Petroleum news

Celebrating 20 years: 1996-2016

page 5 Tarr: AKLNG concerns mount, wants more financial info from AGDC

Vol. 21, No. 32 • www.PetroleumNews.com | A weekly oil & gas newspaper based in Anchorage, Alaska | Week of August 7, 2016 • $2.50

This week's Mining News

NORTH OF 60 MINING news

page 10 Fort Knox gold production drops on lower second-quarter grades

www.MiningNewsNorth.com | *The weekly mining newspaper for Alaska and Canada's North* | Week of August 7, 2016

NEWS NUGGETS

Compiled by Shane Lasley

Mining loses highly regarded engineer, gentleman, friend

With immense sadness, Ucore Rare Metals Inc. Aug. 2 reported the sudden passing of COO Ken Collison, a mining engineer highly regarded both professionally and personally. "Ken was a towering figure in the mine engineering industry," said Ucore President and CEO Jim McKenzie. "His outstanding successes at Ucore, Coeur Alaska, Crandon Mining, and Blue Pearl Mining/Thompson Creek speak to the diversity of his accomplishments in developing best-of-breed mining and minerals processing facilities." As COO of Blue Pearl Mining/Thompson Creek Metals from 2005 to 2009, Collison was part of the team that purchased Thompson Creek Metals and built it into one of North America's premier molybdenum producers. He previously held the positions of vice president at Crandon Mining Corp. and Coeur Alaska, the Alaska subsidiary of Coeur d'Alene Mines. He brought extensive experience in mining operations, permitting and preparation of mining feasibility studies to Ucore and its work to develop the Bokan-Dotson Ridge rare earth element project in Southeast Alaska. "Ken's innovative outlook was instrumental to generating the company's process flowsheet for the Bokan-Dotson Ridge project, and in laying the foundation for the utilization of MRT processing across the technology metals space," continued McKenzie. "Ken was a mentor, a respected colleague, a gentleman and a friend. His easygoing manner and his passion for the industry will be missed by all who had the pleasure to work with him."

KEN COLLISON

Coeur AK reports lower costs at Kensington; Jualin progress

Coeur Mining Inc. July 27 said the costs to produce each ounce of gold at its Kensington Mine reached a new historical low in the second quarter. The Southeast Alaska operation churned out 32,210 oz. gold at US$740/oz. during the period, compared with 29,845 oz. gold at US$745/oz. during the same

see NEWS NUGGETS page 10

SHANE LASLEY

The Pedro dredge, which recovered its final gold in 1967 next to the community of Chicken, is a monument to the long and storied history of mining in the Fortymile Mining District in Alaska's Eastern Interior. In a proposed management plan for this region, BLM is attempting to strike a balance between continued mining and conservation in this mineral-rich area.

PUBLIC POLICY

BLM seeks balance

Interior Alaska plan opens acreage to mining, creates conservation areas

By SHANE LASLEY

Mining News

Roughly 74 percent of U.S. Bureau of Land Management-administered lands in Alaska's Eastern Interior region will be off limits to mining, according to the preferred resource management plan published July 30 by the federal land manager.

BLM is responsible for the management of 6.5 million acres in the federal government's Eastern Interior planning area, a roughly 30-million-acre, triangle-shaped expanse of eastern Alaska that stretches from the Yukon Territory border to a point about 240 miles into the interior of the state. This area, roughly the size of New York State, blankets most of five historic mining districts – Fortymile, Goodpaster, Fairbanks, Circle and Tolovana (Livengood). It has produced roughly 21 million ounces of gold and is known to host a broad range of other minerals.

Virtually all of the BLM-administered lands in the Steese and White Mountain subunits of Eastern Interior … are off limits to mining under the preferred management plan.

BLM said its preferred plan, which is set to serve as a framework for decision-making across this swath of Alaska going forward, seeks to strike a balance between responsible development and conservation.

"We've worked hard to listen to the concerns of a diverse group of local stakeholders who rely on

see BLM BALANCE page 12

A Bureau of Land Management plan in Interior Alaska looks to open acreage to mining as well as create conservation areas. Page 9.

Kitchen Lights drilling continues; first of two wells still in progress

Furie Operating Alaska is continuing to drill its KLU A-2 development well in the Kitchen Light gas field in Cook Inlet using the Randolf Yost jack-up rig, Bruce Webb, Furie senior vice president, told Petroleum News Aug. 2. Having paused the drilling while the company brings in some well completion equipment, Furie anticipates completing the well in about a couple of weeks, Webb said.

Furie has committed to drilling two Kitchen Lights development wells this year, prior to the onset of winter sea ice in the inlet. There have been recent rumors circulating that the company will not proceed to drill the second well. However,

see KITCHEN LIGHTS page 18

CIPL dealing with two spills at Drift River facility on west side

Cook Inlet Pipeline Co. is dealing with two spills at the Drift River Terminal Facility on the west side of Cook Inlet.

In an Aug. 2 situation report the Alaska Department of Environmental Conservation, Division of Spill Prevention and Response, said the spills were discovered associated with over pressurization of a 20-inch fill line. DEC said the first spill was discovered July 2, the second spill July 28.

The spill reported July 2 was discovered by a CIPL operator in a facility inspection. The second spill was discovered by CIPL staff July 28 while conducting an inspection of the areas above the buried 20-inch fill line.

The spill reported July 2 was of 14 gallons of crude oil inside a valve box and 1 gallon spilled to the ground. The July 28 spill was reported as a crude oil stain at the surface of a buried 20-inch fill line blind flange between tanks 1 and 4. DEC said the quantity

see DRIFT RIVER SPILLS page 17

FINANCE & ECONOMY

Conoco earns $54M

Higher prices, strong production, lower expenses, one-time tax deferment help

By ERIC LIDJI

For Petroleum News

After reporting a small loss during the first quarter, ConocoPhillips reported adjusted earnings of $54 million from its Alaska operations in the second quarter of the year.

Taking into account a one-time $93 million tax adjustment, the largest independent exploration and production company in the world reported $147 million in quarterly earnings from Alaska — the highest for any segment. The company reported a $2 million loss in the first quarter. The increased profits, which are below levels from a year ago, came from a combination of generally higher production and higher crude oil prices.

With all three commodities declining quarter-over-quarter, the increase in profits is largely a credit to an increase in liquids prices — even if those prices remain depressed.

ConocoPhillips produced 179,000 barrels of oil equivalent per day from its Alaska operations during the second quarter, down from 191,000 boepd in the first quarter and up from 174,000 boepd during the second quarter of 2015. Alaska accounted

see CONOCO EARNINGS page 18

UTILITIES

Anchorage power needs

ML&P GM says generation capacity needs to be built, discusses plans

By ALAN BAILEY

Petroleum News

MARK JOHNSTON

Addressing a recent debate over the necessity or otherwise of the Southcentral electric utilities to build much new power generation capacity in recent years, Mark Johnston, general manager of Municipal Light & Power, told the Anchorage Chamber of Commerce on Aug. 1 that aging power plants tend to suffer from reliability issues and that 56 percent of his utility's generation capacity was beyond its useful life.

"We're building new generation because the stuff that we have is old," Johnston said.

ML&P has worked with Chugach Electric Association to build the Southcentral Power Project, a modern, high-efficiency, gas-fired generation facility now in operation in south Anchorage. ML&P has also been building its own high-efficiency power plant, called Plant 2A, adjacent its existing power generation units in the north of Anchorage.

Johnston said that, although ML&P's 20-square-mile service area is quite small, the utility serves many of the businesses that operate in Anchorage. And, while only about 20 percent of the utility's customers are commercial organizations rather than residential, those commercial customers account for about 88 percent of the utility's total load, he said. About 18

see POWER NEEDS page 19

GOVERNMENT

New regulations needed

State revenue officials want advice on administration of new oil, gas tax laws

By TIM BRADNER

For Petroleum News

KEN ALPER

The Alaska Department of Revenue is soliciting comments on possible changes to state tax regulations. Advice is being asked on two sets of potential new regulations, one on a change in the state oil and gas property tax statute made in 2014 in Senate Bill 138 and a second on the changes in state oil and gas exploration and development incentive tax credits made in the 2016 session, in House Bill 247.

Written comments are being accepted by the department through Aug. 16, and a public workshop — not a formal hearing — is planned on Aug.12 from 1:30 p.m. to 3:30 p.m. at the state's Atwood Building in downtown Anchorage.

Ken Alper, director of the Tax Division in the Revenue department, said there are no drafts of either sets of regulations yet and that the notices were published to advise the public and to solicit suggestions. This will be the first major rulemaking undertaken by the department in some years, he said.

"The purpose of this notice is to ask the public and other interested parties for ideas and suggestions for possible changes and additions to these regulations before the DOR (Department of Revenue) drafts specific revisions to the regula-

see NEW REGS page 18

contents

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

Alaska - Mackenzie Rig Report

Rig Owner/Rig Type	Rig No.	Rig Location/Activity	Operator or Status

Alaska Rig Status

North Slope - Onshore

Doyon Drilling			
Dreco 1250 UE	14 (SCR/TD)	Milne Point, Summer Maintenance	Hilcorp
Dreco 1000 UE	16 (SCR/TD)	Standby	BP
Dreco D2000 Uebd	19 (SCR/TD)	Alpine CD5-12	ConocoPhillips
AC Mobile	25	Standby	
OIME 2000	141 (SCR/TD)	Kuparuk 1H-06	ConocoPhillips
	142 (SCR/TD)	Kuparuk 2N-333	ConocoPhillips
Hillcorp Alaska LLC			
	Rig No.1	Milne Point	Hilcorp Alaska LLC
Nabors Alaska Drilling			
AC Coil Hybrid	CDR-2	Kuparuk 2F-18	ConocoPhillips
Dreco 1000 UE	2-ES (SCR-TD)	Deadhorse	Available
Mid-Continental U36A	3-S	Deadhorse	Available
Oilwell 700 E	4-ES (SCR)	Deadhorse	Available
Dreco 1000 UE	7-ES (SCR/TD)	Deadhorse	Available
Dreco 1000 UE	9-ES (SCR/TD)	Deadhorse	Available
Oilwell 2000 Hercules	14-E (SCR)	Deadhorse	Available
Oilwell 2000 Hercules	16-E (SCR/TD)	Mustang location	Available
Oilwell 2000 Canrig 1050E	27-E (SCR-TD)	Deadhorse	Available
Oilwell 2000	33-E	Deadhorse	Available
Academy AC Electric CANRIG	99AC (AC-TD)	Deadhorse	Available
OIME 2000	245-E (SCR-ACTD)	Oliktok Point	ENI
Academy AC electric CANRIG	105AC (AC-TD)	Deadhorse	Available
Academy AC electric Heli-Rig	106AC (AC-TD)	Deadhorse	Available
Nordic Calista Services			
Superior 700 UE	1 (SCR/CTD)		Available
Superior 700 UE	2 (SCR/CTD)	Prudhoe Bay Drill Site Niakuk, well 38	BP
Ideco 900	3 (SCR/TD)		Available
Parker Drilling Arctic Operating Inc.			
NOV ADS-10SD	272	Prudhoe Bay DS 18	BP
NOV ADS-10SD	273	Prudhoe Bay DSW-59	BP

North Slope - Offshore

BP			
Top Drive, supersized	Liberty rig	Inactive	BP
Doyon Drilling			
Sky top Brewster NE-12	15 (SCR/TD)	Stacked	
Nabors Alaska Drilling			
OIME 1000	19AC (AC-TD)	Oooguruk, Cold Stacked	Caelus Alaska

Interior Alaska

Doyon Drilling			
TSM 7000	Arctic Fox #1	Nenana Toghotthele #1	Horizon Oil

Cook Inlet Basin – Onshore

Miller Energy Resources			
Mesa 1000	Rig 37	Mobilized to North Fork to begin drilling this winter	Miller Energy Resources
All American Oilfield LLC			
IDECO H-37	AAO 111	In All American Oilfield's yard in Kenai, Alaska	Available
Aurora Well Services			
Franks 300 Srs. Explorer III	AWS 1	Stacked out west side of Cook Inlet	Available
Saxon			
TSM-850	147	Stacked	Hilcorp Alaska LLC
TSM-850	169	Stacked	Hilcorp Alaska LLC
Kuukpik Drilling	5	Offshore Modification	Hilcorp

Cook Inlet Basin – Offshore

Hilcorp Alaska LLC			
National 110	C (TD)	Platform C, Stacked	Hilcorp Alaska LLC
	Rig 51	Steelhead Platform, Stacked	Hilcorp Alaska LLC
	Rig 51	Monopod Platform, Drilling	Hilcorp Alaska LLC
Spartan Drilling			
Baker Marine ILC-Skidoff, jack-up		Spartan 151, Stacked Seward	
Furie Operating Alaska			
Randolf Yost jack-up		Drilling KLU A-2	Furie
Cook Inlet Energy			
National 1320	35	Osprey Platform, Suspended	Cook Inlet Energy

Mackenzie Rig Status

Canadian Beaufort Sea

SDC Drilling Inc.			
SSDC CANMAR Island Rig #2	SDC	Set down at Roland Bay	Available

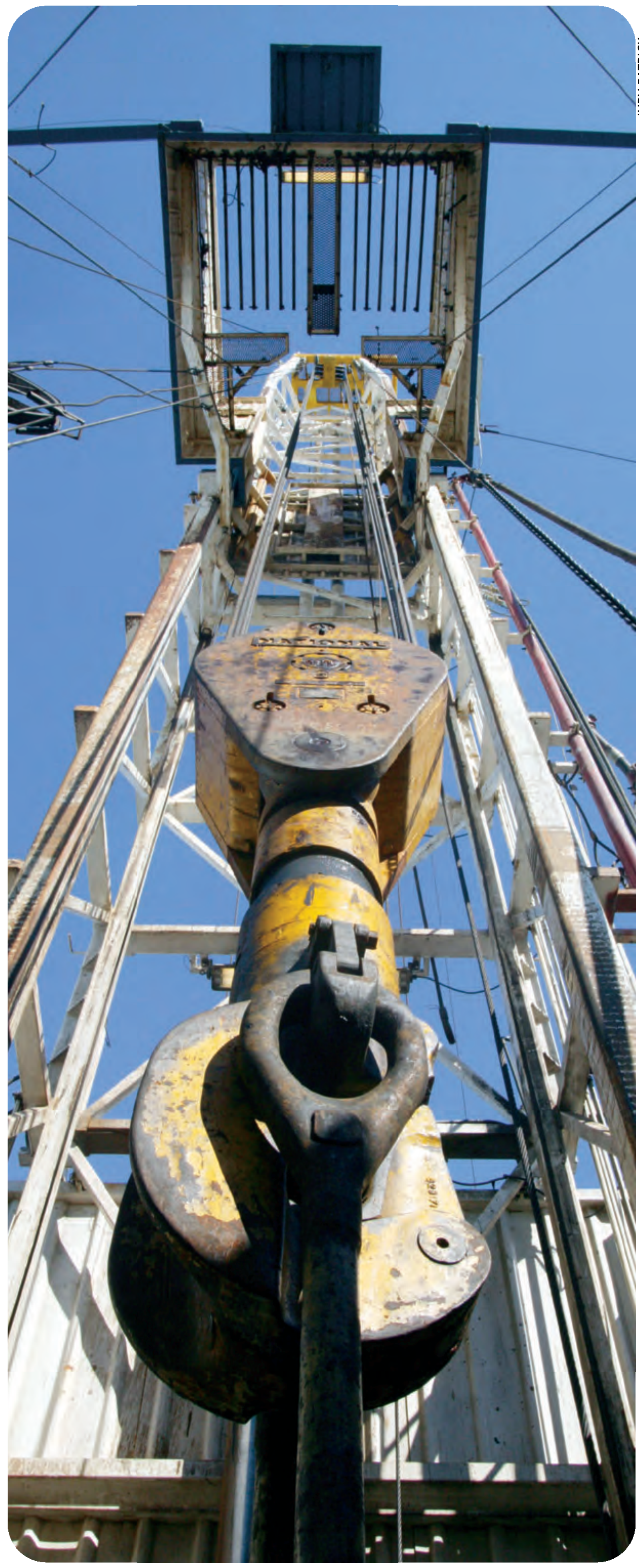
Central Mackenzie Valley

Akita			
TSM-7000	37	Racked in Norman Well, NT	Available

The Alaska - Mackenzie Rig Report as of August 3, 2016.
Active drilling companies only listed.

TD = rigs equipped with top drive units WO = workover operations
CT = coiled tubing operation SCR = electric rig

This rig report was prepared by Marti Reeve


JUDY PATRICK

Baker Hughes North America rotary rig counts*

	July 29	July 22	Year Ago
United States	463	462	874
Canada	119	102	215
Gulf of Mexico	19	18	34

Highest/Lowest

US/Highest	4530	December 1981
US/Lowest	404	May 2016

*Issued by Baker Hughes since 1944

Petroleum news

www.PetroleumNews.com

Kay Cashman	PUBLISHER & EXECUTIVE EDITOR
Mary Mack	CEO & GENERAL MANAGER
Kristen Nelson	EDITOR-IN-CHIEF
Susan Crane	ADVERTISING DIRECTOR
Heather Yates	BOOKKEEPER
Shane Lasley	NORTH OF 60 MINING PUBLISHER
Marti Reeve	SPECIAL PUBLICATIONS DIRECTOR
Steven Merritt	PRODUCTION DIRECTOR
Alan Bailey	SENIOR STAFF WRITER
Tim Bradner	CONTRIBUTING WRITER
Eric Lidji	CONTRIBUTING WRITER
Wesley Loy	CONTRIBUTING WRITER
Gary Park	CONTRIBUTING WRITER (CANADA)
Steve Quinn	CONTRIBUTING WRITER
Judy Patrick Photography	CONTRACT PHOTOGRAPHER
Mapmakers Alaska	CARTOGRAPHY
Forrest Crane	CONTRACT PHOTOGRAPHER
Tom Kearney	ADVERTISING DESIGN MANAGER
Renee Garbutt	CIRCULATION MANAGER
Ashley Lindly	RESEARCH ASSOCIATE

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

NEWS
907.522.9469
publisher@petroleumnews.com

CIRCULATION
907.522.9469
circulation@petroleumnews.com

ADVERTISING
Susan Crane • 907.770.5592
scrane@petroleumnews.com

Bonnie Yonker • 425.483.9705
byonker@petroleumnews.com

FAX FOR ALL DEPARTMENTS
907.522.9583

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

OWNER: Petroleum Newspapers of Alaska LLC (PNA)
Petroleum News (ISSN 1544-3612) • Vol. 21, No. 32 • Week of August 7, 2016
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

Alaska Oil and Gas Conservation Commission report

By ERIC LIDJI
For Petroleum News

Beaver Creek unit comingling

On July 18, the Alaska Oil and Gas Conservation Commission allowed (Conservation Order No. 726) Hilcorp Alaska LLC to co-mingle natural gas production between the Beluga and Tyonek formations in the BCU No. 23 well at the Beaver Creek unit.

Hilcorp completed the well into the Beluga formation in December 2014 but reported a disappointing initial production rate of less than 350,000 thousand cubic feet per day. An attempt in May 2015 to improve production by adding Beluga formation perforations "did not appreciably add to production from the well," according to the AOGCC.

In a second attempt to improve performance, Hilcorp now wants to perforate zones in the deeper Tyonek formation while also producing from the existing Beluga perforations.

The current pressure of the Beluga formation at the well is greater than the expected pressure of the targeted Tyonek formation, according to Hilcorp. According to the commission decision, "Any potential for crossflow between the Beluga and Tyonek would be minimized by the low permeability and low productivity of the Beluga."

Under the terms of the decision, any increase in production from the well during the first year would be attributed to the Tyonek formation. After that, Hilcorp would run a production log at least once a year to accurately allocation production from the well.

Prudhoe Bay monitoring

On July 18, the commission granted (Conservation Order No. 341F.001) a request from BP Exploration Alaska Inc. to amend two monitoring rules at the Prudhoe Bay unit.

The change will allow BP to extrapolate bottom-hole pressure surveys using surface data from water injection wells and to extrapolate gas oil contact monitoring on cased hole logs on active producers using open hole neutron logs required for new wells. The argument is that the maturity of the field challenges the accuracy of the cased hole logs.

"After nearly 40 years of production, the movement of the gas oil contact is well understood and the requirement to conduct repeat cased hole neutron logs on 40 wells in addition to requiring a neutron log on all new wellbores prior to first production does not appreciably add to the understanding of the performance of the reservoir, especially given the suspect results of these," the commission concluded in its recent decision.

On July 20, the commission corrected the order to reflect the proper numbering sequence of orders for the Prudhoe Bay Oil Pool: Conservation Order No. 341F.002.

Administrative matters

On July 20, the commission proposed 14 changes as part of a periodic review of its regulations (Alaska Administrative Code Title 20, Chapter 25). "In general," according to the commission, "the proposed modifications aim to update and clarify the requirements, improve understanding, and streamline the implementation of the regulations."

The commission will accept written comments on the changes through the afternoon of Sept. 27 and will accept written and oral comments that morning at a public meeting.

On July 20, Gov. Bill Walker appointed Hollis French to fill a vacant seat on the commission. As reported in the July 24 issue of Petroleum News, the former state senator and oil industry veteran will fill the public seat on the three-member commission.

Kuparuk-Torok pool

On July 22, the commission granted (Conservation Order No. 725 and Area Injection Order No. 39) a pair of requests from ConocoPhillips Alaska Inc. to define the Kuparuk River-Torok Oil Pool and to allow for injection at the pool for enhanced oil recovery.

As reported in the July 31 issue of Petroleum News, ConocoPhillips is proposing to initially develop the pool from the existing Drill Site 3S using approximately 10 horizontal wells completed with fracture stimulation. But the company indicated it could also develop between one and two additional pads to access other sections of the pool.

According to estimates provided by the AOGCC, a development from DS-3S could access between 100 million and 500 million barrels of oil in place from the Torok formation the unit, and an additional pad could access another 100 million to 300 million barrels of oil in place. The commission estimated a 5 percent primary recovery rate and a recovery rate between 13 and 55 percent using certain enhanced recovery techniques.

CIE challenges fine

Cook Inlet Energy LLC has asked the commission to reconsider imposing a $446,000 civil penalty against the company for violations pertaining to the Sword No. 1 well.

As reported in the July 31 issue of Petroleum News, the commission imposed the penalty (Order No. 102) for "numerous regulatory violations pertaining to Sword #1 safety valve system (SVS) and CIE's failure to provide requested information regarding its SVS compliance policies." The commission scheduled a hearing for Sept. 13.

An earlier hearing was delayed until a third member was appointed to the commission.

Kenai gas field injections

Through a July 27 letter, Hilcorp Alaska LLC asked the commission for permission to dispose of third party Class II eligible wastes in the existing KU 12-17 Class II disposal well at the Kenai gas field. The disposal well is currently operating under

see AOGCC REPORT page 15

● GOVERNMENT

Tarr: ALKNG concerns mount

With state in austere times, Anchorage Democrat wants more financial information from AGDC to help gauge Alaska's prospective role

By STEVE QUINN

For Petroleum News

Rep. Geran Tarr is wrapping up her fourth year on the House Resources Committee. Even after nearly six months of talk on oil tax credits and rates, there was no break during the interim. Resource committee members from both chambers met to discuss the prospects of the AKLNG project and whether the administration was reasonable with its request for more marketing information for natural gas in the Prudhoe Bay plan of development. Tarr, an Anchorage Democrat, shared her thoughts on recent developments with Petroleum News.

Petroleum News: Let's start with the AKLNG quarterly update in June. What were your takeaways?

Tarr: One, the state is interested in a new direction that means a substantially bigger role than the role we have right now. It was interesting because the new director for AGDC has a different approach, trying to characterize this merely as a few infrastructure projects. I was surprised to hear that because this particular infrastructure project would be the largest in the world, and I was surprised to hear him downscale it I guess would be the best way to describe it.

REP. GERAN TARR

It was more of an introductory meeting for him. To be honest I haven't gone back to learn a little more since that meeting as I would like to, but he did talk about a little about his previous endeavor's failings because they were projects that looked good but didn't pan out. That gave me a little bit of reason to feel concern. I'd like to go back and look into his background a little bit.

I did ask the board and his hiring was approved unanimously. At this point it's an all new board except for Mr. (Dave) Cruz and he's been there since the inception, so I'm really happy there is at least one person on the board that has institutional knowledge that pre-dates the Walker administration.

One thing I'm having trouble with is this administration is not consistent. It's difficult to know where things are headed depending on what point in time we're at. For example, I don't think anybody really thought Dan Fauske was the right person to lead this project forward if it got really serious because he didn't have any real gas line experience.

But at the time when he was let go, the administration had said we weren't going to be hiring people for $400,000. Now the new individual is actually more like a million-dollar state employee. That's where my constituents start to raise an eyebrow and wonder if state dollars are being well spent and if this is going to pan out.

I think people have lost confidence in the project and see that kind of money being spent at a time when we have such difficulties as a bit troubling. That's just one example. Or saying we have to have board members who are all from the state of Alaska, which I stood by him for. Then he subsequently hired Rigdon Boykin, who was an out of state $1 million contractor, who by all accounts he caused more problems that he did good.

I think that is one of the bigger challenges for me, the lack of consistency in how things are moving forward.

Petroleum News: You've noted turnover. One of your colleagues in the Senate raised the issue that it seems as though the Legislature is hearing from someone new each quarterly update. Is that a concern or is it still the governor assembling his team.

Tarr: I would say a little bit of both. I was willing to be patient initially and figured you've got a new administration, you've got to bring new people on and that's going to take a little bit of time. But now we haven't got to a point of stability. We've had some pretty major departures from people I've had a lot of confidence in like Marty Rutherford and Mark Myers.

It's surprising that folks would come on in the beginning of the administration and leave just a little over a year after taking the job. Generally a person who takes such a high level position is making more of a commitment than that. That's been difficult. As you lose that institutional knowledge, the next person doesn't know what happened before.

As an example, with SB 138, we spent a lot of time talking about how this new arrangement would have some tension because the state's traditional role was that of a regulator. Now we were going to go into a role essentially as an operator. It would be an evolution of the process for the state to be able to accomplish both of those roles successfully, and who makes the decision and where is the fire wall.

Q AND A

Because we have all these new actors, people don't remember that conversation. They didn't experience that conversation themselves to be familiar with the way it was discussed. So you are sort of starting over on some items. On such a big project that doesn't help us moving forward.

Petroleum News: So what is your confidence level for this project? Is it an issue with the project or the market?

Tarr: I wouldn't say it's the project so much to say it's the timing. We know right now oil is still the more profitable commodity. There are hundreds of thousands of barrels in storage right now (globally) that we have to get through before we can create a demand for more supply. The last I looked oil was at $41 and that was within the last couple of days. Those are just a supply and a price situation that doesn't bode well for this particular project.

(Exxon's) Steve Butt is one of the most qualified, talented individuals I've ever encountered. I know he has decades of experience in developing projects. This one again is of a greater scale. I've felt very confident of the work being done on the project. Unfortunately, it doesn't matter how good the work is if you can't overcome the economic problem.

I think that is where we are finding ourselves right now: how is this going to pan out in dollars and sense. It's true that the project financing option exists. We did spend some time talking about this during SB 138, and the way it was described was if you have a utility that wants to enter into a long-term contract with this project, they may want to become a minor partner — 3 to 5 percent partner — because they want to have a seat at the table and understand pricing.

But we didn't talk about project financing to the degree that you finance the entire project. You have to give up something to get that financing whether it's a percentage of the profits or lower pricing.

So I would say the project itself we know it's an incredible resource; we know it's going to be developed; the particular arrangement we had with the four partners had the potential to work well, but right now there is an economic and supply issue that we have no control over. It makes it less desirable at this time. The question will be how much will we have to give up to go forward and will that be worth it.

We'll have to be realistic about the kind of commitment can make when we are having trouble paying bills for essential services like education.

Petroleum News: Do you gain a sense that the administration is pulling away from SB 138?

Tarr: They are pulling away from the project that was envisioned under SB 138. What SB 138 really did was expand the powers of the commissioner at the Department of Natural Resources to make decisions about RIK versus RIV (royalty in kind versus royalty in value) and to make other decisions about leases. It significantly expanded the powers of AGDC in terms of taking over a project like this.

I wonder if we won't see legislation in the future to scale that back. I think one thing you could see is legislation to redefine AGDC's role so it couldn't take on a project independently. That's what I think could be coming from members of the majority. When you go back and read what AGDC can do with this bill, it's very broad. It gives them a lot of authority to take on a natural gas pipeline project. I don't think when people voted for that bill, they envisioned it being something where the state becomes a major partner because all of the documents that came with SB 138 — the heads of agreement and the JVA that will expire coming up.

Unfortunately, the law is pretty broad in what AGDC can do and that may be something that has to be reconsidered if it looks like things are going in a direction that people don't support. I'm hearing from my constituents they are starting to feel like this isn't a good use of state dollars. There is a lot of concern over the hiring of in addition to a new AGDC director who is a million-dollar state employee, there is also a new oil and gas advisor. That's a pretty hefty salary for that person.

Again, this was a discussion that took place during SB 138, if the state of Alaska wants to play in this sandbox, then we are going to have to be prepared to pay what the industry pays and we will probably not be in a position to do that.

Petroleum News: So do you think new legislation would come from the Legislature or the governor?

Tarr: I would think we will see legislation from the Legislature. I got a sense from the Senate Republican members that they were very dissatisfied. Many of the questions from the hearing were about whether they were violating the law. As I read it, they are not. I think it's a circumstance for some of those folks who voted for a bill thinking it would be a different group of peo-

see **TARR Q&A** page 17

● EXPLORATION & PRODUCTION

July ANS production down 6.5% from June

Biggest driver scheduled summer maintenance at Conoco's Alpine, Kuparuk River fields; June Cook Inlet production down 3.2% from May

By KRISTEN NELSON
Petroleum News

Alaska North Slope crude oil production averaged 459,327 barrels per day in July, down 6.53 percent from a June average of 491,419 bpd, a drop driven primarily by scheduled maintenance. The largest month-over-month drop was at the ConocoPhillips Alaska-operated Alpine field, which averaged 36,748 bpd in July, down 41 percent from a June average of 62,301 bpd, a drop of more than 25,500 bpd. The Alpine field was down completely for maintenance from July 22 through the end of the month and was still down in early August when this issue of Petroleum News went to press.

ConocoPhillips told Petroleum News in late June that a maintenance shutdown at Alpine was scheduled for late July and would last about three weeks.

Alpine production includes satellites at Fiord, Nanuq and Qannik.

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

Kuparuk down on maintenance

The ConocoPhillips-operated Kuparuk River field averaged 130,745 bpd in July, down 7.1 percent, more than 10,000 bpd, from a June average of 140,780 bpd. Kuparuk also had scheduled maintenance this summer, at Central Processing Facility 1, scheduled to start in late June and last some three weeks. Kuparuk went from some 150,000 bpd in early June to less than 42,000 bpd June 26, dropped to the 75,000 bpd range for three days in early July and had reached 156,325 bpd July 31.

Kuparuk production includes satellites at Meltwater, Tabasco, Tarn and West Sak, as well as production from the Eni-operated Nikaitchuq field and the Caelus Alaska-operated Oooguruk field.

AOGCC data show Nikaitchuq averaged 24,586 bpd in June, down 1.1 percent from a May average of 24,852 bpd, while Oooguruk averaged 16,403 bpd in June, up 5.1 percent from a May average of 15,611 bpd.

Endicott also down

Also showing a month-over-month production decline was the Hilcorp Alaska-operated Endicott field, which averaged 8,586 bpd in July, down 10.2 percent from a June average of 9,562 bpd.

Endicott includes satellite production from Eider, Minke and Sag Delta, as well as production from the Savant Alaska-operated Badami field and the ExxonMobil-operated Point Thomson field.

AOGCC data show Badami averaged 976 bpd in June, down 4.5 percent from a May average of 1,022 bpd, while Point Thomson averaged 709 bpd in June up 178 percent from a May average of 255 bpd.

Production began at Point Thomson April 2 and ExxonMobil said in July that it is working toward final commissioning of the gas injection compressor system. Production volumes will fluctuate as final equipment commissioning continues and the company expects to be producing at the 10,000 bpd target rate once final commissioning is complete.

Prudhoe up, Lisburne down

The BP Exploration (Alaska)-operated Prudhoe Bay field, the North Slope's largest, averaged 260,447 bpd in July, up 2 percent, more than 5,000 bpd, from a June average of 255,333 bpd. Prudhoe had scheduled maintenance earlier in the summer, a turnaround at the seawater treatment plant which began in June.

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

AOGCC data show that Milne Point averaged 18,861 bpd in June, down 2.9 percent from a May average of 19,420 bpd, while Northstar averaged 5,193 bpd in June, down 1.9 percent from a May average of 5,294 bpd.

Production at BP-operated Lisburne, part of greater Prudhoe Bay, averaged 22,801 bpd in July, down 2.7 percent from a June average of 23,443 bpd. Lisburne volumes include production from Point McIntyre, Niakuk and Raven.

Cook Inlet down 3.2%

AOGCC data show production from Cook Inlet in Southcentral Alaska averaged 14,900 bpd in June, down 3.2 percent from a May average of 15,399 bpd.

Hilcorp-operated Beaver Creek, Cook Inlet's smallest producing oil field, averaged 120 bpd in June, down 5.2 percent from a May average of 126 bpd.

Granite Point, also operated by Hilcorp, averaged 2,474 bpd in June, down 4.1 percent from a May average of 2,580 bpd.

Hansen, the Cosmopolitan project, operated by BlueCrest, averaged 145 bpd in June, down 44.2 percent from a May average of 261 bpd.

Hilcorp's McArthur River field, Cook Inlet's largest, averaged 4,348 bpd in June, down 7.7 percent from a May average of 4,710 bpd.

Middle Ground Shoal, also operated by Hilcorp, averaged 1,902 bpd in June, up 0.5 percent from a May average of 1,894 bpd.

Redoubt Shoal, operated by Cook Inlet Energy, averaged 496 bpd in June, up 44.3 percent from a May average of 343 bpd.

Hilcorp's Swanson River field averaged 2,021 bpd in June, down 7.4 percent from a May average of 2,182 bpd.

Trading Bay, also operated by Hilcorp, averaged 2,260 bpd in June, down 0.5 percent from a May average of 2,271 bpd.

Cook Inlet Energy's West McArthur River field averaged 1,134 bpd in June, up 9.8 percent from a May average of 1,032 bpd.

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

Contact Kristen Nelson at knelson@petroleumnews.com

GOVERNMENT

BOEM updates decommissioning specs

The Bureau of Ocean Energy Management has notified companies holding oil and gas leases on the federal outer continental shelf that the agency is updating its requirements for financial assurance and risk management associated with the decommissioning of oil and gas production facilities. The agency says that it wants to ensure that taxpayers do not become liable for the cost of removing facilities that have reached the end of their operational lives.

Under the conditions for issuing outer continental shelf leases, the company operating the lease at the time a production facility becomes defunct must remove the facility, fully restoring the facility site to its pre-lease state. BOEM says that it is updating its regulations in recognition of the trend for companies to move to deeper water areas in the Gulf of Mexico, and for the larger companies to transfer their older assets to smaller or less experienced businesses.

"BOEM's goal is to modernize its approach to risk management in a way that better aligns with the realities of the industry and protects the U.S. government and taxpayers from risk in a manner that isn't overly burdensome to the oil and gas industry," said BOEM Director Abigail Ross Hopper. "By implementing these changes, we will create comprehensive procedures to decrease risks to taxpayers while providing industry flexibility to negotiate adaptive solutions and use tailored financial plans to meet their financial assurance requirements."

Under the revised regulations, BOEM will require additional financial security for leases and will use updated criteria for determining a lessee's ability to self insure its outer continental shelf liabilities. The agency says that the regulations will provide new methods and flexibility for meeting financial security on the basis of tailored plans.

BOEM says that, upon adoption of the new revised regulations, the agency will first address leases with just one leaseholder responsible for decommissioning, giving the leaseholder 60 days to comply with any ordered additional financial security. For other less risky lease holdings, with multiple leaseholders, the lessees will be given 120 days to comply with any new financial security order, with the option of providing a tailored financial plan to BOEM.

—ALAN BAILEY

● EXPLORATION & PRODUCTION

DGGS publishes Wainwright well data

Rock core includes sandstones with regional reservoir potential and multiple coal seams in a complex river delta sequence

By ALAN BAILEY
Petroleum News

Scientists from Alaska's Division of Geological and Geophysical Services have published the results of a detailed analysis of rock core from the Wainwright No. 1 well, a coalbed methane test well drilled by the U.S. Geological Survey in conjunction with the Bureau of Land Management in 2007.

The purpose of the drilling program, which included the drilling of two delineation wells in 2009, was to evaluate the possibility of establishing a supply of natural gas for the Chukchi Sea coastal village of Wainwright.

To date the project has not resulted in coalbed methane development at Wainwright. But the USGS made available to the DGGS the rock core obtained from the No. 1 well. Hence the recently published DGGS report.

While the rock samples shed light on the coal resources in the rock sequence, the use of seismic data to make tentative correlations with rocks encountered by some other wells in the region suggest that thick sandstones with oil and gas reservoir potential extend over long distances, the report says.

Nanushuk formation

The report says that the Wainwright No. 1 well was drilled into the upper part of the Nanushuk formation, with rock core collected continuously from depths ranging from 75 to 1,605 feet. The Nanushuk, lower to upper Cretaceous in age, is an important oil reservoir rock in the Beaufort Sea coastal region of the North Slope, associated for example with a new major oil find that Armstrong Oil & Gas and Repsol E & P USA are pursuing in the Colville Delta region. The Nanushuk strata at Wainwright, while many miles from the nearest area of oil exploration, shed light on the depositional environment of this important regional rock unit and on the reservoir potential of sand bodies within the formation.

"The Wainwright core provides an excellent view of coal bearing rocks and potential oil and gas reservoirs in the Nanushuk formation to the west of producing fields on the North Slope, and suggests additional exploration potential in these rocks in the central North Slope," said DGGS Director Steve Masterman.

River delta complexes

The report says that, while the lower part of the Nanushuk was predominantly deposited in a marine environment, the upper part of the formation typically exhibits characteristics of land-based deposition, in a river delta situation rather like the modern day Mississippi delta. Overall, the Nanushuk on the North Slope appears to have been deposited from three large river delta complexes, the report says. The ancient rivers in the west of the region would have originated from a large drainage basin to the west of present-day Arctic Alaska while, farther east, the rivers would have flowed north from the emerging Brooks Range.

The coal seams that the Wainwright drilling targeted would have formed from lush vegetation on land. However, the bottom 1,300 feet of the well reached strata with indications of a marine influence, while above a depth of 265 feet the nature of the sediments suggests deposition in an alluvial plain, the report says.

Reservoir potential

Thick channel deposits, observed at depths between 1,060 feet and 1,157 feet, and between 619 feet and 667 feet, provide attractive analogs for oil and gas reservoirs to the west of the central North Slope the report says. These sand channel complexes, encased in mudstone, appear to have a regional extent and represent attractive reservoir targets. It is possible to infer that similar stacked reservoirs could be present in the Nanushuk in the subsurface of the central North Slope, an inference that is consistent with the findings from rock core obtained from exploration wells in the central and eastern National Petroleum Reserve-Alaska, the report says.

The reservoir quality of sandstones penetrated by the Wainwright No. 1 well ranges from very poor to excellent, depending on the grain size of the sand and the extent to which the rock fabric is cemented by carbonate minerals. The report suggests that the maximum burial depth of the rocks has a critical influence on the reservoir quality — while at the present day some of the rocks in the region may lie at relatively shallow depths, the rocks would have previously been more deeply buried, with rocks higher in the stratigraphic sequence then being eroded off at some time in the past. In general, that erosion appears to have increased from north to south across the North Slope, an important factor in evaluating the Nanushuk's reservoir potential at different locations.

At Wainwright geologists have estimated that some 2,700 feet of overburden, above the existing Nanushuk strata, have been eroded, suggesting a shallow to moderate maximum burial depth, ranging from 4,381 to 5,701 feet. By comparison, elsewhere at distances about 100 miles south of the Beaufort Sea coastal area, the rocks may have once been buried to depths approaching 10,000 feet the report says. In general, the report says, there is a degradation of reservoir quality in the Nanushuk north to south in the region. ●

Contact Alan Bailey at abailey@petroleumnews.com

EXPLORATION & PRODUCTION

State approves North Slope seismic survey

Alaska's Division of Oil and Gas has approved a permit allowing Geokinetics Inc. to conduct a 3-D seismic survey during the winter of 2016-17 over about 64 square miles of state land on the North Slope about 40 miles southwest of Deadhorse. The area of the survey, called the Itkillik survey, lies south of the village of Nuiqsut and about seven miles west of the 2P pad of the Kuparuk River unit. It appears to cover four leases operated by Great Bear Petroleum.

Great Bear has been conducting a series of 3-D surveys over its extensive lease position to the south of Prudhoe Bay in a search for both conventional oil targets and opportunities for unconventional development in the region's prolific oil source rocks.

The division says that Geokinetics will mobilize its crews and equipment from the company's Deadhorse facility. The project will make use of tundra travel as well as existing roads, highways and trails. A temporary ice pad may need to be constructed.

During surveying operations, 12 to 15 tracked vibrators operating in a north-south pattern along lines 500 to 900 feet apart will generate seismic signals. The reflected signals will be recorded using wireless nodes placed 50 to 100 feet apart. Operations will proceed around the clock, with crew members working 12 to 14 hour shifts.

During the summer following the survey, a cleanup operation will remove any debris not located and removed during demobilization after survey completion.

—ALAN BAILEY

NORTH OF 60 MINING news

page 10 Fort Knox gold production drops on lower second-quarter grades

www.MiningNewsNorth.com The weekly mining newspaper for Alaska and Canada's North Week of August 7, 2016

NEWS NUGGETS

Compiled by Shane Lasley

Mining loses highly regarded engineer, gentleman, friend

With immense sadness, Ucore Rare Metals Inc. Aug. 2 reported the sudden passing of COO Ken Collison, a mining engineer highly regarded both professionally and personally. "Ken was a towering figure in the mine engineering industry," said Ucore President and CEO Jim McKenzie. "His outstanding successes at Ucore, Coeur Alaska, Crandon Mining, and Blue Pearl Mining/Thompson Creek speak to the diversity of his accomplishments in developing best-of-breed mining and minerals processing facilities." As COO of Blue Pearl Mining/Thompson Creek Metals from 2005 to 2009, Collison was part of the team that purchased Thompson Creek Metals and built it into one of North America's premier molybdenum producers. He previously held the positions of vice president at Crandon Mining Corp. and Coeur Alaska, the Alaska subsidiary of Coeur d'Alene Mines. He brought extensive experience in mining operations, permitting and preparation of mining feasibility studies to Ucore and its work to develop the Bokan-Dotson Ridge rare earth element project in Southeast Alaska. "Ken's innovative outlook was instrumental to generating the company's process flowsheet for the Bokan-Dotson Ridge project, and in laying the foundation for the utilization of MRT processing across the technology metals space," continued McKenzie. "Ken was a mentor, a respected colleague, a gentleman and a friend. His easygoing manner and his passion for the industry will be missed by all who had the pleasure to work with him."

KEN COLLISON

Coeur AK reports lower costs at Kensington; Jualin progress

Coeur Mining Inc. July 27 said the costs to produce each ounce of gold at its Kensington Mine reached a new historical low in the second quarter. The Southeast Alaska operation churned out 32,210 oz. gold at US$740/oz. during the period, compared with 29,845 oz. gold at US$745/oz. during the same

see **NEWS NUGGETS** page 10

SHANE LASLEY

The Pedro dredge, which recovered its final gold near the community of Chicken in 1967, is a monument to the long and storied history of mining in the Fortymile Mining District. In a proposed management plan for Alaska's Eastern Interior, BLM is attempting to strike a balance between continued mining and conservation in this mineral-rich area.

PUBLIC POLICY

BLM seeks balance

Interior Alaska plan opens acreage to mining, creates conservation areas

By SHANE LASLEY

Mining News

Roughly 74 percent of U.S. Bureau of Land Management-administered lands in Alaska's Eastern Interior region will be off limits to mining, according to the preferred resource management plan published July 30 by the federal land manager.

BLM is responsible for the management of 6.5 million acres in the federal government's Eastern Interior planning area, a roughly 30-million-acre, triangle-shaped expanse of eastern Alaska that stretches from the Yukon Territory border to a point about 240 miles into the interior of the state. This area, roughly the size of New York State, blankets most of five historic mining districts – Fortymile, Goodpaster, Fairbanks, Circle and Tolovana (Livengood). It has produced roughly 21 million ounces of gold and is known to host a broad range of other minerals.

Virtually all of the BLM-administered lands in the Steese and White Mountain subunits of Eastern Interior … are off limits to mining under the preferred management plan.

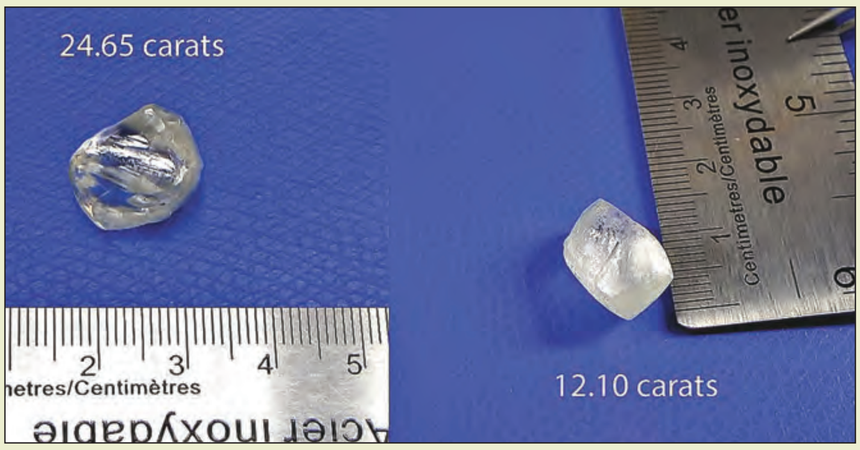
BLM said its preferred plan, which is set to serve as a framework for decision-making across this swath of Alaska going forward, seeks to strike a balance between responsible development and conservation.

"We've worked hard to listen to the concerns of a diverse group of local stakeholders who rely on

see **BLM BALANCE** page 12

NORTHERN NEIGHBORS

Compiled by Shane Lasley



MOUNTAIN PROVINCE DIAMONDS INC.

Two large gem-quality diamonds recovered during the commissioning phase at Gahcho Kué, Canada's newest diamond mine.

World's largest new diamond mine ramps up to commercial production in Canada's North

Mountain Province Diamonds Inc. Aug. 3 said the commissioning of the Gahcho Kué diamond plant in Northwest Territories has been completed ahead of schedule and the ramp up to commercial production has commenced. Gahcho Kué remains on track to achieve commercial production on schedule during the first quarter of 2017. A joint venture between De Beers Canada (51 percent) and Mountain Province Diamonds (49 percent), Gahcho Kué is anticipated to produce 53.4 million carats of diamonds over a 12-year mine-life, according to a 2014 feasibility study. First ore at the mine was exposed in March and introduced to the plant on June 20, with first commissioning diamonds recovered on June 30. Mountain Province President and CEO Patrick Evans said, "Successful plant commissioning and the start of ramp-up to production at the world's largest new diamond mine is a major achievement for the Gahcho Kué joint venture and a tribute to the operating partner De Beers Canada." Mountain Province said two gem quality "special" diamonds (greater than 10.8 carats) were recovered during the ramp-up commissioning phase – a 12.1-carat diamond recovered on July 29 and a 24.65-carat stone recovered on Aug. 1. The first split of ramp-up diamond production between Mountain Province and De Beers is scheduled for mid-September and Mountain Province's first diamond sale is expected to take place before the end of 2016.

Strategic trenching hits high silver grades at OOO

Strategic Metals Ltd. Aug. 3 posted results from exploration at its OOO property, a silver-gold property located midway between Goldcorp Inc.'s Coffee gold project and Rockhaven Resources Ltd.'s Klaza gold-silver project. The silver- and gold-rich epithermal veins at OOO have received little historical exploration and have never been drilled. Strategic dug a trench (TR-

see **NORTHERN NEIGHBORS** *page 11*

Contact North of 60 Mining News:

Publisher: Shane Lasley • e-mail: publisher@MiningNewsNorth.com

Phone: 907.229.6289 • Fax: 907.522.9583

Petroleum news

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

Shane Lasley	PUBLISHER & NEWS EDITOR
Rose Ragsdale	CONTRIBUTING EDITOR
Mary Mack	CEO & GENERAL MANAGER
Susan Crane	ADVERTISING DIRECTOR
Heather Yates	BOOKKEEPER
Marti Reeve	SPECIAL PUBLICATIONS DIRECTOR
Steven Merritt	PRODUCTION DIRECTOR
Curt Freeman	COLUMNIST
J.P. Tangen	COLUMNIST
Judy Patrick Photography	CONTRACT PHOTOGRAPHER
Forrest Crane	CONTRACT PHOTOGRAPHER
Tom Kearney	ADVERTISING DESIGN MANAGER
Renee Garbutt	CIRCULATION MANAGER
Mapmakers Alaska	CARTOGRAPHY

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

NEWS • 907.229.6289
publisher@miningnewsnorth.com

CIRCULATION • 907.522.9469
circulation@petroleumnews.com

ADVERTISING
Susan Crane • 907.770.5592
scrane@petroleumnews.com

FAX FOR ALL DEPARTMENTS
907.522.9583

Several of the individuals listed above are independent contractors

NORTH OF 60 MINING NEWS is a weekly supplement of Petroleum News, a weekly newspaper. To subscribe to North of 60 Mining News, call (907) 522-9469 or sign-up online at www.miningnewsnorth.com.

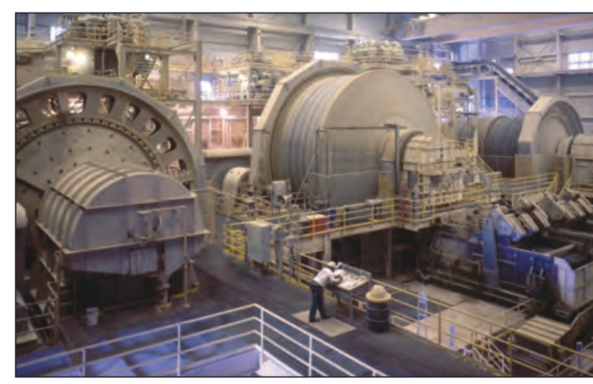
continued from page 9

NEWS NUGGETS

period a year earlier. In recent years Coeur has implemented a plan aimed at increasing gold output and lowering production costs at Kensington. "In 2012, costs per oz. there were over $1,300 an oz. versus $740 an oz. in the most recent quarter," Coeur Mining President and CEO Mitchell Krebs commented on the progress made at the mine. The company anticipates that the production metrics for Kensington will continue to improve as it begins to mine the much higher grade ore at Jualin, a deposit adjacent to the mill. The No. 4 Vein at Jualin currently hosts an estimated 289,000 tons of inferred resources with an average grade of 0.62 oz./t, which is nearly triple the 0.22oz./t gold currently being mined. The company said underground development at Jualin is about 50 percent complete, and the company expects to have a maiden reserve estimate for the high-grade deposit by the end of the year. "We're … investing about $40 million at Kensington to drill and develop significantly higher grade gold ounces there. But that's not expected to start impacting Kensington's production, cost and cash flow until late next year," added Krebs. Kensington produced 64,184 oz. gold through the first half of 2016, putting the underground operation on pace to hit the upper half of Coeur's guidance of 115,000-125,000 oz. of gold for the full year.

Lower mill grades lead to less gold, higher production costs at Fort Knox

Kinross Gold Corp. July 27 reported that its Fort Knox Mine in Interior Alaska produced 97,221 ounces of gold in the second quarter, down 16 percent from output of 116,061 oz. during the same period in 2015. The company attributed the lower production primarily to lower mill grades and recoveries. The mill at Fort Knox processed 3.47 million metric tons of ore averaging 0.64 grams per metric ton gold during the second quarter of 2016, compared with 3.35 million metric tons at 0.87 g/t gold for the same three months a year ago. Another 4.91 million metric tons of ore averaging 0.28 g/t gold was stacked on the heap leach pad at Fort Knox, compared with 8.26 million metric tons at the same grade during the year-ago period. The production costs for Fort Knox was US$793/oz. of gold in the second quarter, up 31 percent from US$606/oz. a year earlier. Kinross said these higher costs are primarily due to higher costs associated with mined operating waste. Through the first half of 2016, Fort Knox has produced 185,021 oz. of gold at US$753/oz., compared with 198,734 oz. of gold at US$634/oz. during the first six months of 2015. In total, Kinross' global operations produced 671,267 gold-equivalent oz., when factoring in the value of by-product metals, at US$731/ oz. in the second quarter, compared with 660,898 gold-equivalent oz. at US$724/oz. during the same period of 2015.



KINROSS GOLD CORP.

Ore grades to the mill at Kinross Gold's Fort Knox Mine in Alaska during the second quarter fell about 36 percent compared with average grades during the same period last year.

Red Dog output trends downward, while zinc price increases in 2016

Teck Resources Inc. July 27 reported that its Red Dog Mine in Northwest Alaska produced 152,900 metric tons of zinc and 27,100 metric tons of lead during the second quarter of 2016. This is about a 1 percent drop for zinc and a 13 percent drop for lead, when compared with production during the same period of 2015. The company expects Red Dog's zinc production to continue to trend downward through the balance of 2016, due to lower grades of ore in the mine plan. Despite this anticipated lower output, Teck expects Red Dog zinc production to be 570,000 metric tons, which is the upper end of the company's guidance for 2016. Zinc prices at the London Metal Exchange averaged US87 cents per pound in the second quarter, down 12 percent from the US98 cents/lb. average for the same period of 2015 but up 14 percent from the first quarter of this year. Zinc prices broke above US$1/lb. in mid-July and continue to remain in that range. Teck said the zinc concentrate market continues to show a deficit following the closure and suspension of several large zinc mines last year, while demand for the galvanizing metal is expected to grow at about 3 percent per annum for the coming two years. "While the commodity cycle continues to be challenging, we are starting to see some positive changes in the direction of zinc and steelmaking coal prices," said Teck President and CEO Don Lindsay. The first ship loaded with zinc concentrates from Red Dog set sail from Northwest Alaska on July 6.

All signs point to much longer copper trend at Caribou Dome

Coventry Resources Ltd. July 28 said its 2016 field program has extended mineralization at its high-grade Caribou Dome copper project in Alaska by more than 1,000 meters. A historical reserve of 550,000 short tons averaging 5.84 percent copper was calculated for the Caribou Dome deposit in 1970. Coventry's 2016 program of ground geophysics, drilling, mapping and soil sampling is targeting extensions of this deposit, primarily to the northeast. These IP anomalies are located at the contact between the sediment and volcanic sequences, the same stratigraphic position that the Caribou Dome deposit occupies. Field reconnaissance at the northeast end of the

see **NEWS NUGGETS** *page 12*

continued from page 10

NORTHERN NEIGHBORS

16-01) by hand across a strong linear where a 2015 rock sample returned 6,680 grams per metric ton silver, 30.22 percent lead and 0.80 g/t gold. Chip sample results from the trench include 570 g/t silver, 2.76 percent lead, 0.08 g/t gold over 6.4 meters; and 106 g/t silver, 0.84 percent lead and 0.03 g/t gold over 9.6 meters. These highlighted intervals are separated by a 5.6-meter area of weakly mineralized rocks. Several rock samples collected by prospectors from elsewhere on the OOO property have returned between one and 6.54 g/t gold.

Strategic thanked the Yukon Government, and specifically the Yukon Geological Survey, for awarding a Yukon Mineral Exploration Program grant to the company for the 2016 exploration program on the OOO property. Strategic has scheduled a heritage resource overview assessment and heritage resource impact assessment surveys to be completed on the OOO property in August. These surveys must be complete before drilling can occur.

Atac vends its half of Dawson Gold JV

Atac Resources Ltd. Aug. 2 reported the conclusion of an agreement to sell Arcus Development Group Inc. its 50 percent interest in the Dawson Gold Joint Venture. Formed in 2012, the JV contains four mineral properties – Dan Man, Touleary, Green Gulch and Shamrock – located in Yukon Territory's White Gold District. In exchange for full ownership of the JV properties, Arcus will issue Atac 10,869,910 common shares, which will result in Atac holding 19.99 percent of Arcus' issued shares. Arcus also will issue to Atac 5 million warrants, which will allow it to purchase another 5 million Arcus shares at a price of C20 cents each for a period of five years. Atac will also retain a 1 percent net smelter return royalty interest in any future production from any of the four properties.

Meadowbank gold output drops; heavy drilling at Amaruq

Agnico Eagle Mines Ltd. July 28 provided an update on its gold projects in Nunavut. The company's Meadowbank Mine produced 144,713 ounces gold at total cash costs of US$789/oz. through the first half of 2016, compared with 179,799 oz. gold at US$672/oz. during the first six months of 2015. The lower production and higher costs are primarily due to lower mill throughput this year. Agnico is investigating opportunities to extend production at Meadowbank through year-end 2018. This extension would help to bridge the gap to the potential start of mining at Amaruq, a satellite project located about 50 kilometers (31 miles) northwest of the mine. At the end of 2015, Amaruq hosted 16.9 million metric tons of inferred resource averaging 6.05 grams per metric ton (3.3 million oz.) gold. Agnico Eagle is in the midst of a roughly 125,000-meter drill program aimed at expanding and upgrading this resource. The initial phase of this drilling, which ran through June, totaled 77,517 meters in 338 holes. Almost half of this drilling was in the IVR deposit (36,545 meters, 152 holes), with 30 percent at Whale Tail (24,820 meters, 103 holes) and the rest at Mammoth (16,153 meters, 83 holes). The phase 1 drilling at the V zone and Whale Tail deposit will be incorporated into an updated resource estimate for Amaruq, slated for completion in the third quarter. The initial phase of 2016 drilling also included nine holes for geotechnical and metallurgical testing needed for engineering studies. A 50,000-meter second phase of drilling now underway is focused on readying Whale Tail for potential development as a satellite to the Meadowbank operation, gaining a better understanding of the geometry of the V zones, and determining if they could become a potential second source of open-pit ore for Amaruq. Roughly 13.3 kilometers (8.3 miles) of a 62-kilometer (38 miles) access road linking Amaruq to Meadowbank had been completed by the end of June. Agnico started the road in the first quarter and anticipates having it finished next year. The company, meanwhile, has applied for permits to develop an exploration ramp and potentially collect a bulk sample at Whale Tail. Also during the second quarter, roughly 1,098 meters of underground development was completed at the company's Meliadine gold project, which is located about 25 kilometers (15 miles) from the town of Rankin Inlet, Nunavut. At the end of 2014, Agnico completed an updated technical report that outlines a mine for Meliadine that would average roughly 350,000 oz. /yr. gold based on extracting 1.39 million metric tons of proven and probable reserves averaging 7.44 g/t (3.3 million oz.) gold contained in the project's Tiriganiaq and Wesmeg deposits. The Meliadine property hosts another 20.2 million metric tons of measured and indicated resources averaging 5.06 g/t (3.3 million oz.) gold; and 14.1 million metric tons of inferred resource averaging 7.65 g/t (3.5 million oz.) gold. Studies to evaluate the potential of extending the mine life, increase annual production and improve project economics at Meliadine are expected to be completed by the end of 2016.

AGNICO EAGLE MINES LTD.

With the goal of developing Amaruq as a satellite to its Meadowbank gold mine in Nunavut, Agnico Eagle Mines Ltd. is investing C$14 million in a second phase of 2016 drill program targeting the Whale Tail and V zones at the nearby gold project.

TERRAX MINERALS INC.

TerraX Minerals President Joe Campbell and Vice President of Exploration Tom Setterfield prospect the Yellowknife City gold project in Northwest Territories.

Extensive summer drill program underway at Yellowknife City Gold

TerraX Minerals Inc. July 28 reported the start of a 27,000-meter drill program at its Yellowknife City Gold project in the Northwest Territories. Drilling is now underway on the Mispickel target, where discovery drilling during the winter of 2016 program cut 8.6 meters averaging 12.87 grams per metric ton gold and 7.3 meters of 23.6 g/t gold. Encouraged by these results, the company drilled five more holes at Mispickel at the end of the winter program. The best intercept of this second round of drilling encountered eight meters of 60.6 g/t gold down dip on that same section as the discovery. TerraX said this summer's drill program is the first phase of an extensive exploration drill program to be undertaken at the Yellowknife project during the next 18 months. Drilling will be a combination of extensional drilling on known mineralized zones such as Mispickel; aggressive step-out holes along the structures hosting known zones, such as a 5,000-meter trend hosting Mispickel; and drilling focused on generating new discoveries. The drill program will continue until freeze-up in early October and resume in early January of 2017, continuing through the balance of 2017. "The Yellowknife gold district was historically one of the highest grade gold districts in Canada and our exploration results have shown that the district has much more to offer," said TerraX President Joe Campbell. "Until TerraX's recent consolidation of the district it had not been explored with a district-scale coordinated program using modern techniques. This fresh approach has resulted in a number of new high-grade gold discoveries, and we expect to continue to find more of the same this year."

Drilling in the cards for Hartless Joe

Strategic Metals Ltd. July 28 posted results from the initial phase of 2016 exploration at its Hartless Joe gold-silver property, located 28 kilometers (17 miles) northeast of Whitehorse, Yukon Territory. High-grade results were obtained from three showings in the north-central portion of the property. Highlights from continuous chip samples taken from bedrock exposed in hand trenches include: 462 grams per metric ton gold and 79.6 g/t silver over 0.40 meters at Queen showing; 44.3 g/t gold and 375 g/t silver over 2.1 meters at King showing; 22.7 g/t gold and 195 g/t silver over 0.5 meters at King showing; and 16.9 g/t gold and 1,420 g/t silver over 0.1 meter at Ace showing. Ace, a historical occurrence that was identified by prospectors in the late 1960s, involves a narrow quartz-rich horizon that has been traced in outcrop for 90 meters along strike. Historical sampling returned 27.4 g/t gold, 78.9 g/t silver, 2.2 percent lead and 1.9 percent zinc over 0.1 meters. This showing remains open along strike in both directions beneath talus. King, situated about 580 meters northwest of Ace, was discovered while sampling an isolated outcrop in 2015. Chip sampling across this outcrop returned 60 g/t gold, 554 g/t silver, 5.01 percent lead and 0.35 percent copper over 1.2 meters. In 2016, a trench was dug to better expose the discovery outcrop and a second trench was dug along strike to the east. The trench at the discovery outcrop returned slightly lower values than the original sample but the second trench produced better results. Two other trenches were attempted to the east and west along strike, but neither reached bedrock due to thick talus cover. Queen, located near a ridge top about 320 meters southeast of Ace, was discovered this year. This showing has been traced in outcrop for 25 meters along strike and continues under a talus chute to the southwest and appears to pinch out to the northeast. Strategic said drilling at Hartless Joe is slated to begin in the next few days. ●

continued from page 9

BLM BALANCE

these public lands for their subsistence, mineral development, and recreation," said BLM Alaska State Director Bud Cribley. "The result is a plan that balances resource use and development in a way that conserves important natural and cultural values."

Mixed bag in Fortymile

BLM attempted to reach a balance between mining and conservation in the Fortymile subunit, a 15-million-acre region that covers the southern half of the Eastern Interior planning area, including much of the Fortymile, Goodpaster and Fairbanks mining districts.

The preferred alternative of the Eastern Interior management plan proposes opening up roughly 1.13 million acres, or about 60 percent of the some 1.89 million acres of BLM-administered lands in the Fortymile subunit to mineral exploration and mining. The plan, however, also proposes tying up 745,000 acres in conservation units that would be off limits to development. This includes expanding wild and scenic designations along the Fortymile River and placing about 399,000 acres in controversial conservation units known as Areas of Critical Environmental Concern.

The largest ACEC designation in the Fortymile District measures roughly 80 miles by 10 miles in a corridor of federal lands that border the southeast side of the Yukon-Charley Rivers National Preserve. The designation also traps blocks of state and Alaska Native lands in an island between a national reserve and the environmental conservation area.

Many believe that BLM's use of ACEC to set aside large tracts of Alaska for conservation breaks a promise the federal government made to Alaska in 1980, when it placed 106 million acres of federal lands in the 49th State into conservation units as part of the Alaska National Interest Lands Conservation Act.

"This new designation violates ANILCA and would negatively impact Alaskans, who have already faced repeated resource-related restrictions from the federal government in recent years," Sen. Lisa Murkowski, R-Alaska, responded to BLM's initial ACEC proposal in 2015.

In brief, ANILCA promises that the federal government will not withdraw more than 5,000 acres of Alaska public lands without an act of Congress.

The Alaska Miners Association considers the use of ACECs as a way to skirt this promise and further debilitate resource opportunities on BLM lands in Alaska.

"The Fortymile ACEC, and the proposal of others in the western and northern regions of the state, closes off opportunities for mining on federal lands to expand in the future," AMA inked in a 2015 letter to U.S. Department of Interior Secretary Sally Jewell.

Steese, White Mountain remains locked

Virtually all of the BLM-administered lands in the Steese and White Mountain subunits of Eastern Interior, which cover much of the historic Circle and Tolovana mining districts, are off limits to mining under the preferred management plan.

Only about 34,000 acres of the roughly 2.3 million acres of BLM lands in these mineral-rich areas north of Fairbanks would be open to mining under the federal land manager's preferred alternative. The areas where mining would be allowed under the plan consist largely of existing federal mining claims.

There had been some hope that promising mineral areas currently locked up in the Steese National Conservation and White Mountains National Recreation areas would be opened up for mining. These areas, which were established under ANILCA, make up nearly all of the BLM lands in the two namesake subunits in which they reside.

A 160,000-acre region of the White Mountain Recreation Area prospective for rare earth elements and gold is of particular interest.

A geological study carried out by a team of Alaska and federal agencies in 1987 came to the conclusion that a portion of the recreation area hosts an estimated 1.5 million ounces gold, 10 million oz. silver, 520 tons of REE, 250 tons of uranium and 320,000 tons of tin. This estimate was based on limited exploration and there is the belief that these deposits could be substantially larger.

The actual potential of this area could be further realized if made available for mineral exploration by BLM, a move that also might have helped quell some of the qualms over locking up portions of the Fortymile district in ACECs.

One of the alternatives of the Interior Alaska management plan proposed opening some 842,000 acres of the more prospective mineral areas in these conservation areas – 160,000 acres in White Mountain and 682,000 acres in Steese – to mineral exploration and potential mining. In the preferred alternative, however, BLM proposes leaving these mineral prospects locked up in conservation units.

The federal manager's proposal for the Eastern Interior RMP remains open for public comment until Aug. 27, and BLM anticipates a final decision on the proposed plan in December. ●

continued from page 10

NEWS NUGGETS

Menel IP trend, geologists have discovered extensive outcrops of copper mineralization such as bornite, malachite and azurite at the northeast end of the 1,000-meter-long Menel trend. While assay results are not yet available, Coventry reports that one hole drilled this year at Caribou Dome has cut copper-rich massive sulfide mineralization at 290 meters below surface at the previously undrilled Menel target. Through July 27, 2,371 meters of drilling in five holes had been completed at Caribou Dome. With two drills turning, though one rig has been plagued with mechanical issues, Coventry plans to complete 8,000 meters by the end of the season. Both the Menel Trend and Caribou Dome deposit are targets of the balance of the drill program. The company is also continuing its IP geophysical survey, which includes on overlay of areas surveyed last year with configuration designed to detect deeper targets as well as a continuation of the survey to the southwest of the Caribou Dome deposit. ●

● FINANCE & ECONOMY

Compensation not significantly different

ISER study looks at wage, benefits of private, state, municipal workers from 2009-13; generally private pay a bit more, benefits less

By TIM BRADNER

For Petroleum News

A new study by the University of Alaska Anchorage's Institute of Social and Economic Research finds compensation — salary and benefits — not significantly different between public and private workers.

ISER researchers Mouhcine Guettabi and Matt Berman studied wage and benefits of private and state and municipal workers from 2009 to 2013 in a study done for the state Department of Administration, the state agency primarily responsible for establishing state salary and benefit schedules.

Generally, private employers paid their workers about 8 percent higher on average but benefits were less. However, there were differences in comparing private and public compensation for higher, mid-level and lower-level jobs.

In higher-paying government jobs the total compensation, salary and benefits, was significantly less than in the private sector. However, in mid-level and lower-level job categories the greater benefits of public employers brought total compensation to levels higher, on average, than those offered by private employers.

Researcher Matthew Berman found that public sector workers, both male and female, who left government jobs for private sector employment increased their total compensation substantially.

Women on average increased wages by 18 percent and benefits by 16 percent in total, when benefits were included. Men enjoyed a 20 percent gain in wages and 11 percent increase in total, with the benefits.

Men and women moving from private to state jobs saw both gains and losses, a 3 percent gain for women in total compensation, salary and benefits, and a 2.5 percent loss for men on average, in salary and benefits.

State, local workers 22% of total

Researcher Mouhcine Guettabi focused on the overall workforce analysis, which in 2014 included 26,700 state government workers and 37,800 local government employees, for a total of 64,500. State and local workers made up about 22 percent of all Alaska wage and salary workers than year, the ISER report said.

The sample did not include nonresident workers, self-employed or employees of nonprofits.

A few other points in the study:

- In total, women earned 41 percent less than men
- Minority workers earned less than white workers; black employees earned 28 percent less; Alaska Natives 36 percent less; and members of other races, 22 percent less
- Alaskans with high school diplomas earned 48 percent more than those without diplomas; those with at least some college earned 67 percent more than those without a high school diploma; those with four-year degrees 97 percent more; and those with post-graduate degrees 117 percent more
- Older workers earned 14 percent more than younger employees, on average
- Women made up a disproportionate share of government workers, 55 percent in the public sector compared with 43 percent among private employers
- State workers were more highly educated, on average, than municipal workers, with about half holding a four-year degree or better compared with 41 percent of local workers and 21 percent of private employees
- Municipal workers were ethnically more diverse than state or private workers. About 39 percent on local government employees were of races other than white, compared with 30 percent among state and private sector employees. ●

Contact Tim Bradner at timbradner@gmail.com

● GOVERNMENT

DOE picks projects for federal funding

Federal initiative supports technologies for addressing subsurface issues associated with carbon dioxide storage, geothermal energy

By ALAN BAILEY

Petroleum News

On July 27 the U.S. Department of Energy announced that it had selected eight research and development projects to receive a total of $11.8 million in funding under the agency's program for subsurface engineering research and development. The projects target technologies for the storage of waste carbon dioxide and for developing geothermal energy. The DOE program, referred to as the crosscut initiative, is aimed at addressing subsurface technical issues relating to geothermal energy, the mitigation of the impacts of fossil energy development, the storage of greenhouse gases and the disposal of nuclear waste.

"The projects selected today will advance our ability to store captured carbon pollution from the burning of fossil fuels and improve our understanding of renewable geothermal resources — both of which will help us achieve our nation's climate and clean energy goals," said Franklin Orr, DOE under secretary for science and energy. "The announcement of these selections also underscores the importance of the crosscutting initiatives that Secretary Moniz has encouraged throughout DOE. Sharing expertise and experiences across the department is helping us make progress on challenging energy science and technology that demand expertise across the science and engineering disciplines."

Monitoring CO2 storage

The projects earmarked for funding include research at Clemson University and the Georgia Institute of Technology into optical fiber strain meters for measuring subsurface deformation at carbon dioxide injection sites, and research by the Colorado School of Mines, the University of Utah and the U.S. Geological Survey into the integration of geophysical and reservoir simulation tools for the monitoring of carbon dioxide movement and storage permanence at a carbon dioxide storage site.

Another research project, conducted by GPUSA Inc., the Lawrence Berkley National Laboratory and the Carbon Management Canada Containment and Monitoring Institute, will test a new method for monitoring subsurface carbon dioxide using downhole seismic technology. Funding will also go into a field demonstration by the University of North Dakota, Seismos Inc., CMG Inc. and Denbury Resources Inc. of a low-impact, surface-based technique for the monitoring of carbon dioxide injected into the subsurface.

EPA has also selected a project to be conducted by the University of Texas at Austin, involving the field testing of an ultrahigh-resolution 3-D seismic technique for the monitoring of subsurface carbon storage. The testing will take place at a fully developed carbon capture and storage project offshore the Japanese island of Hokkaido.

Geothermal research

From the perspective of geothermal energy research, funding will go to a project to be conducted by Baylor University, the University of Nevada-Reno and Hi-Q Geophysical Inc. into the use of seismic technology in geothermal exploration. Another project, to be conducted by the University of Utah, Quantec Geoscience Inc. and Geotech Ltd., will seek to improve technologies for mapping subsurface, fluid-bearing fractures connected to high-temperature heat sources. And U.S. Geothermal Inc., the Lawrence Berkeley National Laboratory and Optim Inc. will conduct work aimed at improving the imaging and characterization of the permeability of the subsurface in an area with geothermal resources — the research team will validate their findings at an operational geothermal plant in Nevada. ●

Contact Alan Bailey at abailey@petroleumnews.com

GOVERNMENT

State proposes sale of oil to Petro Star

Alaska's Division of Oil and Gas is seeking comments on a best interest finding, proposing the sale of state royalty oil to Petro Star Inc. The oil would be used as a feedstock for Petro Star refineries in North Pole and Valdez. The division requires comments by Aug. 29.

The proposal involves two separate oil sale contracts which together encompass a period of five years, probably starting on Dec. 1 this year. The first contract would run until Nov. 30, 2017, with the second contract running from Dec. 1, 2017, to Nov. 30, 2021.

Deliveries under the first contract would range from 18,000 to 23,500 barrels per day. Under the second contract, deliveries would decline over the four-year contract duration, with a commitment of 16,400 to 20,500 barrels per day in the first year; 13,200 to 16,500 barrels per day in the second year; 10,800 to 13,500 barrels per day in the third year; and 8,400 to 10,500 barrels per day in the fourth year.

Pricing in the contracts is based on a formula that uses accepted industry price reporting services and resembles the formula used to calculate the royalties paid to the state by North Slope oil producers, the division says.

The contracts have been formed under the terms of state laws that allow the state to take royalty payments as physical oil, in lieu of cash. The state can then sell the royalty oil in the oil market, with the state typically selling its royalty oil to in-state oil refiners.

—ALAN BAILEY

BLM implements e-filing for permits

The Bureau of Land Management is putting the finishing touches to its new online system for the electronic filing of drilling permit applications. The agency has announced the completion of a multiyear upgrade to its online system — the rollout of the system began in October 2015. The plan is to move to the electronic rather than paper filing of all applications for oil and gas drilling permits by the end of this year, a procedure which, the agency says, will help reduce permit processing times by 50 percent. On July 28 BLM proposed a regulatory change, to make electronic filing the default method for submitting applications.

"This modern, online system will result in a better and more efficient experience for both industry and the BLM," said BLM Director Neil Kornze. "The new system is a big improvement over the current hard copy based application system."

The online application procedure applies to applications for permits to drill and to notices of staking of potential drilling locations, for onshore federal lands.

BLM says that the new system automatically flags missing or incomplete information on an application, thus cutting out a primary source of delay in the processing of paper-based applications. Moreover, operators will be able to track their applications through the BLM review process. And standardized workflows will enable BLM to allocate permitting work among the agency's various offices in response to the demand for permits, BLM says.

BLM anticipates the new system reducing the average permit processing time from a current 220 days to 115 days for 90 percent of applications. The new system is already in use and to date has been used for the processing of 101 permit applications, the agency says.

Although the regulatory change introduced in conjunction with the new system requires that electronic filing be the default means of submitting an application, the regulation includes a procedure for obtaining a waiver, should online filing not be practical in certain circumstances.

BLM requires comments on its proposed regulatory change by Aug. 29.

—ALAN BAILEY

NATURAL GAS

State comments on CEA Beluga gas pricing

The public advocacy section of the state attorney general's office has commented to the Regulatory Commission of Alaska on Chugach Electric Association's proposed internal pricing for the utility's natural gas from the Beluga gas field. Chugach Electric, in conjunction with Municipal Light & Power, bought a portion of the field from ConocoPhillips as a source of gas for fueling the utility's power stations. The utility has asked for commission approval of an internal pricing formula for the gas, as a basis for building the cost of the gas into the price that the utility charges its customers for electricity. Chugach Electric hopes that it can save money for its customers by pricing the gas at below market rates.

Chugach Electric has proposed a price of $5.57 per thousand cubic feet for the gas, a price that the utility says will cover its share of the operating costs of the Beluga gas field.

The attorney general's office has suggested some issues that the commission should consider before deciding on whether to approve the gas price. The commission should both ensure that the benefits of the lower gas pricing are passed through to Chugach Electric's ratepayers and that the rationale behind the pricing is appropriate, the attorney general's office suggested.

Issues to be considered include the validity of the projected gas field operation and maintenance costs that Chugach Electric has used in determining the gas price, and whether those costs should be allowed to include any of the utility's own internal administrative costs — Hilcorp Alaska operates the field on behalf of the field owners. The attorney general's office also wants the commission to verify the field depreciation expenses that Chugach Electric has built into its field cost calculations. The office also questions the manner in which Chugach Electric proposes to estimate and recover the costs associated with the eventual abandonment and dismantlement of the field. And the office questions Chugach Electric's parameter for calculating the money earned on the gas, to cover the debt incurred to purchase the utility's share of the gas field.

—ALAN BAILEY

● FINANCE & ECONOMY

Exxon reports smallest profit since 1999

ASSOCIATED PRESS

Lower oil prices continue to punish Exxon Mobil Corp., which reported its weakest quarterly profit in nearly 17 years.

Exxon still earned $1.7 billion in the second quarter. It was, however, down 59 percent from a year ago, and per share income missed Wall Street expectations.

The energy giant cited lower prices for oil and gas and weaker margins from its refining operations.

Chairman and CEO Rex Tillerson said that the results "reflect a volatile industry environment."

The company is cutting exploration spending to manage through the lower prices.

Exxon shares had climbed nearly 30 percent since late January as crude prices rallied from a deep slump. But more recently oil prices have fallen back due to high inventories and the continued sluggish global economy — the week ending July 29, U.S. oil hit a three-month low, and Exxon shares lost 4 percent through the close July 28.

Exxon's report followed weak second-quarter results from BP and Shell.

Cheaper energy

While oil companies are seeing profits shrink, consumers are enjoying the benefit of cheaper energy. The average U.S. price for a gallon of regular gasoline stood at $2.14 July 29, the lowest price since April, according to auto club AAA.

Gasoline prices are skidding because of high inventories. The decline in pump prices defies the usual pattern of higher prices during summer, when people drive more. Motorists are filling up on the cheapest July gasoline in 12 years, the auto club says.

Exxon's net income was lower than the $1.8 billion it earned in the first quarter and the Texas-based company's smallest profit since the third quarter of 1999, when it earned $1.5 billion.

The profit equaled 41 cents per share, well below the 64 cents per share forecast from 21 analysts surveyed by FactSet. Exxon did not exclude any one-time costs from the per share calculation.

Revenue fell 22 percent, to $57.69 billion.

Production nearly unchanged

Exxon's production of oil and gas was nearly unchanged, but the company's capital and exploration spending tumbled 38 percent from a year earlier, to $5.2 billion.

Eventually, analysts say, that kind of lower spending by Exxon and its rivals will translate into lower production, smaller supplies and higher prices for oil.

In recent weeks, Exxon announced a major oil discovery off the coast of South America and announced it would pay $2.5 billion for InterOil Corp., a deal designed to grab more of Asia's growing demand for natural gas.

Exxon shares fell $2.42, or 2.7 percent, to $87.78 in premarket trading about 30 minutes before July 29's opening bell.●

GOVERNMENT

Stickel named Revenue's chief economist

Dan Stickel has been appointed chief economist at the Alaska Department of Revenue, Commissioner Randy Hoffbeck said. Stickel has been assistant state economist since 2011.

He joined the department's Tax Division in 2004, and has worked in administration of the state's tax and revenue systems along with revenue forecasting and preparation of analyses of tax changes during the legislative session.

Ken Alper, director of the state's Tax Division, said Stickel has been a key part of the division's team. "Dan was lead modeler on all major production tax legislation for all of these years," Alper said.

He has also been leading the planning and coordination for the annual Revenue Sources Book project, on which the state administration and Legislature depends on for budget planning. In his new position, Stickel will be conducting economic modeling, particularly petroleum tax modeling.

He replaces John Tichotsky, previously the department's chief economist, who is now heading a special economic research group in the governor's office.

Stickel holds a bachelor's of business administration from the University of Alaska Anchorage.

—TIM BRADNER

EXPLORATION & PRODUCTION

US rig count up 1 to 463; oil rigs up 3

The number of rigs drilling for oil and natural gas in the U.S. increased by one the week ending July 29 to 463.

A year ago, 874 rigs were active. Depressed energy prices have sharply curtailed oil and gas exploration.

Houston oilfield services company Baker Hughes Inc. said 374 rigs were targeting oil, up three from the previous week, while 86 were targeting natural gas, down two. Three were listed as miscellaneous.

Among major oil- and gas-producing states, Louisiana and New Mexico each gained two, while Colorado, Ohio, Oklahoma and Pennsylvania were up one apiece.

Texas declined by three, Alaska and West Virginia by two each and Utah by one.

Arkansas, California, Kansas, North Dakota and Wyoming were unchanged.

The U.S. rig count peaked at 4,530 in 1981. It bottomed out in May at 404.

—ASSOCIATED PRESS

FINANCE & ECONOMY

2012 BP settlement payments $7.9B so far

The office that processes claims for businesses and people who suffered economic losses from the 2010 Gulf of Mexico oil spill says it has approved payments totaling $8.5 billion as of June 30.

Of that, $7.9 billion in claims has been paid.

The figures are in the latest federal court filing from Michael Juneau, the administrator of claims paid under a 2012 settlement BP reached with businesses and individuals affected by the spill after the Deepwater Horizon rig explosion. More recently, BP reached a $20 billion settlement with state and federal governments. In July BP announced it expects costs arising from the spill to total $61.6 billion — or about $44 billion after tax deductions.

—ASSOCIATED PRESS

NATURAL GAS

RCA orders hearing over Enstar rate rise

Perhaps predictably, the Regulatory Commission of Alaska has suspended a rate increase recently proposed by Enstar Natural Gas Co., the main Southcentral gas utility, and has ordered a hearing into the rate change. The state Department of Law, the Southcentral Alaska electric utilities and some other entities have requested participation in the hearing.

Enstar applied to the commission in June for approval of an increase in the fees that the utility charges for the shipment of gas through its gas transmission and distribution pipelines, and for the inclusion of some gas storage fees in its gas cost adjustment. The rate increase, which would be applied in two stages, would result in a total increase to 3.9 percent of revenues. Enstar said that the impact to a typical residential gas bill would be an increase of 4.6 percent per year or $5.47 per month. The increased rate would also impact the cost of fuel gas for electric utilities, all of which use some portion of Enstar's pipeline network for gas transportation.

Enstar has said that it needs to raise its rates to elevate its return on equity to an acceptable level.

The commission, in a July 18 order mandating the hearing into the rate change, said that Enstar's rate filings "raise a number of issues that require investigation." The agency has initially suspended the tariff until Jan. 18, 2017, although under state statutes the commissioners do not have to issue a decision in the case until Aug. 25, 2017. Meanwhile the new rate can be applied on an interim basis, but with a requirement for refunds if eventually found to be too high.

—ALAN BAILEY

GOVERNMENT

Walker contracts with Richards as advisor

Gov. Bill Walker said July 22 that the state has contracted with former-Attorney General Craig Richards to provide legal counsel on oil and gas development matters, including the Alaska LNG project.

When the governor announced June 23 that Richards was stepping down as attorney general, he thanked him for his service, and said, "I'm certain the state will continue to benefit from his oil and gas expertise as we push toward completion of a project."

"We are fortunate to retain an Alaskan with Craig's talent and legal knowledge to advise us on oil and gas issues," Walker said July 22. "I'm pleased we are able to continue to draw upon Craig's expertise."

The contract, between Richards and the Department of Law, is dated July 19.

—PETROLEUM NEWS

continued from page 4

AOGCC REPORT

rules (Disposal Injection Order 34A) issued to previous operator Marathon Oil Co. in 2009.

The AOGCC tentatively scheduled a public hearing on the matter for Sept. 15.

BlueCrest Alaska Operating LLC and Glacier Oil and Gas Corp. both submitted letters to the commission supporting the proposal. According to BlueCrest, the region around its Cosmopolitan unit includes one solid disposal site and no liquid disposal sites. "The potential cost savings and efficiencies of local disposal may help us to justify additional investments in exploration/development drilling activities in the future as well as helping us maintain good, sound environmental compliance," Drilling Manager Randy Frazier wrote in a July 15 letter. Glacier Oil and Gas made similar points in its letter of support.

According to a review by Petrotechnical Resources Alaska, previous operator Marathon Oil Co. took preliminary steps to open the well to third part injection back in 2010. ●

Contact Eric Lidji at ericlidji@mac.com

Oil Patch Bits

Polyguard welcomes 22 to employee ownership

Polyguard Products Inc. said it recently held its 29th annual employee stock ownership plan dinner at Winding Brooks event venue where 22 new employees received their first account statement.

Polyguard's ESOP is a broad-based ownership plan where employees become owners with no out-of-pocket contribution of their own. Polyguard is a 100 percent employee-owned ESOP and currently has two ESOP millionaires working with the company, with that number expected to grow in the coming years. An ESOP is a retirement plan which is in addition to the 401(k) and matching contribution already offered by the company. Its value is based on the stock price of the company, which is up 340 percent since 2010. This year's ESOP contribution is roughly 20 percent of eligible employees' salaries.

"Polyguard's ESOP allows us to create a culture based on teamwork and pride," Polyguard President Shawn Eastham said. "All the employees get a chance to share in the success of the company. Our employees act like owners because they are owners."

Polyguard, with 23 consecutive years of sales growth, currently employees 12 owners who own 1 percent or more of the company and has more than 100 total employee owners.

Polyguard's ESOP began in the mid-1980s after John and Kathy Muncaster bought the company and wanted to build the type of culture where employees have a direct impact in not only their own personal success but also that of the company.

PND announces Anchorage staff professional achievements

PND Engineers Inc. recently said it is pleased to announce Anchorage staff professional achievements for Alexandra West, Corey Roche and Feifei Bai.

West and Roche have obtained professional engineer registrations from the state of Alaska. Both are lifelong Alaskans and graduates of the University of Alaska Anchorage with bachelor's degrees in civil engineering.

West specializes in hydrology and hydraulic projects consisting of field work, desktop analyses and hydraulic design of bridges, culverts, erosion control, site drainage, miscellaneous drainage structures, and fish passages.


ALEXANDRA WEST


COREY ROCHE


FEIFEI BAI

Roche's engineering duties have been primarily in the areas of structural/civil design, inspection, construction administration and material testing. Prior to his engineering career he worked as a certified welder and heavy equipment operator for 6 years in remote Alaska.

Bai recently passed the NCEES structural exam and now is a registered structural engineer for the state of Alaska. The 16-hour national SE exam tests the engineer's ability to practice structural engineering competently and covers broad topics relevant to structural engineers exclusively. The exam includes separate vertical and lateral components to test the engineer's ability to safely design buildings and/or bridges, especially in areas of high seismicity and high wind. Bai passed the vertical component in April 2015 and lateral component in April 2016 as a first-time exam taker. Bai joined PND in 2007 after earning a master's degree in civil engineering from the University of Alaska, Anchorage. She recently transferred from the firm's Anchorage office to the new Houston location and continues to support Alaska projects. Bai currently holds professional engineer licenses in Alaska, California and Texas.

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

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

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

continued from page 5

TARR Q&A

ple making those decisions.

Now they don't have the same vision the decision-makers have, or lack of trust. It could be any number of things. That's what I'm getting out of the last hearing. So many questions about SB 138 and were they violating the law. My reading of it is no they are not. It's just the language gives AGDC broader authority to engage in these projects. The way you would change that would be through legislation that would more clearly define their roles.

Petroleum News: Also, on the turnover issue, you've been on resources four years, what do you think the state will be missing from Marty Rutherford's departure?

Tarr: She is a wealth of knowledge about these issues and has been though several of these projects before. One of the things we talked about with SB 138 was what are the lessons learned. What made Stranded Gas Development Act fail? What made AGIA fail? What made the Port Authority fail? Let's learn from those mistakes and other efforts that have been unsuccessful. The partnership was the answer to that. People thought the state had skin in the game and more equitable in terms of the commitment.

When Marty came on, she was supportive of the infrastructure put in place through SB 138. They chose to go through with the option we reserved in buying out TransCanada. That was all part of transitioning out of AGIA and making sure we weren't sued for trebled damages. It was the best of both worlds because we got out of it without any lawsuit and we were also able to get all the data and the work, and have it become part of the project.

So that had some value, which you hope because the state spent hundreds of millions on it. When we talked early on about how things were moving forward, she was really supportive of it. As we got closer to her departure, I had less and less communication with her. Someone of her caliber, well that's a real loss for us.

Petroleum News: It seems like the lone constant is Steve Butt. He doesn't work for either branch, but he seems to have the rapt attention of anyone attending hearings. Talk about the respect he seems to have earned.

Tarr: I think he really knows what it takes to make a project like this successful. He's careful to say what his role is as far as representing the project even though is the conduit to Exxon. He has enough experience to know you can't wish your way or want your way to this project happening. It comes down to is it economic? Can you make this price and cost of supply as low as possible?

I'm seeing a transition in his attitude from optimistic to almost a bit let down. I think this would have been the capstone project for his career and what a way to finish up with the biggest project in the world. At each quarterly update he's been able to talk about meeting each milestone with field work and the success they have had with the federal government (FERC and Energy Department).

He is working with some incredible talent. They have this incredible infrastructure where the plan for the evolution in the project with a senior member, then someone who is not as far along but ready to step in when the senior member transitions out. So he is doing everything he can to manage the project in a way that makes it successful.

They have met all their milestones. They have been able to find ways to reduce costs in significant ways because now they can say it's closer to the $45 billion rather than the $65 billion. But at the end of the day, if it's not economic, if you can't get the cost of the supplies low enough to meet the current price, then you are stuck.

Petroleum News: So what would you like to hear next at the quarterly update or at the close of pre-FEED assuming they don't coincide?

Tarr: What I want to do in the near term is get a better understanding of how much money is left from when we appropriated money in the special session last fall. My understanding was that was for the work plan in 2016 and we are slowing approaching the end. We asked the governor's office if we should expect another special session this fall and they said they didn't think so. I know for example the delaying the hiring of Mr. Meyer, some dollars weren't spent.

I want to get an accounting update of where we are and what dollars are still left out there.

We need to make that tough decision in the near term about how this project is moving forward if it is, what level of commitment will be coming from the partners, and what level of commitment will be coming from the state. We have some serious issues at hand and I'm not willing to compromise public safety, and education needs for the children of Alaska to try and push this forward right now if it's not looking like it's nearly 100 percent chance that it will be successful.

Petroleum News: Nearly two weeks after that meeting, Resources met again to review the administration's push for additional marketing information from the producer Prudhoe Bay plan of development (POD). Again, what were your takeaways?

Tarr: Well I asked Corri Feige, the division director of oil and gas — and she is very pro development — about the timing of this requests. She said because the way the AOGCC called for more information but not for several years, that this would be the opportunity to find out more information on their plans for marketing their gas. That seemed pretty reasonable to me. You've got a need for particular information, you've got one way to get that information but it's several years out and you would like to get closer than where you are today in getting that. The way she described it to me was this would be the only opportunity to request that information. Like I say, that was a reasonable response. I'm going to be watching closely to see what happens. We really don't want anything that is too disruptive in nature that would involve lawsuits. But they seem to be optimistic that the conversations were productive and they would be willing to share this information in the near term. I hope that's what happens and we can move forward.

Petroleum News: OK, let's take a look ahead into next session. Depending on your perspective, some say there is some unfinished business with oil tax credits and oil taxes. Do you expect the debate to be reprised?

Tarr: I can tell you that there will be people who want to address both the net operating loss issue, that was unresolved, and others who want to do something bigger and rework the policies.

I know there are people in agreement with the suggestion start over. It will be anybody's guess as to how those efforts might move forward because there are so many unknowns with who will be sitting in those seats come January, but we have to fix the net operating loss. My position is the state of Alaska needs an oil and gas tax policy that works at all prices along all time horizons and right now we do not have that.

Things have changed. Now we have to think of the low price environment as the new normal. We did not evaluate how SB 21 worked at those prices. If we had, I know there are several members of the committee would have said this doesn't work. There would have been at least a few voices who said wait, this doesn't work. If you had been sitting at this table in 2013 and said before we pass this bill, let's look at $35 oil, people would have said that would be a waste of time. ●

Contact Steve Quinn
at squinnwrite@gmail.com

continued from page 1

DRIFT RIVER SPILLS

of oil in the second spill is unknown; the stain area was reported as 24 feet by 24 feet by 30 feet.

DEC said cause of the spill was: "Over pressurization of the 20-inch fill line while emptying two tanks in preparation for internal inspection."

Work on tanks

In a detailed description of the cause of the over pressurization DEC said CIPL was pumping down two tanks to transfer their contents to one of the 270,000-barrel crude oil storage tanks approved for use at Drift River.

The agency said while the procedure used at Drift River indicated transfer was being made to tank 4, in fact the two tank contents were being transferred into tank 3, at the same time crude oil from the CIPL crude oil transmission pipeline was being moved into tank 3 through the 20-inch fill

see **DRIFT RIVER SPILLS** *page 19*

continued from page 1

CONOCO EARNINGS

for nearly 12 percent of the 1.5 million boepd the company produced across its entire global operations during the second quarter, up from nearly 11 percent during the second quarter of last year.

'Strong production'

The increase in production over a year ago is attributable to crude oil developments.

ConocoPhillips produced 163,000 barrels per day in the second quarter — down from 170,000 bpd in the first quarter and up from 154,000 bpd in the second quarter of 2015. Alaska accounted for more than 27 percent of global oil production for the company during the quarter, up from more than 25 percent a year ago.

The annual increase came from "ongoing strong production" at the Drill Site 2S project at the Kuparuk River unit and the CD-5 development at the nearby Colville River unit.

But all other commodities fell.

When it comes to natural gas liquids, ConocoPhillips produced 11,000 bpd during the second quarter — down from 14,000 bpd during the first quarter and down from 13,000 bpd during the second quarter of last year. And with its era as a Cook Inlet operator nearing an end, the company produced just 27 million cubic feet per day during the second quarter — down from 38 million cubic feet per day in the first quarter and down from 41 million cubic feet per day during the second quarter of 2015.

Increased prices

With all three commodities declining quarter-over-quarter, the increase in profits is largely a credit to an increase in liquids prices — even if those prices remain depressed.

ConocoPhillips reported an average realized price of $44.39 per barrel from its Alaska operations during the quarter — up from $32.54 per barrel during the first quarter and down from $61.51 during the second quarter of 2015. The Alaska crude oil price includes natural gas liquids, which are combined with crude oil in the trans-Alaska oil pipeline.

By comparison, the $44.39 per barrel price for Alaska beats the company average of $42.72 per barrel across all operations and is considerably higher than the average Lower 48 price of $39.50 per barrel and the average Canadian price of $37.70 per barrel.

Alaska natural gas is showing an even more dramatic premium. ConocoPhillips reported an average realized price of $4.82 per thousand cubic feet from its Alaska operations during the second quarter, compared to an average price of $2.49 per thousand cubic feet for the entire company. During the quarter, the average Lower 48 price was $1.70 per thousand cubic feet and the average Canadian price was 95 cents per thousand cubic feet.

The stark difference is structural: while natural gas is traded on an open market in the Lower 48, it is sold in Alaska through multiyear contracts with regulated prices.

And while ConocoPhillips reported a 2 cent per barrel decline from the first quarter, prices rose from $4.50 per thousand cubic feet during the second quarter of 2015.

Expenses down

Also helping were lower expenses during the quarter.

ConocoPhillips reported earning $98 million before income taxes from its Alaska operations during the second quarter of the year and $147 million after taxes.

The discrepancy comes from a negative 50.1 percent effective income tax rate from Alaska operations during the quarter. Including other taxes, the company reported an average tax rate of 15.5 percent from its Alaska operations during the quarter. The unusual negative tax rate is an anomaly. "These are driven by federal enhanced oil recovery credits and a one-time special item adjustment relating to the recognition of deferred taxes from prior years. There is no cash impact to the state of Alaska related to these items," spokeswoman Natalie Knox Lowman told Petroleum News in an email.

And with the winter exploration season now over, capital investments fell to $183 million — down from $320 million in the first quarter and down from $379 million in the second quarter of 2015. Alaska continues to be a focal point. The investment this quarter represented 19 percent of the $1.1 billion the company spent across all segments in the second quarter of this year, whereas the $379 million investment in the second quarter of 2015 was nearly 16 percent of the $2.4 billion the company spent across all segments.

ConocoPhillips reported $235 million in depreciation, depletion and amortization expenses in Alaska during the second quarter of this year in Alaska — up from $207 million in the first quarter and up from $158 million in the second quarter of last year. ●

Contact Eric Lidji at ericlidji@mac.com

continued from page 1

NEW REGS

tions for comment and review," the notice issued by the department said.

Alper said advance notice of rulemaking is required under an Administrative Order put in place by former Gov. Sean Parnell.

Municipal 'tax cap'

The change in the property tax is in a municipal "tax cap" in the statute that limits the amount a municipality can levy against oil and gas company property for operations.

The previous limit, which applied mainly to the North Slope Borough, had been in place for decades and had become obsolete. The change made in 2014 retains the limit but allows for more flexibility.

Another change in the property tax is a revision of the current requirement that "replacement cost" for purposes of property assessment be done annually. The law change in 2014 requires the department to recalculate the replacement cost no more often than once in five years.

Also, the department will solicit comments on how proven oil and gas reserves are calculated as a factor in the determination of oil and gas property valuation. Proved reserves are important in calculating the economic life of a production facility, a factor in the tax valuation.

HB 247 changes

On HB 247, which made complex changes in the oil and gas tax incentive credit program this spring, the department is seeking suggestions on, "an array of changes to confidentiality, credits, gross value reductions, purchases from the oil and gas tax credit fund, and calculation of interest for delinquent taxes, among other things," the department's notice said.

Alper said one area that particularly needs clarification by regulations is a provision that ranks a company's priority for tax credit cash refunds according to the percentage of Alaska resident workers hired.

"This is a new tool and we need to spell out how it will be done," he said. Current law has the credits paid for on a "first-in, first-out" basis, meaning companies that have their applications in and approved by the department first get paid first.

This will still be the case but the local-hire factor will apply if there are companies with the same dates on their approvals, Alper said. This could happen because the tax credit applications are usually reviewed and approved in batches.

Revenue officials review the applications to ensure that applicants are entitled to reimbursement for expenses because only certain kinds of expenses are covered in the program.

Alper also said the department expects a substantial number of comments on the definitions of intangible drilling and development costs in the statutes.

"We expect to learn a lot on the 12th (in the public meeting) and we anticipate a substantial regulation-writing process to be underway this fall," Alper said.

Regulations vs. statutes

Regulations are prepared by state agencies to provide more detailed guidelines on the implementation of a bill passed into law by the Legislature.

Legislators write bills that are as specific as possible but typically require agencies to spell out more detail in how they are to be administered, which is done in regulations. Lawmakers are always concerned that state administration officials interpret statutes differently than what they intended, or even go beyond the apparent limits of the law to in effect make law by regulation. However, there is little legislators can do except to change the governing statute.

Proposed rules are made public in advance and undergo a formal public comment period, and are approved in final form by the lieutenant governor. ●

Contact Tim Bradner at timbradner@gmail.com

continued from page 1

KITCHEN LIGHTS

Webb assured Petroleum News that Furie still plans to start the second well, the KLU A-1 well, once the KLU A-2 well has been completed. The two wells will access different sections of the Kitchen Lights reservoir sands.

Furie needs to drill the development wells at Kitchen Lights to meet its commitments for the supply of gas to Enstar Natural Gas Co., starting in 2018.

—ALAN BAILEY

Contact Alan Bailey at abailey@petroleumnews.com

continued from page 17

DRIFT RIVER SPILLS

line. When the transfer from the crude oil transmission pipeline was ended for the day, the controller at the Kenai gas field closed the fill valve to tank 3. But the pump used to draw down the two tanks was still operating.

"Closing the fill valve to Tank 3 closed off the flow path of the oil from the two tanks into Tank 3," DEC said. "Due to the operations being conducted simultaneously, the closure of the valve to Tank 3, and the continued throughput from the two tanks, the 20-inch fill line was over-pressurized."

DEC said CIPL personnel recovered the 14 gallons of crude oil inside the valve box and moved it to storage tanks. The area where 1 gallon was spilled was excavated.

"CIPL also reviewed and changed their procedures on removing liquids from the two tanks to ensure this type of incident does not occur," the agency said.

DEC staff few to the Drift River facility July 21 to investigate the spill reported on July 2 and to conduct a facility inspection.

The agency said no impacts to wildlife have been reported.

DEC said it will request CIPL submit a plan on how the company plans to identify any additional potential spills from the 20-inch fill line, remove remaining crude in the line, test line integrity and identify future plans for the line. The agency also plans additional site visits to monitor cleanup of the spill discovered July 28 and said DEC representatives will be present for testing or activities involving the 20-inch line.

CIPL is owned by Hilcorp which acquired a 50 percent interest in early 2012 when its purchase of the Cook Inlet assets of Union Oil Company of California closed; it acquired the remaining 50 percent from Pacific Energy Alaska Holdings in late 2012. Hilcorp has operated CIPL since 2011.

The Drift River facility was constructed in 1967 and has been operated by CIPL since its construction. It stores crude oil produced on the west side of Cook Inlet until it is loaded into tankers. The 42-mile CIPL moves oil from the Granite Point, McArthur River, Redoubt Shoal and Trading Bay fields to Drift River terminal, also owned by CIPL.

—KRISTEN NELSON

Contact Kristen Nelson at knelson@petroleumnews.com

continued from page 1

POWER NEEDS

percent of the utility's power comes from hydropower systems at Eklutna, north of Anchorage, and from Bradley Lake on the Kenai Peninsula. The remaining 82 percent of the power comes from various gas-fueled facilities.

Aging plants

The utility still operates two plants, constructed between 1962 and 1984, with seven gas turbines and one steam turbine — the oldest plant is 54 years old, Johnston said. While, in general, a power plant has a life expectancy of about 35 years, the average age of ML&P's plant, including the new facilities, is 38.4 years, he said. It is possible to overhaul aging generators at a cost of several million dollars, but that money ends up going into extending the life of a unit that is inefficient, burning more fuel than a modern facility. And the cost of fuel represents up to 50 percent of the cost of the electricity, he said.

By bringing modern units online and retiring or placing on standby the older systems, the utility can control its costs, using the most modern equipment as much as possible.

Johnston said that while the combined loads in 2015 for Southcentral utilities, ML&P, Chugach Electric and Matanuska Electric Association, amounted to about 519 megawatts, the combined capacity of the new plants that these utilities have been building, including MEA's new facility at Eklutna and ML&P's Plant 2A, adds up to 470 megawatts. And although it appears that a total capacity of 103 megawatts in available hydropower can more than cover the resulting shortfall of 49 megawatts in modern gas-fired generation, water levels in the various hydro facilities cannot sustain full power output for more than four to six months, he commented.

"There are those that will tell you that there is excess generation in the Railbelt. I don't believe that to be the case," Johnston said.

Moreover, in the interests of avoiding a single point of failure in the system, it makes more sense to build several power plants than to put all eggs in the basket of a single large plant, he commented. The use of a series of smaller generation units rather than a single large unit also allows flexibility in switching units in and out, depending on the load, to make best use of the more efficient units and to enable downtime for maintenance.

Plant 2A

The location of ML&P's new Plant 2A is particularly advantageous, with the plant sitting adjacent the water supply line to Anchorage from the Eklutna Lake, Johnston said. The relatively cold water from the glacier-fed lake can be used to help cool the turbines in the power plant, enabling the turbines to run with maximum efficiency and with reduced emissions. Then, the excess heat transferred from the power plant to the water elevates the temperature of the water, thus reducing the gas and electricity that Anchorage residents need to use for water heating. In addition, a snow melt system using heat from the plant will avoid the necessity to remove and store plowed snow during the winter.

Plant 2A should go on line in the fourth quarter of this year, Johnston said.

Beluga River gas

Having in 1996 purchased a one-third share of the Beluga River gas field on the west side of Cook Inlet, ML&P has been able to furnish most of its own gas for power generation, an arrangement that has saved its ratepayers about $239 million over the past 20 years, Johnston said. Accumulated revenues from the sale of some of its Beluga gas have also enabled ML&P to pay cash, rather than seek financing, for the recent purchase of an additional 23 percent of the field from ConocoPhillips, with Chugach Electric also coming in with ML&P to buy a share of the field. The stable additional fuel supply from Beluga should save ML&P's customers $108 million over the next 18 years, Johnston said.

A changing industry

Johnston also reflected on changes that are starting to appear in the electricity business.

Distributed generation in which relatively small-scale electrical sources are placed close to where the power is needed are making inroads into the traditional arrangement of having a large central generating plant connected to load centers by a transmission network. Localized solar power, for example, can supply power direct to a building that solar equipment is attached to. Despite Alaska's long, dark winters solar power can prove effective in the state — a downtown Anchorage building has a solar power system and there are a number of houses in the city that have solar cells, Johnston said.

Providence hospital and the Alaska Native Tribal Consortium are considering the use of combined heat and power technology, an arrangement whereby a small turbine system provides power on site for a facility while excess heat from the turbine helps heat the facility's buildings, Johnston said.

Another innovation is the use of smart electric meters than can provide near continuous readings on electrical consumption, thus enabling possibilities for energy savings to be identified, predictive maintenance to be conducted and power outages to be more efficiently identified and dealt with. ML&P is about to conduct a pilot project for smart meter use, with results from the pilot anticipated by early next year, he said.

Asked about the possibility of using power from a wind farm that Cook Inlet Region Inc. has build on Fire Island, offshore Anchorage, Johnston said that ML&P had worked closely with CIRI and hoped to find a way of participating in the Fire Island project. But the utility had found that it could generate power more cheaply than can the wind farm, in addition to which there are issues relating to regulating the wind power supply, given the variability of the supply as the wind strength fluctuates, Johnston said.

Power pooling

Another major issue facing ML&P in the future is the question of how best to pool power with the other Railbelt utilities and make best use of the cheapest power sources through what is referred to as economic dispatch. The Railbelt utilities have been engaged in discussions relating to the potential formation of a unified operator or a transmission company for the transmission grid.

Currently ML&P is working with Chugach Electric on a new power pooling arrangement, by combining the loads of the two utilities and then pooling the utilities' generation capabilities, using the least-cost available generation to meet each additional kilowatt hour of load as the load increases. Preliminary calculations point to savings of millions of dollars per year in electrical costs for customers, Johnston said. The power pooling arrangements that the two utilities are establishing could potentially be expanded in the future to other utilities in the Railbelt, he said.

ML&P is also working with the Municipality of Anchorage to further an initiative by the mayor to replace sodium vapor street lights with LED lights, an arrangement that, while involving some initial expense, would in the longer term provide a large payback in terms of reduced maintenance costs, Johnston said. ●

Contact Alan Bailey at abailey@petroleumnews.com


ConocoPhillips