. Intermediaries like myself might have a little bit of insight but quite frankly can't articulate near what people who are directly affected — either good, bad or indifferent — on the dynamics on Alaska.

Petroleum News: With that kind of engagement in mind, can you think of a trip to the rural communities that helped you better understand their situation?

Huggins: The best example of the benefits of economic success is the North Slope Borough. Historically in the

see HUGGINS Q&A page 17

ALTERNATIVE ENERGY

Susitna-Watana proposes new FERC schedule

The Alaska Energy Authority has asked the Federal Energy Regulatory Commission to approve a new schedule for preparing a FERC license application for a proposed major hydropower plant at Watana on the Susitna River. The original schedule for the application has been disrupted by issues relating to state funding for the project, which, if completed, could support around half of the Alaska Railbelt's electricity demand.

The FERC review is a major milestone in the license application process.

In December 2014, faced with a substantial budget shortfall as a result of low oil prices, Gov. Bill Walker's administration placed a freeze on further project funding. However, in July the administration lifted that freeze by authorizing the use of the remaining $6.6 million of the original $192 million in state funds appropriated for the project. AEA officials have said that $105 million are required to complete a series of environmental and other studies required for the FERC application, and that the budget shortfall has been delaying progress in conducting the studies.

AEA has told FERC that it plans to use the remaining project funds to complete and file reports on studies conducted in 2014, and to resume public meetings on the reports in February 2016. That should enable FERC, by late August 2016, to complete a review of the work done to date. The FERC review is a major milestone in the license application process.

In early August Wayne Dyok, manager of the Susitna-Watana project, told the AEA board that the project's funding shortfall is likely to delay the completion of the FERC application by two years, from 2019 to 2021.

—ALAN BAILEY

PIPELINES & DOWNSTREAM

Point Thomson production by year-end

PTE Pipeline LLC and ExxonMobil Alaska Production Inc. have applied to the Regulatory Commission of Alaska for a permit to connect production facilities at the Point Thomson unit with the Point Thomson Export Pipeline System (see story in Aug. 16 issue).

The companies said in that application that transportation of liquid hydrocarbons through the line was expected to begin in the winter of 2015-16.

The commission said Aug. 20 that there was no timeline required by statute or regulation for a decision in this matter, and that it would issue a final order by Jan. 31, 2016.

The companies filed a joint motion to expedite consideration Aug. 24, telling the commission that they anticipate the pipeline "being in service in December 2015," and requesting that the commission expedite consideration of its application and issue an order by Dec. 1.

—KRISTEN NELSON

● FINANCE & ECONOMY

Miller reaches tentative deal with SEC

Troubled Alaska operator says it would pay $5 million over three years to settle allegations of fraudulent financial reporting

By WESLEY LOY
For Petroleum News

Embattled Alaska oil and gas producer Miller Energy Resources Inc. says it has reached a tentative settlement with the U.S. Securities and Exchange Commission regarding purported fraudulent financial reports.

In an Aug. 20 filing with the SEC, Miller said it would pay $5 million over three years under the agreement reached with SEC enforcement staff. The deal is subject to the commission's approval, the company said.

Miller said it would "neither admit nor deny the allegations" under the proposed settlement.

The SEC on Aug. 6 announced charges against Miller and certain executives, saying the company had "falsified financial statement information and grossly overstated the value" of Alaska oil and gas properties acquired in late 2009.

Miller Energy overvalued the assets by more than $400 million, boosting the company's net income and total assets, the SEC said.

"The allegedly inflated valuation had a significant impact, turning a penny-stock company into one that eventually listed on the New York Stock Exchange, where its stock reached a 2013 high of nearly $9 per share," the SEC said.

Miller's stock price has since crumbled, and its shares have been removed from the New York Stock Exchange as a result of the company failing to maintain an average market capitalization of at least $15 million.

The SEC enforcement action adds to a myriad of troubles plaguing Miller.

Like many oil and gas companies, Miller is feeling the sting of sharply lower crude prices. The company has had some struggles in the field, including the unsuccessful West Foreland 3 well.

Miller also has seen considerable management upheaval, including the abrupt Aug. 6 resignation of David Hall, the company's chief operating officer. Hall also was chief executive officer of Miller's main subsidiary, Anchorage-based Cook Inlet Energy.

Miller's board appointed Leland Tate, 68, as interim chief operating officer. Tate since March had been serving as senior vice president of operations for Cook Inlet Energy, and from 1969 to 2000 "served in various executive-level roles" at Arco, Miller said.

It was Hall who in 2009 collaborated with Miller Energy to purchase a collection of Cook Inlet assets out of the bankruptcy of the previous operator, California-based Pacific Energy Resources.

Hall had worked for Pacific and was well-acquainted with the properties, including the West McArthur River oil field and the offshore Redoubt unit with its Osprey platform.

These and other assets acquired in 2009 were the properties the SEC contends were overvalued.

Miller executives defended their valuation. But the company in February reached a nearly $3 million settlement with investors who sued alleging the asset valuation artificially drove up the price of Miller's stock, with investors suffering losses after the fraud was exposed.

In a July 29 earnings release, Miller Energy said it had moved its headquarters from Knoxville, Tennessee, to Houston, Texas.

Miller is a small producer dragging a load of debt.

The company said it had average net production of 3,700 barrels of oil equivalent per day during the quarter ended April 30.

see MILLER DEAL page 8

● FINANCE & ECONOMY

Legislators continue finance discussions

Administration shooting for early budget delivery; ISER beginning study of impacts of different cuts, tax, permanent fund changes

By KRISTEN NELSON

Petroleum News

Alaska legislators, having struggled through two special sessions to reach accord with the administration of Gov. Bill Walker on a state operating budget in face of a steep drop in oil prices and steadily declining North Slope crude oil production, are already preparing to deal with the next budget cycle.

The House Finance Committee met Aug. 24, hearing from Commissioner Randy Hoffbeck of the Alaska Department of Revenue and Director of the Office of Management and Budget Pat Pitney.

Pitney noted that it was unusual to have a budget discussion in August but said that the state's financial situation made it important to talk early and often.

Hoffbeck told legislators the two would run through the presentation they'd been doing around the state, starting in June. He said it's become clear that people don't think the state has a problem, and said the administration will continue to speak on budget issues around the state.

Unrestricted general funds

The problem lies in the unrestricted general funds which the state can use to meet any needs it has. Those funds come primarily from crude oil production taxes, and with the drop in oil prices, those revenues are down by more than half.

In the best case oil price, some $65 per barrel, that amount would be down by $2.7 billion, Pitney said, forcing the state to prioritize. At oil prices in the $40-45 per barrel range, the decline could be $3.3 billion, she said.

Agency budgets were reduced, Pitney said, and based on December 2014 numbers, there were 500 fewer full-time state employees in July. That number did not include unfilled positions, she said. The layoffs totaled fewer than 60 because people chose to retire or were able to find different jobs and resigned, Pitney said.

Hoffbeck said they've spent as much time talking about cuts as about possible new revenue, but cuts can't be the only discussion because the state can't cut enough to balance the budget.

Early indication

Pitney said the administration plans to have an indication of what the budget will be in early October rather than waiting for December, with the focus on constraint.

> *Knapp said with the state's options of more spending cuts, new revenues or using Permanent Fund earnings, an issue in making a choice will be how the options would affect the state's economy.*

Last year 19 percent was cut in unrestricted general funds, she said, a 13.5 percent reduction in the executive branch, with 20-30 percent reductions in some areas.

What will be out in early October will be a budget framework, Pitney said, with targets and revenue expectations.

Oil and gas revenue have bailed the state out before, Hoffbeck said, but at present production levels it would require an oil price of $109 a barrel, with the more optimistic price outlook at $60-80 per barrel and the less optimistic outlook at $40-60 per barrel. He said there is nothing on the horizon that indicates the crude oil price could go back to $109 per barrel in time for this budget.

And at current prices, he said, it would take 1.6 million barrels per day to balance the budget (in July production averaged less than 500,000 bpd).

Increasing revenue

Hoffbeck said some of the options for increasing revenue include modifying oil and gas taxes, modifying oil and gas credits, modifying non-oil and gas taxes; repurposing financial assets; adding new taxes; and lottery/gaming. He said Sen. Cathy Giessel is putting together a panel on modifying taxes and said they'd already done a lot of meetings on that over the summer. It will be an active discussion this year, he said.

Pitney said the list of possible ways to increase revenue doesn't indicate administration endorsement — these are ideas that have surfaced.

Pitney said the administration will indicate in October what tax-change legislation it will be proposing.

ISER study

Gunnar Knapp, director of the Institute of Social and Economic Research and professor of economics at the University of Alaska Anchorage, described a study ISER is starting on the economic impacts of Alaska's fiscal options. The $60,000 study is funded by the Department of Revenue and the Office of Management and Budget, with a preliminary report in mid-September and a final report in early January.

Knapp said with the state's options of more spending cuts, new revenues or using Permanent Fund earnings, an issue in making a choice will be how the options would affect the state's economy.

He said the goal of the study is to be helpful to Alaskans and particularly to legislators who will have to make the hard choices, and asked for advice on what fiscal options and what economic impacts legislators want to know about.

The study will look at impacts on jobs and incomes by sector, government and private; by industry; by region; and by income group. It will look at short-run and long-run impacts and on who pays for fiscal options.

Review of past studies

ISER will review its past studies and update them using current data, Knapp said. It will also review other studies and use modeling to estimate impacts.

Previous ISER studies have provided a lot of information on the economic impacts of different fiscal options, Knapp said, citing a 1987 study comparing the economic effects of reimposing personal income taxes, reducing Permanent Fund dividends or reducing state spending.

Knapp said previous studies have found that there are no painless options; that all fiscal options would affect the state's economy; and that different options have different economic impacts, including different impacts on industries, income groups and regions, and different effects on investment, development and future revenues.

One conclusion of the 1987 study was that "either reimposing income taxes or reducing dividends would reduce purchasing power of Alaskans and, therefore, cost the economy jobs and income."

A modest personal income tax "would cost the state somewhat fewer jobs and less income than would a similar dollar reduction in Permanent fund dividends," the 1987 study found, based on higher-income people tending to spend less money in the Alaska economy than average-income Alaskans who would be giving up dividends, a conclusion which might hold true today, depending on how income distribution and spending patterns have changed.

The 1987 study also found that, depending on the type of state spending, cutting state spending could have an even greater effect on jobs than imposing income taxes or cutting dividends.

Jobs created by state spending

In 1999 ISER estimated that for every $1 million in state spending, 15 government jobs and 12 other jobs were created, a total of 27 jobs, compared to local operating grants which created 10 government jobs and 12 other jobs, a total of 22 jobs.

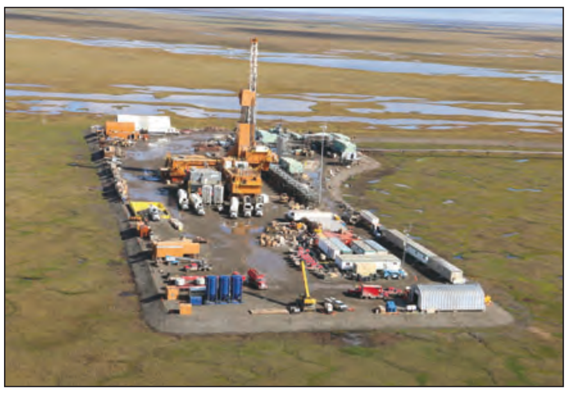
see **FINANCE TALK** page 13

EXPLORATION & PRODUCTION

Conoco drilling at CD5, Kuparuk DS 2S

ConocoPhillips said Aug. 20 that development drilling has begun at its CD5 drill site on the North Slope and provided a photo of the CD5 drill site, which is the first oil development within the boundaries of the National Petroleum Reserve-Alaska (see photo above).

The Aug. 20 news release adds more detail to the company's second-quarter results release and analysts' call on July 30 (see story in Aug. 9 issue), when the company reported that the first wells were spud at CD5 and another new drill site, Kuparuk River unit drill site 2S, in the second quarter, with production startup expected at both projects in the fourth quarter.



CONOCOPHILLIPS

CD5 drill site in the National Petroleum Reserve-Alaska

"We're drilling our first wells at CD5, a significant milestone for the project," Joe Marushack, president of ConocoPhillips Alaska, said in the Aug. 20 release. "CD5 has been 10 years in the making and is an important development for our company and for Alaska. In addition to bringing on new North Slope oil production, the infrastructure we installed for CD5 will help enable future development of the NPR-A."

ConocoPhillips said the road, gravel pad, four bridges and pipelines at CD5 are all complete, with the total project investment pegged at more than $1 billion. The company said it created more than 700 direct jobs and hundreds more support jobs during construction.

Expected peak gross production at CD5 is 16,000 barrels of oil per day from 15 wells.

The company said new development it is currently advancing on the North Slope — CD5, Kuparuk Drill Site 2S, viscous oil development 1H NEWS and the Greater Mooses Tooth 1 NPR-A development — total some $3 billion gross.

Doyon 19 has been drilling at CD5 and Doyon 141 at Kuparuk River DS 2S, with a service well permitted at DS 2S in early May and development wells permitted at CD5 in April and June.

—KRISTEN NELSON

continued from page 6

MILLER DEAL

Total debt was put at $197.6 million.

Miller said it was working to recapitalize the company, and was considering the sale of its drilling rigs and its stake in the Badami oil field on Alaska's North Slope.

But the company noted that "substantial doubt exists about its ability to continue as a going concern."

Carl Giesler, Miller's CEO, added that "we don't intend to file for bankruptcy."

But creditors including Baker Hughes Oilfield Operations, M-I SWACO and Schlumberger Technology on Aug. 6 filed an involuntary petition for Chapter 11 proceedings against Cook Inlet Energy. The petition includes more than $2.6 million in claims.

Miller Energy on Aug. 10 said it was in talks with two of the creditors on possibly dismissing the petition. But as Petroleum News went to press, the case remained alive in U.S. Bankruptcy Court in Anchorage, and was attracting more and more lawyers. ●

Contact Wesley Loy at wloy@petroleumnews.com

● FINANCE & ECONOMY

88 Energy closes credit facility

Funding from the Bank of America, combined with equity, will be used to drill Icewine No. 1 exploration well on the North Slope

By KRISTEN NELSON
Petroleum News

Australian-based 88 Energy Ltd. said Aug. 25 that "definitive binding documentation has been executed with Bank of America" for funding the company's Icewine project up to $50 million.

The company said that under terms of the agreement with Bank of America it will contribute some US$5.7 million, including its equity contribution toward the authority for expenditures for the well.

Accumulate Energy Alaska, which appears on Department of Natural Resources paperwork for the Icewine project, is a wholly owned subsidiary of 88 Energy. Accumulate is in a joint venture with Burgundy Xploration LLC, which acquired 98,182 contiguous acres of state oil and gas leases near White Hills, an area where Unocal drilled five wells beginning in 2008. As of Aug. 25, all of the acreage was still showing under Burgundy's name on state leasing records.

Icewine to spud in October

88 Energy said it recently raised A$12 million in equity, which combined with the Bank of America funding ensures full funding for the Icewine No. 1 exploration well, which the company said remains on track to spud this October.

88 Energy said it recently raised A$12 million in equity, which combined with the Bank of America funding ensures full funding for the Icewine No. 1 exploration well, which the company said remains on track to spud this October.

The project as described to DNR's Division of Oil and Gas in a lease plan of operations is a vertical well, with cores to be taken in both unconventional and conventional resources in lease ADL 392301 some 35 miles south of Pump Station 1.

"With 88 Energy fully funded for drilling, the Company can now complete the ramp-up of activity relative to its first exploration well onshore in Alaska, Icewine #1," Dave Wall, managing director of the company, said in the company's Aug. 25 press release.

Wall said the regional drilling program consists of four to five wells. After this year's well, he said, drilling is planned to continue with three to four wells from early 2016, targeting conventional oil plays adjacent to Icewine. The entire drilling program is estimated to cost some $100 million.

Wall said costs associated with drilling of the Icewine well are eligible for up to 85 percent in cash rebates under the state of Alaska's credit program.

Franklin Bluffs pad

In the lease plan of operations received by DNR, Burgundy said it would use the existing Franklin Bluffs pad and planned to use Nabors rig 105AC, or a rig with similar specifications.

The Division of Oil and Gas said that while Burgundy is currently the lessee of record for the lease where Icewine would be drilled, the company has submitted an application, which is pending, to assign an 87.5 percent working interest to Accumulate Energy. The division said when the application is approved, Accumulate Energy will be the operator of the project. Both Accumulate Energy and Burgundy Xploration are Houston based. ●

Contact Kristen Nelson at knelson@petroleumnews.com

NORTH OF 60 MINING news

page 10 Continued uptrend in gold price needed to jumpstart exploration

www.MiningNewsNorth.com *The weekly mining newspaper for Alaska and Canada's North* **Week of August 30, 2015**

NORTHERN NEIGHBORS

Compiled by Shane Lasley

AGNICO EAGLE MINES LTD.

After completing an initial 50,000 meters of drilling this year, Agnico Eagle Mines Ltd. has outlined 1.9 million ounces of gold at the Whale Tail deposit at Amaruq.

Amaruq resource expands, drilling continues

Agnico Eagle Mines Ltd. Aug. 20 provided an update on exploration at its Amaruq gold project in Nunavut, including an expanded resource of the project's Whale Tail deposit. A 50,000-meter drill program completed during the first half of 2015 resulted in an updated inferred resource of 9.7 million metric tons grading 6.47 grams per metric ton (2 million ounces) gold for Amaruq, a 35 percent increase in gold content since the end of 2014. Most of this resource – 9.1 million metric tons grading 6.56 g/t (1.9 million oz) gold – is located in the Whale Tail deposit. The company is continuing to explore Amaruq with a second 50,000-meter drill program initiated in July. At Whale Tail, this drilling has encountered an open-ended high-grade ore shoot that has yielded intersections of 6.7 g/t gold over 32.3 meters from a depth of 284 meters in hole AMQ15-310; and 10.4 g/t gold over 21.9 meters from a depth of 311 meters in hole AMQ15-330. Gold mineralization has been found in a gap between the Whale Tail deposit and the eastern part of Mammoth Lake, including 10.8 g/t gold over 6.9 meters in hole AMQ15-351; and 9.3 g/t gold over 4.2 meters in hole AMQ15-302. The company said that infill and deep exploration drilling continues to cut multiple intercepts of high-grade gold amenable to both open-pit and underground mining. Engineering and environmental baseline studies are underway to support the permitting process for Amaruq as a potential satellite to Agnico's Meadowbank mine, located about 50 kilometers (31 miles) to the southeast. The application to construct an all-weather access road between Meadowbank and Amaruq was filed in the first quarter of 2015.

Spectrum drilling exceeds expectations

Skeena Resources Ltd. Aug. 20 said the first six holes of its 12,000-meter drill program at the Spectrum gold-copper property in northwestern British Columbia has cut multiple high-grade intercepts. One of the best examples is S15-012 cut 10.59 grams per metric ton gold over 6.6 meters beginning at 102 meters, 25.27 g/t gold over 3.9 meters at 197.6 meters, and four meters grading 7.08 g/t gold at 234 meters; and S15-017, which cut 85 meters grading 9.79 g/t gold and 430 g/t silver starting at 103.2 meters, eight meters grading 10.46 g/t gold starting at 128 meters, and 3.6 meters grading 11.68 g/t gold starting at 157.4 meters. "The results from the first few holes have exceeded our expectations and demonstrate the potential of the deposit to deliver high-grade gold intercepts," said Skeena Chairman Ron Netolitzky. This year's 60-hole program at Spectrum is primarily focused on expanding the 500 Colour and Central zones and the information will be used to calculate an NI 43-101-compliant mineral resource by early 2016. Additionally, Skeena has

see **NORTHERN NEIGHBORS** *page 12*

STATE OF ALASKA

British Columbia Energy and Mines Minister Bill Bennett joined Alaska Lt. Gov. Byron Mallott and Alaska Fish & Game Biologist Jeff Williams on a trip up the Taku River, which flows from Northwest B.C. through Southeast Alaska near Juneau.

INTERNATIONAL RELATIONS

Trans-boundary bonds

Tough meetings with SE Alaskans lay groundwork for potential BC-AK MOU

By SHANE LASLEY
Mining News

British Columbia Energy and Mines Minister Bill Bennett spent the week of Aug. 23 working to build bonds with Southeast Alaskans worried about potential downstream effects of mining copper- and gold-rich deposits located in northwestern B.C.

Bennett's visit comes one year after a tailings dam burst at the Mount Polley Mine in central British Columbia, sending a deluge of mining waste and untreated water into the surrounding watershed. While the spill did not affect Alaska waterways, it stoked fears about the potential development of mines being planned at deposits located in watersheds that do run through Southeast Alaska.

At least six Northwest B.C. projects located upstream of Alaska – Brucejack (Pretium Resources), Kerr-Sulphurets-Mitchell (Seabridge Gold), Schaft Creek (Copper Fox Metals-Teck Resources), Galore Creek (Novagold-Teck), Kisault (Avanti Mining) and Tulsequah Chief (Chieftain Metals) – are currently in various stages of advanced exploration.

Alaska Lt. Gov. Byron Mallott, who is leading a trans-boundary working group that is tackling the northwestern B.C. mining issues on Alaska's behalf, took early steps to find a diplomatic resolution of tensions that have erupted over the issue. He met with Bennett and other provincial leaders during a trip to British Columbia in May.

"As neighbors, we have many things in common, and I want to strengthen the relationships we, Alaskans, have with British Columbia," Mallott said before his trip.

The lieutenant governor also toured the site of the tailings storage dam failure at the Mount Polley Mine during his B.C. trip.

Bennett's visit to Alaska is a continuation of this diplomatic effort and dialogue, including tough meetings with Southeast Alaska tribal, conservation and fishing groups that have been most outspoken about their distrust of British Columbia and its ability to protect rivers that flow through Southeast Alaska.

> *"We … are glad that Minister Bennett has made the effort to visit Southeast Alaska and to engage with us directly."*
> ***—Heather Hardcastle, Salmon Beyond Borders***

"We thank Lt. Gov. Mallott and the Walker Administration for their continued attention to our transboundary mining concerns and are glad that Minister Bennett has made the effort to visit Southeast Alaska and to engage with us directly," Heather Hardcastle, a coordinator for Salmon Beyond Borders, said in a statement.

Bennett and Mallott said British Columbia and Alaska are working out details of a memorandum of understanding that would codify Alaskans' engagement in the permitting and monitoring of future northwestern B.C. mines upstream of Alaska.

"We have had some really excellent discussions with the State of Alaska on what we can do to enhance their already existing role in our environmental assessment process," Bennett said during an Aug. 26 press conference with Mallott.

Such an MOU is expected to include provisions that would further entrench Alaska's Large Mine Review Team in the process for permitting northern B.C. mines, including a role in monitoring and oversight once the mine goes into production.

The agreement also is expected to include enhanced engagement and information-sharing with Southeast Alaskan tribes, fishermen and conservationists, when it comes to these trans-boundary projects.

Mallott emphasized the point that any MOU signed by Alaska would be a "living document" that can be modified as circumstances dictate.

Salmon Beyond Borders and other concerned

see **BENNETT VISIT** *page 12*

● COLUMN

Alaska mines welcome higher gold prices

Exploration sector will need a more significant and sustained recovery in values for the yellow metal to stimulate new activity

By CURT FREEMAN
For Mining News

It is high summer in Alaska and the mining industry is busy breaking rocks, drilling holes, collecting baseline data, making upgrades to mine facilities and producing metal and coal across the state. The effects of declining prices for metals are starting to be felt at the operating metal mines and except for a few projects, the exploration sector continues to wallow in the doldrums, which have plagued the industry since 2013. That said, the tire-kicking of earlier this season has resulted in several properties being acquired by new owners with several others likely to enjoy the same fate over the remainder of the summer.

As this article went to press, the gold price was making a relatively aggressive recovery in conjunction with growing economic uncertainty in China and the weakening of several currencies relative to the U.S. dollar. The rise in gold prices was welcome at Fort Knox, Pogo, Kensington and Greens Creek, where gold is a primary or secondary commodity. Unfortunately, the rise in gold price had no effect on the exploration sector where a more significant and sustained rise in the yellow metal's prices will be required to jumpstart the exploration sector.

The author

CURT FREEMAN

The author Curt Freeman, CPG #6901, is a well-known geologist who lives in Fairbanks. He prepared this column Aug. 24. Freeman can be reached by mail at P.O. Box 80268, Fairbanks, AK 99708. His work phone number at Avalon Development is (907) 457-5159 and his fax is (907) 455-8069. His email is avalon@alaska.net and his website is www.avalonalaska.com.

Western Alaska

TECK RESOURCES LTD. and partner **NANA INC.** announced second quarter results from its Red Dog mine. During the quarter the mine produced 154,700 metric tons of zinc in concentrate. Zinc ore grade was steady at 16.5 percent while mill recoveries were up significantly to 85.8 percent. The mine also produced 31,000 metric tons of lead in concentrate. Lead ore grade increased marginally to 4.8 percent while mill recoveries increased significantly to 58.8 percent. The mine posted an $84 million operating profit for the quarter, up slightly from the $80 million profit in the year previous period. Zinc grade was similar and recoveries were higher than 2014 resulting in 9 percent more zinc production. Both higher lead grade and recoveries than 2014 yielded 16 percent more lead production. Operating costs in the current quarter decreased due to lower fuel and freight costs. Capitalized stripping costs were $16 million in the second quarter compared with $8 million a year ago. Royalty costs for the quarter were $6 million versus $9 million in the year previous quarter. The mine plans to ship 170,000 metric tons of contained zinc metal in the third quarter and 200,000 metric tons in the fourth quarter reflecting the normal seasonal pattern of sales for the mine.

Interior Alaska

KINROSS GOLD announced preliminary second quarter results from the Fort Knox mine near Fairbanks. The mine produced 116,061 oz of gold at a cost of $606 per ounce in the second quarter versus 91,316 oz of gold at a cost of $834 per ounce in the year previous period. Production increase due to higher grade mill material and the seasonal impact of warmer weather on heap leach performance. Cost decreased in part to lower fuel and power costs.

FREEGOLD VENTURES LTD. announced that it has raised $1,350,000 through a private placement and will be conducting a 3,000-meter drill program at its Shorty Creek copper-gold project in the Livengood-Tolovana District. Limited previous drilling in the area of the copper – gold porphyry target had returned significant intervals of gold mineralization. The area of drilling in 1989 and 1990 was restricted to a 500-meter by 200-meter area. A total of 2,094 meters of drilling were completed with a maximum hole depth of 152 meters. The presence of copper mineralization in conjunction with gold mineralization was noted at depth in most of the historic drill holes. Additional mapping has confirmed the presence of quartz porphyry in the creek 30 meters below the depth of previous drilling. Ground geophysics and soil sampling completed by the company in the vicinity of the drilling has now expanded the target area by another 500 meters to the southwest and 400 meters to the northeast. Another significant target, located 2.5 kilometers to the northwest of the copper – gold target, was also identified as a result of the ground geophysical and soil sampling program. The presence of a strong chargeability anomaly coincident with strong copper values in soils (up to 669 parts per million) covering a 2,000-meter x 1,000-meter area was observed. Within the copper geochemical anomaly a strong molybdenum core is present (up to 235 parts per million molybdenum which covers a 1,000-meter by 800-meter area in the central portion of the chargeability anomaly. Drilling is expected to commence in late September.

NORTHERN EMPIRE RESOURCES CORP. and **SONORO METALS CORP.** announced an extension of the first phase exploration program on the Hilltop project in the Richardson District. The extension to the Phase 1 exploration program is budgeted at $100,000 and will commence in August. The scope of work is designed to expand upon the previously completed $250,000 Phase 1 program. Results of initial work are pending and plans for the newly funded work program were not released.

COVENTRY RESOURCES INC. announced that it entered into a mineral lease and purchase agreement pursuant to which **GREAT AMERICAN MINERALS EXPLORATION INC.** will lease the company's Uncle Sam gold project in the western Goodpaster District. Terms of the deal require Great American Minerals to pay $30,000 to undertake exploration and development activities on the project, pay annual lease payments of $25,000 and pay all property holding costs including annual rents, permitting costs and all other costs associated with exploration and development activities. Great American Minerals will retain the option to purchase a 100 percent interest in the project by paying $500,000 in the event the option is exercised at any time prior to the fifth anniversary of the agreement or paying $750,000 in the event the option is exercised at any time between the fifth and tenth anniversary of the agreement.

MILLROCK RESOURCES INC. announced that it had acquired the West Pogo gold property from a subsidiary of **CORVUS GOLD.** The claims cover the projection of a favorable structure that passes through Sumitomo's Pogo mine located three kilometers to the south. Under terms of the deal, Millrock will pay $20,000 for a 100 percent interest with Corvus retaining a royalty of 3 percent net smelter returns production royalty on precious metals and 1 percent net smelter return production royalty on base metals. Millrock may reduce the precious metals royalty to 1 percent by making payments totaling $7 million. Millrock has also purchased an extensive, proprietary database of geological information. The database was created through years of exploration effort by **ANGLOGOLD-ASHANTI** and **INTERNATIONAL TOWER HILL MINES** in the 1990s and early 2000s and contains information from throughout Alaska's Goodpaster Mining District and the Pogo mine area. Included in the information are geochemical results for thousands of stream sediment, soil, rock and vegetation samples, airborne geophysical surveys, structural and remote sensing analyses and project generation reports. It is estimated that data represents in excess of $5 million in exploration work. The purchase price for the database is $100,000. A royalty of 1 percent net smelter returns production royalty in favor of Corvus will be payable for any claims staked by Millrock within a defined area of interest in the coming five years. The royalty may be reduced to 0.5 percent by payment of $2.0 million. Corvus has also granted Millrock a Right of First Refusal to acquire the LMS gold project under agreed upon terms until September 1, 2015. This project is also located in the Goodpaster Mining District. A high-angle, mineralized structure that may be a feeder zone is postulated and forms a sound exploration target for drill testing.

see **FREEMAN** page 11

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Petroleum news

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FREEMAN

Alaska Range

BRAZIL RESOURCES INC. announce that it has completed the acquisition of 100 percent of the Whistler gold-copper project and certain related assets from **KISKA METALS CORPORATION.** Brazil issued 3.5 million shares valued at $1.61 million to acquire the project, which includes 304 State mining claims, a 50-person all-season exploration camp, airstrip and assorted equipment. The project is underlain by a volcano-sedimentary sequence of the Jura-Cretaceous Kahiltna Assemblage that has been intruded by the Late Cretaceous Whistler Intrusive Suite with associated gold-copper porphyry and epithermal mineralization, and the Late Cretaceous to Paleocene Composite Intrusive Suite with associated intrusion-related gold mineralization. Resource estimates are based on 48 drill holes (19,870 meters) and is reported within a conceptual pit shell with 45-degree pit slope angles resulting in a strip ratio of 1.3:1 (waste to ore) at a 0.3 grams per metric ton gold cut-off. Indicated resources include 79.2 million metric tons grading 0.51 g/t gold, 1.97 g/t silver and 0.17 percent copper. Inferred resources come in at 145.8 million metric tons grading 0.40 g/t gold, 1.75 g/t silver and 0.15 percent copper. Other prospective e exploration plays in the project area include the Whistler Orbit, Muddy Creek and Island Mountain.

COVENTRY RESOURCES INC. announced diamond core drilling results from its Caribou Dome copper project in the Valdez Creek District. Holes CD15-01 and CD15-02 were drilled to evaluate the shallow portion of the eastern end of Lense 6. Significant results include 10.1 meters at 7.1 percent copper from 39.0 meters in CD15-02 and 12.2 meters at 3.2 percent copper from 39.8 meters in CD15-01. Hole CD15-03 was drilled to evaluate the upper portions of Lense 4. This hole returned 51.1 meters at 5.3 percent copper from 4.4 meters, including several higher grade intervals. CD15-04 and CD15-05 were new exploration holes drilled to evaluate the central portion of the previously untested Lense 2, which surface mapping indicates is at least 200 meters long. Hole CD15-04 intersected 8.7 meters at 1.7 percent copper from 54.2 meters. CD15-05, drilled from the same pad at a steeper angle, intersected 10.0 meters at 1.6 percent copper from 62.5 meters. Drilling in Lense 5 in hole CD15-06 returned 4.6 meters at 0.6 percent copper from 3.0 m and 3.2 meters at 8.7 percent copper from 14.5 meters. An additional 4,000 meter drilling program was recently approved to allow continued exploration of the project.

Southeast Alaska

HECLA MINING CO. announced updated production results for the second quarter 2015 and updated annual production estimates at its Greens Creek mine. The mine's second quarter production of 1,856,125 oz of silver exceeded the second quarter of 2014 by 10 percent, while gold production of 13,753 oz was 8 percent lower. The higher silver production was a result of higher recoveries and grade, partially offset by slightly lower tonnage. Operating costs decreased to $3.30 per ounce of silver versus $3.52 per ounce in the year-previous period. The average grade of ore mined during the quarter was 12.33 oz/t silver, up slightly from the average grade of 12.03 oz per ton that was mined in the second quarter of 2014. During the second quarter the mine produced 1,856,125 oz of silver, 13,753 oz of gold, 5,393 tons of lead and 15,462 tons of zinc. The mill processed 199,694 tons of ore during the quarter, down from 201,146 tons milled in the year-previous period. Silver recoveries increased 8 percent, to 75.4 percent over the prior year period due to changes in the flotation circuit to more efficiently recover additional lead, and by introducing carbon dioxide for pH control in the lead flotation circuit. The reduction in gold production was the result of lower tonnage and grade, partially offset by increased recoveries due to the previously described plant improvements. The mill operated at an average of 2,194 tons per day in the second quarter. As a result of both higher grades and recoveries, the company now expects Greens Creek to produce 7.7 million to 8.0 million oz of silver, an increase over the previous expectation of 7.3 million oz of silver. On the exploration front, definition and exploration drilling made progress in refining the NWW, 9A, Deep 200 South and West Wall resources and expanding the Gallagher Fault Block and Upper Southwest trends. Recent assay NWW Zone results include 107.3 oz/ton silver, 0.73 oz/t gold, 4.0 percent zinc, and 2.1 percent lead over 6.0 feet and 50.5 oz/t silver, 0.14 oz/t gold, 13.1 percent zinc, and 7.3 percent lead over 6.2 feet. Exploration extensions to this drilling have defined additional West Wall mineralization up to 240 feet down-dip from the current resource model. In the 9A zone significant results include 26.8 oz/t silver, 0.01 oz/t gold, 3.8 percent zinc, and 2.4 percent lead over 14.0 feet and 10.4 oz/t silver, 0.06 oz/t gold, 18.4 percent zinc, and 7.9 percent lead over 10.2 feet. Drilling of the Upper Southwest defined multiple, flat-lying mineralized contacts between the 5250 and Upper Southwest mineralization. Recent exploration drilling of the Gallagher Fault Block combined with existing intercepts defines mineralized zones within the Gallagher Fault with 95 to 425 vertical feet of continuity over 1,000 feet of strike length. Recent drill intersections in the Deep 200 South zone include 61.9 oz/t silver, 0.04 oz/t gold, 2.1 percent zinc, and 1.3 percent lead over 6.2 feet and 41.2 oz/t silver, 0.04 oz/t gold, 3.7 percent zinc and 3.2 percent lead over 7.0 feet along the upper limb. The mineralization remains open to the south and exploration drilling is planned for later in the year.

COEUR MINING INC. announced updated second quarter 2015 production results from its Kensington gold miner near Juneau. Second quarter production is estimated at 29,845 oz of gold, a significant increase over the 29,089 oz of gold produced in the second quarter of 2014. Cash operating costs declined significantly to $745/oz from the year-previous period's cost of $821 per ounce. The mine processed 170,649 tons of ore grading 0.18 oz/t gold during the quarter. Average recovery was 94.9 percent. Mill throughput was steady at 1,875 tpd average. The increased production was the result of a higher throughput offset by lower gold grades during the quarter. Work on the decline into the Jualin deposit hat Jualin in early 2016. Estimated 2015 total production from Kensington was upgraded to 115,000-125,000 oz of gold and 2015 estimated cash operating costs were decreased to $850-$900/oz. ●

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NORTHERN NEIGHBORS

been carrying out soil sampling and prospecting focused on possible extensions to the known mineralized structures. This work includes 168 samples collected from Target A, located north and east of the Central zone. These samples averaged 550 parts per billion gold, with seven over 1,000 ppb gold and one sample returning 19,500 ppb gold (0.57 oz/ton). These soil results are considered very significant as they indicate a potential new zone of high-grade mineralization parallel to and situated from 100-200 meters east of previous drilling and trenching. The Central Zone remains open for more than 1,500 meters on strike to the north and south, based on recent geological mapping and soil geochemistry.

RAB drilling adds a new Rackla gold zone

Atac Resources Ltd. Aug. 25 reported the discovery of a new gold zone at the Anubis Cluster within the Nadaleen Trend of the Rackla Gold Project in central Yukon. Rotary air blast drilling conducted 300 meters west of the Anubis Zone intersected 47.24 meters of 3.79 grams per metric ton gold at what is now called the Orion target. Gold mineralization in this hole, ARB-15-026, started at 15.24 meters and was continuously mineralized to the bottom of the hole. “This hole is particularly significant as it demonstrates the exploration potential of the 30-kilometer-long Nadaleen Trend which is developing into a major North American Carlin-type district,” said Atac President and CEO Graham Downs. Atac said the six-week RAB drilling program achieved its objective of cost effectively identifying bedrock sources of gold that are likely responsible for the adjacent surface geochemical anomalies. Numerous targets remain untested within the Anubis Cluster. Additionally, the company said diamond drilling at the Conrad Zone intersected 124.96 meters of 3.02 g/t gold and confirmed continuity of mineralization in the Upper and Middle Conrad zones.

Golden Predator directors, officers walk

Golden Predator Mining Corp. Aug. 21 reported the resignation all of its officers and five of its directors. The resignations follow a notice that Till Capital Ltd. intends to nominate and vote for a slate of existing Till Capital directors to the Golden Predator board at the company’s annual general meeting. Till Capital, a Bermuda-domiciled insurance company, holds 58.9 percent of Golden Predator’ issued and outstanding shares under its subsidiary, Resource Re Ltd. The outgoing board and management team – William Sheriff, Dennis Fentie, Piers McDonald, Jesse Duke, Greg Hayes and Janet Lee-Sheriff – have more than 100 combined years of mineral exploration and Yukon experience. “We look forward to finding new ways for all of us to continue to work to be advocates for positive development in the Yukon and for alternate ways to build local shareholder and community wealth within the resource sector,” said former Chairman Sheriff.

Discoveries confirmed at Coffee neighbor

Independence Gold Corp. Aug. 24 reported encouraging results from drilling of two gold discoveries at its Boulevard Project, located adjacent to Kaminak Gold Corp.’s Coffee gold project in Yukon Territory. The 1,746-meter (13 holes) reverse circulation drill program tested two previous undrilled soil anomalies. The best intercepts are 7.23 grams per metric ton gold across 12.2 meters at the Sunrise zone, and 4.25 g/t gold across 6.1 meters at the Denali zone, located 13 kilometers northwest of Sunrise. A follow-up program including ground magnetic surveying, geological mapping and additional RC drilling has been initiated. Independence has increased its 2015 exploration budget to C$2 million. The company postponed planned drilling at the Henderson gold project in order to carry out the follow-up program at Boulevard. ●

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BENNETT VISIT

Alaska stakeholders did not discount a potential MOU as a meaningful first step. However, they still believe that involvement of the International Joint Commission, an organization formed in 1909 to deal with U.S-Canada trans-boundary water issues, is the best way to ensure that Alaskans’ interests are protected.

“Fishermen want commitments regarding the watersheds that impact our fisheries to be backed up by the full force of the U.S. government and the Crown because that offers the greatest chance that they will be binding and upheld over time,” said Dale Kelley, executive director of the Alaska Trollers Association.

While neither Alaska nor British Columbia is prepared to involve an international overseer at this stage of diplomacy, Mallott and Bennett said a MOU does not preclude the future involvement of the International Joint Commission.

“We will move forward on several fronts, not only collaborating on a draft memorandum of understanding but also exploring federal engagement from Ottawa and our (federal) state department,” said Mallott.

*“We have had some really excellent discussions with the State of Alaska on what we can do to enhance their already existing role in our environmental assessment process.” **—Minister Bill Bennett, B.C. Energy and Mines***

The lieutenant governor said he hopes to talk with Secretary of State John Kerry about the trans-boundary issue when he is in Alaska next week, not to press for the immediate involvement of the international commission but to ensure the U.S. Department of State is up to speed in the event that an overseer is needed.

Bennett said the International Joint Commission could be helpful in certain aspects of the Alaska-B.C. trans-boundary solution, such as financial assurances, “should the unthinkable happen.” ●

● NATURAL GAS

Walker to call for TransCanada buyout

Governor says state needs 25 percent of pipeline, currently held by TransCanada; wants assurance one company couldn't block project

By BECKY BOHRER
Associated Press

Gov. Bill Walker said Aug. 24 he plans to recommend to legislators the state buy out TransCanada Corp.'s position in the major liquefied natural gas project Alaska is pursuing.

Under an agreement that predates Walker's administration, TransCanada, a Canadian pipeline company, would hold the state's interest in the pipeline and gas treatment plant, with the state having an option to buy back part of that interest. During the legislative debate on the issue in 2014, it was cast as a way for the state to not have to bear as much in upfront costs as it would without that partnership.

But the agreement also contains language allowing the state to terminate that arrangement, though the state would have to reimburse TransCanada for its development costs, plus 7.1 percent.

In an interview with The Associated Press, Walker said the pipeline is an important piece of the project, and the state needs to be more involved in that work.

"We need a seat at the table," he said. "Right now, they have our seat."

He estimates the buyout costs in the range of $100 million.

Partners in project

Shawn Howard, a spokesman for TransCanada, said by email the company continues to work with state and project partners to advance the LNG effort. The other partners are Exxon Mobil Corp., BP, ConocoPhillips and the Alaska Gasline Development Corp., which would hold the state's interest in liquefaction facilities.


GOV. BILL WALKER

Walker's administration has been involved in negotiations aimed at advancing the megaproject, which Walker called the state's "strongest get-well option fiscally." Alaska relies heavily on oil revenues to pay for state government and is facing large deficits amid low oil prices. It is using savings to help balance its budget.

No decision has been made yet on whether to build the project, which is in a phase of preliminary engineering and design.

The goal has been to have a fall special session for legislators to consider project-related contracts, perhaps in October. Walker said the further into August talks go, the more concerned he is about being able to meet that target. But he said he wants to get the best deal he can for Alaska.

Producers committed to talks

Kim Jordan, a spokeswoman for ExxonMobil, said by email the company is committed to project negotiations, but it doesn't comment on the status of those talks. BP Alaska spokeswoman Dawn Patience said the company "remains committed to pursuing a successful Alaska LNG project that includes the State of Alaska as an equal participant and co-investor." ConocoPhillips Alaska spokeswoman Natalie Lowman said the company continues to work through project talks and to target a possible 2016 decision on moving the effort to the next phase.

While Walker noted the companies have sought certainty on issues like taxes, something he has suggested could be addressed through a constitutional amendment, he wants assurances the state would be able to continue pursuing the project if one of the companies pulls out — that a withdrawing company, for example, could be replaced.

"I just can't have a situation that any one company, for any reason whatsoever, could block this project from going forward," he said.

The governor said he's spoken in the past about the state having a 51 percent interest in the project. But he said the issue comes down to the state's ability to advance the project.

"I'm comfortable with the arrangement we will have once we buy out TransCanada's position, assuming that the Legislature approves that," he said. "We'd have a 25 percent interest, and I'm very comfortable with that, as long as no one can block us from doing a project." ●

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FINANCE TALK

The Permanent Fund dividend, by comparison, created only 11 other jobs — no government jobs — a lower impact because jobs are only created when people spend their dividend income.

Preliminary ISER estimates, from February of this year, found that for every $100 million cut from agency operations 318 direct jobs were lost and 548 other jobs, a total of 866; compared to a capital spending cut of $100 million which cost 506 direct jobs and 425 other jobs, a total of 931.

Cutting the state workforce to reduce total pay by $100 million (1,466 jobs) would produce a direct loss of 1,466 jobs and an indirect loss of 499, for a total of 1,965 jobs lost. Across the board cuts for state workers totaling $100 million would result in zero direct loss of state jobs, and 449 indirect jobs lost.

The total loss in income from $100 million in cuts would be $61 million for the cut in agency operations; $64 million for the cut in capital spending; $122 million for the cut in state jobs; and $122 million for the cut in state workers' pay. ●

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● NATURAL GAS

AOGCC posts Kitchen Lights well data

Reports document gas flow testing from six perforated sections of the well at various levels in the Sterling and Beluga formations

By **ALAN BAILEY**
Petroleum News

The drilling documentation for the Kitchen Lights Unit No. 3 well that Furie Operating Alaska LLC will use for initial production from its new Kitchen Lights gas field, offshore in Cook Inlet, has now been posted on the website of the Alaska Oil and Gas Conservation Commission. Furie drilled the well in 2013 using its Spartan 151 jack-up drilling rig — drilling data generally becomes publicly available through the AOGCC 24 months after a well is completed.

The documentation indicates that Furie perforated six sections of the well bore, where gas may be produced. Three sections are in the Sterling formation and three are in the deeper Beluga formation. Upper Sterling perforations are between depths of 4,190 and 4,221 feet, while lower Sterling perforations are between 4,565 and 4,592 feet, and between 4,600 and 4,632 feet. Upper Beluga formation perforations are between 5,941 and 5,959 feet, and between 5,999 and 6,005 feet. Lower Beluga perforations are between 6.964 and 6.998 feet. The total depth of the vertical well is 10,380 feet.

Flow tests conducted

The documentation also indicates that Furie conducted gas flow tests from the well between June 25 and June 29, 2013. The total cumulative gas produced from these tests amounted to 15.8 million cubic feet. Of this, 8.2 million cubic feet came from the upper Beluga, 2.9 million cubic feet from the lower Beluga, less that 1 million cubic feet from the upper Sterling and 4.7 million cubic feet from the lower Sterling, the documentation says.

Furie has said that it hopes to produce 85 million cubic feet per day of gas at field startup at the beginning of January, depending on what gas sales contracts the company has established at that time. At the beginning of August the company completed the installation of its Julius R. production platform over the No. 3 well, having previously completed an onshore facility for treating the gas and a subsea pipeline for shipping the gas to shore. It will be necessary to hook up the pipeline to the well prior to starting the commissioning of the field, probably in November. ●

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● PIPELINES & DOWNSTREAM

Irving upgrades refinery, cuts rail deliveries

By **GARY PARK**
For Petroleum News

Canada's largest oil refinery owned and operated by Irving Oil in New Brunswick is getting a C$200 million upgrade, partly with TransCanada's planned Energy East pipeline in mind, at the same time the facility has lowered its dependence, likely over the short-term, on rail to deliver crude feedstock.

The refinery at Saint John will cut its processing of 300,000 barrels per day of crude in half during the 60-day Operation Falcon project to improve safety and reliability of the facility for the next six years.

The primary objective is to produce fuel that meets new vehicle emission and fuel standard rules in the United States, where the majority of the refinery's products are sold.

The U.S. Environmental Protection Agency has set new standards which lower sulphur content in gasoline in 2017 to meet more stringent vehicle emission standards.

The refinery is also the final destination for the controversial C$12 billion Energy East pipeline, which is designed to ship 1.1 million barrels per day of heavy and Bakken crude from Western Canada to refineries in Ontario, Quebec and New Brunswick, with some destined for export from two terminals.

Privately held Irving Oil is taking advantage of the maintenance work to prepare for Energy East volumes or any future upgrades, said Mark Sherman, the company`s vice president.

He said that although the turnaround is not directly related to Energy East, Irving wants to take advantage of the work "to bolt on ...a good, reliable operating entity."

"This is really about making sure, whether we do any future investment or not with major projects, you need to make sure that the operation today is safe and reliable," he said

see **IRVING REFINERY** *page 15*

● ENVIRONMENT & SAFETY

Dealing with Alberta's orphan wells

By **GARY PARK**
For Petroleum News

Alberta is confronting daunting odds in its commitment to bring dormant and orphan oil and gas wells into line with the province's safety and monitoring regulations.

And the challenge is only being intensified as weak oil and gas prices add to the tally of wells in need of attention, given that many of the operators are engaged in a simple struggle to remain alive.

The Alberta Energy Regulator estimates that 77,000 wells in the province are inactive, of which about 18,000 have been in that category for more than a decade.

The agency's target is to bring 5,500 wells within its rules in the 2015-16 fiscal year and solid progress has been made in the five months since a compliance program was launched in April, with about 3,600 wells brought into line.

But that still leaves more than 22,100 wells that are short of the standards that include protective fencing and testing for leaks — concerns that are supposed to be resolved over the next five years.

Barry Robinson, a national program director for Ecojustice, says that even as the program works towards its objective many of those wells could be contaminating the environment.

No pressure testing

In the worst cases, wells could be venting or leaking substances that the owners and the Alberta Energy Regulator are unaware of because no pressure testing is being conducted.

The Environmental Law Center said the problems are aggravated by the absence of deadlines for well closures, compounded by the burden of liabilities on companies that have little or no hope of paying reclamation costs.

The number of orphaned wells — those whose owners can't be traced or are involved in bankruptcy proceedings — has increased to more than 700 from 162 in March.

Orphan wells become the responsibility of the Orphaned Well Association that is financed by the industry.

The association fully expects the number of wells under its jurisdiction will continue to rise because of low commodity prices, but notes that many inactive wells are also waiting to be tied into pipelines or have been put on hold pending price recoveries. ●

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● PIPELINES & DOWNSTREAM

Pipe's clear edge over rail

Canadian researchers say crude-by-rail 4.5 times more dangerous than pipelines, endorsing US Congressional report that pipe cheaper

By GARY PARK

For Petroleum News

A conservative Canadian public policy think-tank has issued a report that says choosing between pipelines and rail for transporting oil is no choice at all.

The Fraser Institute, drawing on data from the Canadian Transportation Safety Board and Transport Canada, says the decade ending 2013 shows that pipelines are 4.5 times safer for the same volumes of crude.

"I hope it becomes better understood that saying 'No' to a pipeline is saying 'Yes' to rail and that is to increase the risk to the environment and human health and not decrease it," said lead study author Ken Green.

"I people want to make rational decisions about these things, they have to understand that."

The Fraser Institute notes that federally regulated pipelines in Canada — those that cross provincial borders — currently move almost 15 times more hydrocarbons than railroads.

Over the decade covered by the study, pipelines recorded 1,226 "occurrences" compared with 127 for rail, but the comparative numbers, when adjusted for comparable volumes and distances, showed 0.049 occurrences per thousand barrels equivalent shipped by pipeline and 0.227 for rail transportation.

The Canadian Transportation Safety Board statistics showed 73 percent of pipeline "occurrences" resulted in spills of less than 1 cubic meter (about 1,000 liters), while 16 percent did not result in any spillage.

About 83 percent of the pipeline-related incidents took place in compressor stations, processing plants and terminals and not in actual pipelines, which improved the chances of containing the leaks.

Similarly, only 15 percent of the rail "occurrences" took place in the transit phase.

Impact of new regs unknown

Green is not prepared to speculate on whether the harmonized tank car regulations adopted in Canada and the United States will make crude-by-rail transport safer.

He said most rail accidents are the result of human operator error, which the industry has no hope of eliminating which leaves questions hanging over what impact new technology and hardware, automatic, pneumatic braking systems and heavier steel for tank cars will have on rail safety.

The study said there is already a databank of pipeline vs. rail safety in the United States covering the shipment of hydrocarbons.

It said the U.S. State Department, as part of its evaluation of the Keystone XL pipeline proposal, calculated that between 2002 and 2009 releases per million ton-miles transported by rail were 0.0033 compared with 0.0006 for pipe, indicating rail is 5.5 times more likely to experience a release.

The department concluded that a "lot of oil can be recovered" from pipeline accidents, reaching 40 percent from 1992 to 2011.

Fewer per-mile pipeline injuries

In weighing health and safety aspects, the Fraser Institute said the State Department gave a clear advantage to pipelines, noting that injuries and deaths per ton-mile transported by rail "far exceeded those associated with pipelines."

Comparing the known rates, the State Department estimated that even without an increase in transport volumes, rail would result in 712 injuries and 94 fatalities on an annual basis compared with three injuries and two fatalities for pipelines.

If the 830,000 barrels per day of capacity planned for Keystone XL were added to the rail system that would result in another 49 injuries and six fatalities a year compared with one additional injury and no deaths if the pipeline was built.

The study said a recent U.S. Congressional research service report on crude transportation methods estimated "pipelines would provide safer, less expensive transportation than railroads."

In conclusion, the think tank said that if Canada "is to realize the massive economic benefits from the development (of Alberta's oil sands) the transport conundrum must be solved."

"At present resistance to pipeline transport is sending oil to market by modes of transport that pose higher risks of spills and personal injuries, such as rail and road transport.

"While different data sets are not directly comparable, an examination of studies from the U.S. and our analysis of the Canadian data strongly suggest that pipelines are the safer way to move oil compared to railways or roadways." ●

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UNIT EXPANSION

bon-bearing Killian interval encountered in the earlier East Mikkelsen Bay No. 1 well. If successful, Savant would have needed to complete the well, perform an extended test and present the results of the test to the state by June 30, 2014.

Savant appealed the ruling in April 2013, saying it needed all seven leases to effectively explore the prospect. To address the pending drilling deadline, Savant also requested a stay of its plan of exploration in August 2013. Even though the company and state officials have met in the years since the appeal was filed, the matter remains unresolved.

The Tennessee-based independent Miller Energy Resources Ltd. acquired Savant in May 2014 and closed on the purchase in December 2014. A development program has been hampered over the past year by financial difficulties at the corporate level and by the decline in oil prices. Miller recently said it has an unnamed buyer interested in Badami.

In the May 2015 plan of development, Miller said it would review all potential targets outside the participating area, "including, but not limited to, the Killian Sands on the east side of the unit" and "intends to continue exploration to fully explore the unit area as economic conditions warrant, and once the unit expansion appeal issue is resolved."

The expansion acreage has importance beyond plans for Badami. The seven proposed expansion leases occupy the entire area between the Badami and Point Thomson units.

For decades, state oil and gas officials have been dreaming about a "string of pearls" in the eastern North Slope. The idea was to use existing infrastructure to justify exploration — and eventually development — across the eastern North Slope, toward the Arctic National Wildlife Refuge, just as

The expansion acreage has importance beyond plans for Badami. The seven proposed expansion leases occupy the entire area between the Badami and Point Thomson units

ConocoPhillips has been doing by expanding Colville River unit development into the National Petroleum Reserve-Alaska. With Point Thomson approaching start-up, East Mikkelsen would sit between two producing fields.

The current plan of development calls for completing work deferred from this past year.

In its 11th plan of development, from Nov. 16, 2014, through July 15, 2015, Savant had planned to evaluate hydraulic fracture stimulations on the Bl-18A and Bl-38 wells and to use those results to design stimulations for wells to be drilled in the first half of this year.

Ultimately, the company had to postpone the completion activities for Bl-18A and Bl-38 because it was unable to secure the necessary equipment and barge it to the Badami unit in time to complete the activities. The company also postponed the wells planned for earlier this year because of a similar problem with securing equipment, a desire to conduct a geological review as part of the change in ownership and current oil prices.

The state approved the 12th plan of development, which runs through July 15, 2016.

The plan calls for completing the hydraulic fracture activities and, if oil prices permit, drilling the two new wells. Because Savant made no definitive plans for the exploration acreage, the unit "remains subject to a finding of default," according to the state. ●

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PIPELINES & DOWNSTREAM

TransCanada solves trouble spot

TransCanada has cleared a troublesome speed bump on the road to obtaining approval for its Energy East crude pipeline to Eastern and Atlantic Canada.

The Calgary-based company said it has signed an agreement in principle that assures three of Canada's largest natural gas distributors they will have sufficient gas deliveries and reduced transmission costs should one of TransCanada's six gas lines be converted to carry 1.1 million barrels per day of crude for Energy East.

The three local distribution companies are Union Gas and Enbridge Gas Distribution in Ontario and Gaz Metro in Quebec.

TransCanada said it will design Eastern Mainline gas project to meet all firm requirements including gas transmission contracts resulting in both 2016 and 2017 new capacity open seasons plus about 50 million cubic feet per day of additional capacity.

The company also said it will ensure a long-term benefit to gas consumers in Ontario and Quebec will reduce rates by at least C$100 million through to 2050.

The local distribution companies say their concerns have been resolved and that the cost of converting an existing segment of the gross-Canada natural gas pipe for the C$12 billion Energy East will not be carried by their customers.

TransCanada Chief Executive Officer Russ Girling said in a statement Aug. 24 the local distribution companies' concerns have been addressed "in a way that best met our collective objectives."

The Energy East plans include the conversion of 1,900 miles of one TransCanada gas pipeline that is not fully contracted on a firm basis to oil service.

—GARY PARK

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IRVING REFINERY

On the safety issue, he reported that in the two years since the train derailment and explosion that killed 47 residents of Lac Megantic in Quebec the amount of crude arriving by rail at the refinery has dropped to 10 percent from about 33 percent.

He said Irving is currently receiving about 20,000 to 25,000 bpd of crude from Western Canada, some of it synthetic crude from the Alberta oil sands.

The Lac Megantic train was carrying about 50,000 bpd of Bakken crude from North Dakota.

Sherman did not rule out a return to greater use of rail tank cars, noting that decisions on the mode of transportation are "market driven" and if price spreads between West Texas Intermediate and Brent crude "make it viable."

Bridget Hunsucker, an analyst with Genscape, expects a strong return to crude-by-rail businesses across North America because of investment in rail terminals, especially in Western Canada.

In recent earnings calls, several companies — U.S. Development, Valero and PBF Energy — mentioned they expect rail volumes to make a comeback in the fourth quarter, she said, adding "I don't think it's going away any time soon." ●

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Petroleum news

Oil Patch Bits

Adrian Gall with ABR Inc. achieves doctorate

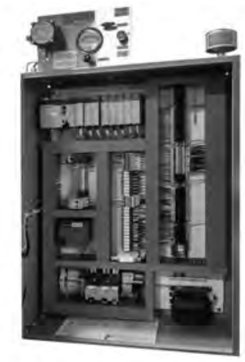

ADRIAN GALL

Adrian Gall is ABR Inc.'s newest Doctor of Philosophy in Oceanography. In early July, she successfully defended her dissertation at the University of Alaska Fairbanks, where she studied the influence of oceanography on the seabird community in the Chukchi Sea from 2008 through 2012. Her research was a part of the Chukchi Sea Environmental Studies Program, jointly funded by ConocoPhillips, Statoil and Shell. She started at ABR as a research biologist in 2005 and advanced to senior scientist in 2010. In addition to her research duties, Gall is a research coordinator at ABR with 17 years of project management experience. Now that she has completed her studies, she is looking forward to taking on new responsibilities at ABR, not to mention having more time for hockey, skiing and gardening.

aeSolutions ships first UL-listed control panels

aeSolutions, a UL 508a panel fabrication shop, has obtained NNNY and NRBX UL listings certifying industrial control panels for use in hazardous locations and shipped their first NNNY listed Burner Management System panels to an oil and gas customer in Prudhoe Bay, Alaska.

UL certifies that equipment meets certain safety standards. aeSolutions pursued the extensive testing and documentation required to obtain the following additional UL listings: NNNY-UL listing for industrial control panels and assemblies for use in hazardous, classified, locations-explosion proof, UL1203, purged and pressurized enclosures, NFPA 496, and nonincendive, ANSI/ISA 12.12.01; NRBX, 698a-UL listing for industrial control panels relating to hazardous, classified, locations-intrinsically safe barriers for circuits located in classified areas, will not cause an ignition source.



All aeSolutions industrial control panels are built to UL 508a standards. With the recently acquired NNNY and NRBX listings, aeSolutions' equipment is now also certified for use in hazardous locations.

When panels are designed and installed for classified locations, safety requirements go beyond the normal standards for industrial control panels. Additional listings are required by applicable codes and per the authority having jurisdiction. With these additional listings in place, aeSolutions will be able to efficiently design and install industrial control systems that meet these classified location requirements, and provide safety controls customers need to protect their people; their facilities and processes; and the environment. For more information visit www.aesolns.com.

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

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

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HUGGINS Q&A

last few years they have had by far the lowest unemployment rate in the state. Good for them. You say, "Well why is that?" It's because those people who work in oil and gas are doing very well and the North Slope Borough is supporting that activity, and they are doing very, very well. It's a thriving place. It has its challenges. It's cold. It's dark. But they are good people who are optimistic because they have good experiences based on the economics and the benefits that come to the local community and the people. Over the last three or four years, I've been there a half dozen times. What you see is what's centerpiece to the culture: whaling. Talking to people like the Deputy Mayor Adams, it's something to see their eyes twinkle when they talk about going out whaling and being successful while leading younger people in their culture and passing that tradition.

Petroleum News: The president will come and go next week, but for the better part of the next two years, the U.S. will be chair of Arctic Council, which places Alaska on the forefront of Arctic policy questions. How do you think this can help Alaska, the U.S. being chair of Arctic Council?

Huggins: Number one, it allows the leadership of the Arctic Commission and the state of Alaska (Craig Fleener, Gov. Walker's Arctic advisor) to hopefully steer the conversation so we get at least our fair share in hearing what our challenges are and what our expectations are. On the other hand, that's a broad based body but nobody can tell the story better than somebody is going to have the experience and acknowledge the challenges, so having an Alaskan in this kind of leadership certainly is a benefit. I'm optimistic of the results of that.

Petroleum News: With that in mind, have you met with Craig Fleener since his appointment to Walker's cabinet?

Huggins: I've met with Craig, but I haven't talked with him in depth and heard what his insights are so far. I won't say he's overwhelmed but he recognizes the enormity of his task at hand. To say he's been doing shuttle diplomacy between here and Washington, D.C., would be an understatement. He's a good man and working hard for us. I think we will see the benefits of that in the long run.

Petroleum News: Looking ahead at the prospects of a special session in the fall, we don't know what specifically is on the call. What would you like to see happen in the fall as far as a special session?

Huggins: Number one, I've encouraged leadership in the House and the Senate to meet with the governor and his different operatives to recognize the critical events to be included on the call and not have a variety of things that could get it bogged down based on time, energy and people's availability. Furthermore, I've encouraged the governor to pull the session forward so we don't bump against either Thanksgiving or Santa Claus coming. I think the best-known item that will be on the call will be our potential severing of a relationship with TransCanada when it comes to AKLNG. I think it will cost us about $108 million. I think the governor has to talk to us about where that $108 million will come from.

So that's one part. The other part is the PILT, in other words, property tax. I assume that will be one part of it. Hopefully gas balancing will be brought forward. The one that makes me the most nervous because of the timeframe involved, and maybe not a fallback, is if the governor brings forward a constitutional amendment to allow the extension of a commitment from the state for any kind of tax structure, my concern is do I think the Alaskans will pass it — I think, alright — but if they don't what's the alternative?

That makes me a bit nervous because it's high risk if you will. You always have to look at the worst case scenario. If the voters say no, what's the alternative for the state?

That couldn't happen until the following November, and in the meantime we burn through a year. There is a limbo factor. We would ask the industry to make commitments in an unknown world.

This could be done in the regular session. I don't see the criticality of doing it in special session if there are other things more critical. Or do it in a special session attached to the regular session. I learned a long time ago from my time in the military, you never bring forth an answer, you bring forth answers. Then you look at the merits of each of those and you look at the risk factors involved with each of those. The constitutional amendment concerns me if it doesn't pass what's your alternative. Have you done harm to the confidence of pulling off the AKLNG project?

Petroleum News: Let's get back to TransCanada. I know you didn't vote for the license under AGIA, but you've long said it was nothing against the state, but what are your thoughts on severing from them now?

Huggins: Well to be quite frank in crass terms, AGIA hung TransCanada around our neck to the tune of $500 million ultimately, and oh by the way, we have a contract with them.

And so in phase two of that, when we started AKLNG, TransCanada was still an albatross around our neck. Now is an opportunity to sever that. Nothing against TransCanada. When I voted against TransCanada, it was my second bite at AGIA and I lost confidence that it was going to work.

When you only had one competitor to build a pipeline. There is some reason others didn't want to compete. That concerned me. I voted against the only organization that put forth a competitive bid and that was TransCanada. Not because they weren't a good company but because they were the only ones wanting to compete.

I was concerned about why they were the only ones who wanted to complete. You remember there was great expectation that Warren Buffett's company (MidAmerican) was going to compete. Low and behold MidAmerican said they weren't going to compete.

In talking to some FERC representatives in an informal setting, walking down 4th Street in Anchorage, I asked what do you think is the likelihood of getting a project under AGIA. You know what the answer was? Zero. Zero. Not going to happen.

Petroleum News: The governor has spoken of the state owning up to 51 percent of the project. Is that realistic?

Huggins: The governor has been involved in pipelines for something like 30 years and we know we haven't built any gas pipelines in those 30 or so years. And I've been involved in three or four scenarios for gas pipelines. My point is I don't think any one of us has a super formula. As far as the state owning 51 percent, it makes me nervous to think that the state is going to be in the driver's seat in building and operating a pipeline when the state has not been very successful in building pipelines over time. If we draw too many lines in the sand, my concern is the one before us — AKLNG — appears to have the most alignment, the most cooperation and oh by the way has made the most progress thus far. That doesn't even address the issue of where does the state of Alaska come up 51 percent of the money to be able to finance a project. It's easy to come up a plan of how you are going to finance it, but, oh by the way, you've got to pay it back.

Petroleum News: OK, looking just a little further ahead, next session, there is an expectation that tax credits will be revisited after the governor vetoed $200 million worth of payments, putting them off until next year. What are your thoughts on the governor's actions?

Huggins: I'm disappointed and that's not an accurate description of the dilemma it places on us, with the governor having vetoed the tax credits. It presents an unknown destabilizing factor for people who are looking for financing for these projects. It now becomes an unknown either in Cook Inlet or on the North Slope. I haven't talked to the governor about what his rationale was. I read about it. I assume that the governor, having another opportunity, will figure out another way to shine a bright light on tax credits, if you will.

Petroleum News: OK, so should tax credits be revisited next year?

Huggins: We have to remember that ACES is part of this as well. In SB 21, we did away with a whole bunch of provisions that were involved in ACES, one of which was the amount of money we would have to pay Exxon to develop Point Thomson. At any event, as you know legislation is never perfect. You have to look at the cause and effect. Is there tweaking that should be done, I think so. But there are never simple tweaks so we've got to look at the implications and time involved, plus the stability involved. ●

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WINTER WELL

expansion that the state of Alaska approved in November 2014.

ConocoPhillips, in conjunction with a group of oil companies, drilled the Placer No. 1 and No. 2 wells in 2004, finding about 17 feet of hydrocarbon-bearing sands in the Kuparuk formation. But ConocoPhillips subsequently lost interest in the prospect. ASRC acquired the prospect in a March 2006 lease sale and in 2010 acquired the No. 1 well. ASRC also obtained the rights to a seismic survey of the Placer region.

In September 2011 the state approved a 1,480-acre Placer unit covering a portion of four leases. The state initially denied an application to expand the unit, following some reprocessing of seismic data by ASRC. However, ASRC appealed the state's decision. And, in the wake of a flurry of exploration activity by Brooks Range Petroleum and Repsol E&P USA Inc. in nearby acreage, the state, under a new administration, eventually did approve the unit expansion, subject to several conditions including the drilling of the third Placer well.

The Placer unit lies between the Colville River, to the west, and the Kuparuk River unit, to the east.

—ALAN BAILEY

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LNG UPSTART

A British-born geophysicist who moved to Vancouver a year ago, Kuzemko said more details will be released in coming months, including the projected cost, leading to a final investment decision within two years.

Malahat First Nation Chief Executive Officer Lawrence Lewis said his area is already enjoying some of the economic benefits of the mutual agreement, although he doubted construction would start before 2020.

"This is another step forward and another indication that the (Malahat nation) is open for business," Lewis said.

However, the announcement startled many of the Malahat residents and the local government.

Lori Iannidinardo, a director of the local regional district, said she first heard of the project through an online disclosure only two days before the plan was made official.

"I'm caught off guard and absolutely surprised," she said, predicting there will likely be outrage and protest from her community.

Adam Olsen, interim leader of the British Columbia Green Party and a member of the Tsartlip First Nation, which occupies land across an inlet from the terminal site, said the fact that the venture has been in the planning stage for 13 months without any public discussion taking place "is a problem."

"There are four First Nations that need to be consulted and as a member of one of this I'm staunchly against this idea," he said, while adding he does not believe the project will ever get to the starting line.

Steelhead has a former British Columbia Attorney General Geoff Plant on its board and has signed up Calgary-based private equity firm Kern Partners as its lead investor.

None have corporate sanctioning

So far none of the 14 LNG projects still in various planning stages has received final corporate sanctioning, but upstream activity in the province shows continued confidence in the outlook for LNG.

While drilling activity in northeastern British Columbia's Peace River gas region was down 23 percent in the first half of 2015 from a year earlier, companies are investing hundreds of millions of dollars in pipelines, compressor stations and gas plants, based on a gamble that commercial ventures will go ahead.

Notwithstanding the decline in drilling, Mark Salkeld, chief executive officer of the Petroleum Services Association of Canada, said that in "this day, and all things considered, it's pretty impressive."

Drilling has started on 311 new wells for the first seven months of this year compared with 392 a year ago, the British Columbia Oil & Gas Commission reported.

In July, the drilling industry said 27 of 83 available rigs were at work, representing a utilization rate of 33 percent, compared with 48 out of 77, or a 62 percent rate, in the same month of 2014.

For all of Canada 24 percent of available drilling rigs operating, reflecting the extent to which Alberta has underperformed, but northeastern British Columbia has exceeded PSAC's forecast, Salkeld said.

PSAC now expects British Columbia will drill 559 wells this year, up four from its original forecast, based on a "reasonable amount of confidence that B.C. LNG initiatives will go ahead," he said.

Progress Energy plans C$2B spend

Progress Energy Canada, wholly owned by Petronas and the biggest hope to supply gas for the Malaysian's company's Pacific NorthWest LNG project, is developing plans to spend C$2 billion on drilling and associated infrastructure, including 200 wells this year by 18 to 20 rigs, the company said.

The objective for Progress is to produce 2 billion cubic feet per day by 2019-20, the tentative commissioning target to provide feedstock for Pacific NorthWest.

Of the other leading drillers, Encana has completed its latest set of wells in the Montney shale formation west of Dawson Creek and its hydraulic fracturing operations, but does not expect to drill any more wells this year.

Otherwise, the company is continuing work on two gas compressor stations and the expansion of a C$100 million water treatment hub.

In the first four months of 2015, wellhead production in British Columbia totaled 16.8 billion cubic meters (before field losses to flaring and venting), up 8 percent from the same period of 2014, with British Columbia consumption accounting for 2.83 billion cubic meters, with most of the destined for the United States.

The provincial government granted C$115 million in deductions from royalty payments for companies building 14 industry infrastructure projects, roads or pipelines. ●

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GREAT BEAR MOVES

president and CEO and will continue to advise Great Bear as a senior geologic consultant. Great Bear is very pleased to bring on Mike Mason as president and CEO beginning September 4.”

Mason has extensive worldwide experience, including three years working for BP in Prudhoe Bay. Most recently he was regional operations manager for Apache Corp. in Egypt, Galvin said.

Karen Duncan, Great Bear’s vice president corporate, general counsel and secretary, will also be leaving Great Bear.

“Everyone in the Great Bear family is grateful for the efforts and successes of Ed and Karen Duncan,” Galvin said. “Great Bear is now poised for even greater success, and that is a credit to Ed and Karen’s past leadership.”

Great Bear has also recently hired Rick Matson, formerly of BP, as staff geophysicist and Josh McIntyre, formerly of BDO, as financial controller, Galvin said. As part of Great Bear’s management transition, Galvin will take on Karen Duncan’s responsibilities.

Lease purchases in 2010

Ed and Karen Duncan caused something of a stir in Alaska in October 2010 when their newly formed company, Great Bear, purchased more than 500,000 acres in a state North Slope lease sale. The company said that it was embarking on a program of shale-oil exploration and development, similar to the style of development employed in plays such as the Eagle Ford and the Bakken in the Lower 48, using horizontal drilling and hydraulic fracturing to exploit the North Slope’s prolific oil source rocks.

The company initially anticipated drilling four wells for production tests in 2011 and 2012 in an area where the North Slope source rocks are thought to have generated oil. These initial tests would have been followed in 2012-13 by additional production test wells, to refine a well design for a development program.

The three primary oil source rocks on the North Slope are the Triassic-age Shublik, the Jurassic-age Kingak and the Cretaceous-age HRZ/GRZ/Pebble shale. The Shublik seemed particularly suitable as a target for source rock development, although Great Bear anticipated the possibility of the simultaneous development of more than one source rock interval. And the company expected to use brackish subsurface water, abundantly available under the North Slope, for the hydraulic fracturing of wells.

During the 2011 state legislative session, Ed Duncan told Alaska lawmakers that Great Bear’s North Slope acreage contained at least 2 billion barrels of recoverable oil and 12 trillion cubic feet of natural gas. Duncan spoke of the possibility of a development program, perhaps involving the drilling of 200 wells per year, should the North Slope shale-oil concept prove viable.

Six well sites

In September 2011 Great Bear filed a plan involving the staking of six potential well sites alongside the Dalton Highway, south of Prudhoe Bay. The concept was to drill up to four wells from rig mats along a corridor that had already seen some industrial disturbance. The first wells would be drilled vertically through the North Slope’s three source rock intervals to depths of 9,000 to 12,000 feet, with the possibility of then drilling a horizontal lateral from each well, through a source rock zone, for short-term production flow tests. Rock cores would be taken from the vertical wells for lab analysis prior to making decisions regarding the drilling of laterals.

With year-round access possible at the Dalton Highway drilling sites, the concept envisaged drilling starting in early to mid-November and then continuing periodically for about 12 months.

The goal was to achieve proof of concept over a 2011 to 2012 timeframe.

And in November 2011 oil services company Halliburton, a company with extensive expertise in source rock plays in the Lower 48, partnered with Great Bear in the North Slope source rock project.

Two wells drilled

In the event, it did not prove possible to start drilling the first of Great Bear’s vertical wells, the Alcor No. 1 well, until early June 2012. Drilling started on a second well, the Merak No. 1, in August of that year. Meanwhile, in the winter of 2011-12 Great Bear shot the first of a series of 3-D seismic surveys in its acreage.

In September 2012 Duncan told the Alaska Oil and Gas Congress that the Alcor well had encountered oil, as expected, in the source rock intervals. He said that Great Bear was looking to accelerate its program, with the possibility of a development decision in the middle of 2013. In November 2012 the company said that it had completed both the Alcor and the Merak wells and that it was analyzing rock cores from the wells, as well as conducting a technical analysis of well data. However, the company did not proceed to drill any lateral wells from the two vertical wells that it had completed, nor did it drill any more vertical wells. Duncan later explained that, with Great Bear’s drilling rig contract expiring at the end of 2012, it had not been possible to continue drilling during that winter. It also transpired that the technical analysis of well data and rock core data from the initial two wells was taking longer than originally anticipated.

However, the wells had found oil-bearing source rocks in the volatile oil window, exactly as predicted, Duncan said.

Great Bear conducted further 3-D seismic surveys in its acreage during the winters of 2012-13 and 2013-14. The company has also conducted two summers of surveying in its acreage, using a laser-based technique called LIDAR to develop highly detailed topographic maps for exploration and development planning.

In September 2014 Duncan announced that Great Bear had been working with a team of geoscientists, including prominent North Slope geologists Ken Bird and Les Magoon, to assemble a massive database of geologic data, to help identify potential sweet spots for source oil development. Duncan also said that the 3-D seismic data that Great Bear had acquired was both clarifying the locations of those sweet spots and revealing a number of conventional oil prospects, thus opening up the possibility of drilling wells seeking multiple conventional and unconventional targets.

Further drilling

Great Bear subsequently filed a plan to drill three wells, the Alkaid No. 1, the Phecda No. 1 and the Talitha No. 2, during the winter of 2015 in an area to the west of the Dalton Highway, to the southwest of the Alcor and Merak wells. The drilling would target a conventional oil prospect in addition to penetrating source rock horizons. The company subsequently drilled and suspended one of these wells, the Alkaid well, but has not announced the results of the drilling. The company also conducted a fourth 3-D seismic survey in the area of its leases. The drilling and seismic surveying will presumably enable the company to further refine its options for future oil development.

—ALAN BAILEY

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THOMSON POOL RULES

of a moot point. On the other hand, the physical characteristics of the Point Thomson field reservoir and the fluids that it contains require the recycling of gas through the reservoir to maintain reservoir pressure to maximize condensate production. And, although a gas cycling development entails some technical risk, the liquid condensate could be exported though the existing North Slope oil pipeline infrastructure.

AOGCC has a mandate to ensure maximum Alaska hydrocarbon production, although the commission cannot force an oil company to conduct a project that is uneconomic. In the case of the Point Thomson, the field's condensate has a higher hydrocarbon content than the field's gas, thus making the condensate a desirable production target. And the field's Point Thomson Sand reservoir contains a thin rim of heavy oil below the massive pool of gas and condensate.

Initial Production System

ExxonMobil calls its current Point Thomson development, designed for the production of condensate through the cycling of gas through the field reservoir, the Initial Production System, or IPS. The development, which involves two gas injection wells and one gas-condensate production well, is at an advanced stage, with startup expected in early 2016. About 10,000 barrels per day of condensate from the field will be delivered to the trans-Alaska pipeline via a new Point Thomson pipeline that connects to the export pipeline for the Badami field, between Point Thomson and the central North Slope.

On Aug. 25 AOGCC formally approved ExxonMobil's request for permission to inject gas into the Point Thomson reservoir for the IPS. In its area injection order approving the request the commission said that the IPS project would not waste hydrocarbons. The commission also said that it had appropriately classified condensate and oil in the field reservoir as the Point Thomson Sand Undefined Oil Pool.

But with the production from the IPS being modest in scale, should the next step be an expansion of the gas cycling condensate production system? Or should the field focus instead on gas production, assuming that the North Slope gas export project moves ahead? Point Thomson gas looms large in the economics of the gas export project, commonly referred to as the AKLNG project.

Prefers gas export project

In its pool rule application, ExxonMobil says that it favors moving straight from the IPS to a Point Thomson gas export project, rather than expanding the gas cycling arrangements. The gas export option would result in some condensate production, but would leave more condensate in the ground than would the expanded gas recycling route. But the loss of condensate output would be offset by savings in the use of gas as fuel for driving the gas recycling process, the company says. And, while either development option would result in around the same total hydrocarbon recovery, the gas export route would bring those hydrocarbons to market earlier, the company argues.

Under a major gas export scenario, the gas offtake from Point Thomson would average 820 million cubic feet per day, with the offtake peaking at 920 million cubic feet per day in the winter, according to ExxonMobil's pool rule application. Thus, the requested annual average offtake rate of 1,100 million cubic feet per day would allow flexibility in the design and operation of the Point Thomson facilities and wells, the application says.

The ultimate quantity of hydrocarbons that can be extracted from the field is, in fact, relatively insensitive to the withdrawal rate, with the withdrawal rate impacting the length of time required to achieve maximum extraction rather than the ultimate volume extracted, the pool rules application says.

Approval needed

ExxonMobil says that it applying now for approval for its proposed development path for Point Thomson in order to obtain approval in time to support the required engineering schedules for both the proposed Point Thomson gas expansion project and the AKLNG project.

"Approval of an allowable gas offtake rate is needed to commit to the substantial Point Thomson unit engineering costs required to progress this effort and to have a firm basis to design the Point Thomson wells and facilities," the application says.

The AKLNG project is working towards a major threshold in the second quarter of 2016, at which point the project must decide whether to move into the hugely expensive stage of conducting the project's front-end engineering and design.

"A key consideration for the project participants will be that sufficient gas supplies will be available to support the project," the pool rules application says.

Gas cycling evaluated

The pool rules application says that a full-field gas cycling project for Point Thomson was intensely evaluated in the early 2000s but was not found to be economically viable.

"Major impediments were the limited amount of condensate that could be recovered, the high cost of the facilities and wells, and the significant risks associated with a gas cycling development," the application says, commenting that especially high required reservoir injection pressures form a key differentiating factor from gas condensate production elsewhere in the world.

"While the IPS production operations will provide useful information about the reservoir, no scenarios have been identified in which this information would materially improve the current outlook for the viability of expanded gas recycling," the application says.

Gas for Prudhoe

ExxonMobil says that it has also evaluated an option to inject Point Thomson gas into the primary reservoir of the Prudhoe Bay oil field. Although this option could provide a means of accelerating by one or two years the development of gas exporting from the Point Thomson field, this shortening of the timeline would be unlikely to provide sufficient justification for the development costs and diversion of resources required, the application says.

"Any further consideration of this option would depend upon progress on the AKLNG project," the application says.

With a known thin rim of oil located below the gas pool in the Point Thomson reservoir, oil production is another possibility in the field. But this oil, being heavy and viscous, would be difficult to produce — ExxonMobil says that it has evaluated this option and determined that production from the oil rim is not viable.

"Study results … indicate that initially heavy oil from the oil rim would be recovered, followed by high rates of gas and water within weeks or months of initial production," the pool rules application says. ●

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