Petroleum news

Celebrating 20 years: 1996-2016

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Crowdfunding awakens

Internet-based fundraising set to revolutionize mineral exploration financing

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PacWest drilling supply

Crowfunding awakens: Internet-based fundraising set to revolutionize mineral exploration financing. See Mining News, page 13.

Miller Energy works to confirm bankruptcy reorganization plan

Miller Energy Resources Inc. is approaching a very important date in its quest to smoothly emerge from Chapter 11 bankruptcy proceedings.

A hearing is set for 9:30 a.m. Jan. 27 in U.S. Bankruptcy Court in Anchorage to consider confirmation of Miller's latest plan of reorganization.

That plan, filed on Dec. 17, lays out how the company aims to deal with its heavy debt and other matters and continue as an Alaska oil and gas producer. The plan was formed after "extensive negotiations" with Miller's lenders and other creditors, who support the plan, court papers say.

Ultimately, holders of claims and equity interests will vote on whether to accept the plan.

see **MILLER PLAN** *page 26*

Concerns over power grid reform; MEA argues for complete analysis


JOE GRIFFITH

While working with the other Alaska Railbelt electric utilities, making progress in exploring how a single system operator might beneficially manage the Railbelt power transmission grid, Matanuska Electric Association has concerns over some issues that arise in evaluating an appropriate solution, Joe Griffith, general manager of MEA, told the Regulatory Commission of Alaska in a Dec. 29 letter. Concerns include ensuring that decisions are based on a complete cost/benefit analysis of a proposed change to the grid management; a realistic

see **GRID REFORM** *page 22*

EXPLORATION & PRODUCTION

Extension sought

BRPC cites drilling difficulties, wants time to put Mustang on production

By ERIC LIDJI
For Petroleum News

Brooks Range Petroleum Corp. wants another year to bring the Mustang field online.

The operating arm of a multi-party joint venture is asking the Alaska Department of Natural Resources to extend the term of the Southern Miluveach unit agreement to March 31, 2017, to accommodate delays in an ongoing effort to bring the Mustang field online.

Through a recent plan of development, the independent company had already publicized some of its technical difficulties at the North Slope oil field in 2015. The current request is administrative in nature.

The reserves are contained in 11 individual fault blocks, according to Alpha Energy Holdings Ltd., one of the partners in the project.

An extension would give Brooks Range Petroleum time to complete the initial production wells required to bring the field into production in 2017.

While the company has already drilled three development wells, it was only able to bring one injection well into operation. Technical difficulties stymied the two production wells.

see **MUSTANG EXTENSION** *page 21*

COMMENTARY

Herrera: slow oil climb

Industry observer says low crude spurs growth, matches demand to supply

By KAY CASHMAN
Petroleum News


ROGER HERRERA

It's anyone's guess what crude prices will do in the next five years. The Organization of Petroleum Exporting Countries predicts oil prices will begin to recover in the last half of this year, climbing to $70 a barrel by 2020 and $95 per barrel by 2040.

OPEC members produce about 40 percent of the world's crude; more importantly, the cartel's oil exports represent about 60 percent of the total petroleum traded on the world market.

The International Energy Agency sees the oil market re-balancing at $80 a barrel by 2020, "with further increases in price thereafter."

Moody's Investors Service significantly lowered its price forecasts for Brent and West Texas Intermediate crude in mid-December, amid a threat of a prolonged oversupply. The bond rating agency dropped its 2016 average price for Brent crude, the international benchmark, from $53 per barrel to $43, and for WTI crude, the North America benchmark, from $48 to $40.

Moody's expects both Brent and WTI prices to

see **HERRERA** *page 27*

FINANCE & ECONIOMY

Wobbly outlook for 2016

Alberta players tackle innovation, cost cutting in face of US$20 crude prices

By GARY PARK
For Petroleum News

It's pundit time in the oil patch, when observers and analysts start issuing their predictions and prognoses for the new year, as if moving ahead 24 hours from Dec. 31 to Jan. 1 changes everything, or, for that matter, anything.

But there is no doubt that entering 2016 is unlike any transition in the history of Canada's petroleum industry. Few years in the last generation have started off in a more unsettled state, with some experts quite happy to talk about oil slipping under US$20 a barrel.

With natural gas remaining stuck under US$3 per million British thermal units and now crude oil apparently range-bound below US$40 — notice how few, if any are talking about US$50 — corporate executives are returning to their high-rise offices from their holiday season, recovered from the shock of going without their traditional Christmas parties and bonuses.

"We simply can't rely on the U.S. market. We need to diversify." —Alberta Premier Rachel Notley

Things are so grim in the industry's Calgary headquarters that even some high-end lunch hangouts are fading from the scene, with at least five dining establishments either closing their doors or preparing to take that drastic step.

see **WOBBLY OUTLOOK** *page 22*

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● GOVERNMENT

Gara: AKLNG needs to stay the course

Anchorage Democrat, longtime House Finance Committee member, says state needs to closely scrutinize tax credits, AKLNG progress

By STEVE QUINN
For Petroleum News

House Rep. Les Gara has been around for several plans to advance a natural gas pipeline and believes the state is on the right track, but adds there are unknown variables that could still derail future progress.

The Anchorage Democrat who serves on the House Finance Committee says the state made the right move financially to buyout TransCanada and take a larger stake in the AKLNG project.

Still, he says things need to be worked out with the state's oil tax system he deems flawed for its generous tax credits against a low tax rate.

Gara offered thoughts on what lies ahead for the Legislature as it prepares for lengthy debates on the budget and priorities toward gas line progress.

Petroleum News: Before we take a look ahead at the upcoming session, let's look back briefly at the special session, which got us to the point we're at with the gas line project. What's your take on how things went?

Gara: You know, I and other Democrats said the TransCanada part of the SB138 deal was a bad deal. We tried to amend out this very weird provision that said if TransCanada withdraws, we owe them 7 percent on all of their costs. It was a no-win situation for the state. They got a guarantee of getting their costs back. They got a guarantee of 7 percent on top of that. And they owned part of the pipeline for essentially next to nothing. So I think it was good to get rid of that provision. Democrats had proposed doing that back when the bill passed in 2014.

Petroleum News: So was it about the provision or was it about having an additional partner, or a little of each?

Gara: I think TransCanada can be a very good partner, but you're not really a partner if the contract says you can jump out of the deal anytime you want, get all of your money back plus the state pays you 7 percent on top of that. At some point it's not a very good deal for the state.

So if the pipeline succeeds, we pay 7 percent. If the pipeline fails, we pay 7 percent. Why pay 7 percent extra to somebody else and not have a bigger share of the pipeline. It was just too costly for the state the way that deal was written. It was a no-win situation for the state to have a party that could back out and charge you a 7 percent rate of return. Or stay in and continue to get that 7 percent rate of return. It all came out of the state's coffers.

Petroleum News: So are you comfortable right now with the state having 25 percent ownership?

Gara: You know, the governor has more information than I do on whether this is a negotiable position at this point, after the bill has already passed. It is what it is. It would be very hard to change. If the parties felt like they could, my ears would be open. A bill has been passed, a deal has been signed and that part is going to be hard to change. It doesn't really seem realistic from where I sit.

REP. LES GARA

Petroleum News: So the 25 percent ownership is reasonable in your eyes?

Gara: It's within a range that's reasonable. Whether it's perfect or not, like I said, not knowing any confidential information the governor may have, sitting here it sits fine.

Petroleum News: Some members of the Legislature felt there wasn't sufficient communication between the administration and the Legislature, citing bills that landed on their desks at a time they considered late. Did you feel that same way?

Gara: The administration had a couple of blunders like when the attorney general would come to a committee meeting. That stuff tended to get overblown by folks who came in with the mindset that they were going to oppose this deal, oppose the governor.

There seems to be a number of people on the Republican side who are just for whatever reason constantly opposed to what this governor wants to do.

Petroleum News: But do you think you're getting enough information from the governor when you need it?

Gara: I personally think I'm getting enough information with the exception of the time the attorney general didn't show up for a committee, though it was on a tangential issue. It was not an issue relevant to the special session, but yeah, I think that was a mistake on the attorney general's part.

Petroleum News: As you think over gas line plans under the Stranded Gas Act (Frank Murkowski), AGIA (Sarah Palin) and SB 138 (Sean Parnell), where do you think the state stands now. Is it in better shape or worse shape?

Gara: It's in both better and worse shape. It's in worse shape because every time we get closer to a pipeline, the market falls out from under us. AGIA didn't fail because of Sarah Palin. AGIA failed because natural gas went from $9 an mcf to $2 an mcf. Even the oil companies didn't predict the shale oil boom that took the bottom out of the gas prices and made the project once very feasible, not feasible.

So the downside is at these prices the gas line is going to be very difficult to build. It's possible we might have to get the next phase of work done and the whole world might take a little bit of timeout selling LNG. At these prices there aren't many places in the world that can make a profit selling LNG. But these prices are not helpful for the project.

Q AND A

Petroleum News: So is there anything that gives you confidence about a gas line being advanced?

Gara: Exxon, Conoco and BP do several things very well. They are good at exploring. They are good at drilling and they are good at protecting their shareholders. You get the sense, without being in the board rooms, that Exxon is more committed to this project than the other two at this point.

You definitely need to have the companies committed and you'll go through this period of leverage where they are going to ask for as much as they can to protect their bottom line and we are going to have to have to ask to protect our constituents. That tussle will go on for a while. Anyone who is naïve enough to think the oil companies will do what's in the best interest in the state of Alaska doesn't understand how the corporate world works.

Petroleum News: Looking ahead to this coming session, you'll be facing the question of whether to change the oil tax credit system. What's your take on this?

Gara: First of all there is the white elephant in the room that nobody is talking about and a lot of legislators don't know about. In effect the Big 3, Exxon, Conoco and BP they get a 35 percent credit that the state is paying. That probably costs us over $1 billion a year. They get to deduct 35 percent of capital cost and 35 percent of the operating costs. That is essentially a credit. They pay a 4 percent tax and get a 35 percent deduction.

There are not very many profit-based taxes out there where the deduction rate doesn't match the payment rate. Here they get a 4 percent rate and 35 percent deduction. No matter how little they pay in oil taxes, they always get a 35 percent

see **GARA Q&A** page 25

● EXPLORATION & PRODUCTION

Rift appears in Alberta oil sands ranks

Players divided over provincial strategy to tackle climate change; Laricina boss insists 'big four' don't speak for industry

By GARY PARK
For Petroleum News

The initial euphoria surrounding the participation of oil sands majors, leading environmental groups and First Nations in the Alberta government's announcement two months ago on its strategy to cap carbon emissions is now facing kick-back from within the industry.

When the top executives of Suncor Energy, Canadian Natural Resources, Shell Canada and Cenovus Energy lined up behind Premier Rachel Notley in Edmonton as she rolled out her grand plan to combat climate change and rescue her province's battered reputation there was an initial assumption that the oil industry was solidly behind the premier.

Since then word has seeped out of a deep rift in the ranks of oil sands producers.

Notley's objective to limit emissions to 100 million metric tons a year, 30 million metric tons above current levels, restricting output growth by 1 million barrels per day from today's 2.3 million bpd, is now seen my many as handcuffing a sector that is estimated to account for only 1.6 percent of global greenhouse gas emissions.

Left out of the smiling industry faces, who viewed their show of unity for Notley as the best hope for silencing their strongest environmental critics, were Imperial Oil (70 percent owned by ExxonMobil), MEG Energy and Laricina Energy, among others.

Those not included

Also shunted aside was the Canadian Association of Petroleum Producers, the industry's top lobbyist, whose President Tim McMillan acknowledged his organization "did not contribute" to the formulation of Notley's policy.

In short order, Laricina President Glen Schmidt went public with his frustrations, telling the Financial Post that his group of smaller producers has no intention of playing along with Suncor, CNR, Cenovus and Shell.

"The group of four may have provided some views to the government that has allowed the government to say, 'Here is our framework.' The group of four doesn't speak for the industry," he declared.

"They speak for themselves. And now we need to get into the heavy lifting of how we are going to manage under the policy position that the government has stated."

While refusing to place CAPP in the government fold, McMillan was a shade more measured in his response, preferring to seek common ground between the two factions.

"I think on any given issue there's different points of view," he told the Globe and Mail.

"I would reserve my judgment (of the proposed emissions cap) until we have an opportunity to work on the details. There's a target, but (we don't know) how will it be implemented."

> *"The advantage of the smaller players, like our organization, is that they are keen on new initiatives and innovation ... and I'd hate to see that move sideways because there is a cap in place that doesn't allow them to take the time to do the development."*
> ***—Patricia Nelson, vice chair, In Situ Oil Sands Alliance***

Extra costs a concern

But McMillan did warn against any government moves to pile on extra costs in a sector that has terminated thousands of jobs and shelved billions of dollars worth of new investment.

He doubts confidence will be restored until oil prices regain US$50-$60 for a sustained period.

McMillan noted that Canada faces an added disadvantage in competing with shale operators in North Dakota and Texas where there is no carbon price.

So far Notley has declined to explain how her government will decide which projects get to benefit and which don't.

And Cenovus Chief Executive Officer Brian Ferguson agreed there is no answer on how the remaining 30 million metric tons carbon allowance will be allocated beyond suggesting it will "reward more efficient operators ... there's an emissions limit, not a production limit."

For Cenovus that matters deeply, since the company has plans for incremental output of 600,000 bpd on its slate.

Smaller players

Patricia Nelson, vice chair of the In Situ Oil Sands Alliance (speaking for independent developers), is determined her group should get a proper hearing.

"The advantage of the smaller players, like our organization, is that they are keen on new initiatives and innovation ... and I'd hate to see that move sideways because there is a cap in place that doesn't allow them to take the time to do the development."

Schmidt insists the three big bitumen mining companies that back Notley — Suncor, Shell and CNR — should not benefit from any government favoritism after "filling their boots" with regulatory approvals.

He said it is disappointing for smaller companies that have insisted they "want the industry to stand together ... and then they just cut and run."

Laricina, which is now under creditor protection after investing C$1.5 billion in the oil sands, urged the government to consult with all players before allocating the carbon budget.

Schmidt said the potential for "arbitrary behavior is a major concern," which some analysts think will lead to court action, further reducing Alberta's fast eroding appeal as an investment destination. ●

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● FINANCE & ECONOMY

State savings provides breathing room

Three decades of steady growth have given Alaska some much-needed time to address budget problems, economist writes

By ERIC LIDJI
For Petroleum News

Is it the '80s all over again? Maybe not. Even though Alaska is nearly as dependent on oil and federal spending today as it was 30 years ago, the overall economy is more robust today than it was after the pipeline boom, according to an article by the Alaska Department of Labor and Workforce Development.

"A larger, more mature economy makes a repeat of the massive 1980s bust less likely, but it doesn't guarantee a soft landing. The future will largely depend on policy decisions and how resilient today's economy is compared to the 1980s," economist Caroline Schultz wrote in the September 2015 issue of the state journal Alaska Economic Trends.

With 30 years of steady population and employment growth, and large savings, Alaska is in a better position to weather an economic shock than it was in the 1980s, she argued.

While the employment boom of the 1970s was expected, the economic boom of the 1980s was something of a surprise, according to Schultz. Everyone knew that the workers who flooded the state in the mid-1970s would only be around as long as it took to complete construction of the trans-Alaska oil pipeline. The economic growth of the early 1980s, on the other hand, was built upon a major increase in government spending brought about by the early years of rising North Slope oil production and high oil prices.

The growing economy once again attracted people to the state. The population of Alaska increased by 36 percent between 1980 and 1985 and 60 percent were from out of state.

With a steep drop in oil prices in the middle of the decade, Alaska entered the deepest recession in the history of the state. Employment collapsed, population declined, the foreclosure rate skyrocketed and more than 40 percent of banks failed. "When prices crashed and state spending dipped sharply, the fever turned into a flu," Schultz wrote.

Steadier growth

Today, the "immune system," so to speak, is healthier.

Unlike the oil-fueled boom of the early 1980s, economic growth has been slower and steadier over the past three decades. The population of Alaska grew 35 percent over that time, which Schultz described as "modest." More importantly, the population is more evenly distributed and less dependent on younger people. The median age is now 34.4, up from 27.5 in the early 1980s. As such, familial roots are much deeper. "Babies born in Alaska now are much more likely to have grandparents in the state," Schultz wrote.

Job growth presents a similar picture. Employment grew 6 percent per year on average between 1980 and 1985 but just 1 percent on average over the past six years. The slower growth has been reliable, though. Employment increased 26 out of the past 27 years.

A generation of growth also diversified the work force. Jobs in the food services have grown alongside the population. Jobs in health care and social services have grown faster.

Less oil to sell

But there is one crucial difference between the 1980s and today: oil production.

"When the bottom fell out of the economy in 1986, there was a light at the end of the tunnel: the volume of oil produced in Alaska was still rising," Schultz wrote.

Even though North Slope oil production peaked in 1988, the declines remained above rates during initial years of operation in the late 1970s. That started to change in the late 1990s and has only intensified in the decades since. "Even if oil prices hadn't collapsed in 2014, Alaska would have eventually lacked enough oil revenue to fund its government. The state made some hard choices about cuts in the 1980s, but not about how to fund a state budget with nonoil revenue sources," Schultz wrote. With 30 years of budget reserves built-up, Alaska has "breathing room" today, which it lacked in the late 1980s. ●

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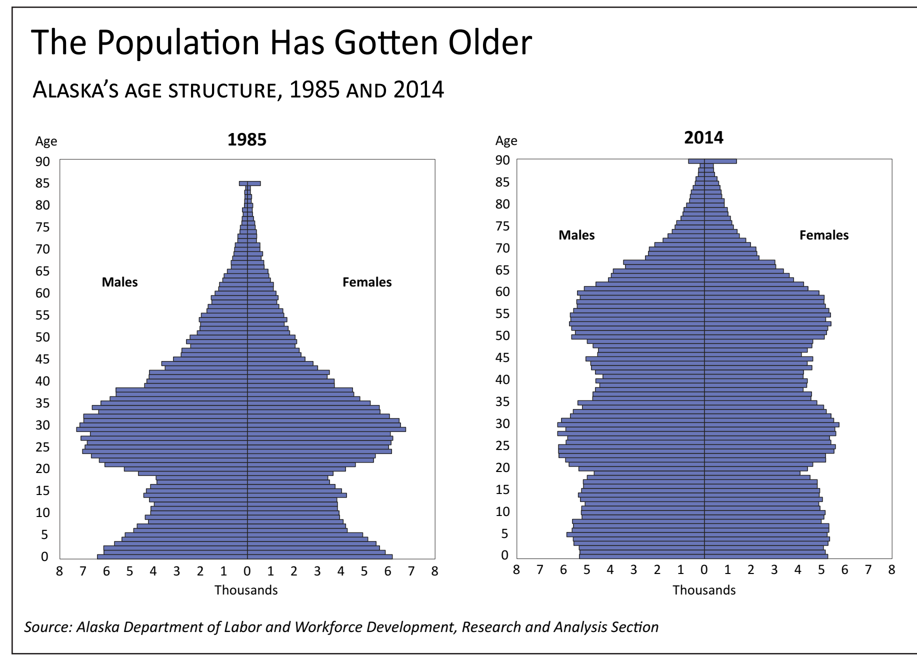
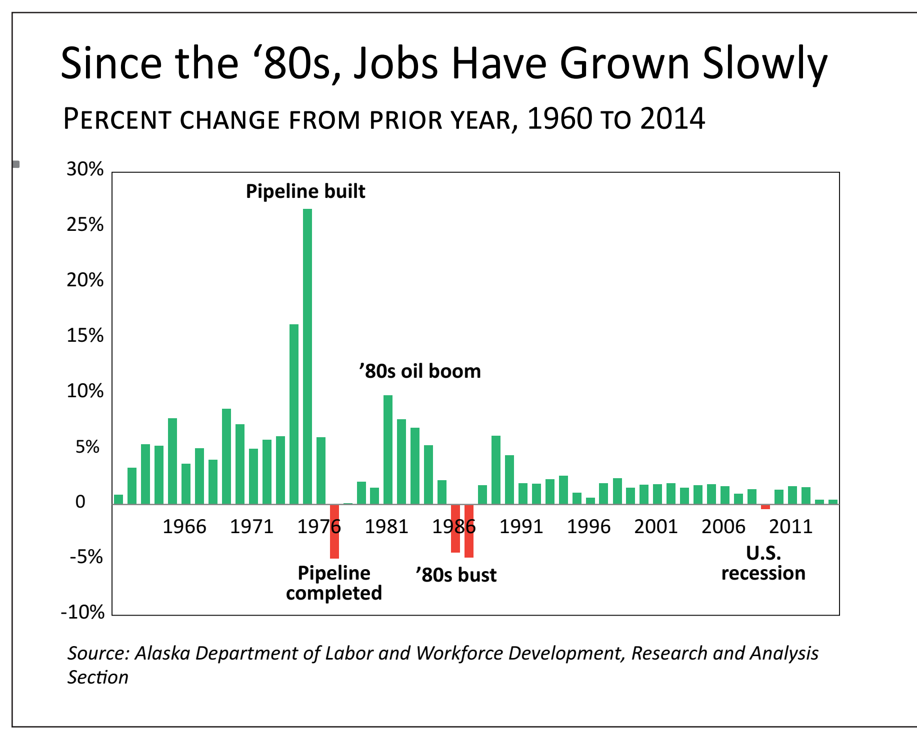




● EXPLORATION & PRODUCTION

December ANS crude down 1% from November

North Slope output averaged 550,893 bpd, down 5,520 bpd from November; Cook Inlet November production down 5% from October

By KRISTEN NELSON

Petroleum News

Alaska North Slope crude oil production averaged 550,893 barrels per day in December, down 1 percent from a November average of 556,413 bpd.

The largest percentage drop, 4.2 percent, was at the ConocoPhillips Alaska-operated Alpine field, which averaged 57,193 bpd in December, down 2,476 bpd from a November average of 59,669 bpd.

This is a fairly minor correction from the big jump Alpine took in November, up 28 percent from 46,598 bpd in October to 59,669 bpd after CD5 came online in early November.

Alpine volumes include the main field — of which CD5 is a part — and satellites at Fiord, Nanuq and Qannik.

Information for December comes from the Alaska Department of Revenue's Tax Division which reports North Slope oil production consolidated by major production centers and provides daily production and monthly averages. More detailed data, including Cook Inlet and individual North Slope fields and pools, is reported by the Alaska Oil and Gas Conservation Commission on a month-delay basis.

November AOGCC data show production from the main Alpine field up 40 percent in November, a gain of 13,026 bpd from October, and totaling 45,647 bpd, 77 percent of overall production from the field, up from 70 percent in October. Fiord averaged 10,656 bpd in November, down 1.1 percent from October; Nanuq averaged 1,477 bpd in November, down 10.3 percent; and Qannik averaged 1,471 bpd, down 0.5 percent.

Prudhoe also down

The largest per-barrel month-over-month decline was at the BP Exploration (Alaska)-operated Prudhoe Bay field, which averaged 313,440 bpd in December, down 8,456 bpd, 2.6 percent, from a November average of 321,896 bpd.

Prudhoe volumes as reported by the Tax Division include satellite production from Aurora, Borealis, Midnight Sun, Orion, Polaris, Sag River, Schrader Bluff and Ugnu, as well as from the Hilcorp Alaska-operated Milne Point and Northstar fields.

AOGCC data show Milne Point averaged 18,971 bpd in November, up 0.4 percent from an October average of 18,890 bpd, while Northstar averaged 5,957 bpd in November, down 2.7 percent from an October average of 6,127 bpd.

Increases at other fields

Other North Slope production — Lisburne, Endicott and Kuparuk — had month-over-month increases in December.

BP-operated Lisburne, part of greater Prudhoe Bay, had the largest percent increase, up 17.6 percent, averaging 28,637 bpd, a 4,275-bpd increase over a November average of 24,362 bpd.

Lisburne includes production from Niakuk, Point McIntyre and Raven

Volumes shown for Endicott, operated by Hilcorp Alaska, averaged 9,831 bpd in December, up 7.6 percent, 697 bpd, from a November average of 9,134 bpd. Endicott volumes include Eider, Minke, Sag Delta and the Savant Alaska-operated Badami field.

AOGCC data for Badami show the field averaged 879 bpd in November, down 11.4 percent, 113 bpd, from an October average of 992 bpd.

The ConocoPhillips-operated Kuparuk River field averaged 141,792 bpd in December, up 0.3 percent from a November average of 141,352 bpd. Kuparuk volumes include satellite production from Meltwater, NEWS, Tabasco, Tarn and West Sak, as well as production from the Eni-operated Nikaitchuq field and the Caelus Alaska-operated Oooguruk field.

AOGCC data for November show Nikaitchuq averaged 25,940 bpd, up 0.7 percent, 168 bpd, from an October average of 25,772 bpd. Oooguruk averaged 12,051 bpd in November, up 22 percent from an October average of 9,878 bpd. Oooguruk production has varied considerably, reaching 15,566 bpd in April 2015. The October average was a recent low volume for the field.

Cook Inlet down

AOGCC data show Cook Inlet production averaged 16,774 bpd in November, down 5.4 percent from an October average of 17,724.

The largest per-barrel drop was at the Hilcorp Alaska-operated McArthur River field, Cook Inlet's largest, which averaged 5,123 bpd in November, down 543 bpd, 9.6 percent, from an October average of 5,666 bpd.

The largest month-over-month percentage drop, 11.6 percent, was at Hilcorp's Swanson River field, which averaged 2,114 bpd in November, down 277 bpd from an October average of 2,390 bpd.

Hilcorp's Trading Bay field averaged 2,811 bpd in November, down 3.7 percent, 108 bpd, from an October average of 2,919 bpd.

Cook Inlet Energy's West McArthur River field averaged 1,211 bpd in November, down 2.7 percent, 33 bpd, from an October average of 1,244 bpd.

Hilcorp's Granite Point field averaged 2,532 bpd in November, down 1.2 percent, 29 bpd, from an October average of 2,561 bpd.

Hilcorp's Middle Ground Shoal field averaged 1,902 bpd in November, down 0.8 percent, 15 bpd, from an October average of 1,917 bpd.

Production at Cook Inlet's two smallest crude oil producing fields, Beaver Creek and Redoubt Shoal, was up month-over-month.

The Hilcorp-operated Beaver Creek field averaged 123 bpd in November, up 6.6 percent, 8 bpd, from an October average of 115 bpd.

The Cook Inlet Energy-operated Redoubt Shoal field averaged 958 bpd in November, up 5.3 percent, 48 bpd, from an October average of 910 bpd.

ANS crude oil production peaked in 1988 at 2.1 million bpd; Cook Inlet crude oil production peaked in 1970 at more than 227,000 bpd. ●

Contact Kristen Nelson at knelson@petroleumnews.com

EXPLORATION & PRODUCTION

DNR opens coastal areas for tundra travel

The Alaska Department of Natural Resources has opened the eastern and western coastal areas of state land on the North Slope for off-road winter tundra travel — the agency opened the eastern area on Jan. 4 and the western area on Jan. 5. The department says that in the coastal region soil temperatures are below minus 5 C at a depth of 30 centimeters and snow depths are greater than 6 inches, the criteria for the tundra travel opening.

However, the department also says that, although overall snow cover is good, it may be thin in some areas — these areas should be avoided or, if access is required, special construction methods should be used to protect the tundra. And any off-road driving requires a state off-road tundra travel permit.

DNR has yet to announce the opening of the lower and upper foothills areas of state Arctic lands for tundra travel.

—ALAN BAILEY

● EXPLORATION & PRODUCTION

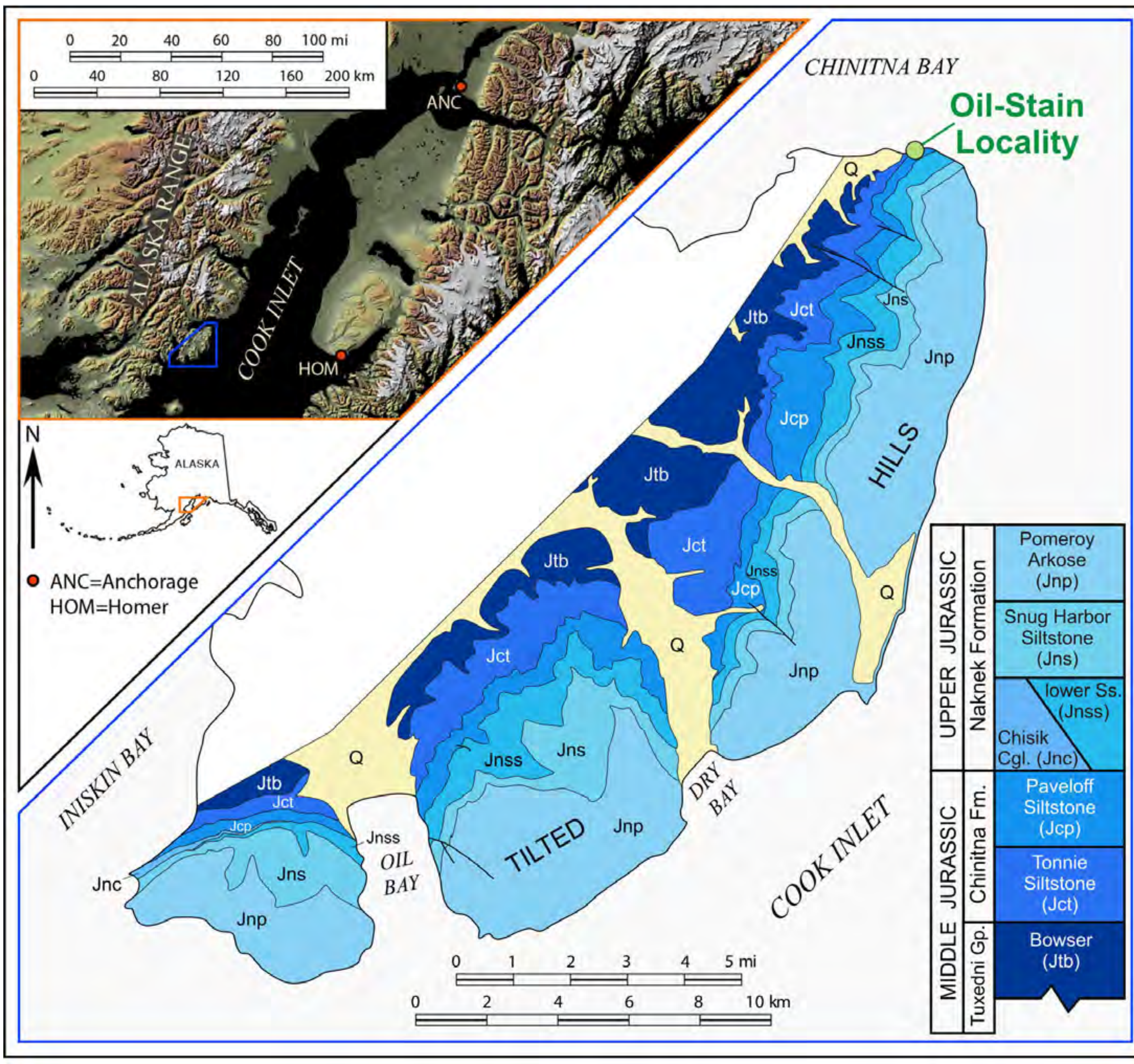
Tantalizing evidence for Cook Inlet oil

DGGS team reports on oil-stained Jurassic sandstone on Iniskin Peninsula, implications for oil potential in Mesozoic strata

By ALAN BAILEY
Petroleum News

A recently published report by geologists from Alaska's Division of Geological and Geophysical Services describes the discovery of some oil stained sandstone in Jurassic rocks exposed in sea cliffs on the south shore of Chinitna Bay, on the north side of the Iniskin Peninsula, on the west side of the Cook Inlet. The discovery came during fieldwork conducted as part of a multi-year investigation that a DGGS-led team is conducting into the petroleum geology of the Cook Inlet basin. The purpose of the investigation is to assemble publicly available data that can aid in the search for new hydrocarbon resources.

All of the producing oil and gas fields in the Cook Inlet region have hydrocarbon reservoirs in rocks of Tertiary age. But, while much of the gas has come from coal seams in the Tertiary rock sequence, most of the oil is thought to have originated from older and deeper oil source rocks in the Tuxedni group, of Jurassic age. There has long been speculation over whether as-yet undiscovered oil may exist in Jurassic or other Mesozoic reservoir rocks, buried under the Tertiary strata.



ALASKA DEPARTMENT OF NATURAL RESOURCES DIVISION OF GEOLOGICAL AND GEOPHYSICAL SERVICE

Reservoir quality

There are, however, significant concerns about the possibility of poor reservoir quality in the Mesozoic rocks, which were laid down close to a volcanic arc and tend to have grains cemented together by secondary minerals. Compaction of the rocks as a consequence of deep burial may also have compromised reservoir quality.

Although it has been proposed in the past that oil seeps on the Iniskin Peninsula are associated with oil migration along faults and fractures in the rocks, the absence of fractures in the Chinitna Bay Jurassic rocks where the DGGS scientists observed oil staining suggests that the oil is hosted inside the rock matrix, the DGGS report says. This conclusion raises the possibility that factors inhibiting reservoir quality are not pervasive but may vary, depending on the nature of the sediments involved, the report says.

The sandstone interval with oil staining is in a 100-meter thick rock package, consisting predominantly of sandstone and appearing to have been deposited on a marine shelf adjacent an ancient river delta.

Oil migration

Although it is possible that the oil permeated the sandstone prior to subsequent cementation by secondary minerals, the fact that adjacent rocks have been cemented but do not contain oil suggests that cementation took place prior to the migration of oil into the sandstone, the report says. As an alternative explanation for the ability of the oil to penetrate the rock matrix, it is possible that the existence of both coarse grained and fine grained sand particles in the oil bearing rock inhibited the penetration of the rock matrix by the fluids which would have caused the cementation. Cementation of the rock matrix is not visible in every rock stratum at the Chinitna Bay location, the report says.

"Regardless of the ultimate mechanisms controlling reservoir quality in Jurassic strata, this reported discovery of oil-stained sandstone adds to the growing database of hydrocarbon occurrences in Mesozoic rocks of the Cook Inlet, furthering the conclusion that much of the region is underlain by productive source rock," the report says. "The challenge remains predicting the (hydrocarbon) migration pathways and locating economically significant reservoir facies." ●

Contact Alan Bailey at abailey@petroleumnews.com

● FINANCE & ECONOMY

Cozying up to OPEC

University of Calgary report sees benefit in closer relationship between cartel and Canada, while stopping short of 'formal status'

By GARY PARK
For Petroleum News

There is ample evidence on many fronts of the uncertainty that prevails in Canada's petroleum industry.

Now the challenge of overcoming low commodity prices and finding new markets for oil sands production has taken a new twist.

A report by the University of Calgary School of Public Policy has urged the Canadian and Alberta governments to develop closer ties with OPEC member countries, including Saudi Arabia at a time when the Middle East kingdom has trouble finding friends anywhere.

The report noted that, based on oil export volumes alone, the interests of Canada and Alberta are no less than many OPEC members.

Whatever the prevailing rationale over the causes of the current oil price debacle, the prospect of Canada seeking closer ties with OPEC attracted a barely lukewarm response within the Canadian industry.

"Given the importance of the oil sands to the Canadian economy, the federal government should facilitate a closer monitoring of the market, including stepping up its and Alberta's relationship with OPEC, but stopping short of seeking some formal status with the organization," it said.

Many observers view Saudi Arabia's determination to hold the line on OPEC production at the current 30 million barrels per day as a tactic to weaken its neighbors, especially arch rival Iran, which is about to rejoin the global oil market.

'Potential battle'

Citigroup said OPEC's refusal to curb the glut of world-wide production is setting up a "potential battle (among shale, oil sands and OPEC producers) for market share" in the U.S. Gulf Coast.

However, Robert Skinner, a former director of policy at the International Energy Agency, once an employee in the Canadian divisions of France's Total and Norway's Statoil, and now a senior fellow at the School of Public Policy, told the Financial Post that Saudi Arabia's strategy is a market-driven action and not some "nefarious geo-political scheming."

The author of the University of Calgary report said Saudi Arabia, rather than operating as leader of a price-fixing cartel, has allowed market forces to set the price of oil rather than manipulating output and OPEC's production quotas.

Lukewarm response

Whatever the prevailing rationale over the causes of the current oil price debacle, the prospect of Canada seeking closer ties with OPEC attracted a barely lukewarm response within the Canadian industry.

Gary Leach, president of the Explorers and Producers Association of Canada, which speaks for junior operators, said that other than improving its intelligence gathering methods he is not sure what benefits Alberta and Canada would derive from a relationship.

Mark Scholz, president of the Canadian Association of Oilwell Drilling Contractors, said his organization wanted nothing to do with Canada or Alberta becoming another member of OPEC, although he did agree there could be some value in understanding the business strategies of the cartel and its associated governments.

This is not the first time that Canada and Alberta have been invited to play a role in OPEC.

Representatives in 1989

This is not the first time that Canada and Alberta have been invited to play a role in OPEC.

In 1989 Alberta sent representatives to sessions of OPEC and non-OPEC producers and in mid-2003, the OPEC president at that time said he would "be happy to see" Alberta take its place alongside other OPEC observers: Russia, Mexico, Oman and Argentina.

Those events ruffled the feathers of the Canadian government, which controls foreign relations. The senior government was especially troubled when Alberta hinted that it might be open to participating with OPEC in restraining production to bolster oil prices, although the province later backed away from that idea.

Murray Smith, then Alberta's energy minister, said it would be "important and beneficial for Alberta and Canada to know as much as we can about" OPEC competition, while seeking greater acknowledgement of the oil sands potential in the world marketplace.

In late 2006, another Alberta energy minister, Greg Melchin, and Gary Lunn, then Canada's natural resources minister, said Canada's free-market policies would not be traded for a seat in OPEC.

"We will not stray from those principles, even if there is merit in having discussions," Lunn said.

OPEC's president at that time, Edmund Daukoru, following a private meeting with Melchin, said Canada might eventually get to the point where it should listen to what OPEC is saying and "maybe, God knows, even engage in a common dialogue" that included sharing information.

Since those two short-lived flurries, there has been no talk at government level of Canada participating in any shape or form with OPEC. ●

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● NATURAL GAS

AOGCC hears CIE on North Fork pool rules

Field operator Cook Inlet Energy describes work at field, plans for wells, potential of additional pad in northern part of unit

By KRISTEN NELSON
Petroleum News

Cook Inlet Energy applied to the Alaska Oil and Gas Conservation Commission in November for pool rules for the Tyonek gas pool in the North Fork unit. The commission held a hearing on the application Jan. 5.

North Fork is on the southern Kenai Peninsula some 10 miles north-northwest of Homer.

Cook Inlet Energy senior landman Timothy Jones told the commission there are five leases at the North Fork unit, all held 100 percent by Cook Inlet Energy, and all state leases issued by the Alaska Department of Natural Resources. The company's acreage is bordered by some leased state acreage, Jones said, as well as by Cook Inlet Region Inc. acreage held by Hilcorp Alaska.

The first leases were established at the field in 1954, Jones said. Cook Inlet Energy acquired North Fork from Armstrong in a sale which closed in early 2014.

In its application Cook Inlet Energy told the commission the discovery well was drilled in 1965. Although the field had several changes of ownership there was no further exploration or any development until the North Fork leases were acquired by Denver-based independent Armstrong Oil and Gas, which brought in four partners. That joint venture reentered the original well, drilled new wells and brought the unit on production in 2011. Cook Inlet Energy said Armstrong work at North Fork included acquisition of 3-D seismic over the area, drilling additional wells and installation of production facilities.

Cook Inlet Energy petroleum geologist Greg Kirkland told the commission eight wells have been drilled in the unit, seven of which are producing natural gas. The southwest quadrant of the field has seen the majority of production to date, he said, with a largely unexplored fault block to the north where the company plans to develop a pad and drill.

Cook Inlet Energy petroleum geologist Greg Kirkland told the commission eight wells have been drilled in the unit, seven of which are producing natural gas.

With the exception of the exploration well, all wells in the field have been drilled from a single pad, Kirkland said.

Since acquiring the field Cook Inlet Energy has drilled two wells; he said the company also did a workover on the discovery well.

Commissioner Dan Seamount noted at the hearing that he had wanted to see Unocal look at developing the field when that company held the leases and he worked for them, but Unocal believed the gas potential from the field was only a half a billion cubic feet. At that time, only the discovery well had been drilled.

In addition to production facilities and drilling, bringing the field online also required a pipeline and a supply contract with Enstar Natural Gas Co., both of which were part of what Cook Inlet Energy acquired from Armstrong.

Cook Inlet Energy said in its application that the field had produced some 11.9 bcf through September and that a recent volumetric study showed there may be as much as 70-80 bcf of original gas in place, but that recovery from the area would likely be less than 30 bcf.

Seamount said the recovery estimate of 30 bcf from natural gas in place of 70-80 bcf seemed small for a gas field and asked how the company came to that conclusion.

Kirkland said there was considerable variation in the quality of the reservoirs penetrated, with some wells producing at very good rates with probable recoveries of 70-80 percent, while some of the thinner sands might have recoveries at much lower rates. In a summary statement he said recovery would vary from 80 percent to 10-15 percent.

Commission Chair Cathy Foerster asked if Cook Inlet energy had considered hydraulic fracturing at the field.

Kirkland said they have looked at it and continue to look at various types of fracks, but said no fracturing had been attempted to date at North Fork.

Foerster also asked if sands correlate across the field. Kirkland said they do correlate across the field; he said coals in particular correlate. But, he said, while intervals correlate, the sands may be separate reservoirs.

Kirkland said in summary that the filing for pool rules is from the base of the Beluga to the Hemlock. He said that without pool rules, the company has to file for exceptions to spacing rules for most of the wells drilled. He said the proposed pool rules would protect correlative rights and provides for a 1,500-foot buffer. ●

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EXPLORATION & PRODUCTION

DOG releases Cook Inlet seismic data

Under the terms of Alaska oil and gas exploration credit statutes, Alaska's Division of Oil and Gas is releasing to the public data from a seismic survey conducted onshore on the west side of the Cook Inlet. In a public notice issued Dec. 28 the division that it would release the data within 30 days. The tax credit statutes require a company that has used support from a tax credit to shoot a seismic survey to submit a copy of the resulting seismic data to the Division of Oil and Gas. The division has to hold the data confidentially for 10 years, after which time the data becomes public.

The data that the division is now releasing was acquired under the terms of a permit issued to geophysics company Veritas DGS Land. According to a map issued by the division, the survey appears to cover a broad area of land to the west and north of the village of Tyonek, on the Cook Inlet coast.

—ALAN BAILEY

NATURAL GAS

COURTESY AIDEA

The prototype 13,000-gallon LNG trailer in Anchorage in December, ready for road trials in Alaska as part of the AIDEA Interior Energy Project.

LNG trailer for Fairbanks undergoing trials

Gas utility Fairbanks Natural Gas is in the process of conducting trials of a prototype liquefied natural gas trailer, designed for transporting LNG by road to the city of Fairbanks from either the North Slope or the Cook Inlet region. The trials of the 75-foot, 13,000-gallon-capacity trailer come as part of the Interior Energy Project, an Alaska Industrial Development and Export Authority project to bring affordable energy to Fairbanks and the surrounding Interior.

Fairbanks Natural Gas is part of Pentex Natural Gas Co., a company that AIDEA has temporarily acquired as part of the Interior Energy Project.

AIDEA spokesman Karsten Rodvik told Petroleum News in a Dec. 30 email that the trailer had made three trips between the Titan LNG facility at Point MacKenzie on Cook Inlet and Fairbanks. The trailer will also make a test run from the North Slope to Fairbanks, Rodvik said.

The small Titan LNG facility is owned by Pentex and is currently used for the production of LNG for Fairbanks. The Interior Energy Project is in the process of selecting a company to develop a significantly larger LNG facility, either in the Cook Inlet region or on the North Slope, to bolster gas supplies at an economic price for the Interior. Fairbanks Natural Gas and the Interior Gas Utility, the other Fairbanks gas utility, have been extending the Fairbanks gas distribution pipeline network in anticipation of an expanded gas supply becoming available.

Although Fairbanks Natural Gas already trucks LNG from the Titan facility to Fairbanks, the style of trailer now being tested has a larger capacity than the trailers currently in use. Larger trailers would more economically support the larger volumes of LNG that the Interior Energy Project expects to be delivered to the Interior city.

—ALAN BAILEY

● INTERNATIONAL

China stages retreat from Canada

Three strategic moves by China's sovereign wealth fund have turned sour, forcing Chinese government to rethink exposure in Canada

By GARY PARK
For Petroleum News

A C$1.9 billion investment stake in the Alberta oil sands sector is not enough for China's huge sovereign wealth fund to continue operating an administrative office in Canada — the clearest signal yet that Beijing sees little hope of further expansion in Canada's battered resource industry.

Three strategic moves by China Investment Corp. since 2010 have all turned sour, forcing the Chinese government to rethink its exposure to Canada — which also includes a C$1.7 billion interest to become a major shareholder in diversified miner Teck Resources — said Wenran Jiang, of the Asia Pacific Foundation of Canada.

The oil sands holdings consist of:

•C$500 million in the initial public offering of Athabasca Oil Corp., now considered of the most overpriced IPOs in Canadian history.

Canadian oil and gas industry sources note that other ventures by state-owned Chinese companies in Canada are either in hibernation or in retreat.

•C$1.25 billion in two deals with Penn West Petroleum, which has been hit by an accounting scandal and other problems stemming from the plunge in global oil prices.

•US$150 million in Sunshine Oil Sands, a junior company that only three years ago was talking about producing 300,000 barrels per day from three thermal-recovery projects, but has stopped development of its lead-off West Ells project because it ran out of money.

•C$100 million in oil sands producer MEG Energy before that company went public.

Because other partners have jumped ship as losses piled up, CIC has been left holding either the largest or a major financial responsibility.

Major share

Because other partners have jumped ship as losses piled up, CIC has been left holding either the largest or a major financial responsibility.

In addition, Chinese investment in Canadian energy and mining firms has rapidly tailed off after state-run CNOOC completed its takeover of Nexen Energy in 2012 for US$15 billion — a deal that promoted then-Prime Minister Stephen Harper to block any further takeovers of oil sands companies by state-owned foreign entities.

Jiang told the Globe and Mail that the decline "definitely has had everything to do with the performance of CIC and its official position in Canada. It's a very different scene today (than from three years ago)."

CIC said in a statement that it "highly appreciates the kind support and assistances provide by Canadian government agencies, local institutions and other stakeholders to (our) Toronto office during its more-than-five-year operation."

"CIC applauds the open and fair investment policy and business environment of Canada and will continue to explore relevant business opportunities in Canada."

No administrative presence

Despite these positive comments, there now seems little likelihood that CIC, without an administrative presence in Canada, has any plans to resume building on what was a mere fraction of CIC's investments.

CIC was established in 2007 to help Beijing earn a higher return on its pool of foreign exchange reserves, valued at US$3.44 trillion, including US$747 billion that is managed by CIC.

Canadian oil and gas industry sources note that other ventures by state-owned Chinese companies in Canada are either in hibernation or in retreat.

Brion Energy, a Canadian unit of PetroChina, is expected to complete the first stage of its MacKay River in-situ project by mid-2016 — 18 months behind schedule — at a cost of C$2.2 billion, up C$1 billion from the original budget.

Although nothing official has been said, there is speculation that the next phase of MacKay River and the start of construction on the Dover project have been stalled.

CNOOC and Sinopec have established a significant presence in Canada's oil and gas sector, but their plans have been kept under wraps.

The only positive shift in investment has come from private Chinese capital, which has entered Canada through unnamed investors by acquiring the distressed assets of junior companies. ●

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NORTH OF 60 MINING news

page 15 Kaminak Gold to file for permits on robust feasibility for Coffee

www.MiningNewsNorth.com The weekly mining newspaper for Alaska and Canada's North Week of January 10, 2016

NEWS NUGGETS

Compiled by Shane Lasley

UNITED STATES GEOLOGICAL SURVEY

USGS releases first entirely digital statewide Alaska geological map

The United States Geological Survey Jan. 5 reported publication of a new digital geological map of Alaska that provides visual context to the abundant mineral and energy resources found throughout the state in a beautifully detailed and accessible format. "I am pleased that Alaska now has a statewide digital map detailing surface geologic features of this vast region of the United States that is difficult to access," said Suzette Kimball, newly-confirmed director, USGS. "This geologic map provides important information for the mineral and energy industries for exploration and remediation strategies. It will enable resource managers and land management agencies to evaluate resources and land use, and to prepare for natural hazards, such as earthquakes." This map is a completely new compilation, carrying the distinction of being the first 100 percent digital statewide geologic map of Alaska. It reflects the changes in our modern understanding of geology as it builds on the past. "A better understanding of Alaska's geology is vital to our

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FINANCE

Crowdfunding awakens

Internet-based fundraising set to revolutionize mineral exploration financing

By SHANE LASLEY
Mining News

There's been an awakening. Have you felt it? "Crowdfunding" is emerging as a revolutionary new force in the way mining and mineral exploration companies will raise the cash needed to discover and develop the next generation of mines.

"I am not aware of any mining activity in Alaska that has been financed by crowdfunding, although I suspect that methodology will be utilized in the near future," observed Fairbanks-based geologist Curt Freeman. "Unfortunately, its alter-ego, what I call 'crowdselling,' is alive and well, being a common financial strategy practiced by almost every shareholder in the industry over the past five years."

OSCAR JOFRE

This "crowdselling" by the traditional lot of institutional investors has sent the share price of mining companies to 21st Century lows and has left many mineral exploration companies on the precipice of insolvency if they cannot find an alternative financial solution.

Oscar Jofre, president and CEO of KoreConX, a Toronto-based firm that provides capital and communication solutions, says crowdfunding is the answer.

"Equity crowdfunding is a viable solution to this problem, and the industry can't afford to turn its nose up at it," he explained.

The online-marketing and capital-raising visionary believes that crowdfunding is not only a viable alternative to equity financing but also that the platform will revolutionize the entire mining and mineral exploration sector.

"Large $10 million deals are not going to be done the same way they were done three or four years ago – you need to adapt and this new adaption is actually better," Jofre told Mining News during a Jan. 5 interview. "Mining companies will be better, stronger; and exploration will benefit the most because it is so high-risk, it is very cash-intensive, and it is so volatile."

Crowdfunding 101

Oxford Dictionaries defines crowdfunding as "the practice of funding a project or venture by raising many small amounts of money from a large number of people, typically via the Internet."

This emerging platform for raising capital takes advantage of the ability to reach an enormous number of potential investors through vast networks of friends, family, colleagues and other like-minded individuals connected on social media websites like Facebook, Twitter and LinkedIn.

"Social media is what made crowdfunding what it is today; it allowed us to deliver a message and go viral," Jofre explained.

This expands the pool of potential investors beyond the typical banks, fellow mining companies and venture capitalists that currently rule the market.

Now, utilizing secure cloud-computing platforms provided by equity crowdfunding portals, mining and mineral exploration companies can market their shares to the billions of non-accredited investors that log onto the Internet each day.

"In a nutshell, equity crowdfunding is a new method of seeking financing that allows companies of all sizes (including startups) to raise funds through secured online platforms, giving them access to large numbers of qualified investors," KoreConX summarizes in an ebook for mining companies interested in equity crowdfunding.

This large group includes the next generation of investors, millennials, which have grown up with the internet and are coming of age in a time that crowdfunding is a growing force in the way money is raised.

"They like it because at their fingertips they can do their homework, at their fingertips they can do

see **CROWDFUNDING** *page 15*

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CROWDFUNDING

their investment, and they know it is at no cost to them," Jofre said of millennials and crowdfund investors.

Getting naked

Successful crowdfunding will require most mining and mineral exploration companies to make a major shift in marketing strategy.

Traditionally, the investor relations arm of a mining company is tasked with putting together a marketing plan targeting a relatively small pool of potential investors that are equipped with geologists, analysts, engineers and other experts needed to evaluate the plan.

Crowdfunding, by its very nature, however, requires a marketing plan to be tailored to entice a much larger audience, most of which would not be impressed by a Bingham Canyon-sized porphyry deposit or Kuroko-style volcanogenic massive sulfide deposit.

"Stop talking to your potential investors as though they're geologists or knowledgeable about the mining sector," Jofre advised.

In addition to the exposure provided by crowdfunding portals, this outreach should include providing company and project information at social media sites such as Facebook and LinkedIn.

"Mining companies need to learn how to speak to a new generation of investors, or die out," according to Jofre.

The crowdfunding advocate said that his outreach to millennials has shown that this emerging group of investors, also known as Generation Y, is surprisingly appreciative of the industry that supplies the materials that make their connected world possible.

"They actually understand the importance of mining for their daily lives," he said.

But an effective social media marketing campaign to reach these and the millions of other potential investors on the internet will require an unprecedented amount of transparency, or as Jofre likes to call it, "getting naked."

Press releases telling investors how many grams per ton gold or how well a company's stock price is doing is not what captures the imagination of Internet users. Instead, information that impacts people, regions and the world is what goes viral.

The KoreConX CEO said that posting photos and blogs about your day-to-day activities is not going to violate securities regulations, but it will connect the investors with the everyday activities of the companies they have a vested interest in.

This direct communication with shareholders will foster a pride of ownership for the individuals following the companies in which they are invested, creating a community of advocates.

"These people become the ambassadors for your company," Jofre explained.

Exchange commissions onboard

Getting naked will require a level of transparency beyond the comfort level of most mining companies that have been conditioned over the past two decades to adhere to the strict conditions of the security exchange commissions in the United States, Canada and around the globe.

"What you need is a strategy that is the opposite of what you're doing, and believe

see **CROWFUNDING** *page 16*

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NEWS NUGGETS

state's future. This new map makes a real contribution to our state, from the scientific work it embodies to the responsible resource production it may facilitate. Projects like this one underscore the important mission of the U.S. Geological Survey, and I'm thankful to them for completing it," said Sen. Lisa Murkowski, R-Alaska. More than 750 references were used in creating the map, some as old as 1908 and others as new as 2015. As a digital map, it has multiple associated databases that allow creation of a variety of derivative maps and other products. "This work is an important synthesis that will both increase public access to critical information and enhance the fundamental understanding of Alaska's history, natural resources and environment," said Alaska Department of Natural Resources Director Mark Myers. "I applaud the collaborative nature of this effort, including the input provided by the Alaska Division of Geological and Geophysical Surveys, which will be useful for natural disaster preparation, resource development, land use planning and management, infrastructure and urban planning and management, education, and scientific research." More than other areas of the United States, Alaska reflects a wide range of past and current geologic environments and processes. The map sheds light on the geologic past and present. Today, geologic processes are still very important in Alaska with many active volcanoes, frequent earthquakes, receding and advancing glaciers and visible climate impacts. "This map is the continuation of a long line of USGS maps of Alaska, reflecting ever increasing knowledge of the geology of the state," said Frederic Wilson, USGS research geologist and lead author of the new map. "In the past, starting in 1904, geologic maps of Alaska were revised once a generation; this latest edition reflects major new mapping efforts in Alaska by the USGS and the Alaska state survey, as well as a revolution in the science of geology through the paradigm shift to plate tectonics, and the development of digital methods. Completion of this map celebrates the 200th anniversary of world's first geologic map by William Smith of England in 1815." Geologists and resource managers alike can utilize this latest geologic map of Alaska, and a layperson can enjoy the colorful patterns on the map showing the state's geologic past and present.

TNR gives up 10% of Shotgun, other royalties to extend loan

TNR Gold Corp. Jan. 5 reported significant restructuring of its indebtedness to a private backer who advanced a C$3.5 million loan to the company in 2012. Instead of repayment by the end of 2015, TNR Gold and the lender have agreed to extend the due date of the loan to Dec. 31, 2018. The roughly C$4.3 million currently owed will bear an annual interest rate of 10 percent, with interest payable at maturity. In consideration of the restructuring, the lender also will receive a 10 percent interest in the mineral claims comprising the Shotgun gold property in Southwest Alaska; TNR Gold's 0.4 percent net smelter royalty in the Los Azules copper project in Argentina; and the company's two percent net smelter royalty in the Mariana Lithium project in Argentina. TNR Gold said this restructuring will allow it to pursue its business and seek strategic transactions for its mineral property assets. ●

NORTHERN NEIGHBORS

Compiled by Shane Lasley


KAMINAK GOLD CORP.

Kaminak Gold Vice President of Exploration Tim Smith and CEO Eira Thomas examine core from drilling at the Coffee gold project. Since drilling began in 2010, the Kaminak team has outlined 63.7 million metric tons of indicated resource averaging 1.45 grams per metric ton (2.97 million ounces) gold at this mine project in the Yukon Territory.

Kaminak to permit feasible Coffee gold mine

Kaminak Gold Corp. Jan. 6 said a recently finished feasibility study indicates that its Coffee gold project in the Yukon Territory represents a robust, high-margin open pit mining and heap leach project that works in the current gold price environment. As such, Kaminak intends to proceed with mine permitting to support mine construction, which is planned for mid-2018. With C$28 million as of the end of the third quarter, the company says it is well-financed to undertake an aggressive work plan in 2016 to meet these objectives. At a gold price of US$1,150 per ounce and an exchange rate of C$1.00 to US78 cents, the Coffee base case estimate generates an after-tax net present value at a five percent discount rate of C$455 million and an internal rate of return of 37 percent. The proposed mine will operate over an initial 10-year mine-life with average annual gold production exceeding 200,000 ounces for the first five years – excluding an initial three-month ramp-up period – and average annual life-of-mine gold production of 184,000 ounces. Initial capital expenditures to fund construction and commissioning is estimated at C$317 million, with a life-of-mine capital cost of C$478 million, including C$60 million in closure costs. The all-in sustaining cash costs are estimated at US$550 per oz. of gold produced. The project is expected to have a significant impact on Yukon Territory's gross domestic product, generating more than US$2 billion of gross revenue and contributing 480 permanent, high-paying jobs. Eira Thomas, Kaminak President and CEO commented: "This feasibility study firmly establishes the Coffee Project as one of the world's best undeveloped gold projects by value and margin that works in the current gold-price environment," said Kaminak President and CEO Eira Thomas. "The Coffee Project further benefits from being a simple, open pit, heap leach mining opportunity, situated near infrastructure that delivers low all-in sustaining costs and pays back capital in under two years."

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Petroleum news

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CROWDFUNDING

me it doesn't mean you will be offside with your regulatory compliance," Jofre explained.

He contends that filing restrictions are not unique to mining companies, yet other publically traded companies are constantly reaching the masses with marketing campaigns.

"Imagine if Microsoft, Apple, Google and Netflix couldn't speak to their audience. They're publicly traded companies, and each day they converse with their audience via multiple channels. So the argument that 'we are public' doesn't work," he said.

The Jumpstart Our Business Startups Act, or JOBS Act, signed into law by President Barack Obama in 2012, has helped pave the way for companies listed in the United States to raise capital through equity crowdfunding.

In October 2015, the U.S. Securities and Exchange Commission adopted rules to permit companies to offer and sell securities via crowdfunding portals.

"There is a great deal of enthusiasm in the marketplace for crowdfunding, and I believe these rules and proposed amendments provide smaller companies with innovative ways to raise capital and give investors the protections they need," said SEC Chairwoman Mary Jo White.

Jofre told Mining News that that the adoption of these rules puts the United States on par with its northern neighbor.

"Canada has had that all along," he said.

The crowdfunding advocate said that over the past month nearly C$20 million has been raised in crowdfunding transactions in Canada ranging from C$300,000 to C$7.4 million.

The rules adopted by the SEC will allow

KORECONX

individuals to invest in securities-based crowdfunding transactions subject to limits on how much a company can raise via crowdfunding, as well as on limits to how much an individual can invest. The new rules also create a regulatory framework for the broker-dealers and funding portals that facilitate the crowdfunding transactions.

The forms enabling crowdfunding portals to register with the commission will be effective on Jan. 29.

Getting started

Currently, there are no crowdfunding portals specifically tailored for the mining and mineral exploration companies hoping to connect with the some 1.8 billion people using social media today – a figure that is expected to climb to 2.5 billion, or roughly one-third of Earth's population by 2018. This, however, is about to change.

Klondike Strike, a mining investment platform in which Jofre had a hand in creating, will be coming online in Canada later this month.

"Klondike Strike will be going live in Canada and then expanding to the United States, Australia, South Africa, U.K. (United Kingdom) and Hong Kong," the KoreConX CEO explained.

Chad Williams, a mining engineer and analyst that served as president and CEO of Victoria Gold Corp. for nearly four years, is to serve as the president and CEO of Klondike Strike.

While Klondike Strike is tailor made for mining, there are dozens of other equity crowdfunding sites a mineral exploration company could utilize.

Whether a mining or mineral exploration company uses Klondike Strike or some other portal, a significant amount of information will be required for the portal to carry out its due diligence on the company hoping to raise funds. This appraisal is to protect the reputation of the portal and the crowd coming in on the investment side, as well as ensure the investment site is meeting securities regulations.

"A company must pass the rigorous due diligence that the portal must do because the portal, in the back end of it, is operated by a brokered dealer," explained Jofre.

The equity raising visionary said that most mining companies will run across questions during the registration process at crowdfunding portals that have not been asked by traditional brokers.

"They need it because they are protecting the crowd," he explained.

In addition to providing a bridge between mining companies and a large pool of potential investors, Klondike Strike promises to provide extensive legal, marketing, social media and other tools for the exploratory companies that are adventurous enough to pioneer in this new world of finance.

Mining and mineral exploration companies that plan to wait for the uptrend in the cycle to return and raise capital through traditional channels are apt to find that the awakening of equity crowdfunding in the sector is a force that is changing the financial landscape.

"This is part of a bigger issue that is rippling around the world, which is, the banks are being disrupted by crowdfunding because of peer-to-peer lending," Jofre said.

"The change has come for those who are ready to be fully transparent," he added. ●

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NORTHERN NEIGHBORS

Copper prices press Huckleberry to stop mining at B.C. operation

Imperial Metals Corp. Jan. 6 reported the suspension of pit operations at the Huckleberry copper-gold-silver mine in central British Columbia. Imperial holds 50 percent interest in Huckleberry Mines Ltd., owner and operator of the mine. The balance is held by a Japanese group consisting of Mitsubishi Materials Corp., Dowa Mining Co. Ltd. and Furukawa Co. Huckleberry Mines Ltd. said the suspension of mining will affect 100 of its 260 employees, the balance of the work force will continue milling stockpiled ore. Imperial said efforts to reduce operating costs at the Huckleberry mine have not been sufficient to offset declining copper prices. Huckleberry had an excellent operating record in 2015 with no loss-time accidents. In December, Huckleberry received a reclamation award and a commendation for its work with the local First Nations from the Government of British Columbia.

TerraX prospecting discovers new targets at Yellowknife Gold

TerraX Minerals Inc. Jan. 5 reported final results from a fall surface exploration program at its Yellowknife City Gold Project, situated immediately north of the capital of Northwest Territories. This final batch of results included additional high-grade discoveries at the property's core gold area. Visible gold was identified in a newly discovered vein about 200 meters southeast of the Pinto structure. Assays from grab sampling in this area returned 108 grams per metric ton gold, 65.7 g/t gold and 35.2 g/t gold. Roughly 1,500 meters to the west, numerous quartz veins in the JED area returned assay of 133.5 g/t gold, 30.4 g/t gold and 20.6 g/t gold. The fall sampling also encountered strong polymetallic mineralization. The Ryan Lake pluton, located south of JED, returned assays of up to 12.35 g/t gold, 45 g/t silver, 3.23 percent lead, 1.31 percent zinc, and 0.53 percent molybdenum in separate samples. At Shear 17/18, located west of the JED area, sampling yielded up to 4.94 g/t gold, 51.9 g/t silver and 1.24 copper in separate samples. These samples also returned greater than one percent molybdenum, which exceeded the detection limit, so final assays are pending. The fall sampling also identified three new areas that are similar to the Hebert-Brent (H-B) area. Considering the recent success in drilling at the Hebert-Brent discovery, TerraX said the three similar areas are priority targets for continued exploration. One of the new priority areas is a southern fault offset of Hebert-Brent. Structural interpretation indicates that the southern extension of the Hebert-Brent stratigraphy is offset roughly 500 meters northeast. TerraX says this southern offset contains all the favorable rock types, and is transected by mineralized structures that include gold assays up to 19.7 g/t gold in grab sampling. These samples also contain anomalous levels of antimony and arsenic, which are characteristic of the Hebert-Brent replacement-style gold mineralization. The Sericite zone, located about 1,000 meters northeast of Hebert-Brent, is another priority target. The alteration zone at Sericite is up to five times larger than Hebert-Brent. Sampling in this area has returned low-grade gold, with anomalous silver and antimony. Townsite Formation, the third-priority target, is a large area of favorable geology with extensive sericitic and carbonate alteration with associated gold mineralization. Grab sampling in 2015 returned large areas of anomalous gold up to 6.57 g/t gold, base metals and silver. Townsite has received very little exploration attention, and TerraX intends to carry out detailed mapping and sampling of this area in 2016. Follow-up exploration on the other targets identified during the fall program will also be carried out this year. Additionally, TerraX said it will soon be announcing multiple high-priority targets for its 2016 winter drill program, scheduled to begin in mid-January. TerraX is fully funded to carry out all its budgeted exploration programs in 2016.

Osisko adds C$50 million to its buying power; eyes investments

Osisko Gold Royalties Ltd. Jan. 4 said it has amended its revolving credit facility with National Bank of Canada and Bank of Montreal, thereby increasing the amount of the facility from C$100 million to C$150 million and extending its term to Dec. 23, 2017. The facility is to be used for investments in the mineral industry, including the acquisition of royalties and funding precious metal streams. Osisko CEO Elif Lévesque said, "This increased facility complements our strong cash and working capital position as we evaluate further investments, while we maintain a prudent approach to the management of our balance sheet. Osisko has no current debt outstanding." The credit facility will be secured by Osisko's assets and, as previously, the facility may be further increased by C$50 million at Osisko's request. Osisko is an intermediate mining royalty and exploration company that holds 49 royalty assets, including two world-class gold royalty assets in Quebec. The company also owns 16.8 percent of TerraX Minerals Inc.'s shares and a one percent royalty option on that company's Yellowknife City Gold Project; 9.9 percent of the shares of Nighthawk Gold Corp., another gold explorer with assets in Northwest Territories; and 19.9 percent of the shares of Oban Mining Corp.

Nighthawk trims land position, costs at Indin Lake, Nunavut

Nighthawk Gold Corp. Dec. 29 said it has decided to allow to lapse its option to acquire the Kim and Cass properties, which include four mining leases adjacent to its Indin Lake gold property. The company entered into an option to acquire Kim and Cass late in 2013. Nighthawk said it is allowing the option on these satellite properties to expire in order to focus its cash and resources on further exploration of the core of its Indin Lake gold property, located 220 kilometers (135 miles) north of Yellowknife. Since 2010, Nighthawk has accumulated a large land position along an 80-kilometer- (50 miles) long corridor in the Indin Lake gold area of Northwest Territories. The Kim and Cass properties represented a 7,588-acre area along the west side of the north-south trend blanketed by Nighthawk claims. The company continues to hold 222,203 acres in the Indin Lake Gold Camp. ●

● PIPELINES & DOWNSTREAM

Crude oil exports: boon or bust?

By TONY SCOTT

Partner & director of Analysis
BTU Analytics LLC

On Dec. 23, Enterprise Products Partners (NYSE: EPD) announced that the first cargo of U.S. domestic light sweet was contracted to be loaded in January by Vitol taking 600,000 barrels of crude oil from the U.S. to destinations yet unknown but rumored to be Europe.

Within days of the end of the export ban, producers found a new market and now the Brent to WTI spread has shifted with WTI a premium to Brent for the fourth time this year (January, June, and November, and December). In each of the previous flips in the spread, WTI premiums remained unsustainable as U.S. production remained strong and U.S. producers were required to price themselves into the stack of the U.S. refining slate. Now with production off its peak levels, new condensate splitters starting up in Corpus and Houston and a global glut of light sweet crude, do exports provide any boon to U.S. producers and could it lead to a bust of U.S. refiners?

Not all crude equal

With WTI now a premium to European markets, as well as the U.S. dollar's continuing strength, why would global refiners choose to purchase U.S. barrels? And if they do, where are they most likely to purchase them from? To answer those questions, we must understand what drives a refinery's purchasing decisions because not all crude oil is created equal.

Factors influencing a refinery's purchasing decisions include, but are not limited to: supply stability; product consistency (gravity, metals, sulfur content, etc.); distillation yield and resulting crack spread; logistics; the U.S. and Canadian markets offer functioning legal systems, highly efficient infrastructure, and liquid futures markets and hundreds of potential counter-parties, something crude sourced from countries like Venezuela or Nigeria can't match.

As markets watch for additional Gulf Coast exports, we wondered what other opportunities for reliable exports from the U.S. might exist and the potential implications to producers, midstream providers, and refiners. Going back in history, Alaska exported some 70,000 bpd of crude oil from 1996-2000 peaking at 193,000 bpd in January 1998.

Exports to Japanese and Korean refiners dried up for 14 years, but in September 2014 ConocoPhillips exported an 800,000 barrel cargo of Alaska crude to South Korea and an additional cargo was exported in April of 2015. These exports were done utilizing higher cost Jones Act vessels that had to utilize inefficient routes to reach the Korean market due to the exemption limitations in the crude oil export ban. If spreads were wide enough in 2014 to justify exports, are spreads still wide enough with the repeal of the ban to incentivize Alaska barrels to flow to Asia instead of the U.S. West Coast?

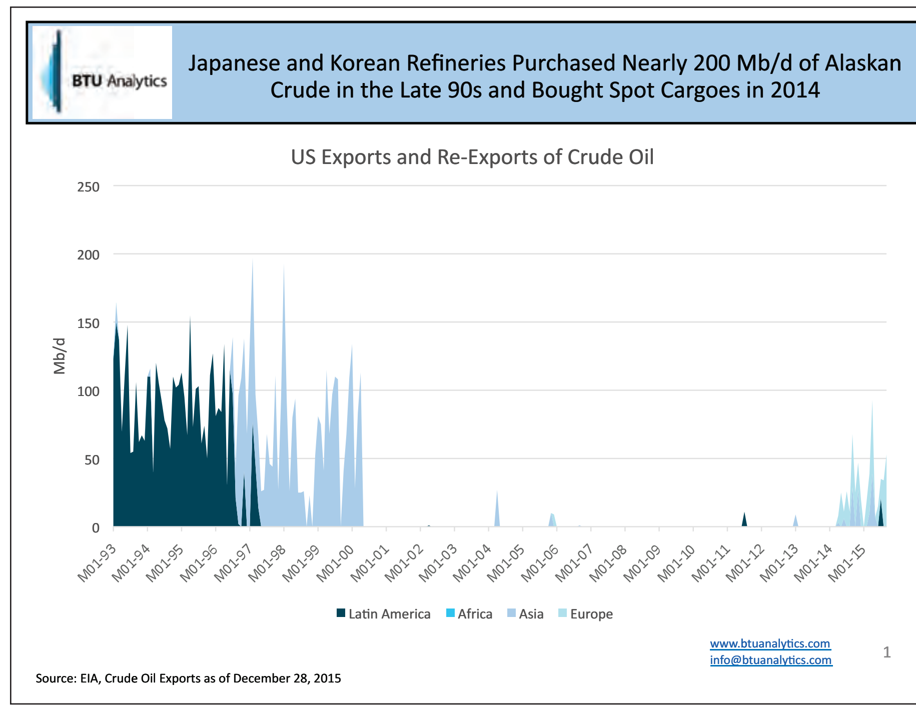
ANS vs. similar crudes

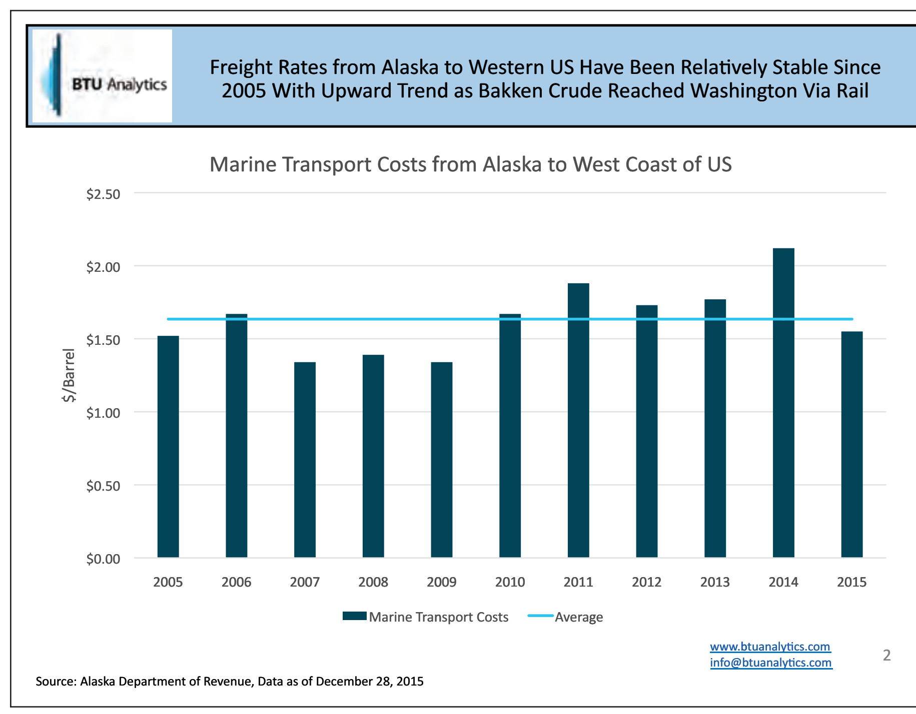
In order to answer that question, we first need to look at the cost of procuring Alaska North Slope crude (ANS) versus competing grades of similar quality. For this analysis, we selected Arabian Gulf Dubai Fateh spot prices. Both crude oils are an intermediate grade (about 31 API) with sulfur contents of about 0.7 percent and 2 percent respectively making the pricing between the two crudes fairly comparable not accounting for distillation differences. Since ANS spot cargoes are primarily delivered to refineries located in Washington and California, benchmark pricing for ANS is assessed there. In 2015, ANS on the West Coast averaged $51.74/bbl compared to Dubai crude that averaged $51.44. However, suppliers looking to buy Alaska crude for export would much rather buy the barrel at Valdez, Alaska, rather than from the West Coast, so we need to back out the shipping costs incurred between Valdez and the West Coast utilizing Jones act vessels. The Alaska Department of Revenue provides average costs for shipping to California and Washington refiners.

2015 cost

In 2015, that cost has averaged $1.55 per barrel reducing the acquisition cost of ANS crude to $50.19 giving refiners in Asia a $1.25/barrel advantage in barrels purchased for loading at Valdez over Dubai.

The next step is to factor in the cost of shipping the crude oil to ports in Asia. For our analysis, we picked a single import point, the port of Chiba in Japan, to compare estimated shipping costs. Freight rates, sourced via Bloomberg, for a VLCC in 2015 from the Arab Gulf to Japan averaged $2.19/barrel. While a dirty tanker rate from Valdez to Japan couldn't be found, one could estimate the cost based on comparative shipping distances. If the ship originated in Dubai and traveled to Chiba, it would need to travel 6,337 nautical miles compared to a tanker originating in Valdez, which would only travel 3,419 nautical miles, a route that is 46 percent shorter than originating in Dubai. Assuming the tanker rates are perfectly scale-able to distance, the freight rate from Valdez, Alaska, to Chiba, Japan would have only been $1.18/bbl in 2015. Advantaged feed stock costs of $1.25/barrel combined with advantaged logistics costs of $1.01 would boost refinery margins in Chiba, Japan by approximately $2.25/barrel based on 2015 average prices.





The margins to support Alaska export economics appear to be there, and could materially impact volumes previously destined for the U.S. West Coast. For more data and analysis on the ramifications of crude exports and expected impacts to midstream logistics in North America, attend BTU Analytics' Conference: What Lies Ahead, on February 4, 2016, in Houston. ●

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● ASSOCIATIONS

AOGA celebrates 50th anniversary

By KAY CASHMAN

Petroleum News

Mark your calendar. Alaska's lead oil and gas organization plans a celebration May 25 to kick off its 50th anniversary.

The Alaska Oil and Gas Association was founded in 1966, not long after the northernmost territory became the 49th state of the union.

Initially AOGA, which represents producers, explorers, refiners and pipeline companies doing business in the state, was as a chapter of the Western Oil and Gas Association, now known as the Western States Petroleum Organization.

The story of oil and gas exploration and production throughout Alaska began more than 100 years ago, but the milestone that meant the most to Alaskans occurred in 1957, when Richfield announced the discovery of the 250 million barrel Swanson River field on the Kenai Peninsula — the first truly commercial discovery in the state.

Crude averaged $3 a barrel that year. In the minds of Alaskans and some federal officials, Swanson River represented a small fortune; a sustainable resource that could provide a fledgling state with a secure economic base.

In 1959, the U.S. Congress granted Statehood to the Territory of Alaska.

1960: Oil revenues a whopping $10 million

In 1960, the Census Bureau estimated the population of the northernmost state to be 226,167.

State petroleum revenues that year were a whopping $10 million.

By 1961, they had increased to $26 million, some of which came from oil and gas lease sales in the Cook Inlet basin.

In 1964, the state of Alaska held its first Prudhoe Bay lease sale.

In 1968, Prudhoe Bay, the largest oil field in North America was discovered. State petroleum revenues rose to $52 million.

In 1969 Alaska received $900 million from a North Slope lease sale.

'Clicking' along' until mid-1980's price crash

"Things clicked along" until the mid-1980's oil price crash, when the parent association "was going to slash the Alaska chapter's budget," Kara Moriarty, current CEO and president of AOGA, told Petroleum News in a Dec. 31 interview.

"We broke off and became the only standalone oil and gas trade association in Alaska … that's still true today."

It is "safe to say," Moriarty noted, that since its inception in 1966, the non-profit has monitored and weighed in on every major federal and state policy issue impacting Alaska's oil and gas industry, working closely with other stakeholders and government officials.

"Our mission has remained the same," she said: "To foster the long-term viability of the oil and gas industry in Alaska."

AOGA does not, however get involved in federal oil and gas issues that do not directly impact Alaska, Moriarty said, giving the recent export legislation as an example: "Alaska was already able to export oil."


EXTRA Anchorage Daily Times EXTRA

WE'RE IN

64-20 VOTE MAKES ALASKA 49th STATE

Victory Brings Quick Reactions

She Goes Up Tonight

Historic Vote Ends 6 Days Of Debate

The Swanson River discovery convinces Congress the oil industry can provide the economic basis for statehood.


GIL MULL

Drill stem test No. 5 on Feb. 18, 1968, recovered both gas and oil and clearly showed that oil could be produced from Prudhoe Bay State No. 1

Present-day oil price environment challenging

How have low oil prices impacted AOGA's members, the majority of which are oil and gas companies?

"It's been challenging for everyone," Moriarty said, although the association "does not engage in Alaska's fiscal plan" debate, it does involve itself in tax policy changes prompted by decreasing state revenues.

Alaska's current production tax, SB 21, was engineered to be robust across a broad range of prices, giving state coffers better protection at low oil prices than the previous tax policy.


KARA MORIARTY

No one can, with any certainty, predict what commodity prices are going to do and changing tax policy every time there is a major oil price fluctuation is a strong disincentive to oil company investment in the state, Moriarty said.

"It sends the wrong signal," one of "instability," to companies already pulling back on spending in the Lower 48 and the rest of the world.

One "key protection of SB 21 is that at today's low prices, the state actually generates more production tax revenue than they would have under the former system," Moriarty said. She added that another key component of SB 21 comes from directly incentivizing oil production through targeted tax credits, which have been successful, she said, pointing to the substantial increase in oil company investment on the North Slope.

"Since SB 21 became law projects that have been announced total more than $5 billion," and Alaska oil production, which had been in decline, has stabilized and, in the last quarter of 2015, appears to have increased.

Alaska's oil and gas policy generates not only tax revenue, but also royalties to the state as the land owner, royalties that feed the Alaska Permanent Fund.

"More importantly," Moriarty said, maintaining or growing production also "provides essential job growth and economic stability" for Alaskans.

"Our friends in the Lower 48 are experi-

see AOGA AT 50 page 20


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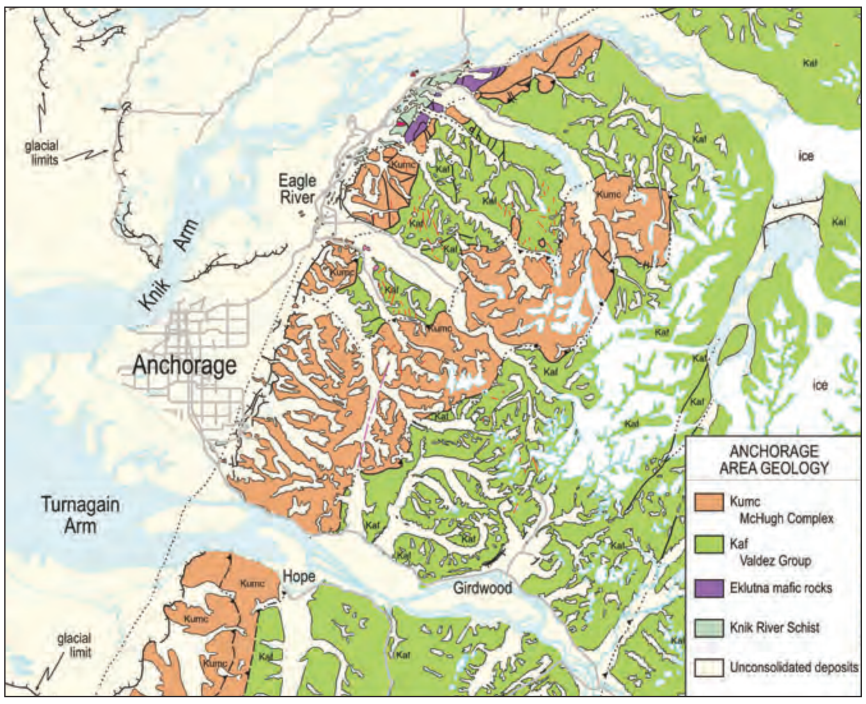

U.S. GEOLOGICAL SURVEY

A map of the Anchorage area from the new digital geologic map of Alaska depicts Anchorage, sitting on loose glacial deposits juxtaposed against the bedrock exposed in the adjacent Chugach Mountains.

First digital Alaska geologic map published

The U.S. Geological Survey has released the first ever digital geologic map of Alaska, the agency said Jan. 5. The map provides in a beautifully detailed and accessible visual format a context for the abundant mineral and energy resources found throughout the state — it will provide land users, land managers and scientists with information for the evaluation of land use for resource extraction, conservation, natural hazards and recreation, USGS said.

The map, a completely new compilation of geologic data, builds on knowledge from the past while also reflecting modern geologic concepts. More than 750 reference sources ranging in origin from 1908 to 2015 contributed to the map's contents. And, being digital in nature, the map and its associated database will enable the creation of a variety of derivative maps and other products, USGS said.

"I am pleased that Alaska now has a state-wide digital map detailing surface geologic features of this vast region of the United States that is difficult to access," said Suzette Kimball, newly confirmed director of USGS. "This geologic map provides important information for the mineral and energy industries for exploration and remediation strategies. It will enable resource managers and land management agencies to evaluate resources and land use, and to prepare for natural hazards, such as earthquakes."

"This work is an important synthesis that will both increase public access to critical information and enhance the fundamental understanding of Alaska's history, natural resources and environment," said Mark Myers, commissioner of the Alaska Department of Natural Resources. "I applaud the collaborative nature of this effort, including the input provided by the Alaska Division of Geological and Geophysical Surveys, which will be useful for natural disaster preparation, resource development, land use planning and management, infrastructure and urban planning and management, education, and scientific research."

—ALAN BAILEY

● GOVERNMENT

Court says incidental take appeal moot

9th Circuit judges dismiss appeal against Fish and Wildlife Chukchi Sea walrus regulations because no exploration planned in region

By ALAN BAILEY
Petroleum News

The U.S. Court of Appeals for the 9th Circuit has dismissed as moot an appeal against U.S. Fish and Wildlife regulations governing the authorization of the unintended minor disturbance of walruses in the Chukchi Sea during offshore oil and gas exploration. A group of six environmental organizations had launched the appeal against the regulations, which Fish and Wildlife introduced in 2013. The Alaska Oil and Gas Association, representing a number of companies in the Alaska oil industry, had intervened in the appeal, in support of Fish and Wildlife.

In July the federal District Court in Alaska rejected the appeal, which was subsequently elevated to the 9th Circuit Court. A panel of three 9th Circuit judges has found the appeal to be moot, given the facts that Shell has discontinued its Chukchi Sea oil exploration and that no other companies anticipate exploring in the region in the foreseeable future.

"The threat of harm on which the foundation of this action rests, the USFWS-countenanced disturbance of walruses by oil and gas firms, has melted away like so much Chukchi ice," the judges wrote in a Dec. 31 court order.

The judges also pointed out that the disputed regulations expire on June 12, 2018, and that there are no impending applications for oil and gas exploration activities in the region to which the regulations apply.

Hanna Shoal

At issue in the appeal was a provision within the regulations that distinguishes the Hanna Shoal region of the Chukchi, a region commonly used by foraging walruses. Under the regulations, Fish and Wildlife reserves the right to specify some mitigation measures for this region on a case-by-case basis, based on a determination of how a specific activity may impact the walruses.

The environmental organizations

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AOGA AT 50

encing drill rigs going idle, job layoffs" and major reductions in capital spending by the oil industry, she wrote in an opinion piece a year ago.

Although oil prices have fallen about 35 percent since then, to approximately $35 a barrel, capital spending cuts by the industry in Alaska are minor compared to reductions in the Lower 48 and elsewhere.

"We need our elected officials to strongly reinforce the stability of our tax and regulatory policies," she wrote a year ago — a position supported by AOGA today.

As for how the low commodity price environment is impacting the oil companies doing business in Alaska, Moriarty said AOGA members are focused on increasing the efficiency of oil and gas operations, while growing production in a safe manner.

If one drop of oil spills it has to be reported

One of the AOGA's strengths is that its staff has historical and institutional knowledge crucial to the individual member companies, where executives are periodically rotated in and out of the state.

AOGA also works to educate the public about the oil and gas industry, an important task because "an overwhelming portion of the state's unrestricted general fund, which is used to pay for education, public safety, road maintenance and more, comes from oil and gas taxes and royalties. … One-third of the jobs in Alaska are tied to the industry," Moriarty said.

AOGA's latest public education project is Brain-i-AK, a web site, www.brain-i-ak.com, where the public can ask questions about the industry. Answers are supplied by trusted third party sources, such as various state and federal agencies.

There is also a 10-question quiz that tests your basic knowledge of the state's oil and gas industry, including some surprising ones, such as:

• Every one job in Alaska's oil and gas industry creates _______ jobs in Alaska's public and private sector.

Your choices: 2, 5, 12, 20.

The correct answer is 20.

• How large must an oil spill be on North Slope water or tundra before it must be reported?

Your choices: 1 drop, 1 liter, 1 gallon, 10 barrels.

The correct answer is 1 drop.

More information about AOGA can be found at www.aoga.org. ●

Contact Kay Cashman at publisher@petroleumnews.com

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MUSTANG EXTENSION

Toward the end of 2015, the state approved a third plan of development for the Southern Miluveach unit. Instead of covering activities a year or longer, as is typical for plans of development, this plan covered just a few months, until the end of the unit agreement.

Under the plan of development, Brooks Range Petroleum must complete outstanding engineering work, commission remaining production modules and either modify its existing drilling rig or secure a contract for a different rig by the end of March 2016.

A one-year extension would give Brooks Range Petroleum additional time to complete the associated drilling activities that are required to bring the unit into production.

To support its request, Brooks Range Petroleum has pointed to previous work.

To date, the company and its partners have spent approximately $145 million on the project, according to Brooks Range Petroleum. Those costs include building the Mustang Road and Mustang Pad, drilling wells and conducting associated engineering and studies.

The state is taking comments on the request through Feb. 1.

In August 2014, the Alaska Venture Capital Group LLC and Ramshorn Investments Inc. sold most of their Alaska oil and gas operations — including complete ownership of their operating arm Brooks Range Petroleum Corp. — to a new three-party joint venture.

A slow start

When the state approved the five-year Southern Miluveach unit agreement in 2011, Brooks Range Petroleum said it planned to bring the unit into production by July 2014.

By the time the company submitted its first plan of development for the unit in October 2013, it had slightly deferred the timeline, placing first oil "as early as 4Q 2014."

In August 2014, the Alaska Venture Capital Group LLC and Ramshorn Investments Inc. sold most of their Alaska oil and gas operations — including complete ownership of their operating arm Brooks Range Petroleum Corp. — to a new three-party joint venture.

According to state Division of Oil and Gas documents from early December 2015, Brooks Range Petroleum now operates the Southern Miluveach unit on a behalf of seven working interest owners. The three-party joint venture is Caracol Petroleum LLC (36.28 percent), TP North Slope Development LLC (22.46 percent) and MEP Alaska LLC (10.37 percent). The Alaska Industrial Development and Export Authority also invested in the infrastructure associated with the project and is a working interest owner through two joint ventures: Mustang Operations Center 1 LLC (20 percent) and Mustang Road LLC (1 percent). And Ramshorn Investment Inc. (6.08 percent) and AVCG LLC (3.82 percent) each retained small working interests in the unit after the sale closed.

The sale brought Brooks Range Petroleum some stability when it came to financing but delayed its timeline. In late 2014, in documents supporting its second plan of development, the company moved the startup date for the unit to April 2016. Hitting the target would require contractors to simultaneously progress engineering, design, procurement and fabrication for various aspects of the development, the company said.

The Mustang field is targeting a somewhat geologically complex reservoir in the Kuparuk sands. The reserves are contained in 11 individual fault blocks, according to Alpha Energy Holdings Ltd., one of the partners in the project.

Technical difficulties

When Brooks Range Petroleum submitted its proposal for a third plan of development in September 2015, the company moved its target once again, this time to late 2016.

The company blamed the delay on technical, political and economic obstacles.

"Due to a myriad of mechanical and reservoir problems encountered while drilling during the period of the 2nd POD, none of the wells intended as producers were completed in the Kuparuk reservoir," Brooks Range Petroleum told state officials in the plan of development. The problems largely involved subsurface conditions encountered during the drilling process in 2015. To resolve the problem, the company needed to modify its rig with managed pressure drilling equipment or find a rig with this equipment installed.

The Mustang field is targeting a somewhat geologically complex reservoir in the Kuparuk sands. The reserves are contained in 11 individual fault blocks, according to Alpha Energy Holdings Ltd., one of the partners in the project. The development program calls for horizontal production wells to target these blocks and vertical injection wells.

In early 2015, Brooks Range Petroleum used Nabors rig 16E to drill the 9,140-foot SMU M-02 injection well, which was also known as the Lipizzan well. The vertical well passed through approximately 13 feet of Kuparuk C sand, as was expected at the location, as well as approximately 15 feet of deeper Kuparuk A sand, which was unexpected at that location (and never incorporated into earlier reserve estimates), according to Alpha.

Geologic challenges combined with rig conditions led to cost overruns, according to Alpha. As such, the company said it intended "to seek a credit from the drilling contractor as compensation for the poor performance while drilling the SMU-02 well."

In March 2015, Brooks Range Petroleum began drilling the SMU-03 well, which was also known as the Shamrock well. The well was intended to be the first horizontal production well in the program. The company successfully cased the surface section of the well at approximately 2,500 feet and ran intermediate casing to 7,231 feet.

But "just prior to cementing operations shallow sections of the well started to become unstable meaning cementing the well would be problematic," according to Alpha.

After attempts to stabilize the well were unsuccessful, the companies plugged and temporarily abandoned the well while they studied the situation. Even with the problems, the rig performed better on the second well, which cost considerably less than the first.

In June, Brooks Range Petroleum returned to the SMU M-01 pilot well, which it had originally drilled to an intermediate casing depth in 2012. The company intended to add a 5,800-foot lateral section and complete the well as a producer. As with SMU-03, the well encountered higher than expected formation pressure. The lateral was unsuccessful. ●

Contact Eric Lidji at ericlidji@mac.com

NATURAL GAS

AIDEA gives notice of Fairbanks gas rates

As part of its procedure for approving natural gas rates for Fairbanks gas consumers, on Jan. 4 the Alaska Industrial Development and Export Authority issued a public notice announcing gas utility Fairbanks Natural Gas's proposed rate structure for 2016. Members of the public have until Feb. 4 to comment on the rates.

At the end of September AIDEA completed its purchase of Pentex Natural Gas Co., owner of Fairbanks Natural Gas, as part of the Interior Energy Project, a project to bring affordable energy to Fairbanks. Because AIDEA is a government agency and not a privately owned utility, the AIDEA board rather than the Regulatory Commission of Alaska now regulates Fairbanks Natural Gas. Hence the Jan.4 public notice.

Pentex had announced its proposed Fairbanks gas rates to the AIDEA board during the board's Dec. 3 meeting. The proposed rates went into effect on an interim basis on Jan. 1, but are subject to potential adjustment, depending on the outcome of the rate-setting process that is now underway. AIDEA says that its board will set permanent gas rates during its March 3 board meeting.

Under public ownership, with factors such as relatively low borrowing and regulatory costs, Pentex is able to offer gas in Fairbanks at lower prices than previously, when Pentex was privately owned — on average, under the proposed rate structure, rates would drop by 10.4 percent. Residential rates would drop by 13.5 percent from $23.35 to $20.20 per thousand cubic feet, with commercial and interruptible rates falling by smaller percentages from lower levels.

—ALAN BAILEY

EXPLORATION & PRODUCTION

Drilling complete at Icewine No. 1

Drilling is complete at the Icewine No. 1 well on Alaska's North Slope. The well reached its planned total depth of 11,600 feet on Dec. 24, 88 Energy said in a Dec. 29 statement.

The well's operator, Accumulate Energy Alaska Inc., is a wholly owned U.S. subsidiary of Perth, Australia-based 88 Energy. The well was drilled on the Franklin Bluffs gravel pad adjacent to the Dalton Highway some 30 miles south of Deadhorse.

Original acreage was acquired by Burgundy Xploration. In November 2014 88 Energy acquired an 87.5 percent working interest, reducing to 78 percent on spud of the first well in the project, 88 Energy said, with the acreage position significantly increased in the 2015 Alaska North Slope areawide lease sale.

Icewine drilling "successfully achieved all of the primary unconventional objectives of the well," 88 Energy said, with early analysis suggesting that a large portion of HRZ shale in the Icewine acreage lies in the thermal maturity sweet spot.

The well also tested a number of conventional reservoir targets, 88 Energy said, with elevated gas readings over a gross 58-foot Kuparuk sands interval, and "excellent reservoir quality and hydrocarbon shows" in the shallow Brookian sequence.

After core was acquired in the Pebble Shale the well was drilled to the planned 11,600-foot total depth, with several gas kicks between 11,262 and 11,320.

Evaluation is underway of core, cuttings, logs and mud samples, 88 Energy said.

"The high recovery factor in all three cores taken, including the primary HRZ target and across the bottom seal for the HRZ (Pebble Shale), means that we have excellent data to use in the evaluation of the potentially huge unconventional prize on the Project Icewine acreage," 88 Energy Managing Director Dave Wall said in the company's Dec. 28 drilling update.

—KRISTEN NELSON

ENVIRONMENT & SAFETY

OGC project to target Arctic spatial data

The Open Geospatial Consortium has announced a new pilot program, which will address the establishment of a web-based data infrastructure, to make available spatial data relating to the Arctic. The U.S. Geological Survey and Natural Resources Canada are sponsoring the program.

OGC is an international consortium of more than 515 companies, government agencies, research organizations and universities with a mission of developing publicly available geospatial standards. The concept behind the organization is that appropriate standards will enable technology developers to make geospatial information and services readily available through the Worldwide Web, wireless services and other information technologies.

The pilot Arctic program, called the Arctic Spatial Data Infrastructure Standards and Communication Pilot, has a goal of demonstrating to Arctic stakeholders the value of having a spatial data infrastructure, based on web services and using standard data exchange formats, when addressing critical issues impacting the Arctic, OGC said in a Jan. 4 press release. Stakeholders include national and pan-Arctic science and monitoring organizations, as well as decision makers engaged in Arctic research, in social and economic policy, and in environmental management, OGC said.

Phase 1 of the pilot program began in early December and consists of a concept development study. Project planners are currently assembling an inventory of current Arctic geospatial data and web services, and they are also defining the archi-

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GRID REFORM

assessment of potential transmission upgrade costs; and the need for an equable arrangement for distributing the costs and benefits between the Railbelt utilities.

Voluntary project

The five utilities that own and operate various sections of the grid have been voluntarily working a project to figure out how to better manage the grid and have been reporting to the RCA on progress in their efforts. The concept is to establish a management structure that facilitates necessary grid upgrades and hence enables more efficient use to be made of the various power generation facilities that are connected to the grid. And, through unified grid management, it may be possible to achieve what is called "economic dispatch," a mechanism whereby the lowest cost sources of power can be used as much as possible, within the constraints of power supply reliability requirements.

The overall intent is to reduce the cost of electricity for Railbelt electricity consumers without sacrificing security of supply.

In particular, the utilities have been working with the American Transmission Co. to develop a business model whereby a single transmission company, or transco, would operate, maintain and upgrade the grid. The American Transmission Co. operates a transmission grid in Wisconsin and the Upper Peninsula of Michigan, as a consequence of a similar transition in grid management to what is envisaged for the Railbelt. The transco would potentially invest capital in making necessary upgrades to the grid, while making a return on its capital from the fees that it charges users of the grid for the transmission of power through the transmission infrastructure.

The expectation is that cost savings as a consequence of improved efficiency in power generation usage would more than offset the cost of the transmission upgrades implemented to achieve those efficiency gains.

Transco assumed

But MEA, while pleased with the progress that the utilities have made in addressing the grid management issues, worries that people seem to be assuming a transco solution before a full analysis of solution options has been completed.

Ed Jenkin, senior system engineer for MEA, spoke to Petroleum News about some of the questions that are giving MEA cause for concern.

One issue is that, while the utilities have agreed on the various inputs needed for a computer model for simulating the operation of the grid and hence estimating the costs and benefits of any change, the cost/benefit analysis to be derived from that model has yet to be completed, Jenkin said. The model, once finished, will provide insights into the potential costs and benefits of various ways of changing the way in which the grid is managed, including the implementation of a transco and the establishment of an independent system operator, or ISO, for grid governance.

"Once we've looked at that we'll have a better idea of evaluating what's the benefit of the ISO, what's the benefit of the transco, what's the benefit of both combined," Jenkin said.

In particular, the economic modeling for the grid has not yet reached the point of demonstrating benefits of $50 million to $150 million that have been quoted for transco formation, Griffith told RCA.

Loose pool

In fact MEA thinks that significant benefits are already being achieved through the buying and selling of power and reserve power between the utilities through

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WOBBLY OUTLOOK

Outflow from Fort McMurray

On the industry's frontier in Fort McMurray (no longer jokingly referred to as Fort McMoney), the oil sands "capital" city and its region of 125,000 people is witnessing movement in only one direction — an outflow of skilled workers who have lost highly paid jobs, with little hope of being reinstated.

The Canadian Real Estate Association data for November showed home prices fell by more than 19 percent in 2015 to about C$519,000 and realtors were leaving town in droves.

Because they have nowhere else to go, many are simply hanging on in hopes that oil will regain levels of US$40-$45, which, in the oil sands, is barely enough to cover some operating costs, putting an end for now to a multibillion-dollar raft of new and expanded operations.

Fort McMurray Mayor Melissa Blake, long a voice of optimism, said in a state of the region address that those who remain will fight on and "forge a new path towards prosperity," while the industry as a whole will live in hopes that a major "pipeline or two" will connect the region to North American and offshore markets.

Harsher assessment

Others are inclined to offer a harsher assessment.

An index released by the Alberta Council of Technologies that monitors the resilience of the Alberta economy to crude oil price shocks has found the province is paying the price for its dependence on the energy industry.

Perry Kinkaide, chief executive officer of ABCtech, said his organization's subscriber base of 13,000 contacts who are involved in commercializing emerging technologies and diversifying the province's economy offered their view on that level of resilience.

Based on those responses, ABCtech determined that Alberta is "too dependent on the oil and gas industry. Diversification is warranted to increase the economy's resilience to the shock of oil price volatility. Resilience requires innovation in technology, small business growth and value-added manufacturing and exporting."

Kinkaide said one of the primary objectives of his council is to develop a provincial plan and a number of strategic options by bringing together diverse groups who "care about reshaping Alberta."

Push for new markets

While Premier Rachel Notley endorses that line of thinking she has also aligned herself with the petroleum industry's push to open new markets for oil by convincing other provinces that Alberta is no longer an "outlier" on issues such as climate change, energy efficiency and renewable energy and promoting the development of a Canadian Energy Strategy.

She is pinning most of her hopes on TransCanada's proposed 1.1 million barrels per day Energy East pipeline to displace most of the 800,000 bpd of crude imported from offshore and opening markets in Europe and Asia.

"We simply can't rely on the U.S. market. We need to diversify," Notley said, in explaining her efforts to win over Ontario and Quebec.

Cheapest crude

The dependence on the U.S. for 99 percent of its exports comes at a high price for Canada, whose crude can be knocked down by US$10 a barrel, making it the world's cheapest, said Tim Pickering, president of Auspice Capital Advisors.

He said that correcting that imbalance will be helped by Alberta's tough new climate change policy, which should change Canada's reputation peddled by the U.S. environmental movement as a sponsor of "dirty" oil.

As a result, the U.S. is saving money from the 2 million bpd it buys from Canada.

"They are getting cheap safe oil and bitching about it while they do," Pickering said.

If a pipeline was built from the oil sands to the Pacific Coast and a tanker port was established, China would gladly buy Canada's "secure barrels simply to diversify their supplies away from the Middle East," he said.

"At the end of the day, the oil sands are the third largest oil reserve in the world," Pickering said. "It's a really important part of what is going to spin the world forward and it should be available to people."

While the Alberta government wrestles with seemingly conflicting forces and revisits its own extravagant promises during last spring's election, a clear, disturbing message is being delivered to Notley as she prepares to do what every leader of her province has dreaded most — deciding whether to raise royalties.

Reduced ranks, salaries

From the time oil prices started their decline in late 2014, many companies wasted no time taking action.

Secure Energy Services slashed its employee ranks by 300, trimming salaries by 10 percent and abandoning its U.S. drilling fluids and equipment rental business, but even those measures have failed to arrest a decline from net profits of C$44.3 million in the first nine months of 2014 to a loss of C$73 million in the same period of 2014.

Mark Scholz, president of the Canadian Association of Oilwell Drilling Contractors, has forecast that a further 58 percent decline in drilling activity this year will cost another 28,500 direct industry jobs on top of about 40,000 in 2015.

"It's one thing to get through one winter drilling season (the industry's peak time in Canada) with lower activity; it is certainly another to go through two," he said.

Revenues face further decline

Investment dealer Peters & Co. estimated revenues in the service sector fell by 35 percent in 2015 and faces an additional 10 percent decline this year.

Scholz said the new Alberta government's "bad public policy" of hiking taxes and imposing new penalties for carbon emissions, while pressing ahead with its royalty review, is forcing small private and large public companies to divest out of Canada.

However, Peters & Co. said services companies have managed to cut their costs by 39 percent in the past year, laying the groundwork for a quick recovery when oil prices turn around.

Rene Amirault, Secure's chief executive officer, is shifting his focus from exploring for oil and gas to exploiting the commodities by targeting the "lowest cost structure."

But he also acknowledges that there is no sense in putting rigs to work when companies can't even cover their depreciation costs. ●

Contact Gary Park through publisher@petroleumnews.com

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SPATIAL DATA

tecture of the Arctic spatial data infrastructure. The project team will publish a request for information in January, to seek further ideas, experiences and projects, OGC said. Information gleaned in phase 1 will also feed into another OGC initiative that is designing interface and encoding standards.

The findings from phase 1 of the Arctic program will be used in the program's phase 2, a pilot project involving the application of OGC standards in operational systems in support of Arctic policy scenarios, OGC said.

—ALAN BAILEY

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APPEAL

claimed that, by not spelling out all mitigation measures up front and by not, therefore, subjecting these measures to public review, Fish and Wildlife was infringing the Marine Mammal Protection Act, the National Environmental Policy Act and the Administrative Procedures Act. Moreover, by leaving uncertainty in what mitigation measures might be applied in any particular instance, Fish and Wildlife could not substantiate its claim that the regulations would ensure a negligible impact of industry activities on walruses during the five-year period that the regulations would be in place, the plaintiffs in the appeal argued.

In dismissing the appeal in July, District Court Judge Sharon Gleason said that Fish and Wildlife had acted appropriately, within the law, in issuing the Chukchi Sea regulations.

The 9th Circuit judges now say that, with the only firm in a position to operate in or near the Hanna Shoal region having withdrawn from Chukchi Sea exploration and no firm appearing poised to take its case, the case is "no longer embedded in any actual controversy about the plaintiffs' particular legal rights."

"Offshore oil exploration in the Arctic is a daunting, costly activity that is not economically feasible when, as now, the price of oil has plummeted to new lows," the judges wrote. ●

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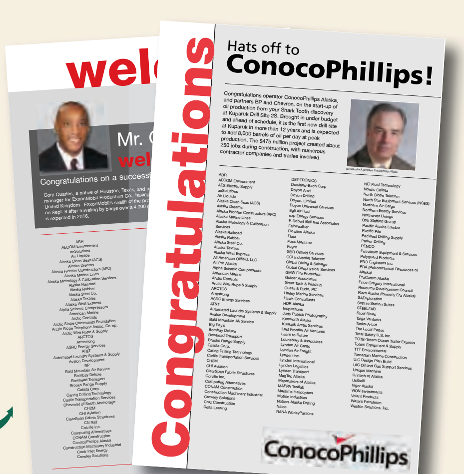

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Petroleum news

Oil Patch Bits

Usibelli Coal Mine Inc.

Founded in 1943 by Emil Usibelli, Usibelli Coal Mine Inc. is located in the mountains of the Alaska Range near Healy, Alaska. UCM has a workforce of about 115 employees and operates year round. UCM is Alaska's only operating coal mine and production averages 1.5 million tons of coal per year.

COURTESY USIBELLI

Alex Legrismith, Mining Engineer

Alex Legrismith began working at a small placer mine in the Brooks Range directly out of high school. After several years working in the mining industry he joined Avalon Development, where Legrismith learned the ins and outs of remote mineral exploration. With these jobs, he was able to graduate debt free from the University of Alaska Fairbanks with a degree in mining engineering. Legrismith's job responsibilities include surveying, engineering, dewatering, road construction, work and crew management and he is also pursuing the use of UAV's for surveying. When not working he enjoys world travel and wildlife photography and recently got engaged.

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GARA Q&A

deduction. Nobody here in the majority of the Legislature or the administration is talking about that sort of bleed for the state budget.

We can't afford a 35 percent credit to major oil companies. We are paying 35 percent of their capital costs for all of their investment costs. That's probably over $1 billion that I think some people are too uninformed to know about and some people who always seem to side with the oil companies want to give away.

Petroleum News: So what is your prescription?

Gara: First of all, there needs to be very smart surgical changes to this oil tax system that doesn't involve a return to ACES. Everybody understands that ACES was flawed. But this current law has a number of major flaws at a time when the state is suffering from a major budget deficit.

First of all fields after 2002 are right now paying a zero percent production tax. That's a giveaway. That puts pressure on people's permanent fund dividends and puts pressure on making income taxes bigger when the oil companies should be paying a fair share. You can't have all your future fields and all fields after 2002 paying a zero percent production tax. If prices rose to $110 a barrel they would pay a production tax that got us a negative net present value in production taxes.

So that special provisions for all fields after 2002 is going to hamper the state. If you want to encourage new fields, you give them a temporary tax break, but you don't say forever you pay essentially nothing in production tax. We are giving new companies $1 billion in tax credits over the last few years in tax credits for fields that right now are paying zero percent production tax. No company would operate that way. We as a state can't operate that way.

Petroleum News: Still looking ahead, but back to the gas line, what would you like to see accomplished to keep the project moving forward as you still work out issues with the budget?

Gara: First, I think we wait for the next report from the governor. There is some chance all three oil companies will join hands with the state and move forward with the current process. There is some chance one or two of them or three of them will try to leverage the state for extra concessions. If that happens, then we will probably have to arm the governor to leverage back as a sophisticated partner, not as a junior partner.

Petroleum News: How would you arm the governor?

Gara: There are a lot of things we can do, but right now let's hope the parties move forward in good faith and not try to leverage each other.

Petroleum News: Speaking of one of the partners, AGDC, which represents the state, has undergone a lot of changes, it seems constant changes this year. Does that concern your or is just the governor getting settled in during his first year?

Gara: I think the conflict of AGDC has been far overblown. The public doesn't care about it. AGDC had to be changed because it was an agency just sitting there that was designed to create a small, pretty uneconomic pipeline option. The preliminary work has already been done. You had a number of people sitting at AGDC with no real long-term gas line experience taking in very high salaries, some over $200,000 a year. You had good people there. One was a housing agency head. One was a housing agency manager. One was a department of transportation employee.

Those are not gas line experts. At a time when we don't have a lot of money and at a time when we are trying to get a gas line moving forward, what we need is to put our money toward gas line experts, not just overhead for people who are bright but don't have gas line experience.

That's not to say maybe one couldn't be kept on as a manager, but we didn't need three of them as good as they are at what they do.

Petroleum News: There is still quite a to-do list connected to the gas line, be it PILT, fiscal agreements, a possible constitutional agreements, gas balancing agreements.

Gara: Besides the bounce back of natural gas, what strikes me at the outset is something I can't control: that's what's happening inside the board room of Exxon, Conoco or BP. Are they going to move on with the current agreement or are they going to threaten to take their marbles and go home, that is to say we are going to warehouse our gas in the ground unless you give us more concessions.

That part is out of our control. I hope they don't play the leverage game. That will move things a lot smoother and a lot quicker.

The technical engineering work, I think Steve Butt from Exxon is taking the lead on that. People seem very happy with the work that Mr. Butt is doing with his senior engineering team. I do feel pleased that somebody of his caliber is on this project. That means Exxon is not pretending to be interested in this gas line. At least on the surface it seems that way. Steve Butt is a guy who has been involved in very big gas projects in the past. This one is even bigger, so it's good to have somebody with that caliber on the team from a technical standpoint.

Petroleum News: One of the items that could also come before you is the prospect of a constitutional amendment to assure various tax rates get locked in for the long term, something many feel that can't be done now. What are your thoughts on that?

Gara: This is sort of a fake issue. The oil companies know that the Legislature can't constitutionally lock in tax rates. You can't stop the public or a future Legislature from re-visiting that stuff. On the other hand, this is a very stable place where we don't nationalize oil companies. It's a stable place where oil and gas workers aren't killed like other places around the world. It's a safe place for them unlike many of the places these companies operate around the world. It's a financially secure place to do business. They want a cherry on top which is to prevent us from taking a look at our gas tax system five years in the future if things don't work out the way everybody expected. I don't know that they expect us to do things that are unconstitutional. It would be a cherry on top for them, but I think it's just posturing for them to say they demand it. Then they want to go to the next step to say they want to lock in a very flawed oil tax system. An oil tax system has nothing to do with a gas line. There is no way that I would lock that in

Petroleum News: The constitutional amendment is a priority of the governor, not just a demand from the producers.

Gara: You know if you speak to certain people who know what they are talking about, they believe the constitutional amendment is a cherry on top, it's not a take-it-or leave it demand. I hope the governor doesn't bite too hard on this one when he assesses the need for a constitutional amendment.

Petroleum News: What would you like to hear from the producers that would give your more confidence the project is moving forward?

Gara: The producers got a very good deal, something I'm uncomfortable with, one of the lowest gas tax systems in the world. They got a very good deal, something I hope and try to change. They got a state that is willing to help bring gas to market that at the right price is very valuable to the state and to the oil companies. I would like them to say, yes we've got a deal and move forward.

Petroleum News: Another one of the governor's priorities is going to a 48-inch line from a 42-inch line. What do you think?

Gara: We have to do a basin review to make sure the gas is there. The difference between a 42-inch and a 48-inch line sounds like a math equation, but in fact it has to do with the sovereignty of Alaska and the ability of competitors to the big three oil companies to produce jobs and produce natural gas in this state.

A 42-inch line probably gets filled by Conoco, Exxon and BP's gas and then an independent producer probably won't come up to the North Slope because they know if they find gas they won't be able to get it into the pipeline. You can expand the 42-inch line to a small extent at a low cost, but Exxon, BP, and Conoco Phillips will probably eat up that expansion space.

To expand the 42-inch pipe beyond that significantly would be too expensive for an independent producer to pay for and at that point they would say we're not coming to Alaska to explore for natural gas. We will end up warehousing a ton of our natural gas on the North Slope.

The 48-inch pipeline is an invitation for independents to come up there, explore, create jobs, produce additional natural gas and produce additional oil. The oil part is important. The bigger the pipeline and more exploration you have, the more mixed fields you'll have. One of the goals of the gas pipeline is to get companies out there to explore so they find not just natural gas but more oil for the oil pipeline.

With a 48-inch pipeline, that's more likely to occur. With the 42-inch pipeline, it probably damages our ability to find more oil on the North Slope. ●

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MILLER PLAN

After consummation of the plan, Miller will be a private company, no longer publicly traded as it is now.

Rise and fall

Miller's board of directors considered liquidating the company, but concluded that a restructuring "would likely result in a distribution of greater values to creditors than would a liquidation."

As a company, Miller is rooted in the Appalachian basin of Tennessee, but is now headquartered in Houston.

The company entered the Alaska oil and gas arena in December 2009, when it acquired the Cook Inlet operations of California-based Pacific Energy Resources Ltd., which itself was in bankruptcy.

The newly acquired properties included the West McArthur River oil field and the offshore Redoubt unit and Osprey platform.

Miller, operating through its Anchorage-based subsidiary, Cook Inlet Energy LLC., set about rehabilitating the properties, reworking wells and drilling new prospects. Company management aggressively pursued financing and acquired more properties, including the North Fork natural gas field on the Kenai Peninsula and the small Badami oil field on the North Slope.

The company also worked to elevate the company's investor profile, taking the small company to listings on the Nasdaq stock exchange and ultimately the New York Stock Exchange.

But controversy dogged Miller as some investors, as well as the U.S. Securities and Exchange Commission, accused the company of overvaluing the Alaska oil and gas assets it acquired in 2009.

The main factor leading to Miller's bankruptcy appears to be low oil prices, coupled with some disappointing results in the field. In court papers, Miller said it "does not have the capital to continue a well drilling program to develop its proven undeveloped oil and gas reserves or the liquidity sufficient to pay its operational expenses and debt service obligations."

Miller shares, which have crashed in value, are no longer listed on the New York Stock Exchange.

Plan elements

A disclosure statement, filed in court along with the reorganization plan, offers great detail concerning the many troubles plaguing Miller, as well as the challenges it would face after emerging from bankruptcy proceedings.

The disclosure statement shows that some claimants, under the reorganization plan, would be paid in full, while the "general unsecured claims" class would recover only about 10 percent.

Miller has debt of $189.7 million under its major credit agreement, the court papers say.

The papers outline the status of several lawsuits and other claims pending against Miller, and discuss some proposed settlements under the reorganization. In one settlement, Cook Inlet Energy would transfer its working interest in a lease in the Three Mile Creek gas field to Aurora Gas LLC.

In another settlement, Cook Inlet Energy would transfer its working interest in the Point Thomson unit to ExxonMobil in return for ExxonMobil's payment of $1 and "assumption of all liabilities associated with the working interest." The deal would have no effect on the Point Thomson pipeline tie-in with the Badami pipeline, the court papers say.

Tax credits, aircraft sale

Miller filed a voluntary petition for Chapter 11 bankruptcy reorganization on Oct. 1, 2015. Prior to that, some creditors had filed an involuntary bankruptcy petition against Miller's subsidiary, Cook Inlet Energy.

State of Alaska tax incentive programs have been an important lifeline for Miller.

The court papers say the state historically has reimbursed the company in cash for approximately 35 to 65 percent of its drilling and completion costs in the Cook Inlet area, regardless of well success. During the bankruptcy proceedings, Miller has received about $18 million in tax credits, court papers say.

Miller has pursued asset sales, and on Dec. 17, U.S. Bankruptcy Judge Gary Spraker signed an order granting the company authority to sell its Hawker Siddeley jet airplane for $100,000.

"Historically, the airplane was used in debtors' operations, primarily in the lower 48 states, outside of Alaska," Miller said in a Nov. 13 motion. "However, the debtors have determined that the airplane is no longer necessary for their operations and have been seeking to sell the airplane since July 2014."

—WESLEY LOY

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GRID REFORM

what is referred to as a "loose pool" for the interchange of power resources. It is particularly important that any cost/benefit analysis of a potential transco implementation considers the incremental benefits relative to the current loose pool arrangement, rather than benefits relative to the absence of any power pooling, Jenkin said. MEA supports economic dispatch on the grid through the pooling of power, but full modeling of grid operations may demonstrate that economic dispatch benefits can be achieved without implementing a transco, he commented.

A key factor in assessing the benefits is the cost of fuel for power generation, given that the benefits would come primarily from fuel savings. But, with different utilities having different structures to their fuel costs, those differences need to be accounted for in any modeling of system unification benefits, Jenkin said. For example, there are significant variations between the utilities in the methods of accounting for the cost of transporting fuel gas by pipeline to generation facilities and the cost of gas storage, he said.

Inflated costs?

On the cost side of the cost/benefit equation, MEA worries that people have been assuming that some $900 million needs to be spent on transmission grid upgrades, a figure that MEA thinks is much too high. Griffith told RCA that in 2013 the Alaska Railbelt Cooperative and Electric Co., a cooperative formed by some of the utilities, had estimated that it would cost $200 million to unconstrain the grid sufficiently to achieve economic dispatch. Jenkin told Petroleum News that, if a transco were to be formed, it would be critically important to establish appropriate transmission planning standards for transmission performance, to constrain grid upgrade expenditure and to set parameters for regulatory approval of the upgrades.

Over-inflating the potential costs might also set unrealistic expectations for the scale of the Alaska business for a prospective transco, Jenkin said.

"We don't want to set them up with the idea that they are going to have $900 million worth of projects, when it's only $200 million, or whatever the number is," he said.

Cost and benefit allocation

The core component of MEA's concerns relates to the manner in which the costs and benefits associated with a transco arrangement would be allocated between the different Railbelt utilities. Depending on how the total Railbelt transmission costs are recovered from all Railbelt electricity consumers, MEA's ratepayers could see a cost increase in support of other utilities' aging infrastructure, Griffith told RCA. There needs to be a mechanism whereby burdened ratepayers are made whole through the equitable sharing of the benefits of grid re-organization, he wrote.

And, with the central prioritization of grid upgrades under a transco arrangement, MEA worries that local needs for transmission improvements that address local supply reliability issues may fall down the priority list.

MEA also feels that, although ATC is a first-rate company, there needs to be a formal competitive bidding process, to select a company to operate as a Railbelt transco, should a transco prove to be an appropriate arrangement for the Railbelt grid. Competitive bidding is imperative for a project of this scale and importance, Griffith told RCA.

"We restate these concerns, not to derail an essential and valuable process, but to ensure these important issues are addressed in the process and not overlooked in a stampede for immediate results," he wrote.

—ALAN BAILEY

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HERRERA

increase $5 per barrel in 2017 and again in 2018.

As commodity prices continue to slide, the global oil and gas industry will reduce capital spending and work toward leaner budgets in 2016, Moody's said, stating the obvious, in a recent report.

"Excess supply will continue to drag on commodity prices in 2016 in the global oil markets and the U.S. natural gas market," Steven Wood, a Moody's managing director, told the Wall Street Journal In December. "Furthermore, the potential lifting of sanctions against Iran could bring even more supply to the market in 2016, offsetting any expected declines in U.S. production."

Iran looking to recapture share of market

According to Iran's oil minister, Bijan Namdar Zanganeh, the country is trying to regain its lost share of global crude sales once sanctions are lifted.

"The oil ministry intends to boost Iran's crude oil exports by an aggregate of 1 million barrels a day in two phases," Zanganeh told the official Islamic Republic News Agency in December.

In the first phase, Iran will raise exports by 500,000 barrels a day within a week after the international sanctions are lifted, adding another 500,000 barrels a day in the second phase to begin six months later, Zanganeh said.

In the past 20 years when commodity prices dropped and industry experts were singing a song of woe for the long-term, Petroleum News turned to its favorite oil price guru, Roger Herrera, for his take on the situation.

Invariably, Herrera, a long-time energy observer based in Anchorage, predicted a short-term return to higher oil prices.

He was always right.

This time, however, Herrera is not optimistic about a fast turn-around.

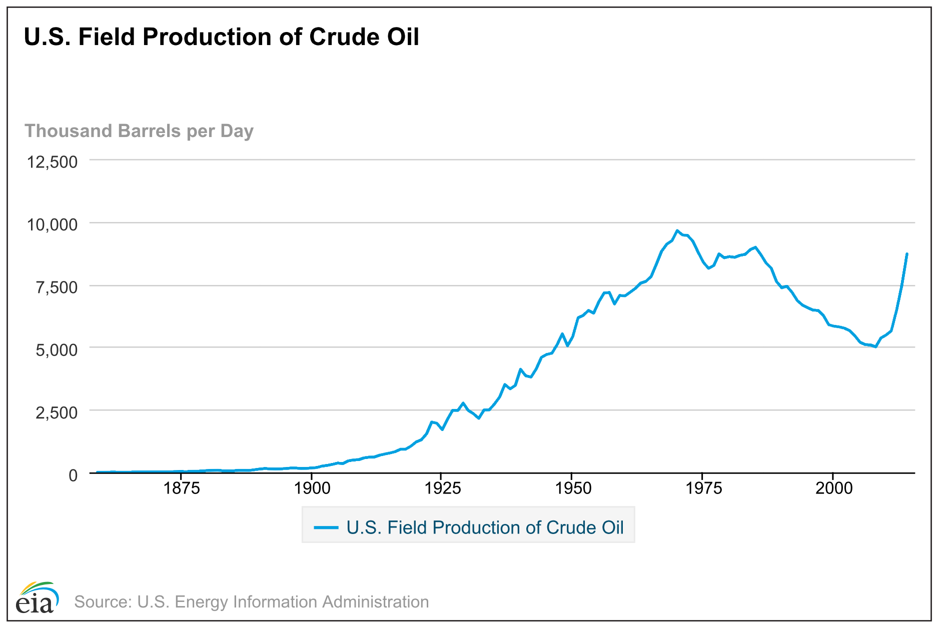
He sees $40 oil possible by the end of the year, "if everything goes better than expected," but Herrera was unwilling to forecast beyond 12 months.

He did say, however, that because low oil prices are good for the general public and businesses outside the oil industry, they eventually translate into more development.

More development in the economy, in turn, increases the demand for oil, causing oil prices to increase.

That said, he doesn't see development catching up with the world's crude supply any time soon.

In part, because it is a gradual process and the current gap between development and supply is very wide — and because cheap oil isn't yet causing an appreciable decrease in the cost of living.



"This time, they seem to be taking their own sweet time," Herrera says about the cost of goods and services.

But, he points out, there are some indicators that the economy is being stimulated by cheap gasoline: For example, U.S. automobile sales totaled a record 17.47 million in 2015, the biggest sales year ever, according to figures from automotive research firm Autodata showed on Jan. 5.

The 2015 total is up 5.7 percent from 2014, just passing the previous record of 17.41 million from 2000, per figures posted to Autodata's MotorIntelligence website.

"The U.S. economy continues to expand, and the most important factors that drive demand for new vehicles are in place, so we expect to see a second consecutive year of record industry sales in 2016," Mustafa Mohatarem, GM's chief economist, said in a statement that was reported in USA Today,

"There's no end in sight to those trends," AutoTrader.com analyst Michelle Krebs said, per the USA Today report. "You're going to hear the same broken record next year."

It's a slow process, but "maybe — maybe — in five years we'll see a return to $100 oil," Herrera says.

OPEC refuses to cut production

In the past two decades Saudi Arabia has reduced its crude production and used its influence within OPEC to convince other members to do the same, a move that has effectively bolstered oil prices.

But despite prices tumbling from a high of $114 last June to $35-something today, OPEC has refused to cut production, preferring instead to maintain its market share and drive out rival U.S. tight oil producers who have higher production costs — approximately $50 a barrel, as compared with less than $10 in Saudi Arabia.

Will Saudi Arabia reduce its output in the next year or so?

"I don't see that happening," Herrera says. "And why should they? This oil glut was brought on by shale producers from the United States. We nearly doubled our production in a very short time," he says. (The U.S. produced 5 million barrels a day in 2008, EIA says; in 2014, 8.7 million barrels; and in 2015, the agency estimates 9.3 million barrels.)

"Why should Saudi Arabia sacrifice itself by significantly reducing its oil when America caused the problem? Why can't the United States take responsibility for the solution? We're largely responsible for the oversupply, for the drop in oil prices … therefore we should be shutting in some of our wells. Instead we're expecting Saudi Arabia to do traditionally what they have always done," Herrera says.

US tight oil production still increasing

The U.S. shale industry is holding its own, with output continuing to grow.

"New drilling is down, but it seems as though they can go in and re-frack wells and keep their production up," Herrera says.

A year ago, OPEC, upset with the U.S. for creating an oversupply of oil in the world, decided to let market forces determine the price of oil, rather than its own production quotas.

Expectations were the U.S. oil industry's production would collapse within six months; then 12 months; and now Saudi Arabia officials are instead predicting a gradual increase in U.S. tight oil production.

A recent OPEC report predicted production of U.S. tight oil will rise to 5.2 million barrels a day in 2020 from 4.4 million barrels a day this year.

"I think the resilience of U.S. shale, even with the pressure on it now, has really been one of the biggest surprises for the industry," said Daniel Yergin, IHS vice chairman and long-time industry observer.

Saudi Arabia and Russia, the two other big producers of crude in the world, are also increasing output, adding more than 1 million barrels a day in the past year.

Not a pretty picture

"What we've created is a situation that is quite unique. We've never had an excess of oil in the world to this extent. .. Development sort of kept up," Herrera says.

Even if crude prices return to the $100 level in five years or less, Herrera fears the world will be a much different place at that time.

"Lower oil prices could destabilize the governments of Russia and Saudi Arabia, which are heavily reliant on oil," Herrera says.

"I presume that if the price of oil stays low, which I and others are arguing it will, then Russia is in pretty serious economic trouble. As a result, to deal with the social unrest Putin might be forced to become a complete dictator, the tradition in Russia."

But, he wonders, "Would the rest of world accept Putin as a complete dictator?"

Saudi Arabia, he says, "is equally fraught with problems. They've got more money than God, but at some stage the money they're burning will lead them to be in a very embarrassing position. They will run out of money. … It will not ease the political situation in the Middle East."

About 97 percent of Saudi Arabia's population relies on government handouts. "They don't need to work. They don't work. They survive because of this huge largesse oil money has provided. …

"They're going to run out of money and does that result in revolution by the locals? Who knows, but for 40 or 50 years they've been relying on the government," Herrera says. "They're not terribly productive citizens or level-headed citizens. … So how will the Arabs in Saudi Arabia react to considerable tightening of the belt and having to work and do things which they've never had to do?

"In time development will catch up with oil production, but the world is not going to return to the situation of 5 years ago," he says.

"That said, I can't see any way that the price of oil will significantly change (in the next 12 months). Oh, it might go up to $40. … But it's not going to surge to a level that would rectify the situation. …

"And if it doesn't go up, a political upset in the Middle East and in Russia is almost a certainty," Herrera says.

"It's not a pretty picture." ●

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