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This week's Mining News

NEWS NUGGETS
Compiled by Shane Lasky

Cohen to review EPA fairness in AK
Former U.S. Defense Secretary William S. Cohen March 24 said he and his firm, The Cohen Group, assisted by law firm DLA Piper, will conduct an independent review of whether the U.S. Environmental Protection Agency acted fairly in cooperation with its evaluation of potential mining in the Bristol Bay watershed in Southwest Alaska. "An investigation being conducted by the EPA's Office of Response, Remediation and Restoration and the House Committee on Oversight and Government Reform, and, more recently, an inquiry by the Senate Environment and Public Works Committee, as well as documents produced in response to Freedom of Information Act requests, have raised questions as to whether the EPA proceeded fairly in its activities regarding Bristol Bay," said Cohen. The former secretary of defense has been named by the Public Land Partnership, owner of the Bristol Bay copper-gold-silver project, as one of the Alaska mining claims in this area. Secretary Cohen said he will evaluate the fairness of EPA's actions and decisions in this matter based upon a thorough assessment of the facts and informed by his experience as secretary of defense as well as his 24 years as a member of the U.S. House of Representatives and Senate. "Our review will focus on the fairness of the EPA's actions. We use our public land partnership advisory role to provide the public with information and will not express an opinion as to whether the mine should be approved or not," said Cohen. "I will conduct the review as fairly and thoroughly as possible, and I will follow the release whenever it might lead, and I will conduct this independent review as fairly and thoroughly as possible."

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Falling metals prices and investor reluctance is hitting the exploration sector hard. Read more in North of 60 Mining, page 9.

Point Hope out of Chukchi appeal; litigation was impeding discussion

The Native Village of Point Hope has withdrawn from a long-standing appeal against the validity of the 2008 Chukchi Sea lease sale in which Shell, ConocoPhillips, Statoil and other companies purchased oil and gas leases. Point Hope, concerned about the potential impacts of offshore oil and gas activities on subsistence hunting, had joined with 12 environmental organizations in challenging the environmental impact statement for the sale. The appeal has resulted in delays in Chukchi Sea exploration activities.

Apparently, in a unanimous vote on March 17 the Native Village of Point Hope decided to withdraw from the appeal.

"This move is an important one for our community," said Jack Schaefer, Native Village of Point Hope president. "After careful

see **CHUKCHI APPEAL** page 24

Canada cuts go deeper, wider

Not that there was any doubt, but March 18 and 19 provided ample proof of deepening woes in the Canadian oil patch.

Big players Nexen (owned by state-owned China National Offshore Oil Corp.), ConocoPhillips and Talisman Energy (recently taken over by Spain's Repsol) laid off hundreds of employees.

ConocoPhillips said it was reducing its Canadian headcount by 200, or 7 percent of its payroll, because of the "challenging economic environment."

Nexen announced that 600 of its employees in Canada and 60 at its North Sea unit in the United Kingdom would lose their jobs, while Talisman said its head office staff in Calgary would be reduced by 150 to 200.

Canadian industry layoffs since low crude prices started taking a bite in February now number in the thousands, mostly in

see **CANADA CUTS** page 24

EXPLORATION & PRODUCTION

Conoco OKs NEWS

9.3-acre add to Kuparuk drill site last project announced after tax reform

By ERIC LIDJI

For Petroleum News

ConocoPhillips Alaska Inc. will expand Drill Site 1H at the Kuparuk River unit.

The operator and its fellow working interest owners have approved an approximately \$460 million project to add a 9.3-acre extension to the existing North Slope drill site and to install surface facilities to support four production wells and 15 injection wells. The project will develop viscous oil in the Northeast West Sak area, also known as NEWS.

The company expects construction to begin later this year and continue through 2016, employing as many as 150 people at the height of activi-

The expanded drill site should come online in early 2017 and produce 8,000 gross barrels per day at its peak.

ties. The expanded drill site should come online in early 2017 and produce 8,000 gross barrels per day at its peak.

The 1H NEWS project is the largest investment in viscous oil at Kuparuk since 2004, according to ConocoPhillips. The working interest owners at the unit include BP Exploration (Alaska) Inc., Chevron USA Inc. and ExxonMobil Alaska Production Inc.

see **DRILL SITE ADDITION** page 22

EXPLORATION & PRODUCTION

Repsol asks for new unit

Pikka proposed for western North Slope between Colville River, Oooguruk units

By KRISTEN NELSON

Petroleum News

Repsol E&P USA Inc. has applied for a 63,304-acre unit on the North Slope. The Department of Natural Resources Division of Oil and Gas said March 23 that Repsol applied to form the Pikka unit between the Colville River unit to the west, the Oooguruk unit to the east and the Placer and Tofkat units to the south.

The majority of the area in the proposal is a subset of the larger 98,852-acre Qugruk unit proposal which Repsol submitted in the fall of 2011. The division only approved a much smaller 12,065-acre Qugruk unit at the northwest corner of the

Repsol has been exploring in the proposed Pikka unit area since 2012, when it drilled the Qugruk No. 2.

Colville River unit (see map page 23.)

Repsol described the area in its initial Pikka plan of development as "within the Colville Delta area and shallow waters of Harrison Bay," and a map submitted with the application shows that the proposed unit runs southward from offshore leases in the Beaufort Sea to east of Nuiqsut on the southern end.

see **PIKKA UNIT** page 23

GOVERNMENT

New DOI fracking rules

Agency issues well integrity, reporting requirements for wells on federal land

By ALAN BAILEY

Petroleum News

The Department of the Interior has issued a final version of new regulations for the drilling of hydraulically fractured wells on federal land. The regulations will go into effect after a mandatory 90-day waiting period.

"Current federal well-drilling regulations are more than 30 years old and they simply have not kept pace with the technical complexities of today's hydraulic fracturing operations," said Interior Secretary Sally Jewell when announcing the release of the new regulations on March 20. "This updated and strengthened rule provides a framework of safeguards and disclosure protocols that will allow for the continued responsible development of our federal oil and gas resources."

In Alaska, the Alaska Oil and Gas Conservation Commission has recently developed regulations for hydraulically fractured wells within the state.

New techniques

Drilling techniques involving the use of horizontal wells and hydraulic fracturing have upended the U.S. oil and gas industry in recent years by enabling the production of hydrocarbons from relatively impervious rocks such as shales. But the new techniques have also generated concerns about environmental impacts and the potential for groundwater contamination.

Of more than 100,000 oil and gas wells on fed-

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• GOVERNMENT

McGuire pushes Alaska's role in Arctic

Senator has pitched state's interests in DC, concerned about agenda for Arctic Council; wants to see state leaders work together

By STEVE QUINN

For Petroleum News

In less than a month, the United States takes over as chair for the Arctic Council, a consortium of eight Arctic nations trying to work together with policy decisions.

Sen. Lesil McGuire has been on the front lines of Arctic policy issues and co-chaired the state's Arctic Policy Commission.

McGuire, an Anchorage Republican, sat down with Petroleum News to give her views on what this change means for the country and Alaska.

Petroleum News: The U.S. takes over as chair for the Arctic Council next month, what should this mean for Alaska?

McGuire: It should mean for the state an opportunity to highlight our best practices, our local and traditional knowledge, our regulatory system, our university, our people who are resilient and innovative. Alaska is an Arctic state. Fundamentally because of our geography we could be our own nation. Because of that we have aspects of our culture, our economy and our destiny that are wholly distinct from the contiguous 48 states in a way that Hawaii does as well.

This opportunity for us to align ourselves with the seven other Arctic nations, to chair the subcommittees, to chair the Arctic economic council, to be on the world stage is a chance that Alaska has been looking for and a chance it really needs. When you think about the fact that the trans-Alaska pipeline is in a decline stage volumetrically, it couldn't come at a better time for us.

We are reinventing ourselves as a state. As an economy, we are only 55 years old as a state. The majority of the time, the trans-Alaska pipeline's revenues have led to a boom or bust economy.

The Arctic Council post is a chance for us to learn from other Arctic nations. How have they created a robust economy with good paying jobs and a healthy society at those higher latitudes?

Petroleum News: That's what is should be. What do you fear it could be?

McGuire: When Dan Sullivan was in the Bush administration, he was one of the assistant secretaries of State; he was the primary architect of the original Arctic policy of the United States, a robust Arctic policy.

It hasn't been touched until the Obama administration came along and arguably in preparation for the second time we would ever chair the Arctic Council.

The State Department has come forward with a strategic plan that makes me very nervous for the future of our state. The number one and number two priorities are mapping of the Arctic Ocean and accordingly handing out uses, which will make it more difficult for Alaskans to access their resources.

The second was to address global warming. In of itself that priority wouldn't concern me. But when it's in the context of an Arctic policy, it concerns me greatly. The premise is that if we lock up development in Alaska's Arctic, it will go a long way toward reducing global warming. There are people who truly believe global warming is strictly man-made. They do not believe the earth has been hotter or colder and that it's a cyclical process at all. They think it's exclusively a manmade issue.

At its worst, I think this Arctic Council chairmanship can be used as a platform for environmentalists to gain a further foothold into the state of Alaska.

Petroleum News: Speaking of local voices what are your thoughts on Craig Fleener being appointed as the governor's Arctic liaison?

McGuire: I like him. Fundamentally, he agrees with Rep. Herron and me: Arctic development for the people of the Arctic. Having an indigenous person speaking on behalf of the cabinet is important. He was an early appointee and that was not lost on the State Department and Congress. It's a team. It's a nice going back to D.C. and you've got the Alaska House, Senate and administration saying the same thing. He understands that Canada has done an exceptional job leading North America and North American values over the last



SEN. LESIL MCGUIRE

two years.

Petroleum News: You recently addressed the U.S. Senate Energy Committee, chaired by Lisa Murkowski. What was your message to the committee?

McGuire: My message is that Arctic development for the people of the north of the Arctic is the goal for the Arctic Council chairmanship, and it benefits America from a variety of points. I talked about the fact that America is an Arctic nation because of Alaska but fundamentally we all benefit from that status and have already been benefitting. And the number one issue is energy.

The major Arctic infrastructure project that has been built and been a tremendous success has been the trans-Alaska pipeline. But that's not Alaska's pipeline; it's America's. At one point it provided 20 percent of the domestic energy going into the Lower 48.

All of that is American jobs and energy and revenue that come directly into our free democratic nation as opposed to the policy that came out by virtue of demand in 2012 where 40 percent of America's domestic energy supplies were still based on importation from countries like Venezuela, Nigeria and the Middle East, where dollars are going into value systems that are fundamentally antithetical to American values.

There is discrimination against women; there is violence and mutilation against women. There is kidnapping and direct violations of human rights. Not to

mention some of those countries oppose America in a much more threatening way. My first message was the Chukchi and the Beaufort hold trillions of cubic feet of gas and millions of barrels of crude oil

When Sens. (Bernie) Sanders and (Al) Franken were questioning us about global warming, my response was you have to look at the consumers not the producers. Alaska is a place where we only have 735,000 people so we are not the contributors to global warming. You will still have the demand on the earth



from India and China and other growing nations as they seek to improve their quality of life. They will be looking to energy to do that pursuing air conditioning and fuel for their cars.

It is a goal for all of us to think about a day when renewable energy is a reality because they can be more sustainable at lower prices. We are not there yet. The technology is not there and the price point is not there.

So while the world is dependent on hydrocarbons, we ought to be a supplier of that. Why would we hamstring Alaska as a potential supplier of hydrocarbon energy for the world when places out there will continue to produce to meet that demand in more environmentally unfriendly ways, in ways that exploit workers and in ways that, again, that fund systems that are fundamentally antithetical to American values?

The other point that I made is that Alaskans should be able to address the

see MCGUIRE Q&A page 21

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• EXPLORATION & PRODUCTION

BlueCrest seeking Cosmo unit

Independent wants to unitize its acreage off Anchor Point to better coordinate development and exploration activities

By ERIC LIDJI

For Petroleum News

BlueCrest Alaska Operating LLC wants to form a new Cosmopolitan unit.

The local subsidiary of the Texas-based independent is asking the state to form a seven-lease unit over 22,535 acres off Anchor Point. The unit would include ADL 18790, ADL 384403, ADL 391899, ADL 391900, ADL 391902, ADL 391903 and ADL 391904.

BlueCrest is in the early stages of developing oil from the Hemlock and Starichkof formations at the prospect. But, as the company wrote in its application, the leases also contain shallower oil accumulations, natural gas accumulations and exploration prospects, all of which must wait for the current development program to get under way.

Unitization is most commonly used to efficiently divide royalties among various

In February 2015, the state approved the basics of a plan to expand an existing gravel pad on private land north of Anchor Point to support as many as 33 development wells.

working interest owners, although the state has formed units over leases owned by a single company, as is the case at Cosmopolitan, to prevent waste and avoid duplication. By unitizing the leases, BlueCrest believes it can balance its current and future plans in a more efficient way. Unitization holds leases, which gives operators a chance to conduct activities on a broader scale, without having to worry about individual leases expiring.

The infrastructure planned for the current development program would improve the economics of future plans, according to the company. The company is developing the deeper oil accumulation

using directional wells from an existing onshore drilling pad and associated onshore facilities to be built soon. The future prospects would largely require offshore facilities, such as one or more platforms to target prospects farther offshore.

The request is unusual — although not unprecedented — because a good portion of the land under discussion was previously included in a “Cosmopolitan unit.” The unit was terminated when operator Pioneer Natural Resources Alaska Inc. sold the prospect.

The state is taking comments on the proposal through April 27.

One-year POD

The request included a proposed plan of development from August 2014.

The plan proposes a five-year schedule for starting production from the onshore facilities by early 2016 and subsequently constructing the offshore facilities. The 44-well program would include 20 onshore oil production wells, 10 onshore injection wells and two onshore disposal wells and 12 offshore wells divided between two monopod platforms.

The plan divides work between the current oil campaign and a future gas campaign. The oil development in primarily focused in the center of the proposed unit, with exploration activates primarily located on leases the north and the south, according to the company.

The prior exploration activities at Cosmopolitan have discovered potentially commercial hydrocarbons within 10 Tyonek formation intervals. Those include oil in the Hemlock, the Starichkof and the Lower Tyonek and gas in the Lower Tyonek and Upper Tyonek.

A gas development program on leases ADL 391899, ADL 391900 and ADL 391902 would be evaluated in 2015 and 2016, according to the company, which has previously expressed caution about advancing an expensive gas development in the region without more certainty about the market opportunities. The company has been in talks with WesPac Midstream LLC to partner on a development and marketing plan for the gas.

The August 2014 plan also calls for drilling the offshore Cosmopolitan State B1 exploration will this year on ADL 384403 to test oil and gas zones. The oil zones would be plugged and the gas

zones suspended for future development, according to the plan.

BlueCrest has asked for the plan to go into effect for a one-year term, which would allow the company to amend the plan easily based on information gleaned this year. Such amendments would include more detailed plans for delineation and exploration activities.

In February 2015, the state approved the basics of a plan to expand an existing gravel pad on private land north of Anchor Point to support as many as 33 development wells.

A long history

The current program builds upon a discovery Pennzoil made in 1967 but never pursued.

ARCO Alaska began sniffing around the prospect in the 1990s and handed over the reins to Phillips Inc. as part of a larger sale of assets. Phillips formed a state-federal Cosmopolitan unit in 2001 and drilled the Hansen No. 1 well from an onshore pad.

Through a merger, ConocoPhillips took over the project in 2002. The company drilled and tested the Hansen No. 1A sidetrack in 2003. Pioneer Natural Resources Inc. came on as a minority partner in 2005 and helped fund a 3-D seismic program over the leases.

After drilling the Hansen No. 1A-L1 lateral sidetrack in 2007 and stimulating the well in 2010, Pioneer launched a pilot project to truck Cosmopolitan oil to market. Over several months, Pioneer trucked some 33,000 barrels of oil to the Tesoro refinery in Nikiski.

(BlueCrest is also currently planning to truck Cosmopolitan oil to market.)

Eventually, Pioneer decided against continuing the project and sold the leases to the Australian independent Buccaneer Energy Ltd., which partnered with BlueCrest.

Those companies drilled the offshore Cosmopolitan No. 1 well using the Endeavour jack-up drilling rig and announced various shallower oil and gas discoveries in addition to the known accumulations. They intended to drill a second well to appraise the discoveries, but Buccaneer later sold its stake to BlueCrest in a failed attempt to avoid bankruptcy. ●

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OWNER: Petroleum Newspapers of Alaska LLC (PNA)
Petroleum News (ISSN 1544-3612) • Vol. 20, No. 13 • Week of March 29, 2015
Published weekly. Address: 5441 Old Seward, #3, Anchorage, AK 99518

(Please mail ALL correspondence to:
P.O. Box 231647 Anchorage, AK 99523-1647)

Subscription prices in U.S. — \$118.00 1 year, \$216.00 2 years

Canada — \$206.00 1 year, \$375.00 2 years

Overseas (sent air mail) — \$240.00 1 year, \$436.00 2 years

“Periodicals postage paid at Anchorage, AK 99502-9986.”

POSTMASTER: Send address changes to Petroleum News, P.O. Box 231647 Anchorage, AK 99523-1647.

● GOVERNMENT

Jewell argues for more focused leasing

Says that targeted approach, recognizing areas where it makes sense to develop oil and gas, improves predictability for industry

By **ALAN BAILEY**
Petroleum News

During a March 17 speech at the Center for Strategic and International Studies, Secretary of the Interior Sally Jewell said that Interior is reforming its oil and gas lease sale programs, to engage with the public in figuring out where it does or doesn't make sense to develop oil and gas resources.

"We saw how a 'drill everywhere' plan doesn't work very well if nearly half of the lease sales are challenged or later overturned in court," Jewell said, according to prepared notes for her speech. "Through smarter planning, we're seeing reduced conflict and litigation and more certainty for industry."

BLM's plan for the National Petroleum Reserve-Alaska provides an illustration of this targeted "landscape level" approach to leasing, with the agency making nearly 12 million acres available for leasing while also protecting sensitive habitat, Jewell said. And it is important to recognize areas such as Utah's national parks and the Arctic National Wildlife Refuge that are too special to drill, she said.

New standards

Jewell also commented that her agency had "raised the bar" on safe oil and gas development through new drilling standards and an overhaul of the federal oversight program. Interior's reform agenda has three goals: safe and responsible development, good government and encouragement for innovation, she said.

In terms of safety "if we don't have the right measures in place to protect the communities in which we live, the air we breathe and the water we drink, we all lose," Jewell said.

Recent and continuing initiatives include new regulations for the hydraulic fracturing of wells; updated standards for the reduction of methane emissions; pending new regulations for oil well blowout preventers; and proposed regulations for Arctic offshore drilling.

"I strongly believe that these reforms are not only achievable with modern technology and science, but are also absolutely critical to upholding public trust, enabling industry to responsibly develop our natural resources," Jewell said.

Better government

In terms of good government, the federal government must improve the way it does business, giving the American taxpayer a fair return for the use of natural resources on public lands, Jewell said. Reforms under consideration include modernization of the federal coal program and consideration of more flexible royalty rates for oil and gas from federal lands, she said.

To counter shortfalls in government funding for permitting and inspection programs, President Obama's budget proposes partial funding through user fees, Jewell said. And the landscape level, targeted approach to oil and gas leasing will improve predictability for industry, she said.

Similarly, a planned landscape-level approach to the permitting of solar and

wind projects is speeding up permitting times for these types of energy development, Jewell said.

When it comes to technical innovation, the Department of Energy has been a key player in research and development for the directional drilling tools that have spurred a recent revolution in energy production. Today the government needs to be providing incentives for new energy industries such as wind and solar power, Jewell said.

Tectonic shifts

Jewell said that "tectonic shifts" in the energy industry are forcing governments at every level to face questions around how to adapt to the rapidly changing environment and how to modernize energy programs, helping the United States lead the world when it comes to energy.

Since 2008 U.S. oil production has surged from 5 million to 9 million barrels per day, reducing the country's dependence on foreign oil. Use of solar energy has increased 10-fold, and wind energy usage has tripled in that same time period. At the same time, automobiles have become more fuel efficient, Jewell said.

Jewell said that, with her responsibility towards her grandchildren at the top of her mind, she is determined to make energy development safer and more environmentally sound, with new protections for land and water, and with more done to reduce greenhouse gas emissions — President Obama has singled out climate change as the world's most pressing energy and environmental challenge, she said.

"I share the president's belief that America should lead the world on energy, climate and conservation," Jewell said. "And to accomplish this, we need to encourage innovation, provide clear rules of the road and make balanced decisions." ●

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ENVIRONMENT & SAFETY

Cleanup continues at Milne Point spill

Cleanup continues at the site of the Feb. 28 Milne Point tract 14 production line spill.

The Alaska Department of Environmental Conservation, Division of Spill Prevention and Response, said in a March 18 situation report that engineering calculations by field operator Hilcorp Alaska show an estimated release of 339 barrels of produced water to the pad and tundra, estimated at 35 percent crude oil and 65 percent produced water.

SPAR said the cause of the production line rupture is under investigation. Fluid escaped from an estimated one-quarter inch diameter hole in the six o'clock position on the 10-inch pipeline.

Tract 14 wells were initially shut in, but production began again within 24 hours after installation of a temporary bypass line restoring flow to production.


Cleanup down to down to one shift

Hilcorp ran 24-hour operations to recover released product, operations which were adjusted to one shift on March 17. Work included segregating clean snow, removing contaminated snow, defining the spill impact on the tundra plant community, establishing ice treatment cells for the waterflood/flush recovery tactic and maintaining waste management and staging resources.

Cleanup workers recovered some 2,000 cubic yards of snow impacted by the produced fluids and stockpiled it in ice cells capped with lake water and surrounded by exclusion fence. SPAR said the snow would be melted on site in a snow melter and the fluids injected for enhanced oil recovery through an approved injection well. Some eight cubic yards of contaminated gravel were removed from the edge of the gravel pad.

Field operations will continue using the flood/flush and recovery tactic removing produced fluids north and south of the pipeline road crossing at the Tract 14 intersection.


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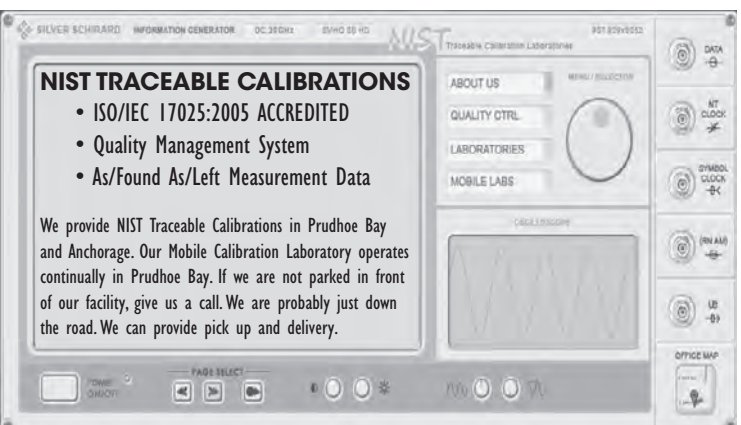
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LAND & LEASING

Call for new info for state fall sales

The Alaska Department of Natural Resources, Division of Oil and Gas, has a call out for new information for its 2015 fall areawide oil and gas lease sales: Beaufort Sea, North Slope and North Slope Foothills.

The division is requesting “substantial new information concerning these areas that has become available over the past year” and said that based on the information it receives it will either issue supplements to final best interest findings or decisions of no substantial new information.

The most recent best interest findings were issued in 2009 for the Beaufort Sea areawide and in 2008 for the North Slope, with the latest supplement to both findings in 2011. The most recent North Slope Foothills finding was issued in 2011 and no supplements have been issued.

Best interest findings are good for 10 years; new information is solicited each year prior to the sales.

Information is due by 5 p.m., April 20.

—PETROLEUM NEWS

CALL FOR PRESENTATIONS

NLMRW is in need of presentations on the subject of reclamation, remediation and related topics that affect the unique climate and ecosystem of northern locations

Abstracts (up to 500 words) should be submitted by March 31, 2015 to Justin Ireys (Justin.Ireys@alaska.gov). Authors of accepted papers will be notified by May 1, 2015.

Full papers (up to 10 pages) are required for all accepted abstracts by June 26, 2015.

Accepted presentations of papers (presentation and pdf version) should be provided to Justin Ireys no later than August 15, 2015.

These technical sessions will be presented September 1st & 2nd, 2015.

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Questions? Contact Samantha.Hudson@alaska.gov

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LAND & LEASING

State OKs S. Granite Point expansion

Cook Inlet unit will be consolidated with Granite Point field; originally different owners, Hilcorp now 100% working interest owner

By **KRISTEN NELSON**

Petroleum News

The Alaska Division of Oil and Gas has approved an application from Hilcorp Alaska to expand the 4,689-acre South Granite Point unit in Cook Inlet to include the adjacent 10,722-acre Granite Point field and rename it the Granite Point unit.

Granite Point produces from the Granite Point, Anna and Bruce platforms.

The SGPU was approved in 1998 and operated by Union Oil Company of California until Hilcorp purchased its working interests in 2011 and was approved as unit operator in early 2012. Hilcorp acquired the remaining 75 percent working interests in the unit from ExxonMobil Alaska Production in mid 2012. The SGPU produces from the Granite Point platform.

The Granite Point field leases were issued by the state in 1962 and have been held by production since the end of their primary five-year terms. The leases, ADL 18742, ADL 17586 and ADL 17587 are produced from the Anna and Bruce platforms.

Oil production from both the SGPU and the Granite Point field is processed and sold at the Granite Point Production Facility. The state is the only royalty owner and Hilcorp the only working interest owner in the SCPU or the Granite Point field.

1965 discovery

The division said the Granite Point oil field was discovered in 1965 by the Mobil Granite Point No. 1 well in the Tyonek and Hemlock formations and the three platforms — from south to north Granite Point, Anna and Bruce — were installed in 1966. Sustained production began in 1967 and waterflood in 1971.

Primary production on all three platforms is from the Middle Kenai “C” sands of the Tyonek formation, with the Hemlock formation currently producing from one well on the Granite Point platform.

The division said some 112 wells have been drilled in the field. Production in October of 2014 was 1,397 barrels per day from the Granite Point platform, 1,022 bpd

from the Anna platform and 380 bpd from the Bruce platform.

South Granite Point unitized

Production from the Granite Point platform was unitized in 1998 by Unocal as the South Granite Point unit. Amoco operated the Bruce and Anna platforms to the north. The division said a row of injectors “isolates production from the Granite Point Platform to the south from the Anna and Bruce platforms to the north.”

Hilcorp is now the sole operator of all the Granite Point platforms, and production is continuing to decline, the division said, with only the Bruce platform producing gas for operations. The Alaska Oil and Gas Conservation Commission authorized commingling of Hemlock production with the as-yet unproduced Middle Kenai reservoir in the GPS 11-13RD well in order to maximize production from the platform.

The division said that given those factors “it is in the best interest of all parties to consolidate operations into one unit. Expanding the current SGPU to include the (Granite Point field) creates efficiencies regarding administration, operations, and conservation of resources. Unitization maximizes the opportunities for Hilcorp to effectively produce the remaining dwindling reserves in the area.”

A SGPU plan of development effective through May of this year indicates Hilcorp plans to execute additional well work and drilling as opportunities arise. The GP-45 well was worked over in early March producing some 450 bpd. The division said Hilcorp anticipates a 10-year inspection and repair of two oil storage tanks, and “will continue to pursue efficiencies through various well, infrastructure, and facility repairs including evaluation of shut-in wells for potential return to service.”

The division said integrating the SGPU and Granite Point field “infrastructure and facilities eliminates the need to construct additional metering facilities and will eliminate redundant expenditures for future production.” ●

Contact *Kristen Nelson*
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● FINANCE & ECONOMY

Legislators work to increase spill fund

House, Senate hearing separate bills which would provide adequate funding to DEC's Division of Spill Prevention and Response

By **KRISTEN NELSON**
Petroleum News

House Bill 158 and Senate Bill 86, both moving through the Alaska Legislature, address the same issue — funding for the Alaska Department of Environmental Conservation's Division of Spill Prevention and Response is running a deficit as crude oil production declines, reducing income to the Oil and Hazardous Substance Release Prevention and Response Fund. The fund was created to provide a reliable source of funding for SPAR's activities and has been financed with a 5 cent per barrel surcharge on oil produced, with 4 cents going to the prevention account.

Sen. Peter Micciche, R-Soldotna, sponsor of SB 86, said in a statement that a variety of industries and individuals spill oil and hazardous substances and a majority of spills to which the state responds are refined oil spills. Micciche said SB 86 "distributes prevention and response costs across all users of refined fuel." The surcharge in SB 86 is 0.8 cent per gallon on refined fuels distributed in the state.

HB 158, sponsored by Rep. Cathy Munoz, R-Juneau, "establishes an environmental fee of one cent a gallon on refined fuel sold, transferred, or used in the state," she said in a sponsor statement. Munoz said fuel distributors are already filing and paying taxes on motor fuels each month and this surcharge would be collected from the same distributors.

Munoz said there is a \$1.9 million projected shortfall in SPAR funding in fiscal year 2016, assuming receipt of a \$5 million federal settlement related to a site in Aniak and budget reductions including deletion of four positions and consolidation of programs.

After FY2016, Munoz said, the estimated budget shortfall without additional funding is \$7 million annually.

Munoz said in a March 25 House Finance Committee presentation that she has been aware of the problem through her work on DEC's operating budget, but said legislation introduced three years ago to increase the crude oil per barrel surcharge to 7 cents met a lot of resistance. The argument, she said, was that the oil industry has funded a majority of SPAR's activities since 1989, but spills tied to crude oil only represent a small percentage.

Micciche said in a March 24 Senate Labor and Commerce Committee hearing that the oil industry not only takes care of its own spills, but literally takes care of everyone else's spills in addition. SPAR goes after responsible parties, he said, but the state is on the hook where folks don't have the ability to pay or are long gone.

DEC Commissioner Larry Hartig thanked the sponsors of both bills in the Senate hearing for coming forward. This has been a need for some time, Hartig said, and without additional funding the division would have to cut back on assistance it provides to Alaska's rural villages.

SPAR Director Kristin Ryan told the Senate committee that there would be no change in cost to the division to implement the surcharge.

On the cost recovery issue, she said SPAR has done everything it can to improve

recovery from responsible parties including automating billing and sending out bills every month. She said the division does recover all of its costs related to oil incidents and insurance is required for industries SPAR regulates. The issue, she said, is small spills where the division doesn't regulate.

Ken Alper, director of the Department of Revenue's Tax Division, said in a fiscal note that there would be an implementation cost of \$50,000 in FY15 to cover costs of updating the system and form the division uses, as well as to draft regulations for the new surcharge. ●

Contact Kristen Nelson
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ENVIRONMENT & SAFETY

Arctic sea ice extent lowest on record

The Arctic sea ice appears to have reached its maximum extent for the winter, but that maximum is the lowest on record, the National Snow and Ice Data Center has reported. The annual ice melt got under way on Feb. 25, an earlier date than normal, with the ice extent at 5.61 million miles. That was 50,200 square miles below the previous lowest extent, recorded in 2011. Satellite observation of the polar sea ice began in 1979.

The 1981 to 2010 average for the maximum sea-ice extent was 6.04 million square miles, NSIDC said.

This year there are below-average ice conditions everywhere except in the Labrador Sea and Davis Strait, NSIDC said. However, since Feb. 25 the sea-ice extent trend has flattened, with recent ice growth in the Bering Sea partly offset by continuing ice retreat in the Barents and Kara seas. And a late-season surge in sea-ice growth is still possible, NSIDC said.

NSIDC attributes relatively low ice growth this winter to weather patterns in which an unusual configuration of the jet stream caused abnormally warm conditions on the Pacific side of the Arctic. This warm weather resulted in abnormally low ice extents in the Bering Sea and the Sea of Okhotsk.

During the first half of March a positive "Arctic oscillation" pattern, a situation in which air pressure over the Arctic is lower than normal, led to a pattern of strong southerly surface winds over the Barents and Kara seas, with temperatures throughout the eastern Arctic being several degrees Celsius above average, NSIDC said. And, while weather forecasts indicate a continuing pattern of warm weather in the east, colder than average conditions are expected over the Bering Sea, NSIDC said.

—ALAN BAILEY

HELIMAX

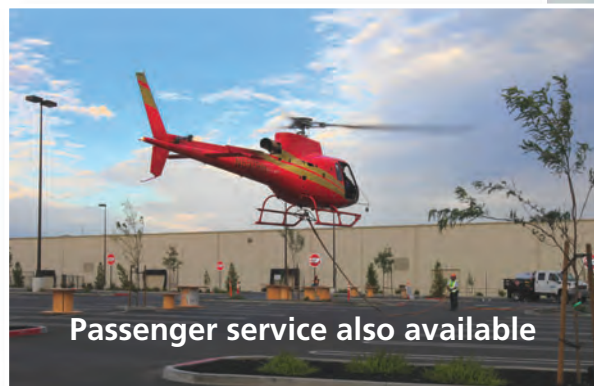
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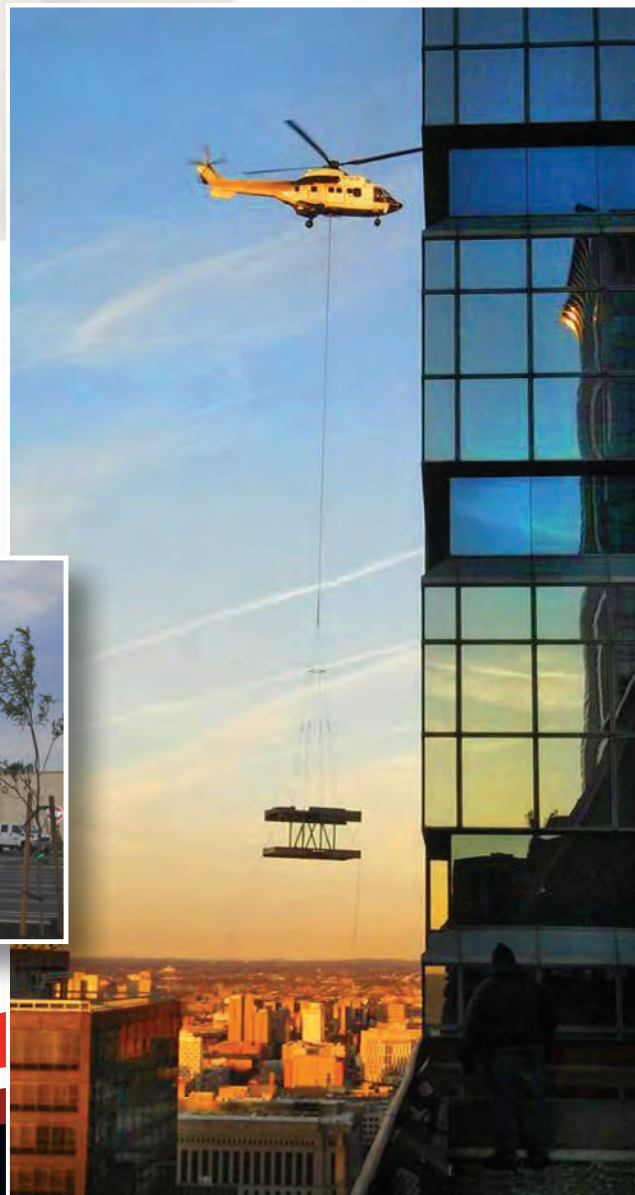
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LAND & LEASING

ASRC meets conditions at Placer unit

The state has officially expanded the Placer unit.

ASRC Exploration LLC has satisfied the first two conditions of a November 2014 ruling, which required the company to file an amended plan of exploration for the North Slope unit and to post a \$2.5 million performance bond by January 2015 to backstop a series of work commitments culminating in the drilling of an exploration well by May 2016.

With the bond, the Alaska Department of Natural Resources has officially added some 7,288 acres from four leases, bringing the total size of the unit to some 8,768 acres.

The expansion ends deliberations between the Arctic Slope Regional Corp. subsidiary and the state. The company had originally sought an 8,768-acre unit, but the state formed a 1,480-acre unit around the existing Placer No. 1 well. The smaller unit, according to the company, made exploration irrelevant, as any well would merely copy the existing well.

Efforts to solve the problem were delayed by failed attempts to merge Placer with other exploration efforts in the region between the Colville River and Kuparuk River units.

The current plan of exploration for the Placer unit expires Sept. 7, 2016. With the ruling, the company now must file a plan of development with the state by June 10, 2016.

—ERIC LIDJI

EXPLORATION & PRODUCTION

CIE still pursuing west side investment

Plans of development for Redoubt unit and West McArthur River unit show limited activity but plans for growth

By ERIC LIDJI

For Petroleum News

Through its subsidiary Cook Inlet Energy LLC, Miller Energy Resources Inc. started its tenure in Alaska by reviving the Redoubt unit and West McArthur River unit.

With the company having since acquired the North Fork unit in the southern Kenai Peninsula and the North Slope operator Savant Alaska LLC, and with oil prices having dropped considerably and stayed at their lower levels, the company is now dividing its efforts among numerous regions and two commodities: oil and natural gas. But the company is continuing its work at its original properties on the west side of Cook Inlet, according to plans of development filed with state officials at the end of January 2015.

Redoubt unit sidetracks

Under its proposed 15th plan of development for the Redoubt unit, Cook Inlet Energy would drill as many as four sidetracks to improve production from various fault blocks.

The plan prioritizes a sidetrack of RU

The West McArthur River unit also contains two exploration prospects, which Cook Inlet Energy calls Sword and Sabre.

No. 7A. The company would complete the sidetrack with hydraulic fracturing, which executives believe would double or triple recovery rates, according to recent company statements. Given the uncertainty of oil prices and the attractiveness of gas development at North Fork, the company has said it would wait for summer before deciding whether to sanction the sidetrack this year.

The sidetrack will likely be the only well at Redoubt this year, according to the company, and the results will determine whether and how the company proceeds in the near term.

The proposed plan of development calls for drilling as many as two other sidetracks starting April 2017. The RU No. 3A and RU No. 3B sidetracks would target the Central fault block to produce oil in the Hemlock participating area. The company had originally planned to sidetrack the existing RU No. 3 well or RU No. 4A sidetrack (both of which have been depleted) last year but delayed those plans in favor of sidetracking RU No. 7.

The plan also proposes an RU No. 7B sidetrack for the near term.

Cook Inlet Energy has identified two other oil-bearing fault blocks at the unit, although plans for delineating those Northern and Southern blocks are vague and dependent on economics, according to the company, which hopes to start drilling by April 2017.

Work on the Southern block depends on the results of the RU No. 9 well. The company plans to conduct rigged maintenance to change out a pump on the well in the near term.

The company recently described the November 2014 well as a disappointment, saying that it only produced about 100 barrels of oil per day before an electrical failure.

West McArthur River unit

At the West McArthur River unit, Cook Inlet Energy also has “determined that sidetracking holds the best opportunity to restore and increase production.”

The company is considering sidetracks of the shut-in WMRU No. 1A and No. 7A sidetracks and is evaluating the producing WMRU No. 8 well as a sidetrack candidate.

The West McArthur River unit also contains two exploration prospects, which Cook Inlet Energy calls Sword and Sabre. The company is still evaluating information from the Sabre No. 1 exploration well and may drill a Sword No. 2 appraisal well in April 2017.

The company said it is “still evaluating” drilling plans at Sabre, although, as an extended reach exploration well, the prospect conflicts with the current strategy of “developing lower risk targets,” according to the company. The company expects to delay any work until after it has finished developing proven prospects and may seek out a partner. ●

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NEWS NUGGETS

Compiled by Shane Lasley

Cohen to review EPA fairness in AK

Former U.S. Defense Secretary William S. Cohen March 24 said he and his firm, The Cohen Group, assisted by law firm DLA Piper, will conduct an independent review of whether the U.S. Environmental Protection Agency acted fairly in connection with its evaluation of potential mining in the Bristol Bay watershed in Southwest Alaska. "An investigation being conducted by the EPA's Office of Inspector General; inquiries and hearings into EPA actions by the House Committee on Oversight and Government Reform; and, more recently, an inquiry by the Senate Environment and Public Works Committee, as well as documents produced in response to Freedom of Information Act requests, have each raised questions as to whether the EPA proceeded fairly in its activities surrounding potential mining in the Bristol Bay watershed," said Cohen. The former secretary of defense has been retained by the Pebble Limited Partnership, owner of the Pebble copper-gold-molybdenum project located on state of Alaska mining claims in this area. Secretary Cohen said he will evaluate the fairness of EPA's actions and decisions in this matter based upon a thorough assessment of the facts and informed by his experience as secretary of defense as well as his 24 years as a member of the U.S. House of Representatives and Senate. "Our review will focus on the fairness of the EPA's actions. We are not evaluating and will not express an opinion as to whether the Pebble Limited Partnership ultimately should be granted permission to mine the Pebble deposit. And, as was well documented during my years in public service, I have been a strong supporter of the EPA's mandate to protect the environment and keep our nation's waterways safe for human health as well as fish and wildlife," Cohen explained. He said he has taken steps to ensure the review is thorough and unbiased. "A condition of accepting this assignment is that I have complete independence and discretion as to how this work will be conducted. I will follow the evidence wherever it might lead, and I will conduct this independent review as fairly and thoroughly as possible.

see **NEWS NUGGETS** page 16

EXPLORATION

Fighting headwinds

Alaska mineral explorers work to retain their footing on slippery slope

By SHANE LASLEY

Mining News

Slipping metals prices and investors' ongoing reluctance to risk venture capital in the junior mining sector is hitting Alaska's mineral exploration sector hard; and the Far North state is not the only mining jurisdiction reeling from this one-two punch.

"After another year of strong headwinds in 2014, and with lower demand and overproduction continuing to depress metals prices, the mining industry's outlook for 2015 is unpromising at best," SNL Metals & Mining wrote recently in "World Exploration Trends," its annual report.

According to the research firm's estimates, global mineral exploration spending during 2014 totaled US\$10.7 billion, about half of the US\$20.5 billion in comparable expenditures tallied just two years earlier, and SNL does not foresee the sector recovering any time soon.

"Most metals prices are expected to fall further in 2015, albeit perhaps not by as much as over the past two years. As a result, SNL does not expect a rebound in the industry's total exploration budgets in the near-to-medium term," the research firm predicts.

Magnified by the Donlin Gold project transitioning from permitting to development and the lack of funding at the contentious Pebble project, the drop in Alaska's mineral exploration sector has been steeper than the global average. Since reaching an apex of US\$365 million in 2011, exploration spending in the state fell to US\$175 million by 2013 and last year tumbled another 47 percent to



MILLROCK RESOURCES INC.

A First Quantum Minerals geologist pauses alongside a copper-stained outcrop during an initial US\$600,000 exploration program completed at Millrock Resources Inc.'s Alaska Peninsula project in 2014. This year, First Quantum and Millrock plan to complete roughly 2,400 meters of drilling at three of the most advanced prospects on the project.

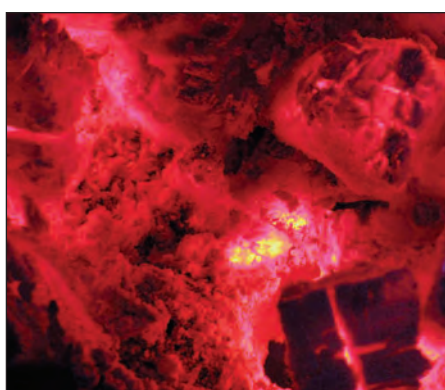
about US\$92 million.

Though money still needs to be raised, exploration plans ironed out and budgets finalized, Alaska's mineral exploration sector is attempting to hold its footing in 2015 on the slippery downward slope of world exploration trends.

Major exploration

The owners of Alaska's five large mines accounted for nearly half the exploration spending

see **FIGHTING HEADWINDS** page 13



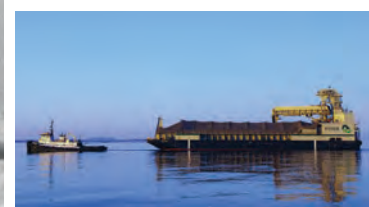
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• PRODUCTION

Chandalar remains on pace for 2015 start

At a projected 30,000 ounces a year by 2017, this northern operation is set to move the dial of placer gold production in Alaska

By SHANE LASLEY

Mining News

The Chandalar Mine in Alaska's Arctic is on track to begin commercial production this summer, a milestone that is expected to significantly move the dial of placer gold production in Alaska.

Goldrich Mining Co., which owns 50 percent of a venture to mine gold in the Chandalar district, provided a forecast of anticipated gold recoveries from the mine over the next five years that includes 16,500 ounces of the precious metal this summer.

Considering that the 300 or so placer mining operations across the 49th state collectively produced roughly 75,000 oz of gold in 2014, this mine will be a significant contributor to Alaska's alluvial aurum production in 2015 and the operation is slated for upgrades that will nearly double its output in the coming years.

Gold-rich deposit

Located on the southern slopes of the Brooks Range roughly 200 miles north of Fairbanks, the Chandalar property has long been known to host rich gold deposits. Since 1906, sporadic mining operations in the district have recovered roughly 85,000 oz of gold from placer and high-grade lode deposits.

Most of the placer mining in the district was carried out in areas where frozen overburden and gravels provided stability for underground mining.

In 2007, Goldrich set out to quantify the placer deposit for commercial production. An exploration program that included 107 holes of drilling outlined 10.5 million cubic yards of pay gravels in Little Squaw Creek averaging 0.025 oz/per cubic yard (258,000 oz) gold.

This US\$300 million placer deposit, at US\$1,160 per ounce gold, is divided into two distinctive zones. A narrow canyon section of upper Little Squaw Creek contains nearly 3.2 million cubic yards of material averaging more than 0.025 oz of gold per yard, or roughly 87,600 oz of gold. Where the creek valley widens into a fluvial fan lies another 7.3 million yards of pay material averaging about 0.024 oz of gold per yard, or about 170,750 oz of the precious metal.

Aside from being slightly higher grade, the canyon section has the advantages of not being permanently frozen and having less overburden material to strip off of a thick pay-streak.

The pay-zone in the canyon averages about 86.7 feet (26.4 meters) thick and lie under about 41 feet (12.5 meters) of overburden.

Following up on the deposit outlined by drilling, the company opened up a small pit at the mouth of the canyon for test mining in 2009. This trial run produced a total of 593.5 oz of gold.

The narrow canyon area provided little room to establish the size of ponds needed to settle sediments out of the production water before being used again, which was a limiting factor for the trial run.

Water circulated back to the production plant caused the spray jets to plug and increased the density of the water, decreas-



The placer gold recovery plant at Chandalar is expected to process 600 cubic yards of gravel per hour, which will be realized as gravel screens and gold recovery tables are added in stages through 2016.

ing the effectiveness of the gravity plant's recovery.

A second run in 2010 produced another 1,522 oz of gold and 259 oz of silver.

Enter Nyac

To further the development of Chandalar placers, Goldrich forged a partnership with NyacAU LLC in 2012. The resulting company, Goldrich NyacAu Placer LLC, is a 50-50 joint-venture to operate the Chandalar placer mines, with NyacAU acting as managing partner.

The agreement covers production from all placers on Goldrich's 22,850-acre Chandalar property including: Little Squaw Creek, Big Squaw Creek, Big Creek and Tobin Creek. The partnership also covers placer production from future properties within two miles of the Chandalar property or any creeks draining the claim block.

A private mining company owned by Anchorage-based physician and fourth generation Alaskan Dr. J. Michael James, Nyac offers the partnership more than two decades of placer mining experience and the financial wherewithal to potentially develop the largest placer gold operation in the United States.

In 2013, the U.S. Bureau of land management awarded Nyac Mining Co., a placer mining venture also owned by James, the "BLM Hardrock Mineral Small Operator Award" for the high standards it executes at its placer mine in Southwest Alaska.

BLM said the systematic approach Nyac takes to mining and reclamation is more typical of much larger companies.

"The sustainable manner in which Nyac operates helps it shine amongst its peers," said the land management bureau. "The company has perfected a reclamation process that ensures soils are stabilized and re-vegetation takes place as early as possible. Nyac employs a holistic water management and reclamation system that recycles its process water and recovers fine sediment for use in reclamation. The system ensures no unsettled waters leave the mine site, and results in high-quality reclamation of disturbed lands."

It was this attention to detail that prompted Goldrich to choose this Alaska-based company as a placer mining partner.

"After spending almost a year interviewing and evaluating various major placer miners, we believe the managers of NyacAU are the partners of choice for their production ability, attention to the environment, and sincere concern for community

● COLUMN

Exploration expenditures drop in 2014

Combined double whammy of decreasing commodity prices and lackluster investor confidence has forced further reductions in 2015

By **CURT FREEMAN**
For Mining News

The state of the world's exploration industry was recently summarized in SNL Metal & Mining's annual "World Exploration Trends" publication, released at the Prospectors and Developers Association of Canada convention in Toronto. Not surprisingly, it painted a grim picture of 2014, a year we are all glad to have behind us.

The statistics indicate that worldwide exploration expenditures declined a further 26 percent to \$11.4 billion, compared with \$15.2 billion in 2013 and record expenditures of \$21.5 billion in 2012. The combined double whammy of decreasing commodity prices and lackluster investor confidence that continued into 2015 forced further reductions in exploration budgets worldwide. The decline in Alaska's exploration spending was nearly identical in scale to that of the worldwide scene. As in years past, Latin America was the dominant exploration destination of choice, pulling in 27 percent of the exploration funds spent around the globe. Africa was a distant second at 16 percent, followed by Canada at 14 percent, Eurasia at 13 percent and Australia at 12 percent. Exploration in the United States amounted to only 6 percent of the global spend, with three states, Nevada, Arizona and Alaska accounting for 71 percent of the country's spending in the sector. As a result of this dessication of exploration budgets, the number of new discoveries and the volume and value of new resources announced have declined steadily in the past three years. For example, only 50 new resource estimates were released in 2014, compared with 68 in 2013 and 168 in 2012, and the value of these resources totaled \$130.6 billion, \$87.1 billion and \$366.5 billion for 2014, 2013 and 2012, respectively. SNL's forecast for 2015 was not encouraging: more of the same. But gloom and doom does not appear to be the only items on Alaska's plate for 2015. Compared to this point in 2014, significantly more and larger exploration budgets have been approved and more exploration programs are moving forward when compared to 2014. Like the sound of that!

Western Alaska

GRAPHITE ONE RESOURCES INC. reported final 2014 drill results and a new resource estimate for its 100 percent-owned Graphite Creek project located near Nome. The results of the final 10 diamond core holes from 2014 include 42.81 meters of 6.27 percent graphite carbon, including 6.78 meters of 9.14 percent graphite carbon and 9.86 meters of 12.46 percent graphite carbon in hole 14GCH102, 24.56 meters of 6.76 percent graphite carbon including 18.31 meters of 8.11 percent graphite carbon in hole 14GCH120 and 38.80 meters of 7.80 percent graphite carbon, including 17.92 meters of 13.37 percent graphite carbon in hole 14GCH016. All 10 holes intercepted significant widths of near-surface graphite mineralization along 700 meters strike and drilling continued to show good continuity along strike and down dip. The company also updated its resources at the project which now

The author

The author Curt Freeman, CPG #6901, is a well-known geologist who lives in Fairbanks. He prepared this column **CURT FREEMAN** March 23. Freeman can be reached by mail at P.O. Box 80268, Fairbanks, AK 99708. His work phone number at Avalon Development is (907) 457-5159 and his fax is (907) 455-8069. His email is avalon@alaska.net and his website is www.avalonalaska.com.



include indicated mineral resource of 17.95 million metric tons at 6.3 percent graphite carbon and an inferred resource of 154.36 million metric tons of 5.7 percent graphite carbon, both at 3 percent cutoff grade. This resource is 14 percent higher grade than the previously announced resource and makes the Graphite Creek deposit the largest published graphite resource in the United States. Geological interpretation and estimation utilized 48 drill holes, totaling 7,494.35 meters of drilling and constrain the resources to a block measuring 730 meters long strike, 185 meters across strike and 200 meters below surface. The deposit remains open along strike in both the east and west directions, as well as down dip. The company will utilize this mineral resource estimate to prepare an initial preliminary economic assessment for the project, expected to be released in the second quarter of 2015.

Interior Alaska

Alaska newcomers **NORTHERN EMPIRE RESOURCES CORP.** and **SONORO METALS CORP.** said they had signed an option agreement on the Hilltop prospect on the western end of Empire's Richardson gold project southeast of Fairbanks. Under terms of the agreement, Sonoro can earn a 60 percent interest in the 31,720-acre Hilltop project by spending C\$3 million on exploration activities and issuing to Northern Empire 1 million Sonoro shares prior to Dec. 31, 2019. Immediate plans for the project were not released. Welcome to Alaska Northern Empire Resources Corp. and Sonoro Metals Corp.!

Alaska Range

STRONGBOW EXPLORATION INC. said it has entered into an agreement to acquire all the outstanding shares of **THOR GOLD ALASKA, INC.** and, thereby, a 100 percent interest in each of the Sleitat and Coal Creek tin properties. Under terms of the deal, Strongbow will acquire Thor in exchange for a total of 6,500,000 common shares of Strongbow and a 2 percent NSR royalty on the properties. The Sleitat property consists of 1,425 hectares of State mining claims located about 137 kilometers northeast of Dillingham. Past evaluation of the property was conducted by **COMINCO AMERICA INC.** in the mid-1980s and **SOLOMON RESOURCES** in the mid-2000s. Exploration work has consisted of mapping, sampling, geophysical surveys, 4,680 feet of drilling (14 holes) and initial metallurgical studies. In 1989,

The United States Bureau of Mines estimated the Sleitat prospect to contain an "inferred resource" of 25.9 million metric tons at an average grade of 0.224 percent to 0.37 percent tin. The Coal Creek property consists of 971 hectares of state claims in the Chulitna District north of Anchorage. Past evaluation of the Coal Creek property was conducted by **HOUSTON OIL AND MINERALS** in the early 1980s and **BRETT RESOURCES** in the late 2000s. Exploration work consisted of mapping, sampling, geophysical surveys, 19,520 feet of drilling (46 holes) and initial metallurgical studies. In 1982, Houston Oil and Minerals estimated a "preliminary geologic resource" of 4.77 million metric tons grading 0.27 percent tin.

MIRANDA GOLD CORP. provided an update on its activities in the Willow Creek project near Anchorage. Project operator **GOLD TORRENT** plans to move the Coleman deposit to the production stage in 24 to 30 months. Initial production estimates are for 21,000 ounces of gold annually from the mining and milling of 150 tons per day. The company anticipates achieving +80 percent gold recovery through use of gravity tables and spiral concentrators, thereby avoiding the use of chemicals to expedite permitting. The partners hope to complete an update mineral resource estimate and utilize it to complete a preliminary feasibility study by mid-2015. In addition, the companies are conducting mine planning, mill scoping and permit planning exercises. No drilling is planned for 2015 however the companies are modeling the old underground workings, drill holes and underground samples to provide targets for 2016. Both companies agree that with the rehabilitation of the Enserch tunnel, targets can be best drilled from underground drill stations.

MILLROCK RESOURCES INC.

announced that it has entered a collaboration agreement with a major gold mining company to explore for high-grade gold deposits in Alaska. Under the terms of the agreement the major will fund research and reconnaissance exploration efforts designed to focus on specific target areas in Alaska which the major and Millrock consider have the potential for high-grade gold deposits. Projects approved by the technical committee will each be subject to separate farm-in and joint venture agreements. Such agreements will provide for the major to acquire up to 80 percent of each project, after meeting minimum expenditure obligations, payments and certain other conditions.

Alaska's only operating coal mine, **USIBELLI COAL MINE**, recently released updated economic impact numbers for its Healy mine operations. The privately-owned mine, in its 72nd consecutive year of operations, employs 140 full-time direct employees and creates 278 indirect jobs, along with 222 downstream coal-fired power plant jobs. It pays \$14.7 million in direct wages and is responsible for \$48.7 million in combined direct, indirect and downstream wages. An impressive 100 percent of its employees are Alaska residents! The operation pays \$3 million per year in state rents and royalties, contributes \$618,000 per year to the Alaska Permanent Fund, and pays \$130,000 per year to seven local and borough governments. Its operations provide coal to six coal-fired power plants and its rail shipments generate about 20 percent of the Alaska Railroad's freight revenue. The mine produces about 2 million tons per year of low-sulfur, low-ash, low-mercury coal, with about half of this production consumed in Alaska and the other half exported through the Seward export

see **FREEMAN** page 12

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North of 60 Mining News is a weekly supplement of the weekly newspaper, Petroleum News.

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FREEMAN

facility.

PACRIM COAL recently presented an update on its Chuitna coal project in south central Alaska. The project is looking to recover an estimated 300 million tons of sub-bituminous ultra-low-sulfur, low-ash, low-mercury coal. The market for this coal is the Pacific Rim where it will be used to blend with other sources of coal to improve air quality and combustion aspects. The project, located on the state's Mental Health Trust land, is expected to provide up to 500 direct jobs during construction, up to 350 direct, full-time, year-round jobs during a 25-year operating life of the mine and up to an estimated 1,200 indirect jobs. Production is expected to average 12 million metric tons per year from a surface mining operation linked to a loading port on Cook Inlet by an innovative, low-impact overland conveyor system. This new design will result in a reduction of affected wetlands from 103 acres down to 29 acres, a 72 percent reduction. One of the most impressive segments of

the presentation is related to a wetland survey recently undertaken by the company. The professional wetlands survey team identified a pond within the project footprint as a high-priority wetland area, not realizing that the pond and nearby environment was a reclaimed coal test pit from a 1980s testing program. The project is currently in the advanced permitting stages.

Northern Alaska

GOLDRICH MINING CO. announced that its 50 percent-owned subsidiary, **GOLDRICH NYACAU PLACER LLC**, will commence mining this month at the Chandalar gold project. The company also released estimated production guidance information through 2018. Goldrich NyacAU will begin removing overburden this month and plans to transport seven additional 40-ton rock trucks to the mine in the next few weeks with mining of pay gravel expected in May. The company has completed about 15,000 feet of drilling to date on the upper half of the Little Squaw Creek placer deposit and outlined 10.5 million cubic yards of mineralized material, at an average head grade of 0.025 ounces

of gold per cubic yard for an estimated total of roughly 250,000 contained ounces. The company also released projected gold production and cost information for 2015 through 2018. Estimated per-ounce production costs using a flat \$1,200 per ounce gold price were \$713, \$623, \$489, \$451 and \$450 for annual production of 16,500, 23,100, 30,200, 32,000 and 32,000 ounces, respectively. Expected annual before-tax profits range from \$12.9 million to \$33.5 million, and, as is the case with every gold mine, operating profits are highly sensitive to the price of gold.

Southeast Alaska

HECLA MINING CO. reported year-end 2014 operating results for its Greens Creek mine on Admiralty Island. The total cash cost per ounce of silver produced for the year was \$2.89 per ounce versus \$4.42 per ounce in 2013. The average grade of ore mined during the year was 13.24 ounces per ton of silver, up slightly from the average grade of 13.04 ounces per ton in the year previous. For the year, the mine produced 7,826,341 ounces of silver, 58,753 ounces of gold, 20,151 tons of lead and 59,810 tons of zinc. The mill operated

at an average of 2,236 tons per day in 2014, which is the highest daily average since the mine began operations in 1989. Improved economics were the result of lower milling costs and higher by-product credits and silver production. Milling costs decreased in 2014 compared to 2013 due to increased availability of less expensive hydroelectric power. The value of by-product metals produced increased as a result of higher zinc and gold production and higher zinc prices, partially offset by lower gold prices. The mine is forecasting 2015 production of 7.3 million ounces of silver and 55,000 ounces of gold at a silver equivalent cash cost of \$4.50 per ounce.

COEUR MINING INC. reported year-end 2014 reserves and resources at its Kensington mine near Juneau. The mine reported proven reserves of 400,000 tons grading 0.180 ounces of gold per ton (72,000 ounces) at the Kensington deposit and an additional 17,000 tons grading 0.412 ounces of gold per ton (7,000 ounces) at its newly defined Raven deposit. Probable reserves at Kensington came in at 2,824,000 tons grading 0.181 ounces of gold per ton (512,000 ounces), while Raven came in at 162,000 tons grading 0.241 ounces of gold per ton (39,000 ounces). Total combined measured and indicated resources at Kensington and Raven were of 1,566,000 tons grading 0.244 ounces of gold per ton (382,000 ounces), while total combined inferred resources at Kensington and Raven were 1,622,000 tons grading 0.351 ounces of gold per ton (570,000 ounces).

CONSTANTINE METAL

RESOURCES LTD. announced that joint venture partner **DOWA METALS & MINING CO. LTD.**, has approved a \$5 million 2015 budget for the Palmer volcanogenic massive sulfide project. This year's drill program will focus on extensions of the encouraging drill results encountered in last year's drilling program. Drill hole CMR14-65, which intersected 89 meters grading 0.8 percent copper and 5.0 percent zinc, the most significant intersection to date, is on the extremity of known South Wall mineralization. The company is also working on an updated mineral resource estimate due out soon.

UCORE RARE METALS INC. reported that it has entered into an agreement with **IBC ADVANCED TECHNOLOGIES INC.** to acquire the exclusive rights to IBC's SuperLig™ Molecular Recognition Technology for rare earth metal separation, recycling and tailings processing applications at its Bokan-Dotson Ridge rare earth project. Under the terms of the license agreement, Ucore has agreed to pay a one-time licensing fee to IBC in the amount of \$2.9 million subject to the delivery by IBC of a fully operational rare earth SuperLig pilot plant and due diligence review by Ucore. The Pilot Plant will be constructed at IBC's wholly owned subsidiary in Houston, Texas. Following completion of the above terms, the companies will form a joint venture, with Ucore having a controlling interest (60 percent) in the joint venture, while IBC will retain a 40 percent beneficial interest. IBC's SuperLig Molecular Recognition Technology is designed to recover 99 percent of rare earth elements in a clean separation from other metals while using far fewer steps than standard solvent extraction processes. The environmentally friendly process has been used at commercial scales in other sectors of the mining industry and should reduce both capital and operating costs at Bokan-Dotson Ridge. For those interested in learning more about molecular recognition technology, see <http://mrt.ucore.com/#mrt-summary>. ●



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Photo: Volunteers from ConocoPhillips help to restore a salmon stream in the Mat-Su. © Clark James Mishler

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FIGHTING HEADWINDS

in the state during 2014 and continued investments by these companies will be key to holding the sector steady this year.

Sumitomo Metal Mining Pogo LLC – a joint venture between Japanese firms Sumitomo Metal Mining Company (85 percent) and Sumitomo Corp. (15 percent) – accounted for US\$17 million or about 20 percent of the exploration spending in Alaska during 2014.

The Japan-based owners of Pogo invested this money primarily on defining and expanding East Deep, North and South Pogo, three zones of high-grade gold mineralization adjacent to the current underground workings at their high-grade underground gold mine located some 60 miles east of Fairbanks.

Building on its recent success in finding zones of high-grade gold at Pogo, SMM Pogo has budgeted roughly US\$15 million for a 2015 exploration program that includes roughly 168,000 feet (51,200 meters) of drilling.

“This funding shows the tremendous confidence that Sumitomo has in the Pogo deposit and our ability to find additional resources for many years to come,” said Lorna Shaw, external affairs manager, SMM Pogo.

A roughly 140,000-foot (42,650 meters) surface drill program started earlier this month; the balance of drilling will be from underground stations.

The 82 surface and 19 underground holes planned will focus on near-mine targets and expansion of the South Pogo, North Zone, and north East Deep areas.

In Southeast Alaska, Hecla Mining Co. is planning to invest US\$8.2 million in some 172,700 feet (52,600 meters) of drilling at its Greens Creek silver mine during 2015. Much of this work will focus on definition drilling at the Lower NW, Deep 200 South, East Ore, Deep Southwest and 9a zones of the underground mine.

The company is particularly excited about the potential of Deep 200 South where drilling has recently cut 49.8 oz/ton silver, 0.08 oz/ton gold, 3.4 percent zinc and 1.6 percent lead over 11.1 feet (3.4 meters) and 30.5 oz/ton silver, 0.05 oz/ton gold, 15.5 percent zinc and eight percent lead over 13.9 feet (4.2 meters).

Underground exploration drilling will test for extensions of this and a number of other zones at Greens Creek.

A 10,000-foot (3,000 meters) surface drilling program is planned to explore Killer Creek, a zone about a mile west-northwest of the mine where drilling has intersected broad mineralized zones up to 120 meters with stringer veins locally grading as high as 10 percent copper and 10.4 percent combined lead-zinc.

At US\$9.1 million, Kensington accounted for a large percentage of the exploration funds allocated by Coeur Mining Inc. in 2014. This healthy portion of Coeur’s exploration dollars doled to the Southeast Alaska gold mine is the result of a strategy that rewards exploration success with a boost in funds.

The company is particularly excited about the high-grade gold tapped at Jualin, a historic mine adjacent to Kensington. At the end of 2014, Coeur reported 289,000 tons of inferred resource at Jualin averaging 0.619 oz/t (179,000 ozs) gold. This is roughly double the average resource grade at Kensington.

While Coeur has cut its overall exploration budget in 2015, Kensington is expected to again get a healthy share of what is allotted.

“Our 2015 drilling efforts will keep the focus on expanding the size and quality of

higher-grade zones at existing operations such as the Jualin deposit at Kensington and the Guadalupe/Independencia corridor at Palmarejo,” said Coeur President and CEO Mitchell Krebs.

Kinross Gold (Fort Knox) and Teck Resources (Red Dog) also continue exploration at and around their respective mines.

Optimistic juniors

2015 is shaping up to be another tough year for junior mineral explorers in Alaska, and around the world.

“More than two years of investor caution has created an unenviable position for many junior explorers, forcing them to slash spending, renegotiate agreements, settle for unfavorable terms or leave the industry altogether. Although the amount of funding raised by the juniors is up slightly in 2014 as those with more promising projects are able to attract some funding, it is insufficient to reverse the trend towards further reductions in exploration spending by the sector,” according to SNL.

Despite this dour outlook, a handful of junior explorers are expecting multi-million-dollar exploration programs on their Alaska projects this year.

This positive outlook is reflected in a letter Millrock Resources Inc. President and CEO Greg Beischer recently sent to shareholders.

“While we will not under-estimate the potential difficulties that the market will bring throughout the remainder of 2015, we head into the rest of the year with a spirit of optimism,” he wrote.

Millrock anticipates roughly US\$2.5 million of exploration in Alaska this year, including a US\$2 million program funded by First Quantum Minerals to further exploration at the aptly named Alaska Peninsula project.

Millrock came by this 500,000-acre highly prospective land package on the Alaska Peninsula through an exploration and option-lease agreement signed with the Bristol Bay Native Corp. in 2012.

After funding a US\$600,000 reconnaissance program in 2014, First Quantum entered into an option to earn up to an 80 percent joint venture interest in the property.

The 2014 program identified drill targets at three prospects – Mallard Duck

see **FIGHTING HEADWINDS** page 16

NORTHERN NEIGHBORS

Compiled by Shane Lasley



Seabridge swells Deep Kerr at KSM

Seabridge Gold March 23 reported significant growth of the mineral resource for the Deep Kerr copper-gold deposit at its KSM Project in north-western British Columbia. Based on roughly 50,000 meters of drilling in 45 holes drilled since 2012, Deep Kerr has an inferred resource of 782 million metric tons grading 0.54 percent (9.3 billion pounds) copper and 0.33 grams per metric tons (8.2 million ounces) gold. Deep Kerr was treated as a block cave (bulk underground) mining target and a net smelter return cutoff value of \$20 was used to calculate the resource. Seabridge said the lateral and vertical continuity of the zone provides a geometric configuration that is likely to be amenable to block cave mining. The company has retained Golder Associates, a leading industry expert in underground mining, to undertake bulk underground mining studies for Deep Kerr. Seabridge Chairman and CEO Rudi Fronk said the company has “every confidence that Deep Kerr represents an outstanding opportunity for a large, high-margin operation attractive to major base metal miners and gold producers.” Seabridge says the limits of Deep Kerr have yet to be identified, and the company plans to continue exploration at KSM this year using the proceeds of a C\$14.2 million bought-deal flow-through equity financing announced earlier this month. The company expects to report an inaugural resource estimate for the new Iron Cap Lower zone shortly.

\$3M program slated for Rackla Gold

Atac Resources Ltd. March 24 reported plans for the initial phase of the 2015 exploration and drill program at its Rackla Gold project in the Yukon Territory. The majority of this C\$3-million program will be conducted within the Nadaleen Trend and will focus on expanding the Conrad zone and advancing the Carlin-type gold discoveries within the Anubis Cluster. The objectives of the phase-1 exploration include: shallow diamond drilling to continue testing the eastern portion of the Conrad Upper zone; drilling target at the untested area between the Conrad Upper and Middle zones; step-out drilling from hole OS-14-230 which intersected 42.67 meters of 3.03 grams per metric ton gold at the newly discovered Conrad Lower Zone; and rotary air blast drilling targeting the more than 20 geochemical anomalies and structures that lie beneath a thin cover of overburden within the Anubis Cluster. The Rackla Gold Project, which covers roughly 1,700 square kilometers (656,400 square miles), hosts Canada’s first Carlin-type gold discoveries. The property is divided into two distinct trends: the Nadaleen trend, which hosts drill-confirmed Carlin-type gold mineralization at the Conrad, Osiris, Ibis, Sunrise and Anubis zones’ and the Rau trend, which hosts the Tiger Gold deposit and Ocelot silver-lead-zinc-tin discovery.

Al-Joundi named Agnico president

Agnico Eagle Mines Ltd. March 20 announced several senior management changes, including the appointment of Ammar Al-Joundi as the company’s new president. Al-Joundi, a former chief financial officer of Agnico Eagle, most recently served as CFO and senior executive vice-president of Barrick Gold Corp. from July 2012 until February of this year. With Al-Joundi serving as

see **NORTHERN NEIGHBORS** page 15



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Located 25 miles northeast of Fairbanks, Fort Knox is Alaska's largest producing gold mine; during 2011, Fort Knox achieved 5 million ounces of gold produced, a modern record in Alaska mining.

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Usibelli Coal Mine is headquartered in Healy, Alaska and has 700 million tons of coal reserves. UCM produces an average of 2 million tons of sub-bituminous coal each year.

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NORTHERN NEIGHBORS

president, Sean Boyd's title will change to vice-chairman and CEO. Al-Joundi will report to Boyd and assist him and the senior management team in setting and executing on Agnico Eagle's corporate strategy, optimizing the corporate structure and management processes, developing the next generation of senior management and building asset value through effective capital allocation and risk management. Other appointments include: Dominique Girard as vice-president, technical services and Nunavut operations; Nancy Guay as senior corporate director, technical services, reporting to Dominique; Michael Timmins as vice-president, corporate development; Carol Plummer as vice-president, project development, USA and Latin America; and Michel Julien as vice-president environment. "As our gold mining business continues to grow and the number of opportunities to improve the quality of our business expands we have strengthened our senior management team with several new additions. These appointments add to our current bench strength and will allow us to improve and grow

our business in a very measured and steady manner, while we continue to develop our leadership team," said Boyd

Copper North bolsters treasury

Copper North Mining Corp. March 19 reported the completion of a C\$318,000 financing. The non-brokered private placement consists of 5.3 million units priced at C6 cents per unit. Each unit consists of one Copper North common share and one half of a warrant. Each whole warrant is redeemable for the purchase of an additional share at for C9 cents until March 19, 2017. Copper North Chairman Dale Corman bought 1.7 million of the units. The company intends to use the proceeds from the financing for resource expansion and engineering of its Carmacks copper-gold-silver project in the Yukon Territory; exploration at the Thor copper-gold property in northern British Columbia; and for working capital and general corporate purposes. In connection with the financing, Copper North paid finders' fees of C\$7,140 in cash and issued 170,000 finders' warrants with the same terms as the private placement warrants. ●



Mining Spotlight



Granite wins ethical leadership honors

Granite Construction Inc. said it has been recognized by Ethisphere Institute as a 2015 World's Most Ethical Company®.

Ethisphere is a global leader in defining and advancing the standards of ethical business practices. The World's Most Ethical Companies designation recognizes those organizations that have had a material impact on the way business is conducted by fostering a culture of ethics and transparency at every level of the company. The World's Most Ethical Company assessment is based upon the institute's Ethics Quotient™ framework developed over years of research to provide a means to assess an organization's performance in an objective, consistent and standardized way. The information collected provides a comprehensive sampling of definitive criteria of core competencies, rather than all aspects of corporate governance, risk, sustainability, compliance and ethics. Granite is one of only two companies in the construction and building materials category honored this year.

"We are extremely proud to be once again named as one of the World's Most Ethical Companies," said James H. Roberts, president and chief executive officer of Granite Construction. "This recognition exemplifies the strength of Granite's team. I applaud and congratulate our employees. Our people are living the Granite code of conduct each and every day, and it is our continuing commitment to foster a strong culture of ethics and integrity for generations to come."

For the full list of 2015 World's Most Ethical Companies, visit <http://ethisphere.com/worlds-most-ethical/wme-honorees/>.

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CHANDALAR

matters,” Goldrich President and CEO Bill Schara said at the time of the deal.

Return on investment

NyacAU also is fronting all the capital needed to get a commercial operation going at Chandalar. Through the end of 2014, the company had invested roughly US\$17.3 million into developing the operation and another US\$5 million of capital expenditures have been budgeted for this year. Nyac is to be repaid this initial investment from the gold produced at the coming placer operation.

According to Goldrich’s production projections, the return on Nyac’s investment is

coming soon. The company forecasts that the Chandalar Mine will produce 16,500 oz of placer gold in 2015, worth US\$19.8 million at US\$1,200/oz gold. With this year’s production costs expected to average US\$713/oz, this results in a pre-tax net profit of roughly US\$8 million.

The JV expects production to rise and costs to fall as it expands operations over the next three years.

During the past two years, the partners have expanded the recovery plant, moved it to a lower and broader part of the valley; and built new water recycling ponds.

“Commercial production at Chandalar in 2015 is the culmination of three years of work by GNP,” said Schara. “GNP completed initial construction and a successful test plant in 2012, acquired a significant mining permit for expanded operations in

2013, and relocated and expanded facilities in 2014. All this was accomplished during one of the most difficult periods in the industry over the past 30 years.”

The expanded facility includes a new grizzly feeder with an expected capacity of about 600 cubic yards per hour, which will be realized as gravel screens and gold recovery tables are added in stages through 2016.

To keep up with the needs of the expanded operation, Goldrich NyacAU Placer is transporting seven 40-ton rock trucks to the northern Alaska placer gold mine in the next few weeks, increasing its fleet to 13 such vehicles.

As a result, alluvial gold recoveries are expected to jump to 23,000 oz in 2016; 30,000 oz in 2017; and reach 32,000 oz by 2018. As production rises, the costs are

expected to decrease to about US\$450 per oz.

At \$1,200 gold, pre-tax net profits are anticipated to soar to US\$13.2 million in 2016; US\$21.5 million in 2017; peaking at roughly US\$24 million by 2017. Every US\$100 per oz swing in the gold price equates to about a US\$3 million change in net profits once the operation reaches full capacity.

To be ready for the upcoming inaugural season of commercial mining of the Chandalar placers, stripping the overburden from gold-rich gravels is now underway.

Mining of pay gravel is expected to start in May and initial gold processing is planned for late June. Weather permitting, the plant is expected to run through mid-September. ●

continued from page 13

FIGHTING HEADWINDS

Bay, Kawisgag and Bee Creek – and this year’s program is expected to include at least 2,400 meters in drilling in six to eight holes.

Millrock is currently working with local Native village corporations to secure access and the company hopes to start drilling in June.

Constantine Metal Resources Ltd. is another company with plenty of reasons to be optimistic.

Earlier in March, this exploration company reported that Dowa Metals & Mining Co. Ltd. allocated US\$5 million to continue exploration at Constantine’s Palmer volcanogenic massive sulfide project in Southeast Alaska.

Dowa, which has an option to earn 49 percent in Palmer by investing US\$22 million over four years, had spent roughly US\$10 million at the project through the end of 2014, the second year of its earn-in agreement.

This year’s drilling will focus on continued expansion of Palmer’s South Wall zone, where one hole drilled last year cut the widest intersection of VMS mineralization encountered at the project to date.

This hole, CMR14-65, cut 89 meters grading 0.8 percent copper, 5.0 percent zinc, 21.1 grams per metric ton silver and 0.32 g/t gold. The center of this intersection is located roughly 50 meters east and 50 meters above where CMR14-54 cut

22.1 meters grading 2.48 percent copper, 4.05 percent zinc, 24 g/t silver and 0.39 g/t gold.

A resource update that incorporates the results from drilling completed in 2010, 2013 and 2014 is currently being calculated for Palmer.

Constantine President and CEO Garfield MacVeigh said, “2015 is poised to be a promising year for Constantine and the advancement of the Palmer project. With an updated resource estimate underway, and our thickest mineralized intersections open to expansion, the opportunity has never been more compelling.”

At the opposite end of the state, NovaCopper Inc. plans to carry out an US\$8- to US\$10-million program at the Upper Kobuk Mineral Projects in 2015. This work, slated to begin by June, will focus primarily on infill drilling aimed at upgrading inferred resources at its Arctic VMS deposit to the measured and indicated categories.

In addition to roughly 4,400 meters of drilling needed to upgrade the resource, about 4,000 meters is necessary to gather the geotechnical, hydrological and metallurgical data needed to complete a feasibility study scheduled for completion as early as 2016.

NovaCopper, which ended its 2014 fiscal year (Nov. 30) with US\$4.8 million in working capital, has enough funds to start this program but will need to raise additional capital to complete all of the drilling and other programs on the docket for

2015.

In August, First Quantum increased its exploration profile in Alaska by cutting another tentative deal on Kiska Metals Corp.’s Copper Joe property located roughly 110 miles (175 kilometers) northwest of Anchorage.

Situated roughly 20 miles (30 kilometers) southwest of both Kiska’s Whistler and Millrock’s Estelle projects, Copper Joe is in a region of Southcentral Alaska known for its copper-gold potential.

If the copper miner chooses to pursue an option at Copper Joe, it can earn an initial 51 percent interest by investing US\$5 million in the project by 2017, a stake that would increase to 80 percent if Copper Joe was advanced to a production decision.

First Quantum has until the end of March to notify Kiska of its intentions regarding the option to enter a joint venture on the Copper Joe project.

New players

One of the more promising signs for mineral exploration in Alaska this year is that a number of new companies have cut deals on projects in recent months.

Among the most notable of these new arrivals is Royal Gold, which has inked a joint venture agreement with Contango Ore for the continued exploration of the Tetlin gold properties near the crossroads community of Tok in eastern Alaska.

Royal Gold has the opportunity to earn up to 40 percent interest in the JV by investing US\$30 million in the Tetlin

properties by October 2018 – an average seasonal investment of about US\$7.5 million. To get the ball rolling in 2015, Royal Gold has agreed to invest an initial US\$5 million in Peak Gold, a limited liability JV that holds the extensive package of Tetlin properties.

Royal Gold Vice President of Corporate Development Bill Heissenbuttel told shareholders that the Tetlin JV agreement is reminiscent of the company’s original focus and pairs with the royalties the company purchased separately on the project.

Royal Gold lists near-surface mineralization, attractive grade, numerous undrilled targets and great accessibility among a list of unique attributes that attracted the royalty company to Tetlin.

Despite the continued shortage of exploration funds, Millrock Resources said it is collaborating with a major mining company to explore for high-grade gold deposits in Alaska.

“We plan to do a lot of field exams this summer, and are actively soliciting other claim holders that may wish to present their project for consideration by Millrock and its strategic collaboration partner. Additionally, we will likely carry out reconnaissance work on gold targets that Millrock has developed on open ground,” Beishcher explained in a recent email to Mining News.

This early stage work will likely run about US\$300,000.

While the name of its strategic partner is currently being withheld, Millrock said the gold miner is new to the state, further shrinking the field of candidates.

Other new exploration companies expanding into Alaska in 2015 include: Strongbow Exploration Inc., which is finalizing a deal on two tin projects in the state; and Sonoro Metals Corp., which has signed an option agreement to earn a 60 percent interest in Northern Empire Resources Corp.’s Hilltop Gold project located some 70 miles south of Fairbanks. ●

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NEWS NUGGETS

Any conclusions that I draw from this review will be based upon the facts that I find and my judgment based on years of experience in government,” Secretary Cohen explained. “To ensure a comprehensive and unbiased evaluation, I welcome hearing from, and will be reaching out to, interested stakeholders, and I will carefully consider all points of view. I invite those who have information relating to the issues under review to meet with my team so that we might receive all relevant information for consideration.” ●

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• NATURAL GAS

HB 132 moves to Senate on 24-14 vote

Bill restricting what AGDC can do in competing with AKLNG project got minor cleanup in two House committees, now in Senate Resources

By KRISTEN NELSON
Petroleum News

House Bill 132, sponsored by House Speaker Mike Chenault, R-Nikiski, moved through two House committees, Energy and Resources, with minor changes and passed the House 24-14 March 23.

The bill restricts the Alaska Gasline Development Corp. from competing with the Alaska LNG project until the earliest of the state or another party with natural gas leases dropping out of AKLNG; the AKLNG parties entering into contractual agreements to undertake Front-End Engineering and Design; or July 1, 2017.

The bill was introduced after Gov. Bill Walker said earlier in the year that he wanted to see the in-state line AGDC has been working on as a backup to AKLNG, the Alaska Stand Alone Pipeline, expanded to compete with AKLNG.

In introducing HB 132 in the Senate Resources Committee March 25, Chenault said it affirms the policy direction for AGDC set by the Legislature in 2013 when AGDC was created and in 2014 when AGDC's involvement with AKLNG was approved in Senate Bill 138.

The bill also recognizes that AGDC is already engaged on behalf of the state as a partner in AKLNG, Chenault said, calling AKLNG the project likely to deliver the greatest benefit to Alaskans.

The backup

The smaller project AGDC has been working on, ASAP, is a backup, Chenault said.

Originally established when the Alaska Gasline Inducement Act was in place, ASAP was limited to 500 million cubic feet a day under the terms of AGIA. That limitation has been eliminated, he noted, and ASAP can be upsized when needed.

AGDC's board, with new Walker administration commissioners and three new members appointed by Walker, has asked staff to provide an estimate of the cost to design two larger volume projects. Chenault said if ASAP needed to be acti-

vated due to failure of AKLNG, we don't know today what the right size of pipe for ASAP would be, what pressure or what volume of gas would be right.

He said his concern is that ASAP has been proposed since the beginning of the session not as a backup but as a competitive line, and said it doesn't make sense to get into competition with ourselves and spend money on both projects.

On the issue of finding agreement with the governor, rather than staging a battle, Chenault said that is "exactly what we're looking for." He said the last thing he wanted was a fight with the governor, but he said there is a strong feeling among many members against giving up the opportunity before us today, when the state is further along on a gas project than it has ever been.

Chenault said he is willing to work with the administration to see about coming to an agreement that would meet some of what the governor wants while meeting

some of what the Legislature wants, but said that hasn't happened yet.

Competing plan

Walker has called for competition between AKLNG and an expanded ASAP line which would go to tidewater and connect with a liquefied natural gas facility built by parties other than the state.

In an opinion piece published in mid-February the governor said that while he was pleased with progress to date on AKLNG, he wants the state to "increase the viability" of ASAP, calling it "market-driven, with Alaska in control." He said existing funding would be used to "explore market opportunities and financing arrangements with potential buyers of Alaska's gas," with the project designed for both in-state and export markets. ●

Contact Kristen Nelson
at knelson@petroleumnews.com

E&P

State approves Hooligan PA

The state has formed a Hooligan participating area at the Northstar unit.

The participating area changes the administrative status of production from the Kuparuk formation at the North Slope unit. The formation began producing on a tract basis in 2006 and had been in sustained production since 2010, according to the state. The participating area includes four state and two federal leases covering some 7,656 acres.

The participating area was approved retroactive to January 2006.

The application took several years to process. During that time, operator BP Exploration (Alaska) Inc. sold the Northstar unit to Hilcorp Alaska LLC, which is now the operator.

Northstar straddles the boundary between state and federal waters north of Point Storkerson, which means that the Alaska Department of Natural Resources and the U.S. Bureau of Safety and Environmental Enforcement both have oversight over the unit.

BP applied to form the Hooligan participating area in late June 2012 on leases currently within the unit and leases the company proposed to add to the unit. The BSEE approved the participating area in February 2014. The state approved the unit expansion in October 2014. BP and its minority partner Murphy Exploration (Alaska) Inc. transferred their interests in the leases to Hilcorp in November and December 2014, respectively.

The Hooligan participating area joins the Northstar participating area, which state and federal officials formed in 2002 and the federal Fido participating area, formed in 2012.

—ERIC LIDJI



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ENVIRONMENT & SAFETY

Some big programs start small but grow

CIRCAC has pioneered ways of gathering environmental data and making that data available to industry, regulators and the public

By **ALAN BAILEY**
Petroleum News

Formed under the terms of the Oil Pollution Act of 1990, in the wake of the Exxon Valdez oil spill, the Cook Inlet Regional Citizens Advisory Council has for the past 25 years been furthering a series of projects, triggered by the council's mandate to monitor the environmental impacts of oil in the Cook Inlet region. But these projects often end up achieving much more than was originally envisaged, Susan Saupe, director of CIRCAC's science and research program, told Petroleum News on March 23.

"I think that has been some of our biggest successes, taking goals that we have under OPA 90 and developing," Saupe said. OPA 90 is the abbreviated name of the Oil Pollution Act.

Often, CIRCAC has initiated relatively small but innovative pilot projects in Cook Inlet and, then, having achieved success,

worked with other organizations to expand the projects to a more regional scale, Saupe said. And that has often resulted in making valuable data available to a wide range of stakeholders, including industry, government regulators and the general public, she said.

For example, in 2001 CIRCAC led efforts to develop what are referred to as "geographic response strategies" around the Cook Inlet coast, Saupe said. A geographic response strategy is a plan for protecting some sensitive environmental resource at a particular location in the event of an oil spill. A plan typically spells out requirements for equipment such as protective boom and forms a building block of a more regional oil spill contingency plan. Following success in Cook Inlet, the use of geographic response strategies has expanded to a statewide program administered by the Alaska Department of Environmental Conservation.

Measurement of pollutants

As part of its OPA 90 mandate, CIRCAC has been conducting a research program, measuring and documenting levels of a number of pollutants in Cook Inlet, both in mixing zones where discharges from offshore oil platforms enter the waters of the inlet, and throughout the inlet. The idea is to understand the background levels of contaminants and to gain insights into where the contaminants have come from. Then, if there is, for example, an oil spill, it becomes possible to objectively measure the impact of the spill, Saupe explained.

"One point that we have really focused our effort on is that the regional citizens advisory councils should be partners among citizens, agencies and industry," Saupe said. "We've actually taken that to heart quite a bit in that we can do the best work if we are really trying to do the best science to answer these questions."

A major focus of the research has been

the types of hydrocarbon that form some of the more toxic components of crude oil. However, there are many potential sources for these materials, including oil platform discharges, natural oil seeps, forest fires and volcanic eruptions, Saupe said. In fact, particulates in vehicle exhaust form a significant source, she said. Similarly, heavy metal contamination can originate from natural sources as well as potentially from drilling waste.

But some of these contaminants, such as certain classes of hydrocarbons, have distinctive chemical signatures, characterized by the precise mix of chemicals that comes from that origin. By establishing the particular signature of each particular source, CIRCAC wants to construct a picture of background contaminant levels in the Cook Inlet and the sources of each contaminant.

"One of our biggest goals was to have a really good understanding of what is the background, what are the other sources," Saupe said.

The evolution of this monitoring program into what is referred to as the integrated Cook Inlet environmental monitoring and assessment program provides an example of a modest CIRCAC program expanding through partnerships with other organizations. In this case, CIRCAC wanted to adopt the methods used in a national coastal assessment program that had been applied for environmental monitoring in the Gulf of Alaska, and adapt these methods to the Cook Inlet region by adding some forms of monitoring that did not feature in the national scheme.

CIRCAC obtained federal funding for its initiative through the support of the Alaska congressional delegation, Saupe said. And at around the time that CIRCAC was developing its project, the Environmental Protection Agency was starting to develop a new general permit for oil industry discharges into Cook Inlet, she said. CIRCAC suggested merging its project with the sampling program that the EPA was requiring of industry dischargers, an arrangement that would enable both CIRCAC and the EPA to each obtain more data than would otherwise have been possible had they operated independently. The two oil companies involved in the oil platform discharges issue, Chevron and XTO, agreed to participate in the scheme. The result was a much larger assessment than had originally been thought possible, and a highly successful project, Saupe said.

The Alaska ShoreZone program

In another project that has grown far beyond an original CIRCAC initiative, it is now possible to click into the National Oceanic and Atmospheric Administration's website and engage in a virtual tour of large sections of the Alaska coastline. Called the Alaska ShoreZone program, the online system enables anyone to view high resolution video of the shoreline and intertidal zone, and to retrieve data about features of the coastline and the natural habitat. This system can prove invaluable when figuring out how to deal with a disaster such as an oil spill and was used, for example, during the response to the grounding of Shell's Kulluk floating drilling platform in 2012, Saupe said.

This ShoreZone initiative began in 2001, after CIRCAC had picked up the idea of filming the Cook Inlet coastline from a ShoreZone program that had been applied

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• EXPLORATION & PRODUCTION

State approves Cook Inlet seismic survey

SAExploration plans offshore 3-D survey, west of the northern Kenai Peninsula using wireless nodes for recording seismic signals

By **ALAN BAILEY**
Petroleum News

On March 18 Alaska's Division of Oil and Gas approved a land use permit for SAExploration to conduct a 3-D seismic survey in the upper Cook Inlet. According to the approval notice the survey will take place in state waters west of the northern Kenai Peninsula. The survey area, encompassing about 821 square miles, will extend from the peninsula coast, between Moose Point and Nikiski, to the western coast of the inlet between West Foreland and the Chuitna River. The permit is effective from March 18, 2015, to March 18, 2016.

According to the decision document SAE plans to use wireless nodes placed on the seafloor for recording the seismic data, rather than towing hydrophone recorders behind a seismic vessel. Lines of receivers, parallel to the shoreline, will be spaced at 1,650-foot intervals. Two seismic source vessels will tow airguns along source lines perpendicular to the lines of receivers. Operations will take place over a series of 7.5-mile by 10-mile patches, with each patch taking three to five days to set up and shoot.

As each patch is recorded, the nodes from the previous patch will be retrieved and the data from the nodes downloaded into a computer system.

On March 20 the National Marine Fisheries Service issued a notice in the Federal Register, proposing the issuance of a marine mammal incidental harassment authorization for seismic surveying by SAExploration across a broad area of the upper and lower Cook Inlet between April 1, 2015, and March 31, 2016. The authorization proposal does not reference any specific surveys, merely stating that the company proposes to conduct 3-D surveys in the Cook Inlet over a period of 160 days during the specified time period.

"The exact location of where the 2015 survey will be conducted is not known at this time, and probably will not be known until spring 2015 when SAE's clients have finalized their data needs," the authorization says.

The authorization includes a description

"The exact location of where the 2015 survey will be conducted is not known at this time, and probably will not be known until spring 2015 when SAE's clients have finalized their data needs," the authorization says.

of SAE's proposed operational technique almost identical to that in the Division of Oil and Gas permit document.

A company conducting an offshore seismic survey requires an incidental harassment authorization, to ensure that there is no infringement of the Marine Mammals Protection Act if a marine mammal is inadvertently disturbed during seismic operations. The closing date for public comments on the proposed authorization for SAE is April 20. ●

PIPELINES & DOWNSTREAM

Hopes build for BC refinery

There is a ready-made market in Asia for products, especially diesel, from a refinery planned for the British Columbia coast, says a consultant for the proponent Pacific Future Energy.

The facility could be profitable if it can produce "highly sought after" diesel, Ron Loborec, Canadian energy leader for Deloitte & Touche, told the Globe and Mail on his return from a trip to Asia with two leading company officials.

He said prices for Western Canadian Select heavy crude would be below those for West Texas Intermediate light crude, thus ensuring cheaper costs for refinery feedstock.

Loborec said the cost of the raw bitumen from the Alberta oil sands is estimated to be sharply lower than the revenue from exporting refined petroleum products.

Preliminary designs for the planned US\$11.4 billion operation are incorporating the latest technology, notably carbon capture and storage that would lower greenhouse gas emissions from the production of 216,000 barrels per day of diesel, gasoline, propane and jet fuel.

Loborec was accompanied on his Asian visit by Pacific Future Chief Executive Officer Robert Delamar and senior adviser Stockwell Day, a former cabinet minister in Canadian and Alberta governments.

The company is also pressing ahead with an evaluation of the costs of transporting the crude bitumen by rail to Prince Rupert, although it is not ruling out a pipeline option by Enbridge or TransCanada.

Day said Enbridge, after a difficult start, is making some headway in dealing with the concerns of First Nations and environmentalists over its proposed Northern Gateway pipeline to Kitimat.

A Northern Gateway spokesman said his company's top current priority is to building lasting partnerships with aboriginal communities and incorporating their views and traditional lifestyle concerns into the project.

Assuming it secures financial backing and sales contracts, Pacific Future hopes to start operations in 2023, one year behind the targeted startup of the Kitimat Clean refinery being led by newspaper owner David Black.

—GARY PARK



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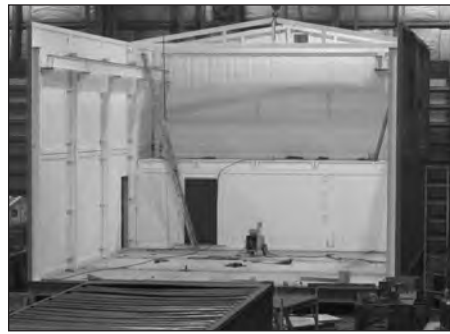
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Anchorage company solves construction challenges

Anchorage steel fabrication company STEELFAB is finding solutions to the challenges of creating large shop buildings for new projects on the North Slope. These buildings are quite large — 30 feet wide by 50 feet long by 26 feet high — making transportation of the fully constructed structures difficult and costly. A fully integrated steel fabrication plant, STEELFAB utilizes an innovative design to construct the buildings in sections, which allows them to be stacked and transported more efficiently. Once they are on site, sections can be assembled into a completed building in just four days.



COURTESY STEELFAB

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STEELFAB has been busy this winter with a slate of projects that for Alaska's oil and gas producers, including ConocoPhillips and Doyon Drilling, thanks to the passage of Senate Bill 21.

Owned by husband-and-wife team Richard and Janet Faulkner since 1989, STEELFAB is fully certified for steel work in the Arctic. STEELFAB specializes in projects like these and others needed on short turnaround.

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Cindy Shake joins AECOM team

Cindy Shake has joined AECOM as a public affairs specialist. Shake is a versatile, award-winning communication professional and was named 2014 Marketer of the Year by the American Marketing Association, Alaska Chapter. She was principal of a successful graphic design firm for more than 25 years and has years of combined professional experience in marketing, business development, management, communications, and graphic design. Aside from being the director of the AECOM internship program, Shake's responsibilities at AECOM include supporting the environmental, engineering, planning, and permitting projects in Alaska.



CINDY SHAKE

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

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MCGUIRE Q&A

issue of global warming that has been presented to us by ourselves using our sovereignty. One concern that I have is the idea that we are not supposed to have an economy, not develop our own resources, not build our own ports, not fund the movement of our own villages in places where there has been erosion.

As I said to Sen. Sanders and others over the course of a few days, should we sit back and wait and why should we wait for a federal government that has not found the ability to fund polar-class ice breakers over the last two decades? Russia is ebbing toward 40 and China is ebbing toward 11. It makes no sense for Alaska to sit on its hands and wait for the federal government to help us.

That's another message that I had. Developing Alaska's Arctic, America's Arctic, is an important part of improving the quality of life for Alaskans. We tried in our Alaska Arctic Policy Commission to think about social issues as well. When you look at suicide rates and drug and alcohol addiction, much of that is linked to people who feel they have no hope. A lot of what drives hope is a job and a sense of self worth. When you get north of Fairbanks, the job opportunities change; there is no question about it. With the opening of the Northwest Passage, both lanes for the first time in 2007, there is a chance for the upper part of Alaska to change in an unprecedented way. Now a child in Barrow may have more opportunities than a child in Anchorage and that's purely with the opening of the Northwest Passage.

So that is part of what I wanted to say. Alaska produces less than 1 percent of the U.S. greenhouse gas emission. I felt it was important in that hearing to say we are not the issue when it comes to global warming to the extent that it is manmade. It's not the producing. It's the consumption.

So that's not us. Sen. Sanders said it was ironic that we want to develop our resources when it was global warming that opened up the Arctic.

I flip it around. You in the Lower 48 have been the consumers of energy and to the extent that that's the cause let's talk about your reduction. There will always be demand, there will be global demand. Let Alaska be an environmentally friendly good steward of the environment and produce our resources.

Petroleum News: You also mentioned in your speech that the U.S. is behind, especially with ports and spill response. Meanwhile the federal treasury took in \$4 billion from lease sales. Talk about that.

McGuire: from my perspective I look at the Gulf of Mexico as a comparison zone. The idea of offshore drilling and revenues is unique to a few places in the United States. The Gulf in 2006, there was a policy lead by Sen. Mary Landrieu that allowed for the return of those revenues taken in lease sales to contribute to the Gulf states to help with infrastructure. The other part of it was revenue sharing, so not just direct improvements with infrastructure but revenue sharing with the local governments. I think it's important that Alaska is treated the same way. The government has taken \$4 billion in lease sales yet at the same time has been unwilling to invest in a single polar-class ice breaker, unwilling to invest — or even partner — in a single port.

These are issues of national security from a variety of standpoints. We have had cruise ships that have come from all

over the world pulling up in tenders in Point Hope and Barrow. Think of the issue of how Russians are building up their fleet. We don't have a polar-class icebreaker to respond to search and rescue situations that are happening.

The very people in this hearing were talking about protecting the environment. One of the best ways Alaska has protected the environment is through prevention. Having polar-class icebreakers ready to respond and having Arctic ports with those icebreakers, those booming systems and the manpower ready to respond is one of the biggest things we can do to protect ourselves.

Over 400 new vessels last year alone passed through the Arctic and down through the Bering Sea. The Bering Sea is the world's garden of fish. It's certainly Alaska's garden. My concern as you look into the future that a spill will come and, without anybody out there, there is nobody to respond.

Petroleum News: Well, with that in mind, what are your thoughts on Shell returning to explore? Are they ready to go back out there?

McGuire: I haven't spent as much time the last two months as I did with the interim. I think they did everything right at what they do best. Their main weakness was shipping. I know they worked to improve their shipping policy. If there were anybody who is going to explore offshore, I would put my money on Shell. From the drilling expertise, they've got it. Shipping and getting those assets to the Arctic, those are very challenging. I understand that it's a unique environment. I think Shell will be ready. I believe they will be excellent stewards of the environment. I think ConocoPhillips and Statoil will follow them and do an excellent job as well. I think it will be an important chapter of Alaska's history.

An analogy I use a lot is that this is a race to the moon and it's interesting that it's a race with the same country: Russia. The Arctic is open. It's the new silk highway. It's the new place for opportunity. There are \$100 billion ready to be invested. It will go somewhere. To sit back and say we are going to be a snow globe and we are going to resist any of it, is denying Americans a chance at real opportunity.

Petroleum News: So what can be done, either by lawmakers, members of the administration or business leaders?

McGuire: Get involved. The main point that I've been making in going to Washington, D.C., while having this team of Lisa, Dan and Don leading these committees where there is a subject matter over lap in the Arctic. Alaskans are some of the most environmentally conscious people I've ever met. We don't want to muck up the environment that our kids and grand kids are going to grow up in. I think that people are always amazed to hear by what we have done with by way of environmental protections, permitting processes, and spill response plans —

and we need to get that word out.

Indigenous people are vital to this discussion. Their local and traditional knowledge is vital as we move forward. Talking to friends and relatives in the Lower 48 is particularly important. It reminds of the debate we've had over the last 30 years. The influencing is one person at a time.

Harkening back to the trans-Alaska pipeline, if you look back at the testimony in the 1960s, there is testimony of people wondering how can you build an 800-mile long, 48-inch pipeline in an Arctic environment like that. We did it. We did it well. It was jobs not just for Alaskans but Americans. Think of what else is to come?

Petroleum News: A gas line?

McGuire: Yes.

Petroleum News: What are your thoughts of how things are right now?

McGuire: I'm concerned that in this cycle of the gas line that we are back into a position where we have people in power competing on the fundamental direction. It's frustrating to me because when I introduced my bill and Chenault introduced his bill to create the Alaska Gasline Development Corp., I thought we created the perfect safety net, that we would have a project to move forward if the producers decided to, but we always had this plan B.

My concern is that we have devolved back into a debate over the order of those two projects. I worry it's going to end in more epitaphs saying I tried to build a pipeline that would commercialize North Slope gas, so I'm concerned.

Petroleum News: What would you like to see accomplished between now and the end of the year?

McGuire: I would like to see the leaders in the House and the leaders in the governor's office spend more time in dialogues understanding each other's position. I know Mike Chenault very well; I've served with him for 15 years. I know

his heart is in the right spot and that he wants to get gas to Alaskans. I also happened to believe that Bill Walker wants to get gas to Alaskans. These issues often come down to misperceptions or misunderstandings about people's motives.

I'd like to see them get into a room and break bread together. I know they have stated to do that. I'd like to see them do more of that. I think those two men have the power to make or break Alaska's future right now with respect to the commercialization of North Slope gas.

I don't think we have the kind of time people think we do. That's the part that really bothers me. I don't think we did three years ago. You may recall I said I thought we were late to the Asian LNG party. We were late then; we are certainly very late now, possibly terminally late. I think any filibustering going on between the branches of government puts us in a terminal position to acquire Asian contracts at that higher price per mcf.

Petroleum News: So are you at all optimistic progress can be made, possibly through a special session.

McGuire: I'm always optimistic. I lead through optimism. I've seen amazing things happen. I saw Sean Parnell come from a position opposing Mike Chenault and me on a plan B entirely to embracing it. I've seen people who oppose LNG entirely to embracing it. I think that as a small state when people take a chance to get together and recognize they don't have the luxury of opposing one another in a way that you might be able to in a larger state with millions of people. We have to get along like a family. I liked Dan Sullivan's speech when he said we are in this together in sickness or in health. We don't have the luxury to disagree for too long. We don't want to be known as someone who killed an opportunity. Alaskans are motivated by making great things happening. ●

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OIL PATCH BITS

Calista Corp. sets record shareholder dividend

Calista Corp.'s 11th shareholder dividend since inception is the largest in its corporate history. This 2015 shareholder dividend distribution totals \$5.05 million and is the ninth dividend since 2007. The total distribution of Calista's shareholder dividends is \$31.3 million, with 50 percent of that total declared in the last three years.

Calista has one of the largest populations of shareholders among the Alaska Native corporations, with approximately 12,900 individuals. This distribution equates to \$3.80 per share, with the average shareholder owning 100 shares. This dividend is an 8 percent increase from 2014.

"Approximately 60 percent of shareholders live in the Yukon-Kuskokwim Delta," said Calista Corp. Board Chair Willie Kasayulie. "This estimated \$3 million impact for the region is significant for one of the most economically challenged areas in the nation."

2014 marked the first year in Calista's history that two dividends were distributed in one calendar year.

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



Rig #3 on Natchiq #1 drilling for Pioneer Natural Resources Alaska Inc., March 2003



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DRILL SITE ADDITION

An expensive region

ARCO discovered West Sak in 1971, conducted a 15-well pilot project between June 1983 and December 1986 and brought Drill Site 1D online in December 1997.

ConocoPhillips has recently been developing the West Sak reservoir from six drill sites — 1B, 1C, 1D, 1E, 1J and 3K — all of which also produce from the Kuparuk reservoir.

In 2000, ConocoPhillips began a multilateral program at West Sak. The program grew increasingly complex over the years, including tri-lateral wells and undulating wells designed to target more of the formation. The company also expanded pad infrastructure.

Altogether, the heavy-oil development program cost around \$500 million.

ConocoPhillips began appraisal drilling in the Northeast West Sak/NEWS area from Drill Site 1Q, Drill Site 3J and an ice pad north of Drill Site 1H in 2005 and 2006. The Alaska Division of Oil and Gas approved the formation of a NEWS participating area in 2009.

At a talk in Anchorage in April 2011, former ConocoPhillips CEO Jim Mulva listed the 1H NEWS project as one the company would pursue if the state changed the tax code.

All projects accounted for

The 1H NEWS project is one of several projects ConocoPhillips announced after Alaska lawmakers approved — and

voters upheld — a change to the tax structure for oil.

Those projects were easier to justify at the time than they have been since, with Alaska North Slope crude oil currently trading for less than \$50 per barrel on the West Coast.

Even so, ConocoPhillips sanctioned construction of Kuparuk River unit Drill Site 2S and stayed the course at its Colville River unit CD-5 satellite. The company also commissioned two rigs. Doyon 142 will be the first new rotary rig deployed at the unit since 2000. Nabors CDR3 is a new coiled-tubing rig, which is an important part of ConocoPhillips' current technical strategy for the unit. The company also brought Nabors 9ES and Nabors 7ES to the Kuparuk River unit for infield drilling. The additional drilling activities have already added 9,000 gross barrels per day, according to the company.

The company had also announced plans to move ahead with the GMT-1 pad at the Greater Mooses Tooth unit, although, in late January 2015, the company said it was “deferring the final investment decisions,” citing “permitting delays and requirements, as well as the current oil price development.” Instead, the company intended to commission a 3-D seismic survey over the region and progress front-end engineering work.

Since that announcement, the U.S. Bureau of Land Management issued a record of decision for GMT-1, selecting ConocoPhillips' preferred alternative for the project. ●

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NEW FRACKING RULES

erally managed lands, more than 90 percent use hydraulic fracturing, Interior says.

The new rule represents the culmination of four years of extensive public involvement in bringing drilling regulations up to date. In developing the rule, the Bureau of Land Management published both a draft rule and a supplemental draft rule, as well as holding regional forums and numerous stakeholder meetings, and reviewing more than 1.5 million public comments, Interior says.

Supplement existing regulations

Existing drilling regulations, which continue in place, govern issues such as the need for adequate steel well casings for the protection of water zones and the use of appropriate cement in wells. The new regulations add requirements such as the mandatory reporting of specified information relating to drilling operations.

Under the new regulations, an operator must submit detailed information about a proposed drilling operation, including information about subsurface faulting and fracturing, and information about the depths of usable subsurface water resources. The operator must provide estimates of the amount of fluids to be used during fracturing operations and must disclose to BLM and the public a list of the chemicals to be used in conjunction with the fluids. There are some limited exceptions to the public disclosure requirements, to accommodate trade secrets.

The casing and cementing program for a well must meet certain performance standards, and there are requirements for the monitoring of cementing operations during well construction. There is also a requirement for well annulus pressure testing prior to an hydraulic fracturing operation. The new regulations require fluids recovered from an hydraulic fracturing operation to be stored in enclosed, covered or netted-and-screen, above-ground tanks.

The new regulations also require specified practices to be demonstrated for all wells, and not just for a sample well in a drilling program.

In Alaska, the Alaska Oil and Gas Conservation Commission has recently developed regulations for hydraulically fractured wells within the state. These regulations, which are scheduled for publication in the Alaska Administrative Code in April, will presumably operate in parallel with the new federal regulations

for drilling in federal land inside the National Petroleum Reserve-Alaska.

Mixed response

The new regulations have met with a mixed response from environmental groups, who welcome regulation of hydraulic fracturing while also questioning whether the new regulations are stringent enough.

Given the scale of oil and gas well operations on BLM administered land “it is absolutely critical to bring the agency’s rules up to speed to meet today’s challenges,” wrote Mark Brownstein, associate vice president of the Environmental Defense Fund. “With this rule, the agency is taking important steps to ensure that hydraulic fracturing on public lands is done according to ambitious new safety and environmental standards.”

“These rules put the interests of big oil and gas above people’s health, and America’s natural heritage,” wrote Amy Mall, senior fracking policy analyst at the Natural Resources Defense Council. “The bottom line is: these rules fail to protect the nation’s public lands — home to our last wild places, and sources of drinking water for millions of people — from the risks of fracking. More than ever, this underscores the urgent need to get better protections in place around the country — at the local, state and federal levels.”

Oil industry groups, on the other hand, have criticized the regulations for being too restrictive and for duplicating state and local rules.

“Despite the renaissance on state and private lands, energy production on federal lands has fallen, and this rule is just one more barrier to growth,” said Erik Milito, American Petroleum Institute director of upstream and industry operations. “Under the strong environmental stewardship of state regulators, hydraulic fracturing and horizontal drilling have opened up a new era of energy security, job growth, and economic strength. Increased production and use of natural gas has helped cut U.S. carbon emissions to a nearly 20-year low, and this decision only stands in the way of further progress, hampering natural gas development on federal lands onshore, where it has already declined an amazing 21.6 percent since 2009.”

The Independent Petroleum Association of America and the Western Energy Alliance have filed a lawsuit challenging the new regulations and saying that the administrative record lacks the necessary evidence to sustain the issuance of the regulations. ●

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PIKKA UNIT

The proposed unit covers some 63,304.47 acres in 31 state and joint state-Arctic Slope Regional Corp. oil and gas leases. Repsol, which holds 70 percent working interest in the leases, would be the unit operator. Remaining interest in 30 of the leases is held 22.5 percent by 70 & 148 LLC and 7.5 percent by GMT Exploration Co. LLC. One of the leases is held 70 percent by Repsol and 30 percent by 70 & 148.

Repsol, a Spanish major, partnered on federal leases in the Beaufort in 2007 and took 93 tracts in the 2008 Chukchi Sea sale.

The company moved onshore in a big way in early 2011, acquiring a 70 percent working interest in North Slope leases held by Armstrong Oil & Gas subsidiary 70 & 148 LLC and GMT Exploration covering 494,211 acres in the White Hills region south of the Kuparuk River unit and near the Ooguruk unit.

Repsol exploration

Repsol has been exploring in the proposed Pikka unit area since 2012, when it drilled the Qugruk No. 2. That well was drilled to 2,525 feet, “encountered a gas kick from the Tuluva Formation and was abandoned,” the company said.

In 2013 Repsol drilled four wells and two sidetrack horizontal wells. The Qugruk No. 1 was drilled to 7,050 in the Kingak shale. A horizontal sidetrack was also drilled from the Qugruk No. 1 and was fracture stimulated. The Qugruk No. 3 was drilled to 7,500 feet; the Qugruk No. 3A shared the same surface as the No. 3, and the Qugruk No. 6 was drilled to

7,809 feet.

In 2014 Repsol drilled two wells and one sidetrack in the proposed unit area, with the Qugruk No. 5 drilled to 7,430 feet; the Qugruk No. 5A sidetrack drilled, and the Qugruk No. 7 drilled to 7,176 feet.

This year's work

In its exploration plan Repsol said it would drill three wells during the next five years, including wells it is currently drilling, the Qugruk Nos. 8, 301 and 9.

The Qugruk No. 8 in Section 18 of township 11 north, range 6 east, Umiat Meridian, has an estimated total depth of 5,100 feet and is “being drilled to core and evaluate a potential pay zone,” Repsol said, noting that a production test will be done if there is time.

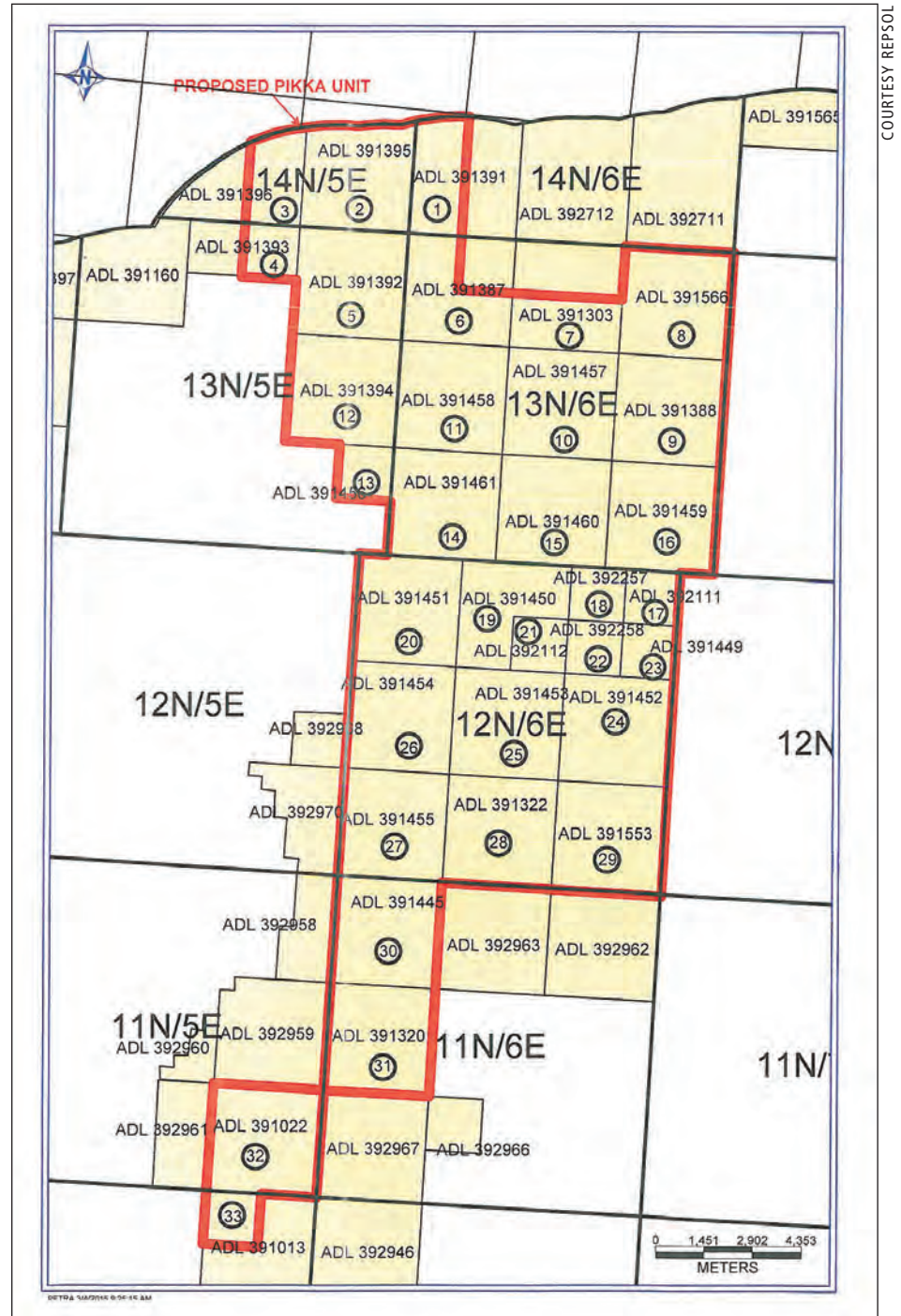
Qugruk No. 301 has a surface location in section 6, T11N-R6E, UM, and an estimated total depth of 4,146. It is also being drilled to a potential pay zone.

Qugruk No. 9 has a surface location in section 6, T12N-R6E, UM, and an estimated total depth of 7,300 feet. Repsol said the well “is being drilled to a depth sufficient to evaluate a potential pay zone. If time permits a side track will be drilled.”

As for plans forward, Repsol's Chief Executive Officer Josu Jon Imaz told analysts in a March 2 earnings call that the company will make a decision on whether to pursue development in Alaska early next year. ●

—A copyrighted oil and gas lease map from Mapmakers Alaska was a research tool used in preparing this story.

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CIRCAC

in British Columbia and the state of Washington, Saube said. At the time, existing mapping of the Cook Inlet coast was not of high enough resolution and the data was not often collected at high tides, thus excluding the intertidal zone — CIRCAC's concept for Cook Inlet involved collecting habitat data for the coastline, as well as detailed coastline imagery, and making the data publicly available online, she said.

After CIRCAC's initial survey in 2001, the first external funding for the project came from a federal coastal assistance program. But, as the concept gained momentum, more and more partners became involved, including the Exxon Valdez Trustee Council and the National Park Service.

“I think that part of the reason it was so successful was that we were demonstrating that this is something you can look at online, all of this habitat data and imagery,” Saube said.

But by around 2003-04 it became evident that the piecemeal funding for the project was becoming an impractical means of paying for the project website. At this point NOAA stepped in to host the website and to coordinate data coming from a variety of sources. And with multiple organizations contributing content to the site, the program became designated “the Alaska ShoreZone Partnership.”

“It's now statewide and more than 80 percent of the state has been mapped. It's all served up on the NOAA website,” Saube said.

The Cook Inlet Response Tool

For oil spill response support, CIRCAC

see CIRCAC page 24



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COURTESY REPSOL

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CANADA CUTS

upstream field operations, but the addition of white collar staff shows the downturn has entered a new phase.

Jackie Forrest, an economist at ARC Financial, said the trend is likely to continue as companies adjust their spending plans and face the prospect of even lower oil prices over the next few months.

Alan Kearns, president of Calgary-based CareerJoy, told the Financial Post he expects a gloomy year as engineering, construction and service companies join the movement to scale back their operations.

He said his firm has been approached by a number of energy-sector companies seeking help in trimming payrolls.

BMO Capital Markets analyst Iain Reid said in a research note that fourth-quarter earnings have missed forecasts by about 17 percent.

Storage volumes

Companies have also been “spooked” by the rapid increase in crude storage volumes across North America, said John Kilduff, a partner in the hedge firm of Again Capital.

He said there has been no let-up in oil

imports, or in domestic production, while refineries are operating below 90 percent of capacity.

Kilduff said that if storage at Cushing, Oklahoma, hits expected capacity levels there will be no market for surplus production.

But Forrest questions that fear, suggesting imports into the United States will decline as North American crude prices weaken against international levels.

She said that “even if we were to continue at the current pace” a physical constraint would not be likely to occur in the United States until early June.

“I don’t think we’re going to see the inventory builds continue at this pace,” Forrest said.

But she did concede that rapidly filling storage tanks will put “pressure on North American markets for some time to come.”

“Even if we do see tight oil pull back by mid-year, it’s likely these inflated inventory levels will stick around for another year,” she said. “And that’s going to weigh on prices.”

—GARY PARK

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CHUKCHI APPEAL

consideration, we realized this litigation was preventing us from having meaningful discussions inside our region regarding responsible resource development. We will continue to closely monitor outer continental shelf drilling activities while we pursue title and ownership of our ocean as an aboriginal claim to maintain control of our area — which includes revenue sharing of our oil.”

Rex Rock Sr., president of Arctic Slope Regional Corp. and a whaling captain from Point Hope, commended the village council’s decision.

“ASRC welcomes the news from the Native Village of Point Hope,” Rock said. “This recent action demonstrates that when we come together as one people — free from outside influence — we can progress our region forward in a productive manner.”

Rock said that ASRC, the Native regional corporation for the North Slope, shares the desire of the Village of Point Hope and other whaling communities to ensure protection for subsistence traditions.

“Withdrawing from this lawsuit removes the barrier that has prevented us

from working together,” Rock said. “Now we can sit at the table to have meaningful discussions on how to move our North Slope communities forward.”

The lawsuit in question dates back to early 2008 when, just prior to the lease sale being held, the plaintiffs appealed in federal District Court in Alaska, claiming several deficiencies in the environmental impact statement for the sale. After changes mandated by the District Court to the EIS, the case was elevated to the 9th Circuit Court of Appeals. In January 2014 the 9th Circuit Court upheld the appeal and remanded the case back to District Court. Following a District Court order, the Bureau of Ocean Energy Management made further revisions to the EIS and issued a final version of the revised document in February of this year. The Department of the Interior anticipates making a new record of decision over holding the lease sale by the end of March.

Meantime, lease related activity in the Chukchi Sea, including the processing of federal permits, has been placed on hold until the new record of decision is issued.

—ALAN BAILEY

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7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	1	2	3	4
5	6	7	8	9	10	11



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CIRCAC

wanted to be able to layer the ShoreZone data and fully streamed shoreline videos with other resource data, which was not possible either through the NOAA ShoreZone website or through another NOAA online spill response application. To achieve its objective CIRCAC worked with a company called Axiom Computing to develop a way of putting full-resolution streaming video on line, and with the Alaska Ocean Observing System, an association for overseeing ocean observation around the state, to develop a tool for integrating data for geographic response strategies, bird site information and other information needed during an oil spill response. The result of this partnership has been the Cook Inlet Response Tool, a tool that pulls in data from dozens of organizations, with the Alaska Ocean Observing System acting as data aggregator, Saupe said. The tool now has several portals served by the AOS, including a portal for the Gulf of Alaska, she said.

An offshoot of the concepts behind Alaska ShoreZone has been Coastal Impressions, an exhibit and corresponding publication with photographs of spectacular scenery around the Cook Inlet and Gulf of Alaska coasts. With many people having little idea of the incredible diversity of the Cook Inlet coastline, the idea was to show that the coast consists of much more than the mudflats familiar to many residents of the Cook Inlet region, Saupe said. The selection of about 80 images from a collection of about 60,000 photographs resulted in a traveling exhibit with large-format photographic prints she said. The exhibit has been shown at a number of venues and has proved so successful that several federal agencies have partnered in developing a similar exhibition for the Arctic coast of Alaska.

In yet another example of a CIRCAC initiative being picked up by other organizations, CIRCAC established a system of cameras for the continuous monitoring of sea ice conditions around Cook Inlet. Most of the funding for this now comes from the state Legislature, with the National Weather Service using the system for ice forecasting, Saupe said. ●

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