Petroleum news

Vol. 12, No. 33 • www.PetroleumNews.com

Published weekly by Petroleum Newspapers of Alaska

Week of August 19, 2007 • $1.50

page 5 FERC praises Palin administration's progress on Alaska gas line

Caribou crossing in Deadhorse

RHONDA KUTZNER

The above photo was taken this summer in Deadhorse on Alaska's North Slope. The yellow truck is owned by Peak Oilfield Service Co.

Renaissance plans to bring jack-up to Cook Inlet next summer

A Cook Inlet independent hopes to bring a jack-up to Cook Inlet next summer.

In an Aug. 14 interview with Petroleum News, Renaissance Alaska LLC executive Mark Landt said his company has bids from two drilling contractors. "Both jack-ups are available for next summer. … We have five wells we'd like to drill, which is a season and a third for one jack-up. We're looking for other companies with offshore wells to drill to rationalize the mobilization costs for a two-year program for one rig."

MARK LANDT

Oil Patch Insider

One company that's under the gun to get its offshore Corsair leases drilled before they expire is Forest Oil. But Forest recently entered into an agreement to sell its Alaska assets to Pacific Energy Resources Ltd. That sale is expected to close Aug. 24.

Landt says Pacific Energy is one company he's hoping to pull into the program. Escopeta Oil with its offshore Kitchen prospects might be another.

And Landt said he's re-started discussions with the State of Alaska's Division of Oil and Gas to see if the state will help with the mobilization costs of a jack-up, something former Gov. Frank Murkowski promised to do, but which did not materialize when he was in office.

Confident that he will be able to put a two-year program together, Landt said Renaissance is starting the permitting process for five wells in Renaissance's Northern Lights and North Middle Ground Shoal offshore prospects.

Stay tuned….

—KAY CASHMAN

BREAKING NEWS

EXPLORATION & PRODUCTION

Court nixes drilling

9th Circuit order kills Beaufort drilling this year, Shell reviewing options

By ALAN BAILEY

Petroleum News

Shell has crossed several major hurdles in its attempt to start an exploration drilling program in the Beaufort Sea during the 2007 open water season. But the latest obstacle, an Aug. 15 court order from the U.S. Court of Appeals for the 9th Circuit, may well prove to be a show-stopper — the court has extended a stay on Shell's Beaufort Sea activities until the court has ruled on an appeal by the North Slope Borough and the Alaska Eskimo Whaling Commission against the U.S. Minerals Management Service's approval of Shell's Beaufort Sea exploration plan. MMS gave provisional approval of the plan in February.

Shell has been assembling a fleet of vessels,

see **DRILLING** *page 17*

COURTESY SHELL OFFSHORE INC.

The drillship Kulluk is one of two that Shell plans to use in the Beaufort Sea.

EXPLORATION & PRODUCTION

BP leads pack in the Gulf

Drilling activity at record level in 'ultra-deepwater' Gulf, 15 rigs working

By RAY TYSON

For Petroleum News

Exploration and production companies, despite a reported worldwide shortage of high-specification offshore rigs, have managed to set a new record for the number of "ultra-deepwater" floaters currently drilling prospects and development wells in the U.S. Gulf of Mexico.

For the first time, 15 rigs are drilling in 5,000 feet of water or greater, a depth range established by the U.S. Minerals Management Service separating the deep from the ultra-deep in the U.S. Gulf.

Nearly half of the 33 rigs reportedly drilling in deeper waters of the Gulf were operating in the ultra-deep, according to information furnished by MMS.

The remaining 18 deepwater rigs were drilling in water depths ranging from 1,000 feet to 5,000 feet, also an MMS drilling benchmark.

"The continued increase in drilling activity is a show of confidence in the resource potential of the Gulf's ultra-deepwater frontier," MMS Director Randall Luthi said in a press release issued Aug. 14.

BP Exploration and Production is currently the most active player in the ultra-deep, with four rigs currently operating, according to MMS.

One BP well is being drilled on Mississippi Canyon Block 775 from Transocean's Discoverer Enterprise drillship at Thunder Horse North in 5,673 feet of water, while a second BP well is being drilled

see **PACK** *page 15*

EXPLORATION & PRODUCTION

Target North Slope gas?

2007-2008 exploration plans in early stages, expect busy season, gas wells

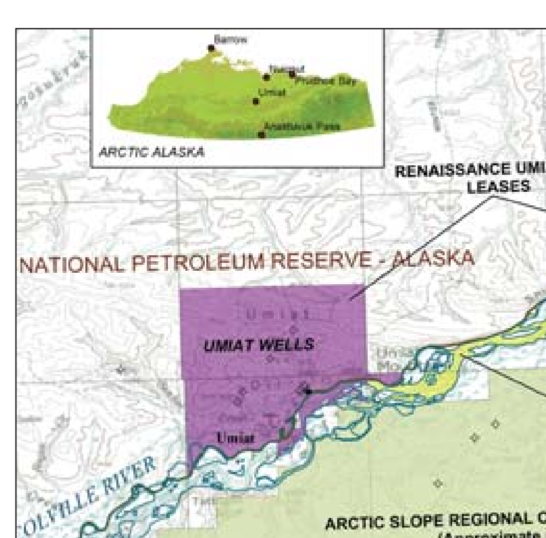
By KAY CASHMAN

Petroleum News

If Anadarko Petroleum drills the undeveloped Gubik gas field this winter it will be the first explorer in northern Alaska to target natural gas instead of oil, betting a gas pipeline from Prudhoe Bay to Lower 48 markets will be built. Gas wells have been drilled on the North Slope, but only for local use or by mistake when companies were looking for oil, which is more valuable — and which can be sold to Outside markets via the 800-mile trans-Alaska oil pipeline.

Another operator might also be drilling gas-rich wells this winter — ConocoPhillips, Anadarko's

see **TARGET** *page 19*



contents

Petroleum News | *A weekly oil & gas newspaper based in Anchorage, Alaska*

Alaska - Mackenzie Rig Report

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

Alaska Rig Status

North Slope - Onshore

Akita Drilling Ltd.			
Dreco 1250 UE	63 (SCR/TD)	Racked in Deadhorse	Anadarko
Doyon Drilling			
Dreco 1250 UE	14 (SCR/TD)	Moving to workover Prudhoe Bay well	BP
Sky Top Brewster NE-12	15 (SCR/TD)	Kuparuk 1J-162	ConocoPhillips
Dreco 1000 UE	16 (SCR/TD)	Workover Prudhoe K-14	BP
Dreco D2000 UEBD	19 (SCR/TD)	Alpine CD4-322	ConocoPhillips
OIME 2000	141 (SCR/TD)	Summer maintenance	ConocoPhillips
TSM 7000	Arctic Fox #1	Stacked in Yard	Pioneer Natural Resources
	Arctic Wolf #2	Racked at Cape Simpson	FEX
Kuukpik	5	Stacked in Deadhorse Available till 1/15/08	Available
Nabors Alaska Drilling			
Trans-ocean rig	CDR-1 (CT)	Stacked, Prudhoe Bay	Available
Dreco 1000 UE	2-ES	Prudhoe Bay F-42	BP
Mid-Continental U36A	3-S	Kuparuk KRU 1D-10	ConocoPhillips
Oilwell 700 E	4-ES (SCR)	Prudhoe Bay rig maintenance	BP
Dreco 1000 UE	7-ES (SCR/TD)	Prudhoe Bay DS 01-01C	BP
Dreco 1000 UE	9-ES (SCR/TD)	Polaris S-215i	BP
Oilwell 2000 Hercules	14-E (SCR)	Stacked	Available
Oilwell 2000 Hercules	16-E (SCR/TD)	Stacked	Available
Oilwell 2000	17-E (SCR/TD)	Stacked, Point McIntyre	Available
Emsco Electro-hoist -2	18-E (SCR)	Stacked, Deadhorse	Available
OIME 1000	19-E (SCR)	Stacked, Deadhorse	Available
Emsco Electro-hoist Varco TDS3	22-E (SCR/TD)	Stacked, Milne Point	Available
Emsco Electro-hoist	28-E (SCR)	Stacked, Deadhorse	Available
OIME 2000	245-E	Oliktok Point OPi2	Anadarko
Emsco Electro-hoist Canrig 1050E	27-E (SCR-TD)	Stacked	
Nordic Calista Services			
Superior 700 UE	1 (SCR/CTD)	Prudhoe Bay well DS2-16c	BP
Superior 700 UE	2 (SCR/CTD)	Prudhoe Bay well DS5-28	BP
Ideco 900	3 (SCR/TD)	Kuparuk well 2N-327	ConocoPhillips

North Slope - Offshore

Nabors Alaska Drilling			
Oilwell 2000	33-E	Stacked	

Cook Inlet Basin – Onshore

Aurora Well Service			
Franks 300 Srs. Explorer III	AWS 1	Stacked at Nikiski	Available
Marathon Oil Co. (Inlet Drilling Alaska labor contractor)			
Taylor	Glacier 1	Grassim Oskolkoff No. 6	Marathon
Nabors Alaska Drilling			
National 110 UE	160 (SCR)	Stacked, Kenai	Available
Continental Emsco E3000	273	Stacked, Kenai	Available
Franks	26	Stacked	Available
IDECO 2100 E	429E (SCR)	Stacked, removed from Osprey platform	Available
Rigmaster 850	129	Swanson River SRU 42-05Y	Chevron
Rowan Companies			
AC Electric	68 (SCR/TD)	Being moved from Texas for drilling at Cosmopolitan	Pioneer Natural Resources

Cook Inlet Basin – Offshore

Unocal (Nabors Alaska Drilling labor contractor)			
Not Available			
XTO Energy			
National 1320	A	Platform A no drilling or workovers at present	XTO
National 110	C (TD)	Idle	XTO

Alaska Interior

Cudd Pressure Control			
Cudd 340k Jack Unit		Workover Ahtna #1-19	Rutter and Wilbanks

Mackenzie Rig Status

Canadian Beaufort Sea

Seatankers (AKITA Equtak labor contract)			
SSDC CANMAR Island Rig #2	SDC	Set down at Roland Bay	Devon ARL Corp.

Mackenzie Delta-Onshore

AKITA Equtak			
Dreco 1250 UE	62 (SCR/TD)	Rig Racked in Inuvik, NT	Available
Modified National 370	64 (TD)	Racked in Inuvik, NT	Available

The Alaska - Mackenzie Rig Report as of August 16, 2007. 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 Alan Bailey

JUDY PATRICK

Baker Hughes North America rotary rig counts*

	August 10	August 3	Year Ago
US	1,798	1,781	1,728
Canada	377	394	480
Gulf	71	73	94

Highest/Lowest

US/Highest	4530	December 1981
US/Lowest	488	April 1999
Canada/Highest	558	January 2000
Canada/Lowest	29	April 1992

*Issued by Baker Hughes since 1944

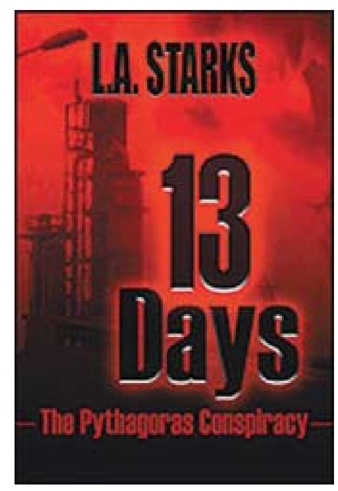
● BOOK REVIEW

Herrera: Starks' novel keeps you guessing

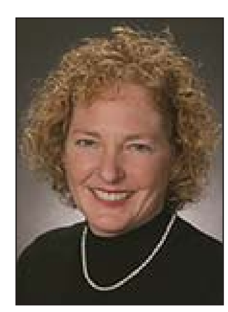
By ROGER C. HERRERA
For Petroleum News

About the book
"13 Days —The Pythagoras Conspiracy"
Fiction
By L.A. Starks
Published by Brown Books
Paperback 2006

I enjoyed this book. It is a good, exciting read that should make everyone rethink their blind acceptance of their perceived right to cheap, plentiful gasoline and other petroleum products. But while the morals of this story are worthy of serious thought, it should not be read for its philosophical insights, important though those are, rather as a gripping yarn of industrial espionage that keeps the reader guessing until the very end.



One of the medium-sized refineries, located on the Houston ship canal, is not achieving its expected efficiency of output. The new vice president of refining, Lynn Dayton, who is the heroine of the story, is determined to solve the technical problems despite the gender prejudices that are endemic amongst the refinery management and work force. She is an interesting character and her stability is seriously tested after an H2S leak kills four of the refinery workers.


L.A. STARKS

For those of us who are unaware of the dangerous nature of hydrogen sulfide with its familiar rotten egg smell, read this book. It is very nasty stuff and every petroleum refinery in this land produces it. However, its formation is but a small step in the complicated process that extracts useable products from crude oil. Much of the story revolves around the potential for deliberately disrupting the high temperatures and pressures that are part and parcel of the refining process. We occasionally read, in real life, of refinery accidents that kill many people, so when one adds the approach of a tropical hurricane across the Gulf of Mexico, plus deliberate acts of sabotage, the refining process becomes very dangerous indeed.

Masterful tale of how a refinery ticks

The author is masterful at detailing the way a refinery ticks without boring the reader or introducing too much technical jargon. And while the retorting of crude oil is part of the story, the characters and their human relationships are what make this book so readable and interesting.

Oil industry readers will relate to some of the red-necked attitudes of the refinery staff to the lady VP. They will also understand the inane long hours and hard work that is expected of everyone involved. They might sympathize with the impossibility of sane family relationships when work problems become overwhelming, but they will appreciate the dedication of Lynn Dayton who leads by example and could be anybody's favorite boss.

Several of the characters in this novel are French, including the evil mastermind who is trying to manipulate the world supply of gasoline. While his role in the story is sometimes less than convincing, nevertheless the author has a startling insight into the nature of the French psyche. The book is almost worth reading just to learn what French people don't like about Americans and why. Or, more importantly, how Americans should behave in France.

Needless to say, Ms Starks has had a career in the oil industry and has a degree in chemical engineering and an MBA in finance. This is an excellent first novel.

The Pythagoras part of the conspiracy that features in the title seemed somewhat redundant and it was not one of the details that added much interest to a tale that was otherwise very satisfying and rather sobering. Perhaps it will feature in follow-up novels?

By the way, the hydrogen sulfide leaks were not an accident and there are enough additional murders in the refinery to keep the most avid who-done-it fans satisfied. The rest of us should not miss the message that the author, Ms. L.A. Starks, salts in the plot — for example, the vulnerability of our refineries, the double-edged sword that gasoline taxes often represent and the outstanding capability of women executives. Needless to say, Ms. Starks has had a career in the oil industry and has a degree in chemical engineering and an MBA in finance. This is an excellent first novel. ●

Petroleum News — www.PetroleumNews.com

Kay Cashman	PUBLISHER & EXECUTIVE EDITOR
Mary Mack	CHIEF FINANCIAL OFFICER
Kristen Nelson	EDITOR-IN-CHIEF
Susan Crane	ADVERTISING DIRECTOR
Amy Spittler	ASSOCIATE PUBLISHER
Heather Yates	OFFICE MGR./CIRC. BOOKKEEPER
Shane Lasley	CIRCULATION DIRECTOR
Steven Merritt	PRODUCTION DIRECTOR
Tim Kikta	COPY EDITOR
Gary Park	CONTRIBUTING WRITER (CANADA)
Ray Tyson	CONTRIBUTING WRITER
Alan Bailey	STAFF WRITER
John Lasley	STAFF WRITER
Allen Baker	CONTRIBUTING WRITER
Rose Ragsdale	CONTRIBUTING WRITER
Sarah Hurst	CONTRIBUTING WRITER
Paula Easley	DIRECTORY PROFILES/SPOTLIGHTS
Judy Patrick Photography	CONTRACT PHOTOGRAPHER
Mapmakers Alaska	CARTOGRAPHY
Forrest Crane	CONTRACT PHOTOGRAPHER
Tom Kearney	ADVERTISING DESIGN MANAGER
Dee Cashman	CIRCULATION REPRESENTATIVE

ADDRESS
P.O. Box 231651
Anchorage, AK 99523-1651

EDITORIAL
Anchorage telephone
907.522.9469
Editorial Email
Anchorage
publisher@petroleumnews.com
Canada
farnorth@petroleumnews.com

BOOKKEEPING & CIRCULATION
907.522.9469
Circulation Email
circulation@petroleumnews.com

ADVERTISING
907.770.5592
Advertising Email
scrane@petroleumnews.com

CLASSIFIEDS
907.644.4444

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. 12, No. 33 • Week of August 19, 2007
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. — $78.00 for 1 year, $144.00 for 2 years, $209.00 for 3 years.
Canada / Mexico — $165.95 for 1 year, $323.95 for 2 years, $465.95 for 3 years.
Overseas (sent air mail) — $200.00 for 1 year, $380.00 for 2 years, $545.95 for 3 years.
"Periodicals postage paid at Anchorage, AK 99502-9986."
POSTMASTER: Send address changes to Petroleum News, P.O. Box 231647 Anchorage, AK 99523-1647.

● NATURAL GAS

FERC praises Palin's progress on gas line

Fourth report from federal regulatory agency on Alaska natural gas pipeline progress cites state, federal advancements

By KRISTEN NELSON
Petroleum News

Both the State of Alaska and the federal government have made progress toward an Alaska natural gas pipeline project, the Federal Energy Regulatory Commission told Congress Aug. 15 in its fourth semi-annual report on the status of Alaska gas pipeline proposals.

"I commend the progress the State of Alaska has made under the leadership of Governor Sarah Palin in recent months," FERC Chairman Joseph Kelliher said in a statement accompanying the report. "I am hopeful the new state process will encourage the development of a natural gas pipeline project in Alaska," he said.

Since the commission's last report, at the end of January, Alaska has enacted and begun to implement the Alaska Gasline Inducement Act and the D.C. Circuit of the U.S. Court of Appeals has upheld FERC's open season regulations for the Alaska gas pipeline project.

The tone of the latest report is more hopeful — and less alarming — than earlier reports have been.

FERC said in that first report that for an Alaska natural gas project to be successful it "will have to overcome a variety of significant impediments presented by the tremendous size, scope and cost of any such delivery system, the long lead time needed to develop such a project, unique environmental and competitive conditions and the international scope of such a project." On the Mackenzie project FERC said it is "neither a complement to nor competitor of an Alaska natural gas pipeline," but "industry reports indicate that there will not be enough pipeline grade steel available to construct both projects at the same time. Similarly, there could be a shortage of the skilled labor force required to build two technically challenging Arctic projects of such magnitude at the same time."

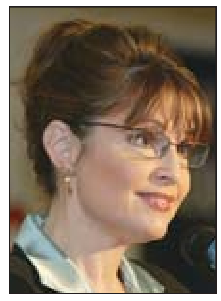
Issued Feb. 1, 2006, the first report said many of the impediments to the project were being addressed by legislative initiative and other government action at the state and federal level, but concluded further progress on any of three proposals — the Alaska Natural Gas Transportation System sponsored by TransCanada Corp., the Trans-Alaska Gas System liquefied natural gas project sponsored by the Alaska Gasline Port Authority and the proposal by BP, ConocoPhillips and ExxonMobil, the so-called producer group — would only occur after project sponsors concluded a successful Stranded Gas Development Act negotiation with the State of Alaska.

Second report: window closing

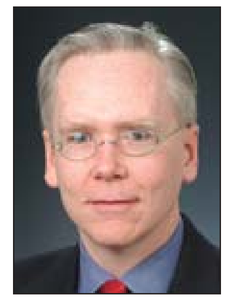
While FERC's first report said progress was being made, the second, issued July 10, 2006, was less positive.

Federal agencies were moving ahead but the Alaska Legislature was grappling with the contract negotiated by then Gov. Frank Murkowski with the North Slope project sponsors, BP, ConocoPhillips and ExxonMobil, and with a revision of the state's production tax.

The contract, centered on providing fiscal certainty, never came to a vote in the Legislature and Murkowski lost a bid for re-election in August; a production tax revision, the petroleum profits tax or PPT, was passed by the Alaska Legislature, but not in the form the Murkowski administration negotiated with the North Slope sponsor group.



Alaska Gov. Sarah Palin



JUDY PATRICK

FERC Chairman Joseph Kelliher

The second report emphasized what FERC called a "closing window" for Alaska gas delivery, based on the number of proposed new LNG import facilities it had approved recently in the Lower 48 and an expectation that gas buyers would sign long-term contracts for LNG "if there is no substantial progress on building an Alaska pipeline."

LNG deliverability into the Lower 48 was 5.8 billion cubic feet a day at the time of the second report and FERC had approved 11 new LNG terminals since 2003 with a total capacity of 20.6 bcf per day. Expansions of 2.2 bcf a day were also approved — a combined potential of 28.6 bcf of deliverability.

FERC noted that early estimates of an $18 billion to $20 billion cost for the Alaska gas project had increased to $25 billion. "Any further delays may serve to make the Alaska gas pipeline uneconomic in comparison to LNG imports," the agency concluded at the end of its June 2006 report. "As demonstrated by the magnitude of monies being invested in LNG facilities (an estimated $250 billion worldwide through 2030, FERC said, citing the International Energy Agency) and the falling costs per unit of LNG infrastructure, Alaska is at risk of being marginalized in the search for new natural gas suppliers for U.S. consumption."

The Palin turnaround

FERC's third report was issued Jan. 31, on the cusp of major changes in Alaska.

Alaska had elected a new governor, Sarah Palin, in November. Palin's first act upon being inaugurated in early December was to meet with potential gas project sponsors. Early in the New Year she submitted a new gas pipeline bill, the Alaska Gasline Inducement Act, spelling out what incentives the state was willing to offer in exchange for a commitment by a project proponent to build a gas pipeline from the North Slope. Palin described the AGIA process as competitive and transparent, contrasting it to the Stranded Gas Development Act, under which the state had held confidential negotiations.

On the federal side, the Senate confirmed Drue Pearce as federal coordinator and she began meeting with stakeholders in both Alaska and Canada and FERC's open season regulations for an Alaska gas pipeline project were appealed by the North Slope project proponents.

In the conclusion of the January report FERC put the failure to advance an Alaska gas pipeline project squarely on the state's shoulders: "The main obstacle to progress on an Alaskan gas pipeline is the failure to resolve state issues necessary before a project sponsor will commit to go forward. The fresh competitive approach announced by the new governor must be successful if Alaska gas is to be part of the nation's energy supply solution anytime in the coming years."

Fourth report upbeat

In contrast, the FERC's Aug. 15 report is decidedly upbeat. Since the previous report, FERC said, the State of Alaska has enacted and began implementing AGIA; the U.S. Court of Appeals upheld FERC's open season regulations; Federal Coordinator Drue Pearce has been "active in discussions with project stakeholders"; the U.S. Department of Labor issued a grant to Alaska for pipeline worker training; and FERC commissioners and staff have continued to prepare for filing of an Alaska project application, including a staff visit to the project area in Alaska.

The State of Alaska released its request for AGIA applications July 2, took comments and suggested revisions through July 23 and issued an amended RFA Aug. 6. AGIA applications were originally due Oct. 1; the state extended the deadline to Nov. 30 "in response to requests for more time from several prospective applicants." The state's goal is to have a licensee selected and doing field work in the summer of 2008.

> *"It is not necessary that the sponsors of an Alaskan project participate in the AGIA process as a prerequisite to filing an application" with FERC. "Moreover, there is no certainty that the Commission would impose on a certificate holder the rate and other requirements included in AGIA — the Commission will have to make an independent determination on these matters. However, FERC staff has testified before the Alaska Legislature that nothing in AGIA is on its face inconsistent with the Natural Gas Act, the Alaska Natural Gas Pipeline Act or the Commission's regulations."*
>
> **—Federal Energy Regulatory Commission Aug. 15 report**

"It is not necessary that the sponsors of an Alaskan project participate in the AGIA process as a prerequisite to filing an application" with FERC, the commission said in its report. "Moreover, there is no certainty that the Commission would impose on a certificate holder the rate and other requirements included in AGIA — the Commission will have to make an independent determination on these matters. However, FERC staff has testified before the Alaska Legislature that nothing in AGIA is on its face inconsistent with the Natural Gas Act, the Alaska Natural Gas Pipeline Act or the Commission's regulations."

FERC: AGIA incentives may lead to timely project

AGIA requires an open season to be

see **PROGRESS** page 6

LAND & LEASING

Fox completes North Slope acreage buy

London-based Fox Petroleum Inc. said July 14 that it has completed its acquisition of some 32,000 acres of oil and gas leases on Alaska's North Slope.

The company also said it is conducting technical work on existing surface and subsurface data; the analysis is expected to take 60 to 90 days.

Fox said it "expects to define several test well targets, which would hopefully be drilled in a timely manner commencing in the first part of 2008."

The acreage the company acquired consists of 12 State of Alaska oil and gas leases formerly held by Samuel H. Cade (75 percent) and Daniel K. Donkel (25 percent). Fox said in July that it would issue 20,000 restricted shares in exchange for the lease rights.

Eleven of the tracts are east and southeast of the Prudhoe Bay unit and south of the Duck Island unit. A single tract is farther south, west of the trans-Alaska oil pipeline.

In addition to the newly acquired Alaska acreage, the company has rights to earn-in to a 33.3 percent ownership stake in a 37,000-plus-acre UK North Sea block.

—KRISTEN NELSON

PIPELINES & DOWNSTREAM

Little guy in 'big boys' game'

Connacher Oil and Gas has achieved the first stage of its goal to be a minnow swimming with whales.

It commissioned a 10,000 barrel-per-day processing plant at its Great Divide project on Aug. 10 and is now chasing a further three stages to raise output to 50,000 bpd within five to seven years.

Launching its new mini oil sands project came only three years after Connacher paid a mere C$1.3 million for a lease it anticipated exploring for natural gas only to find it was sitting on substantial bitumen deposits.

The so-called Pod One facility cost only C$294 million to develop, with budget overruns held to C$34 million — the sort of result that large-scale oil sands players, many of whom have swallowed overruns of 50 percent and more, can only dream about.

Connacher Chief Executive Officer Richard Gusella said his company has shown that a smaller company can "play in the big boys' game," by taking a modular approach to construction and assembling large parts of the plant offsite, away from the over-heated economy of the oil sands region.

Gusella: success from modular approach

Connacher Chief Executive Officer Richard Gusella said his company has shown that a smaller company can "play in the big boys' game," by taking a modular approach to construction and assembling large parts of the plant offsite, away from the overheated economy of the oil sands region.

He said that allowed Connacher to handle the construction in a more expeditious manner than some of the mega-projects and affirmed its "more nimble and aggressive" approach.

Financing for Pod One included a C$180 million credit facility from BNP Paribas, one of Europe's leading banks.

Pod Two, which could push production to 25,000 bpd, is expected to cost about C$300 million and is already before Alberta regulators.

The company took steps in early 2006 to shield itself against crude price fluctuations by acquiring a 9,500 bpd refinery in Great Falls, Mont., from Holly Corp.

It is now eying a 50,000 bpd, C$100 million pipeline, possibly in partnership with others companies in the Great Divide area, to connect future production to markets.

—GARY PARK

NATURAL GAS

RCA grants certificate for Nuiqsut pipeline

The Regulatory Commission of Alaska has granted a certificate of public convenience and necessity to the North Slope Borough for the natural gas pipeline from the Alpine field to the village of Nuiqsut. Nuiqsut is using natural gas from Alpine to replace the expensive diesel fuel for heating and electricity generation.

In May the commission granted the borough a certificate to operate the gas distribution network within Nuiqsut, but the granting of a certificate for the pipeline that transports gas to the village encountered issues over how the pipeline should be regulated.

In 2001 RCA had granted the North Slope Borough's request that the pipeline be regulated as a public utility. However, when it subsequently transpired that the state right-of-way lease required the pipeline to operate as a common carrier line RCA had to deny the certificate and initiate the process for regulating the pipeline as a common carrier.

Following a public hearing in June, RCA has now granted the certificate as a common carrier line for the line. And the commission has denied a borough request to exempt the pipeline from economic regulation, saying that Alaska statutes do not allow exemption.

But, because the commission is currently considering simplifying the regulation of tariffs for pipelines such as Nuiqsut, RCA has deferred until Feb. 14, 2008, the requirement for the borough to file a tariff for the pipeline.

"NSB may qualify to file a simplified tariff depending on the regulations we adopt," RCA said.

ARCO deal

The gas project in Nuiqsut stems from surface land use access that ARCO Alaska (now ConocoPhillips Alaska) negotiated for the Alpine oilfield facilities. ARCO struck a deal with Kuukpik Corp., the Nuiqsut village corporation, to supply natural gas from Alpine to Nuiqsut in return for using Kuukpik land.

For its part of the deal, Nuiqsut had to provide the pipeline and facilities for processing the gas and Nuiqsut turned to the borough. The borough analyzed the cost and determined that in spite of high infrastructure costs it would save a considerable amount of money by using natural gas rather than diesel.

The borough funded the transportation system through bonds; the distribution system was funded by National Petroleum Reserve-Alaska impact aid grant funds.

—ALAN BAILEY

continued from page 5

PROGRESS

held within 36 months of the issuance of an AGIA licensee. It also requires that the license holder commit to using FERC's pre-filing process and file a FERC application within a time certain. To that extent, FERC said, "AGIA may provide incentives that lead to the timely development of an Alaska project."

Certificate pre-filing is required only for LNG facilities under FERC's regulations, the report said, but its "processing of any Alaskan natural gas pipeline would be greatly enhanced with the project sponsor's use of the Commission's pre-filing process."

All three projects discussed in the first report are still in play. FERC said in its report that the North Slope project sponsor group has three options: applying for an AGIA license and FERC certificate; becoming shippers on a pipeline built by an independent pipeline that secures an AGIA license; or forgoing the AGIA license and applying to FERC for a project of its own design. FERC noted that under the first two options, "AGIA provides the producers with additional royalty, taxes and cost protection incentives to commit their gas to the pipeline, provided that their gas is committed during the first open season for an AGIA licensed project."

FERC concluded by saying Alaska offers a reliable source of natural gas for the Lower 48 states.

"The federal government is ready to act on any projects to transport Alaskan gas to the Lower 48 states. We look forward to seeing if the progress made by the State of Alaska in enacting AGIA and commencing its RFA is followed by an AGIA licensee selection process that elicits a viable proposal to make Alaska's natural gas available to U.S. consumers." ●

● NATURAL GAS

Canadian gas gets upbeat forecast

By GARY PARK

For Petroleum News

The badly rattled Canadian natural gas industry heard some soothing noises Aug. 9 from the Conference Board of Canada, which believes Alberta plant gate prices will rise by an average 6.2 percent a year over the next four years, starting with a mere 1 percent gain in 2008.

But the news is not so good for U.S. customers, who face an annual decline of 1.6 percent in exports from Canada over 2007-11, the independent research organization said.

With Canadian users expected to demand more gas in the future, "energy companies will have no choice but to export less," despite a rebound in the U.S. economy, the outlook report said.

Canadian production edged up by only 0.6 percent in 2006, but is expected to commence a decline in 2007 that is likely to continue for a number of years, the board said.

The major source of that decline will be Alberta, whose share of national production will fall to 72 percent in 2011 from 76 percent this year, while British Columbia will account for 20 percent of output by 2011. Production in the Northwest Territories and Yukon will stay flat until 2011, but could be a significant contribution if the Mackenzie Delta and Beaufort Sea come on stream.

Gas prices expected to climb

The report said gas sector profits should recover to C$10.8 billion this year from C$9.8 billion in 2006, when they were hit by rising field costs and softer prices, and keep climbing to C$15.9 billion in 2011.

That will reflect the steady climb in gas prices from C$6.59 per gigajoule this year to C$8.40 in 2011.

Contributing to that trend will be declining output in Western Canada, which will trim employment levels, lowering labor costs for the first time in eight years.

Louis Theriault, the board's director of Canadian industrial outlook, said the surge in gas prices is supported by the fact that the commodity operates in a North American market, where supply is limited, demand remains strong and oil prices show no signs of heading for the US$30 per barrel zone — a combination that points to a robust market for gas.

Some analysts were surprised by the outlook, suggesting the fact that gas in storage is 16 percent greater than a year ago points to a price slump in September, stalling a price turnaround until late 2008 and delaying a strong recovery until 2009, when the drilling downturn will make an impact.

With Canadian users expected to demand more gas in the future, "energy companies will have no choice but to export less," despite a rebound in the U.S. economy, the outlook report said.

However, Theriault argued that gas prices are slowly recovering because of fundamental stress on supply and demand, which will contribute to sustain upward pressure.

He also said that continuing high oil prices should force gas prices higher over the medium term by driving industrial users and utilities to switch to gas. ●

● INTERNATIONAL

Arctic claims heat up

Russian expedition poses challenge to United States, Canada and other northern nations; Canada steps up fight with plans for deepwater port, military outposts, and an increase of 900 members in the Canadian Ranger patrol

By GARY PARK
For Petroleum News

Forget about "The Russians are Coming, The Russians are Coming" — the Cold War comedy about the grounding of a Russian submarine off a small New England town.

They're here.

More accurately, they're there.

At the North Pole that is.

Whipping up a frenzy among other northern nations, a Russian submarine crew planted a titanium flag on the seabed and returned to a hero's welcome in Moscow amid a welter of rhetoric, with expedition leader Artur Chilingarov proclaiming that the Arctic has "always been Russian and will remain so. Hurrah!" (See story in last week's Petroleum News.)

President Vladimir Putin, bursting with pride, but a trifle more restrained, said the expedition's work should "become part" of Russia's claims to what has been estimated at 25 percent of the world's undiscovered oil and gas reserves, plus other untold resources.

To the concern of other claimants — notably the United States, Canada, Denmark, Sweden and Norway — Russia has already set up new military and civilian posts on an archipelago within its territorial waters of the Barents Sea and close to the unresolved borders of the Arctic region.

Canada's Foreign Affairs Minister Peter MacKay retaliated by telling the Russians they have no right to just "drop a flag somewhere" and declare that territory to be theirs.

"This isn't the 14th or 15th century," he said.

Russia positioning itself

The view of specialists in international oil and gas law and territorial land claims is that Russia is positioning itself to seize the lion's share if and when the Arctic is divided into mutually exclusive economic zones.

Not often known for the boldness of its international actions, Canada was quick to respond to an exterior challenge to a region that few see, but all Canadians regard as part of their birthright — the payoff for the price they pay in surviving the long northern winter.

It has also dispatched a 600-member joint forces team to the coastal waters of Baffin Island and Hudson Strait to establish its presence in that area.

Prime Minister Stephen Harper, on a previously planned three-day trip to Canada's North, traveled to the hamlet of Resolute Bay, Nunavut — 360 miles from the magnetic North Pole — on Aug. 9 to reinforce Canada's Arctic sovereignty claims.

He was accompanied by Defense Minister Gordon O'Connor in announcing plans for a new deepwater port for naval and civilian use. It will be built at the north end of Baffin Island, using the abandoned zinc mining village of Nanisivik.

Harper also said Resolute Bay will be the site of a second military facility as Canada sends out a message that it has a "real, growing, long-term presence in the Arctic."

"The first principle of Arctic sovereignty is: Use it or lose it," he said. "Taken together … (these actions) will significantly strengthen Canada's sovereignty over the Arctic," Harper declared.

Canadian Rangers patrol will be increased

In addition to the military posts, the Canadian Rangers patrol — a volunteer Inuit force — will be increased to 5,000 members from 4,100 at a cost of C$240 million over 20 years, although only 100 will be housed at the Resolute Bay facility.

The port at the eastern entrance to the Northwest Passage will extend the range of military ships in the Arctic through the navigable season from June to October.

Environmental studies will get under way in 2008, with construction due to start in 2010 at a total cost of C$100 million. The port should be fully operational by 2015. Operating and maintenance is expected to cost C$200 million over 20 years.

In July, Harper said six to eight new navy patrol ships will be built to assert Canada's control over the Northwest Passage — well short of the year-round icebreakers he had promised in the 2006 federal election campaign.

As global warming melts ice and the open-water season increases, the passage offers the chance to slash 2,500 miles off shipping routes between Europe and Asia and the chances to exploit the unknown natural resources.

Michael Byers, an international expert on northern sovereignty issues, said the fast-unfolding events are the equivalent of Canada's "moon mission and that requires the same degree of political commitment. We're playing with the big boys here."

U.S. taking low-key approach

For now, the U.S. State Department has taken a low-key approach, suggesting a United Nations commission will make a recommendation concerning any Russian claims in the light of whatever scientific data it gathers.

The department also observed that the United States and Russia work closely within the Arctic Council.

Norway adopted a cool stance, suggesting the Russians had operated within the rules of the U.N. Convention on the Law of the Sea, saying the planting of a Russian flag was a "purely symbolic action."

But Denmark, which has collided with Canada over who owns Hans Island, a half-square mile of rock at the entrance to the Northwest Passage, is taking a similar approach to Canada.

It is about to join Sweden in sending an expedition to the Arctic in pursuit of shipping and sea bed rights.

However, that party will have its path to the North Pole cleared by a chartered Russian icebreaker and will have one Canadian scientist aboard the research vessel.

Danes want control of Lomonosov Ridge

The primary thrust for Denmark is control of the Lomonosov Ridge, a 900-mile undersea mountain range that runs past the North Pole between Siberia and North America.

Moscow insists the ridge is an extension of the Eurasian continent and thus part of Russia's continental shelf under international law.

Denmark argues that "preliminary investigations" suggest the ridge is a geological extension of the northern coast of Greenland, which is controlled by Denmark.

While scientists from the U.S., Canada, Russia, Denmark and Norway collaborate on polar research to map the sea bottom, their governments remain on competitive terms.

The United States has long resisted the claims of both Canada and Russia to the Northwest Passage, saying the waterway is part of the high seas that anyone can enter without prior consent.

The question now is whether military might will override international law.

University of Calgary political scientist Rob Huebert told the National Post the scientific claims are crucial, which gives the U.S. an edge with its icebreaker Healy, which headed north earlier in August. It can break through ice that is more than six feet thick and is designed to conduct a wide range of research activities by more than 50 scientists aboard the vessel.

Huebert said that although the Healy's destination has not been disclosed, if the U.S. goes "straight to the pole, it is a clear indication that they are marking territory."

In particular, President George W. Bush is pushing for Congress to ratify the Law of the Seas Convention, opening the way for the U.S. to submit its claims to the Chukchi Sea about 9,600 miles north of Bering Strait.

Eric Posner, a law professor at the University of Chicago, said in a Wall Street Journal article that the U.S. and Canada should join forces to rebuff some of the Russian claims.

He suggested that if the U.S. endorsed Canada's claims to the Northwest Passage in "return for some sort of guarantee of U.S. military and civilian access, the two countries could strengthen their position vis-à-vis Russia."

He said the U.S. and Canada are natural allies if old rivalries resurface and there is a battle over control of the Arctic. ●

PIPELINES & DOWNSTREAM

Joint-venture eyes Oregon pipeline

Northwestern Natural Gas Co. and TransCanada have formed a joint-venture to develop a new gas line to serve Oregon and other western U.S. markets.

Palomar Gas Transmission has been created to develop, design, permit, build and operate the Palomar pipeline, which could — if an LNG terminal is constructed on the Columbia River — cover 220 miles.

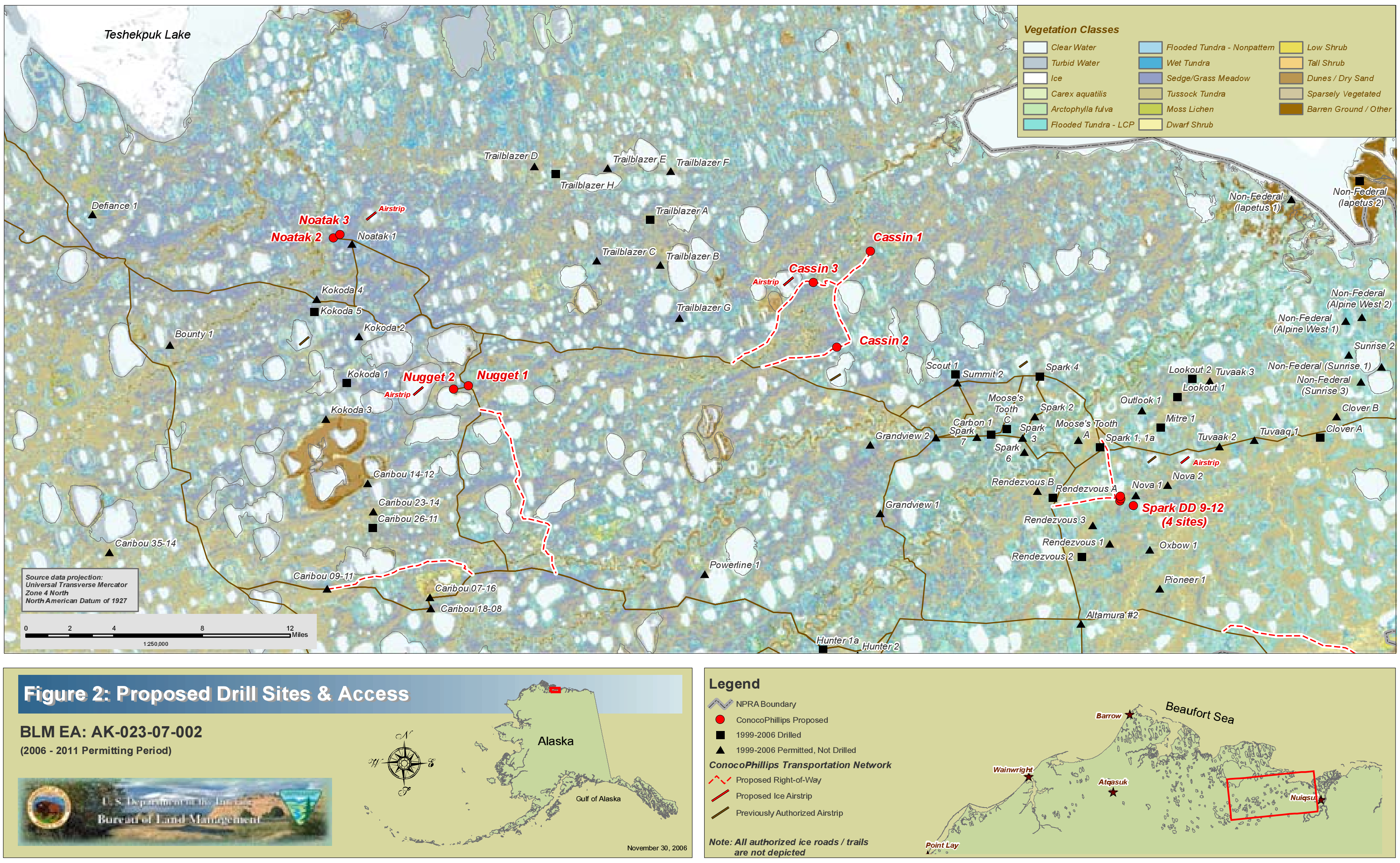
Initial plans involve a 110-mile eastern section of the pipeline, with capacity of 100 million cubic feet per day, connecting the existing GTN system in north-central Oregon with Northwestern Natural's distribution system near Molalla, 30 miles southeast of Portland. The in-service date is 2011.

The first phase will cost up to $350 million, increasing to as much as $700 million if the full 220- mile pipeline goes ahead.

That depends on whether NorthernStar Natural Gas, developer of the proposed Braidwood Landing LNG terminal on the Columbia, decides to use capacity on Palomar.

Northwestern Natural has also struck a deal with Palomar Gas Transmission for another 100 million cubic feet per day on the LNG section.

—GARY PARK



COURTESY BUREAU OF LAND MANAGEMENT

● EXPLORATION & PRODUCTION

ConocoPhillips has five-year NPR-A plan

BLM environmental assessment covers 11 exploration wells during 2006-11: two Noatak, two Nugget, three Cassin, four Spark DD wells

By KRISTEN NELSON

Petroleum News

ConocoPhillips Alaska only drilled one well on federal land in the National Petroleum Reserve-Alaska in the 2006-07 winter season, the Noatak No. 1.

But an environmental assessment by the Bureau of Land Management authorized as many as 11 wells in NPR-A from 2006 through 2011: two additional wells at Noatak; two at Nugget; three at Cassin; and four at Spark DD.

BLM said drilling in the multi-year winter exploration program would involve one to three sites in any one winter.

Also included in the environmental assessment are 110 miles of new access corridor, four new airstrip locations and nine new water supply lakes.

In addition to these prospects on federal leases in NPR-A, ConocoPhillips has a prospect at Intrepid some 20 miles south of Barrow on Native land, where it drilled last winter; BLM said the access corridor includes Intrepid.

BLM said in the December 2006 final environmental assessment that since 1999 it has authorized 11 winter exploration drilling programs in NPR-A and evaluated access and exploratory drilling at 82 sites. Drilling was completed at 20 of the sites, 15 of which were drilled by ConocoPhillips.

"There have been no significant direct, indirect or cumulative adverse impacts associated with the 10 authorized winter exploration programs in the NPR-A," BLM said. Environmental protection measures for the proposed drilling area are not significantly different than those applied in the past, the agency said, noting that its field inspections "have identified no significant impacts" from ConocoPhillips' previous winter drilling program in the same area as the proposed program.

Eleven wells in new program

In addition to the wells in this project, BLM said a notice of staking and field inspection were done for the Noatak No. 1 well in 2004 with a new notice of staking and field inspection for that well in 2006. ConocoPhillips drilled that well, along with a well at Intrepid, in the 2006-07 winter season. Its partner Pioneer Natural Resources said in May that the wells were "non-commercial."

Eleven new wells are included in the environmental assessment, wells and prospects, which appeared on applications for rights of way last year (see "North Slope exploration plans shaping up" in Oct. 26, 2006, issue of Petroleum News).

> *"Extended reach drilling methods are rarely employed for exploration wells when practicable alternatives are available, because it adversely affects data collection."*
> **—Bureau of Land Management**

The Noatak wells (Nos. 2 and 3) are in section 21, township 12 north, range 5 west, Umiat Meridian. The Nugget wells (Nos. 1 and 2) are in section 28, T11N-R4W, UM. The Cassin wells (Nos. 1-3) are in 27-T12N-R1W, UM, 17-T11N-R1W, UM, and 31-T12N-R1W, UM. The Spark DD wells (Nos. 9-12) are in sections 21, 21, 28 and 21, respectively, of T10N-R2E, UM. All are in the Northeast NPR-A planning area.

BLM said the four Spark DD sites are "directly adjacent" to the proposed site for Alpine satellite CD-7, "which has been evaluated as a development node with permanent road access and a pipeline" to Alpine. The new Noatak well sites are some 40 miles west of the CD-7 site, 55 miles southeast of Cape Simpson and about 110 miles east of the Barrow gas fields.

High probability of economic oil and gas

"The project area is considered to have a high probability for the occurrence of economic oil and gas resources," BLM said.

"The project elements of the (ConocoPhillips Alaska) project in the NE Planning Area include the undeveloped Fish Creek oil field, as well as the expected southwesterly expansion of the production Alpine field."

If the Spark-Lookout discoveries are developed, as little as two miles of pipeline would be needed to connect the Spark DD sites and approximately 40 miles to connect the Noatak sites, the agency said.

Packed snow trail, ice road

BLM said the proposed exploration program is similar to those completed in NPR-A over recent winter seasons.

The 11 proposed ice drill pads would total approximately 63 acres.

The estimate is that up to three pads would be constructed per season, BLM said, with up to 44 penetrations (wells and sidetracks) and the possibility of multiple wells from a single pad.

Two-acre ice pads may be constructed near a drill pad to support ice construction crews or drilling. One ice storage pad of approximately 1.4 acres may be built along the access corridor.

BLM said the drill sites are in the same general area as drill sites evaluated in 2004.

Primary access to the drilling areas will be by packed snow trail-ice road along rights of way authorized by BLM between the Colville River and Barrow. ConocoPhillips "has proposed several new ROW corridor segments to more effectively reach proposed drilling locations," BLM said. Rolligons or low-pressure vehicles may be used to pre-pack the ice road or to side cast water on the ice route to expedite penetration of frost.

Oil from testing would be held in tanks

Proposed drilling and testing operations may include extended flow periods to determine well productivity; oil from testing would be held in tanks until testing is complete and then injected back into the formation or hauled to Alpine or Kuparuk for processing. BLM said produced gas would be flared.

Drilled wells will be temporarily suspended or plugged and abandoned; for multiple-year drilling, the drilling rig may be stored over the summer on an existing gravel pad or at other suitable location.

BLM said alternatives rejected included drilling each prospect from a single drill site using extended reach drilling: "Extended reach drilling methods are rarely employed for exploration wells when practicable alternatives are available, because it adversely affects data collection."

The agency said "drilling a vertical well provides for better exploration data than drilling a deviated well and there appears to be no environmental advantage to altering the proposed winter exploration plan accordingly."

Access by sea ice road was also rejected because it did not offer an environmental advantage for access to all drilling sites for the entire five-year program. "Similarly, use of only previously authorized access routes that go to the same general areas as new proposed segments was initially considered. However, this offers no distinct environmental advantage and the proposed route changes will shorten and improve access." ●

LAND & LEASING

Eni applies for North Slope Nikaitchuq camp pad

Eni Petroleum has applied to the Alaska Department of Natural Resources Division of Mining, Land and Water to lease seven acres south of Oliktok Point in the Kuparuk River unit for 25 years. The tract would be used for a gravel pad for the proposed Nikaitchuq project; Eni has said it hopes to make a development decision by the end of the year on the unit, which lies near shore in the shallow waters of the Beaufort Sea.

The division said in an Aug. 13 public notice that it has made a preliminary finding and decision to competitively lease the tract to Eni.

Gary Schultz, natural resources manager with the division, told Petroleum News the pad would be used for a camp, operations center and heliport in support of Nikaitchuq development. The division said the pad would be within sections 16 and 17, township 13 north, range 9 east, Umiat Meridian. Schultz said the pad site is some 2.5 miles from the Nikaitchuq drilling pad.

The gravel drilling pad was built last year to target those portions of the prospect that can be reached from shore.

The comment period on the competitive lease closes Sept. 11.

Surveying, appraisal next

The site needs to be surveyed and appraised; Schultz said the appraisal will set the minimum bid amount. Once the survey and appraisal have been approved by the division there will be a notice published for auction of the tract, which will be by competitive sealed bid.

Eni has said it plans a development decision at Nikaitchuq by the end of the year and applied to DNR's Division of Oil and Gas earlier in the year to expand the Nikaitchuq unit by rolling in the adjacent Tuvaaq unit and other acreage, more than doubling the size of the offshore North Slope unit from some 12,968 to 33,869 acres.

Nikaitchuq exploration was begun by Kerr-McGee Oil and Gas Corp. and Armstrong Alaska from ice pads constructed in the shallow waters of the Beaufort Sea during the winter. Eni acquired Armstrong's interest in 2005 and Kerr-McGee's 70 percent interest earlier this year.

Kerr-McGee drilled six wells at the prospect beginning in 2004; two additional Schrader Bluff wells were drilled in the 2006-07 winter season.

Eni conducted an on-ice seismic experiment beginning in April on State of Alaska offshore oil and gas leases in the vicinity of Nikaitchuq, with results to be used to develop a plan by next summer for potential 3-D seismic acquisition over parts of the expanded Nikaitchuq unit.

—KRISTEN NELSON

● EXPLORATION & PRODUCTION

Engineering ingenuity returns big payoff

Prudhoe Bay teams develop enhanced oil recovery techniques over three decades that succeed beyond their wildest dreams

By ROSE RAGSDALE
For Petroleum News

Getting more oil out of the ground is a technical challenge that teams of engineers tackled from Day 1 on the North Slope.

More than 30 years later, the brainstorming that produced and perfected a series of remarkable techniques goes on.

But the story of enhanced oil recovery on the slope is a tale not only of creativity but also of converting big problems into bigger solutions.

In the early days of production at the giant Prudhoe Bay field, enhanced oil recovery was a relatively routine exercise. With an estimated 23 billion barrels of crude in place, the gleeful owner companies were awash in oil. Starting with what in hindsight seems a modest field development plan — 500 wells with 160-acre spacing — to produce 9.6 billion barrels of oil, they crafted a strategy that relied on conventional EOR technology used in oil fields since the 1940s.

Crude production would be helped along with supplementary water injection to keep up pressure in the reservoir. The Prudhoe Bay owners built a seawater treatment plant to help supply water for the process, and added produced water and gas liquids from the depths of the reservoir as volumes became available.

But advances in EOR technology, and a suddenly plentiful resource enabled engineers to boost crude recovery dramatically. Today, Prudhoe Bay's owner companies have drilled more than 1,300 wells, and plan hundreds more.

June 20, 2007, marked the 30th anniversary of the first barrels of North Slope crude flowing down the 800-mile trans-Alaska oil pipeline from Prudhoe Bay to Valdez. Looking back, it is clear that the role of technology has been paramount in the progress operators and contractors have made in improving the efficiency and lessening the impact of their operations on the Arctic environment. In a series of seven articles, Petroleum News will report on some of the technologies developed by the dedicated and innovative men and women who work on the North Slope. These articles will be followed by "30 Strong," a full color magazine celebrating three decades of North Slope oil production.

see **OIL RECOVERY** *page 11*

continued from page 10

OIL RECOVERY

"At that time, it was envisioned that we would have a gas pipeline built within five years to ship North Slope gas to market," said Gordon Pospisil, technology manager for BP Exploration (Alaska) Inc., Prudhoe Bay's current operator.

"When the world did not provide an opportunity to sell gas off the North Slope, it changed our world quite a bit," he said.

So much natural gas

Suddenly, Prudhoe Bay engineers found themselves coping with ever increasing quantities of natural gas coming out of the ground with the oil and no place to put it.

BP EXPLORATION (ALASKA) INC.

Engineers like Gordon Pospisil wrestle daily with the question of how to produce more crude from Prudhoe Bay and other North Slope oil fields.

They began to pump substantial quantities of gas back into the reservoir along with the water, and soon built a series of gas handling facilities — GH1, GH2 and GH3 — completed in the late 1980s and early 1990s.

As more Arctic fields were discovered and developed, operators also jumped at the chance to boost production from these smaller reservoirs with injections of plentiful gas from Prudhoe. Point McIntyre, Milne Point, Endicott and Kuparuk are all fields that drew on the gas riches at Prudhoe Bay to enhance oil recovery.

Along with the multimillion-dollar projects that made this possible, field owners invested in a huge central gas facility to cool gas to temperatures as low as minus 40 degrees Fahrenheit. The unit processes more than 8 billion cubic feet of gas daily, enough to meet all of the natural gas demand of London or Tokyo.

NGLs make a difference

The CGF also allows operators to separate out heavier gas components as natural gas liquids, while the remainder of the gas is injected back into the reservoir.

The process, which works best in colder temperatures, not only allows the owners to boost field production; it also contributes output in NGLs of about 50,000 barrels per day.

"If we hadn't had the Central Gas Facility, the NGLs would still be a part of the gas reserves on the North Slope," observed Pospisil.

Over the years, the small increments of NGLs have added up, said BP spokesman Daren Beaudo.

"Nobody's been sitting on that gas, or warehousing it. It's been working mightily for us," he said.

Total NGLs output over 20 years at Prudhoe Bay? More than 500 million barrels.

A real EOR winner

Engineering teams, meanwhile, set to work perfecting another known technology for use on the North Slope. Taking other portions of the gas stream, they blended gas and methane gas to create miscible injectant, or MI, a special solution designed for sweeping oil from underground reservoirs.

"Think in terms of salad dressing," said Pospisil. "If you just inject water, the water and the oil have a sharp interfacial tension, and the water tends to bypass the oil. If you inject gas, miscible gas in particular, the solution helps to sweep residual oil out more efficiently to the producers."

BP EXPLORATION (ALASKA) INC.

Operators at Prudhoe Bay launched oil production with relatively modest waterflood and gas injection capabilities. This compressor plant was a part of the original development.

Working closely, reservoir, production and drilling engineers, came up with the concept through trial and error of drilling fishhook-shaped wells around oil-producing wells in a certain pattern.

"We would inject that fishhook-shaped well with a 'bulb' of MI, and we would get a response from the nearby production well. We would see these cycles of increased oil production, so we kept on injecting bulbs of MI along the entire length of the well," Pospisil recalled. "This dramatically increased the amount of oil we could get out."

A bulb is a quantity of miscible injectant that forms a bubble within the reservoir. As it expands, the bubble pushes oil toward production wells.

Making a good idea great

But Prudhoe Bay engineers didn't stop there. They continued to experiment and soon took the MI process a step further. They created something they call miscible injectant sidetrack, or MIST.

MIST is a system of wells drilled between injector and producer wells in a pattern that further boosts crude output from a field.

By 1996, slope engineering teams were ready to launch an aggressive third phase of EOR at Prudhoe Bay and other North Slope fields using MIST. It involved integrating the drilling of production and injection wells to improve oil recovery. At Prudhoe, they started at the central core of the field and moved toward the western part of the field to Northwest Eileen and continued until the system encompassed Prudhoe Bay satellite fields, Aurora, Borealis and Polaris.

"In each one of those satellites (small fields with 40 million to 200 million bar-

see **OIL RECOVERY** *page 12*

continued from page 11

OIL RECOVERY

rels of crude in place) in the early days, it would have been difficult to justify doing an MI process. But they are part of the Greater Prudhoe Bay complex, so we were able to use MI," Pospisil said. "We're also doing that in the Point McIntyre reservoir."

The producers also are in the early stages of using MI in developing shallower viscous and heavy oil deposits at Orion and Polaris in the Schrader Bluff interval of the western Prudhoe Bay area.

Innovations keep coming

In each new application, the engineers and geologists monitor the process and continue to develop new ideas for improvements.

"We have periodic meetings around each field to brainstorm ideas for pushing EOR to the technical limits," Pospisil said. "Then we pick through these ideas for the gems as opposed to the clunkers."

A review of Society of Petroleum Engineer archives turned up more than 300 technical papers written on EOR ideas for Prudhoe Bay, according to Pospisil.

From this continuous brainstorming, three more promising EOR ideas have emerged recently.

The first is "Bright Water," a system of injecting a polymer down hole that reduces the viscosity of oil and causes water pouring into the reservoir to avoid areas with high permeability and go where the remaining oil is located.

"We hope to implement Bright Water on a wide scale if we can demonstrate further success in some of the trials. We're still investigating it as part of (BP's) worldwide technology effort," Pospisil said.

Another new EOR possibility is low salinity, or Lo Sal, waterflooding. In trials currently under way at Endicott, BP engineers are injecting water into the reservoir that has less salt than that typically used to boost oil production.

"In waterflooding at Prudhoe Bay, we initially used seawater, and then produced water," Pospisil said. "But we found that with low salinity water, we're more effective in moving oil off the water."

The situation is analogous to washing dishes in seawater or very hard water, he said. Removing grease from the dishes is much harder to do than it would be in soft water or H_2O with less salt.

"Using low salinity water, we've seen significant increases in crude recovery, more than 20 percent increases in tests," Pospisil said.

BP is currently testing the use of reverse osmosis to remove salt from seawater and researching the feasibility of building a large-scale water injection plant on the North Slope.

The company also has secured a rare patent for the Lo Sal technology. Typically, BP works with vendors who patent new technologies.

"It's a potentially ground-breaking technology that BP is spearheading in Alaska for worldwide application," said John Denis, BP's resource manager for North Slope fields other than Prudhoe Bay.

"The company is trying to prove the technology at Endicott and Milne Point" for use in existing fields like Prudhoe Bay and in new fields under development such as BP's Liberty prospect, Denis said.

"Liberty will come on stream about the time that the Lo Sal technology is fully mature," he added.

If the tests are successful, North Slope producers also plan to put Lo Sal technology to work at Prudhoe Bay and the satellite fields.

"Within Prudhoe Bay, we've recovered 11.5 million barrels of crude, or about half of the 23 billion barrels in place. That leaves a very large target remaining," Pospisil said.

Win-win EOR with CO_2?

Prudhoe Bay's owner companies are also investigating the use of carbon dioxide as an EOR agent. Trillions of cubic feet of gas reserves in the field have a CO_2 content of about 12 percent. CO_2 is considered a greenhouse gas that is harmful to the environment.

Currently, the CO_2 is produced along with gas and re-injected into the reservoir where some of it is permanently trapped.

When Alaska succeeds in building a gas pipeline system to market North Slope reserves, the producers will need to separate and dispose of the potentially harmful CO_2. Or they can come up with a way to reuse it, said Pospisil.

Of the estimated 33 trillion cubic feet of gas reserves at Prudhoe Bay, some 4 trillion cubic feet is CO_2. The field would produce about 400 million cubic feet per day of CO_2 once gas sales begin, he said.

"We could re-inject it, but a better option would be to direct it to other fields where it could be a part of viscous or heavy oil recovery," Beaudo said.

CO_2, however, presents a considerable challenge; it is highly corrosive, Pospisil added.

Doing it right

Charles Thomas, Ph.D., a U.S. Department of Energy representative who has participated in a number of enhanced oil recovery studies, praised EOR efforts on the North Slope.

"Prudhoe Bay got into gas and water injection — it started very early (in the field's life), which was the right thing to do," he said. "As technology came along, it was either applied or developed at Prudhoe Bay, where it was all put together in a very intelligent way."

Thomas said EOR enabled producers to boost recovery estimates of crude from Prudhoe Bay from about 9 billion barrels at the start of Prudhoe Bay's development to 10.2 billion in 1986, and to more than 14 billion barrels today.

Miscible injectant projects at Kuparuk also have helped to increase production at that field, which is the second-largest in North America and also contains heavy oil, he said.

Exploring newer frontiers

Continued slope research is focused on the heavy oil, Thomas said.

"Outside of finding new fields, we're looking at enhanced oil recovery in heavy oils, which is a major target of about 25 to 30 billion barrels of oil," Pospisil said.

Recovering 3 billion to 5 billion barrels of this crude would be quite a prize, the owners say.

Biotechnology and nanotechnology offer new promise for the future, according to Tony Meggs, BP group vice president for technology. On the biotech side, researchers want to produce a microorganism that will gobble up all residual oil in the reservoir and return it to the surface. Nanotechnology also could produce new EOR materials, he said.

Continuing the flow of crude through the trans-Alaska oil pipeline is crucial to Alaska's oil industry. Thanks to advances in EOR technology, the producers stand a good chance of keeping the oil flowing for many years to come and doing it without significantly increasing its footprint in the Arctic. ●

● FINANCE & ECONOMY

EIA forecasts increasing oil, natural gas prices

PETROLEUM NEWS

The U.S. Department of Energy's Energy Information Administration said Aug. 7 that significant crude oil price increases over the last two months are "the result of increasingly tighter world oil markets."

There is increased demand for Organization of Petroleum Exporting Countries oil, the agency said, but despite higher prices, "OPEC officials have expressed a reluctance to raise production, pointing to high U.S. crude stocks and attributing high prices to refining bottlenecks, geopolitical tensions and fund speculation."

The refiner acquisition cost for crude oil averaged $61.60 per barrel in May and is projected to average $73.50 per barrel in August. The annual average RAC price was $60.23 per barrel in 2006 and is expected to average $64.86 per barrel this year and $68.75 per barrel in 2008.

West Texas Intermediate crude oil is expected to average $67.60 per barrel in 2007 and $71.25 per barrel in 2008.

The Henry Hub natural gas spot price is expected to average $7.45 per thousand cubic feet this year, up 52 cents per mcf from the 2006 price. The 2008 price is expected to average $8.06 per mcf.

Oil prices continue firm because of production restraint by members of OPEC, combined with rising consumption and moderate increases in non-OPEC supply, the EIA said.

Lower production projection since July

The agency said the global oil balance has tightened since July "due to lower projections for world oil production" combined with a larger than expected projected stock draw in the second half of the year by Organization for Economic Cooperation and Development countries.

"This situation contrasts with conditions last year, when prices weakened in the second half due to slow consumption growth, rising global inventories and the absence of hurricane-related oil supply losses."

EIA said its projection for OPEC crude oil production in the third quarter has been lowered by about 300,000 barrels per day from July to 30.5 million bpd, reflecting "an assumption that OPEC will delay increasing output from the third quarter of this year to the fourth quarter."

Production from Iraq and Nigeria has been constrained by militant attacks. At the end of July 641,000 bpd of Nigerian oil was shut-in, some 127,000 bpd less

The Henry Hub natural gas spot price is expected to average $7.45 per thousand cubic feet this year, up 52 cents per mcf from the 2006 price. The 2008 price is expected to average $8.06 per mcf.

than at the end of June.

OPEC will reexamine its output levels at a meeting planned for Sept. 11.

"The low level of surplus OPEC oil production capacity, which is primarily in heavy crude oil, remains a key reason for the continued tight market conditions," EIA said. OPEC surplus capacity was 2.4 million bpd in the second quarter, most of that in Saudi Arabia, Kuwait and the United Arab Emirates. EIA said surplus capacity is expected to remain low in 2008, "as expected increased demand for OPEC oil more than offsets expected capacity gains in a few countries, continuing to leave the market vulnerable to unexpected supply disruptions."

Any downward price impact the surplus capacity might have is reduced by OPEC's apparent unwillingness to use available surplus crude capacity.

Natural gas: onshore growth offsets Gulf declines

Federal Gulf of Mexico natural gas production declined some 2.3 percent in the first half of 2007, compared to the same period a year ago; Lower 48 onshore natural gas production increased by 3.1 percent over the same period. On an annual basis, Gulf production is expected to decline by 4.2 percent in 2007, while Lower 48 onshore production is expected to increase by 1.6 percent.

Total U.S. dry natural gas production is expected to rise 0.8 percent this year and 1.5 percent next year.

Liquefied natural gas imports for the first half of the year totaled 460 billion cubic feet, some 53 percent above the same period last year. EIA is forecasting a decline in LNG imports for the remainder of the year "as more cargoes are expected to be directed to European and Asian markets."

European prices have risen in recent weeks, the agency said, and "are now more competitive with U.S. market prices."

Total LNG imports in 2007 are expected to reach 850 bcf, a record high.

Henry Hub spot prices reflect an inactive hurricane season, storage inventories that are up over the same time last year and mild summer weather in the U.S. West South Central region, where some one-third of electric power is from natural gas.

The hurricane season runs through the end of November and EIA said "current price projections remain vulnerable to potential storm-induced disruptions during that period." ●

● EXPLORATION & PRODUCTION

ACMP process begins for Point Thomson drilling

By KAY CASHMAN

Petroleum News

The Alaska Department of Natural Resources has started the clock for a 50-day coastal consistency review of ExxonMobil's proposal to drill as many as seven wells in the former Point Thomson unit on Alaska's eastern North Slope. The company told the state it wants to drill one well per year from two pads, beginning in the 2008-09 winter exploration season.

Formed in 1977, the Point Thomson unit was dissolved by DNR in late 2006. The department has since terminated all of the Point Thomson leases, but Exxon and its partners have taken action to reverse both the lease and unit decisions via an administrative appeal to DNR's commissioner and by filing several lawsuits with the Alaska Superior Court. The various legal motions were filed individually by the former operator of the unit, leaseholder Exxon, and by three other former leaseholders, Chevron, BP and ConocoPhillips.

The court has consolidated all of the motions on DNR's unit termination decision into one case and is expected to hear oral arguments Oct. 5. According to Nan Thompson, petroleum manager for DNR's Division of Oil and Gas, the Superior Court judge hearing the case, Sharon Gleason, has a record of issuing decisions promptly.

Thompson said DNR Commissioner Tom Irwin is expected to issue his decision on the leases after Gleason rules.

Review labor intensive

The review for consistency with the Alaska Coastal Management Program by DNR's Office of Project Management and Permitting is a "laborious exercise" that could burn hundreds of employee hours for the state, federal and borough agencies involved, Ben Greene told Petroleum News Aug. 13. Greene is in charge of OPMP's review of Exxon's exploration proposal.

If DNR hadn't started the 50-day ACMP clock, another 90-day deadline would have given Exxon ACMP approval by default, Greene said, explaining that the state's permitting clock started in mid-July. If OPMP does not make a consistency determination by the end of 90 days, "an applicant can assume consistency."

But there is another milestone in the process at day 25 of the 50-day review that allows a stakeholder to submit a request for additional information that can stop both the 50-day and the 90-day clocks.

"That deadline is Sept. 4. We expect DNR to submit an RFAI," asking Exxon to substantiate ownership of the leases, Greene said.

That's something Thompson believes Exxon will have trouble doing because of DNR's decision to terminate the leases and the pending administrative appeal.

When asked why Exxon had applied to drill the wells, company spokeswoman Margaret Ross told Petroleum News Aug. 13 that "the seven wells proposed in the drilling permit applications have been placed to maintain Point Thomson leases," something "Point Thomson lease agreements and current Alaska statutes" give the company the right to do.

Insulated ice pad this winter

In its proposal Exxon said the drilling timetable would depend on the availability of materials and equipment, and that "sufficient time would be required to specify, contract, properly equip and mobilize a drilling rig capable of drilling the high pressure, directional wells at Point Thomson," which is why Exxon plans to begin drilling the winter after next.

The drilling rig would come from the Prudhoe Bay area or Canada, and start drilling around Feb. 1, 2009, Exxon said.

Equipment, materials and supplies would be barged to the Point Thomson unit No. 3 gravel pad during the summer and staged there for winter use.

Exxon said it is looking at using "synthetic matting boards in lieu of, or in conjunction with, ice pads, and constructing an ice pad during the winter of 2007-2008 and insulating it so that it would be preserved over the following summer."

Year-round drilling feasible

The company said "year around drilling and well operations in the Point Thomson area have historically been done and are feasible," but it did not elaborate beyond saying activities after the first well "can not be described precisely, and this plan of operations would be modified following completion of the first well and before beginning the second well." The wells would be "directionally drilled" from 600 by 600-foot ice pads, Exxon said.

A 57-mile long "sea-ice access road would be built from the Prudhoe Bay area to the general Point Thomson area during each winter drilling season." The 150-foot wide road would "follow the coastline eastward from the Endicott causeway to the vicinity of the Point Thomson unit #3 drill site and the planned Eastern Pad," Exxon said.

A 200-foot wide by 5,000-foot long ice runway might also be constructed on sea ice. ●

● FINANCE & ECONOMY

Canadian trust embarks on growth plans

By GARY PARK

For Petroleum News

Some have made their choice to get out, some are plain confused about their futures and some intend to stay the course.

Put NAL Oil & Gas Trust in the third category as the shuffle continues in the Canadian trust world now that Canada's Finance Minister Jim Flaherty has emphatically told them he won't budge from his planned tax changes.

It has bet C$246.6 million on its future as a Canadian energy trust and is ready to up that ante.

It has struck a deal to buy Seneca Energy Canada, whose parent company National Fuel Gas has opted to bail out of Canada and redirect its Seneca Resources unit to focus on properties in the Gulf of Mexico, Appalachia and California "to maximize their potential for growth and development."

National Fuel Chairman and Chief Executive Officer Philip Ackerman said the Seneca Canada assets were "no longer a strategic fit."

NAL takes a different view in acquiring 10.3 million barrels of oil equivalent in proved plus probable assets, production of 4,500 boe per day that is expected to reach 5,500 boe per day in 2008, and more than 157,000 net acres of undeveloped land in Alberta and British Columbia valued at C$30 million.

The Seneca properties include an 89 percent operator stake in eastern Alberta and a 52 percent non-operated stake in deep gas plays in northeastern British Columbia operated by Talisman Energy.

Takeover trust's 'first step' in repositioning

NAL Chief Executive Officer Andrew Wiswell said the Seneca takeover is the trust's "first step" to reposition itself for the post-2010 era when the Canadian government will start taxing trusts as corporations.

He said the Seneca interests are "exactly the kind of thing we were looking for to add to our production base."

He said the C$246.6 million transaction is about 25 percent of NAL's current market value and large enough to make an impact, without being unmanageable and difficult to integrate into the trust organization.

He said the assets were "too small for some of the big guys to look at and too big for some of the gas-weighted" companies or trusts at a time of low gas prices.

NAL believes there will be more opportunities

NAL Chief Financial Officer Keith Steeves said NAL believes there will be similar opportunities in the future as the shakeout of the trust sector continues.

"We wanted to make sure we kept enough powder dry to be able to do further acquisitions," he said.

NAL said the current environment "represents an opportune time to acquire assets with a gas weighting and position NAL to benefit from improving natural gas prices."

Wiswell said the deal is a start of NAL's efforts to "create an attractive, sustainable entity post 2010."

NAL's strategic partner, Manulife Financial Corp., is interested in adding more oil and gas holdings to its current 16,000-17,000 boe per day production base and investing in new opportunities in the sector. It was prepared to participate equally in the purchase of the Seneca shares, but agreed to defer to the trust in this transaction.

The deal also adds C$127 million of tax pools, adding to NAL's existing pools of almost C$500 million. ●

Operator/Drilling Company	Area/ Block	Drilling Rig	Water Depth (ft)
Exxon Mobil Corporation	AC 731	Ocean Eirik Raude	8,694
Hydro Gulf of Mexico, L.L.C.	MC 961	Noble Amos Runner	7,925
Shell Offshore Inc.	AC857	Noble Clyde Boudreaux	7,819
Shell Offshore Inc.	DC 353	T.O. Deepwater Nautilus	7,457
Chevron U.S.A. Inc.	WR 758	T.O. Cajun Express	6,959
BP Exploration & Production Inc.	GC 743	GSF Development Driller II	6,822
Devon Energy Production Company	WR 278	Diamond Ocean Endeavor	6,475
BHP Billiton Petroleum (GOM) Inc.	AT 574	GSF Development Driller I	6,211
BP Exploration & Production Inc.	MC 778	Thunder Horse PDQ	6,033
BP Exploration & Production Inc.	MC 775	T.O. Discoverer Enterprise	5,673
Chevron U.S.A. Inc	MC 860	T.O. Discoverer Deep Seas	5,667
BP Exploration & Production Inc.	KC 244	T.O. Deepwater Horizon	5,431
Woodside Energy (USA) Inc.	GC 949	Noble Max Smith	5,368
Kerr-McGee Oil & Gas Corporation	GC 768	Diamond Ocean Star	5,255
Chevron U.S.A. Inc.	WR 29	Ensco 7500	5,232

continued from page 1

PACK

on Mississippi Canyon block 778 from the Thunder Horse PDQ at Thunder Horse South in 6,033 feet of water. The largest discovery ever in the U.S. Gulf, Thunder Horse is expected to begin production in the later half of 2008, following several delays, in part due to faulty subsea equipment. The field originally was to come on stream in 2005.

BP also is drilling at its Atlantis field on Green Canyon Block 743, another production startup that was delayed because of equipment problems. The well is being drilled from GlobalSantaFe's Development Driller II rig in 6,822 feet of water. Additionally, BP is using Transocean's Deepwater Horizon to drill a prospect on Keathley Canyon Block 244, in 5,431 feet of water.

Chevron has three rigs operating

Chevron is currently operating three ultra-deepwater rigs in water depths ranging from 5,232 to 6,959 feet. The package includes an addition well at its Walker Ridge block 758 Jack discovery. Jack is a high-profile prospect because of a recent production test from one of its appraisal wells proving the Gulf's immense lower tertiary trend could produce in commercial volumes.

Chevron is doing appraisal work at its Big Foot discovery on Walker Ridge block 29, located in 5,232 feet of water. Chevron is using the Ensco 7500 rig. The company also is drilling at its Bob North prospect on Mississippi Canyon block 860, in 5,667 feet of water, using Transocean's Discoverer Deep Seas rig.

Shell Offshore is currently operating two ultra-deepwater rigs in the U.S. Gulf, including one at its Great White lower tertiary field, one of three Alaminos Canyon discoveries that will anchor the Perdido central production facility, scheduled to come on stream in 2009. Shell is using Noble's Clyde Boudreaux rig to drill in 7,819 feet of water on Alaminos Canyon block 857.

Shell also is drilling what looks like an exploration well on an unnamed prospect on DeSoto Canyon block 353, located in the Eastern Gulf. Shell is using Transocean's Deepwater Nautilus to drill in 7,457 feet of water.

ExxonMobil is currently drilling a well at its Brontosaurus North prospect on Alaminos Canyon block 731, using the Ocean Eirik Raude rig in 8,694 feet of water.

Other companies drilling in ultra-deepwaters include Devon Energy, BHP Billion, Woodside Energy Hydo Gulf of Mexico and Kerr-McGee, a subsidiary of Anadarko.

Most production from 1,000-plus water depths

Advances also have been made in the production area, MMS said, noting the July startup of Independence Hub, a semisubmersible gas processing platform located in 8,000 feet of water and operated by Anadarko Petroleum. It is the deepest production platform ever installed and also the world's largest offshore natural gas processing facility. The project will produce natural gas from 15 subsea wells in a bevy of fields when fully operational.

Before Independence Hub came on stream, the production facility in the deepest water depth was the Na KiKa floating production system located in 6,340 feet of water, operated by Shell and BP.

Currently, 70 percent of the Gulf's oil production comes from leases in water depths greater than 1,000 feet, while 40 percent of the natural gas production in the Gulf comes from leases in those same water depths. As of April, the Gulf's total daily production was estimated at 1.3 million barrels of oil per day and 7.7 billion cubic feet of gas per day.

Several new drilling rigs are being built for use in the deepwater Gulf, MMS said, noting that the rigs range from drillships to semisubmersibles and will be capable of operating in water depths up to 12,000 feet. Some of these new rigs will be ready as early as summer 2008 and others are expected to be operational by the second half of 2009, MMS said.

"The offshore oil and gas industry is facing frontier-like conditions and developing advanced technology to explore the ultra-deep Gulf waters in order to secure the nation's energy production," Luthi said. ●

EXPLORATION & PRODUCTION

Strict limits set on Osum seismic work

Faced with tough community and political opposition, Osum Oil Sands has conditional regulatory approval to embark on a seismic survey of an oil sands lease that could lead to the use of innovative technology to extract bitumen from beneath a lake.

It will conduct the survey in the Marie Lake area, 180 miles northeast of Edmonton, and could seek federal and provincial approvals for a C$750 million project to produce 30,000 barrels per day. Osum has so far raised C$45 million from a share sale in the United States and Canada.

The technology for removing the bitumen was developed by a former Alberta government agency, but has never been tested commercially. However, Osum will have to comply with strict conditions on where and how the seismic work is conducted to protect fish species and water quality in the lake. It has promised to post an C$80,000 security deposit as a down payment on any cleanup and restoration costs.

Both residents and opposition parties in the Alberta legislature are pressing the government to withdraw the lease and give Osum a refund.

—GARY PARK

GOVERNMENT

RCA holds pipeline regs workshop

The Regulatory Commission of Alaska has scheduled a public workshop on Aug. 16 to solicit comments on a revised draft of proposed simplified regulations for pipeline tariffs. The workshop came as the latest step in an initiative started in 2005 designed to reduce the regulatory burden associated with some simple common carrier pipelines. Under existing regulations, the complex tariff regulations that apply to pipelines that carry products for several shippers also apply to lines that, for example, only carry products for the pipeline owner.

The commission originally envisaged the introduction of two or more classes of pipeline, with simplified regulation for a class such as lines that carry only the line owner's products. But that concept has evolved into a simplified tariff filing procedure that may apply to any pipeline, if a tariff has not been established for that pipeline or by RCA approval. A procedure to protect the interests of would-be third party users of a pipeline would swing into effect, in the event of a third party request for pipeline use.

A working group from BP, Marathon, Tesoro, Chevron and the State of Alaska prepared a draft of the proposed new regulations and, at a public meeting in April, RCA decided to issue the draft regulations for public review. But the commission staff subsequently noticed several "drafting deficiencies" in the proposed regulations, and the commission decided to schedule the Aug. 16 workshop "for proponents of the joint consensus regulations to review revisions to the proposed regulations and respond to staff questions regarding the proposal."

—ALAN BAILEY

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

ADVERTISER — PAGE AD APPEARS

A

Ace Transport
Acuren USA (formerly Canspec Group)
Aeromed 15
ACE Air Cargo 10
ACS
Agrium
AIC
Air Liquide
Air Logistics of Alaska
Alaska Air Cargo
Alaska Anvil
Alaska Coverall
Alaska Dreams
Alaska Frontier Constructors
Alaska Marine Lines
Alaska Railroad Corp.
Alaska Regional Council of Carpenters (ARCC)
Alaska Rubber & Supply
Alaska Steel Co.
Alaska Telecom
Alaska Tent & Tarp
Alaska Textiles 4
Alaska West Express
Alliance, The
American Marine 7
Arctic Controls
Arctic Foundations
Arctic Slope Telephone Assoc. Co-op.
Arctic Wire Rope & Supply
ASRC Energy Services
- Engineering & Technology
- Operations & Maintenance
- Pipeline Power & Communications

Avalon Development

B-F

Badger Productions
Baker Hughes
Bombay Deluxe Restaurant
BP Exploration (Alaska)
Broadway Signs
Brooks Range Supply
Canadian Mat Systems (Alaska)
Capital Office Systems
Carlile Transportation Services 10
CGG Veritas
Chiulista Camp Services
Computing Alternatives
CN Aquatrain
Coldwell Bankers
Colville 2
CONAM Construction
ConocoPhillips Alaska
Construction Machinery Industrial
Contract Consultants
Coremongers
Crowley Alaska
Cruz Construction
Dowland-Bach Corp. 20
Doyon Drilling
Doyon LTD
Doyon Universal Services
Egli Air Haul
Engineered Fire and Safety 6
ENSR Alaska
Epoch Well Services
ESS Support Services Worldwide
Evergreen Helicopters of Alaska
Equipment Source Inc.
F. Robert Bell and Associates
Fairweather Companies, The 19
Flowline Alaska
Foundex
Friends of Pets 18
Frontier Flying Service

G-M

GBR Equipment
Great Northern Engineering
GPS Environmental
GX Technology
Hawk Consultants
H.C. Price
Holaday-Parks
Horizon Well Logging
Hotel Captain Cook
Hunter 3-D
Industrial Project Services
Inspirations 14
Jackovich Industrial & Construction Supply
Judy Patrick Photography
Kenai Aviation 13
Kenworth Alaska 20
King Street Storage
Kuukpik - LCMF
LaBodega
Last Frontier Air Ventures
Lounsbury & Associates
Lynden Air Cargo
Lynden Air Freight
Lynden Inc.
Lynden International
Lynden Logistics
Lynden Transport
Mapmakers of Alaska
Marathon Oil
Marketing Solutions
Mayflower Catering
MI Swaco
MRO Sales
MWH

N-P

Nabors Alaska Drilling 11
NANA/Colt Engineering
Natco Canada
Nature Conservancy, The
NEI Fluid Technology 15
NMS Employee Leasing
Nordic Calista
North Slope Telecom
Northern Air Cargo
Northern Transportation Co.
Northland Wood Products
Northwest Technical Services 8
Offshore Divers 4
Oilfield Improvements
Oilfield Transport
Opti Staffing Group 18
P.A. Lawrence
Panalpina
PDC Harris Group
Peak Oilfield Service Co.
Penco 7
Petroleum Equipment & Services 17
Petrotechnical Resources of Alaska
PGS Onshore
Prudhoe Bay Shop & Storage
PTI Group

Q-Z

QUADCO 7
Rain for Rent
Salt + Light Creative
Schlumberger
Seekins Ford
Shaw Alaska
Spenard Builders Supply
STEELFAB
3M Alaska
Tire Distribution Systems (TDS)
Total Safety U.S. Inc.
TOTE
Totem Equipment & Supply
TTT Environmental
Tubular Solutions Alaska
Udelhoven Oilfield Systems Services
Unique Machine 8
Univar USA
Usibelli
U.S. Bearings and Drives
VECO 12
Welding Services
WesternGeco
XTO Energy 3

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

Petroleum news

Business Spotlight

SUSAN CRANE

Rob Duncan, Manager, Exploration

Rob Duncan earned his master of science in geology from the University of British Columbia. He has worked for major companies, as well as junior explorers. Prior to joining Rimfire in 2004, Rob was Vice President of Exploration with a Vancouver-based junior explorer. He and his family, including Nelson (the dog), spend free time enjoying Vancouver's great outdoors, especially hiking and biking.

Rimfire Minerals Corp.

Rimfire Minerals Corp. is a small mining exploration company based in Vancouver, British Columbia. Rimfire has exploration targets in British Columbia, Yukon, Alaska, Nevada and New South Wales, Australia. Rimfire excels in building strong partnerships within the industry and prides itself in its strong technical team. The company manages exploration risk by employing a "leveraged exploration" business model.

SUSAN CRANE

Wes Hodson, GIS Specialist/Geologist

After obtaining a degree in geology and a diploma in Geographic Information Systems, Wes Hodson worked as a Technical Services Manager for a junior explorer. Working for Rimfire since then has encouraged Wes to devote time to creating and implementing new ideas. He and wife Ryan and their infant daughter, Charlie, live in Vancouver, B.C. Wes says he releases aggression out on the soccer pitch where he makes no friends with the opposition.

continued from page 1

DRILLING

including the drillships Kulluk and Frontier Discoverer, to drill three wells in its Sivulliq prospect on the western side of Camden Bay.

Revised schedule

As part of its Aug. 15 order, the 9th Circuit Court of Appeals issued a revised schedule for the appeal case. That schedule says that opening briefs are due on Sept. 5, respondent's answering brief is due Oct. 5, respondent-intervener's brief is due Oct. 16 and petitioner's optional brief is due Nov. 5. The court will "calendar this case with the first available panel during the week of Dec. 3, 2007, through Dec. 7, 2007," the order says.

The drilling schedule in Shell's exploration plan envisages Beaufort Sea drilling activities ending by early December, by which time winter ice will likely cover the ocean. So, the new schedule for the court case would seem to nix the possibility of Shell doing any drilling in 2007. The company had planned to start drilling in August.

Two other appeals against MMS approval of the Shell exploration plan are also progressing through the 9th Circuit Court of Appeals on the same schedule. One of those other appeals is from the Alaska Wilderness League, the Natural Resource Defense Council and the Pacific Environment and Resources Center. The other appeal is from Resisting Environmental Destruction on Indigenous Lands, the Center for Biological Diversity and the Sierra Club.

These environmental groups say that noise and the potential for oil spills from offshore drilling would threaten various marine animals. Earth Justice, a legal firm representing several of the groups, expressed satisfaction with the court's decision.

"We're pleased that the court is stopping these harmful activities," Earth Justice attorney Deirdre McDonnel told Petroleum News Aug. 15.

But Shell is still assessing its options.

"The court has ruled and Shell will abide by the ruling," Shell spokesman Curtis Smith told Petroleum News Aug. 15. "We will continue to comply with the court order and continue our engagement with the North Slope communities. We are still reviewing all implications of the decision for this year's exploration plan."

Meantime, Alaska Gov. Sarah Palin has expressed her concern at the court decision.

"I am very disappointed in the 9th Circuit Court of Appeals ruling blocking Shell Oil Company from drilling in the Beaufort Sea," Palin said Aug. 15. "This is the second development project with costs exceeding $200 million to be blocked by an action by this court. Decisions such as these pose a threat to our economic future. Nevertheless, I remain committed to help responsible parties develop Alaska's resources in a manner that protects our way of life."

NSB opposition

The North Slope Borough has consistently opposed offshore development in the Beaufort and Chukchi seas because of the borough's concerns about potential environmental impacts. Among other issues, no one has successfully demonstrated technologies for cleaning up an oil spill in Arctic waters, the borough has said in the past.

Mayor Edward Itta of the borough has said that the borough wants to work with industry to find solutions to the borough's concerns but that industry is trying to move too fast into offshore developments that could impact the Native way of life, including subsistence hunting.

"We need you to understand that you cannot separate the ocean from us. … We are tied in intricately," Itta has said.

And, without tax jurisdiction over the Alaska outer continental shelf, the borough has also said that it sees OCS oil and gas development as likely to disrupt subsistence hunting activities without bringing significant benefits to the North Slope communities.

Mitigation measures

Shell has been communicating with North Slope communities and planning for the mitigation of impacts on the natural environment and subsistence hunting.

In a February interview with Petroleum News, Rick Fox, Shell's asset manager for Alaska, described some of the environmental mitigation measures that Shell plans in association with its Beaufort Sea activities.

Those measures include the deployment of passive acoustic arrays at intervals out from the coast, the use of about 70 locally recruited marine mammal observers, use of aerial wildlife monitoring and the operation of communications centers, manned by local residents, in all North Slope villages.

"The Alaska Eskimo Whaling Commission and Shell and various other parties during the season will be talking every day," Fox said. "… We're committed to good communications and constant dialogue with the people representing the whaling captains and with the agencies. … We'll be adjusting and adapting all the time. … If communications are there you can work through a lot."

And, although Shell has emphasized its oil spill and well blowout prevention measures, the company has commissioned a new oil spill response vessel to support its Beaufort Sea operations. According to the company's oil discharge and prevention plan, the company's Beaufort Sea spill response equipment inventory includes skimmers that Shell says are capable of removing oil from the sea in icy conditions.

Conflict avoidance agreement

On July 24, after months of negotiations, Shell signed a conflict avoidance agreement with the Alaska Eskimo Whaling Commission for the company's 2007 open water exploration program. That agreement included a commitment by Shell to take measures to avoid disturbing the Cross Island hunt for humpback whales near the drilling area. Under the agreement, Shell would only move one of its drill ships, the Frontier Discoverer, into the Sivulliq area prior to the Cross Island hunt. The Frontier Discover would cease drilling operations on Aug. 25, move out of the Sivulliq area within two days and return with the Kulluk drill ship after the end of the hunt, to continue the drilling program.

Hard on the heels of the signing of the conflict avoidance agreement came a final determination by Tom Irwin, commissioner of the Alaska Department of Natural Resources, that Shell's Beaufort Sea exploration plan was consistent with the Alaska Coastal Management Plan. The North Slope Borough had challenged an initial consistency determination by Alaska's Office of Project Management and Permitting.

But there's no word yet on the outcome of an appeal by the North Slope Borough and several environmental organizations to the Environmental Appeals Board against Shell's air quality permits, issued by the U.S. Environmental Protection Agency for the Beaufort Sea drilling.

And neither the National Marine Fisheries Service nor the U.S. Fish and Wildlife Service have yet issued authorizations to Shell for the accidental disturbance of marine mammals in the company's Beaufort Sea program. ●

GOVERNMENT

Canadian leaders split over greenhouse gas emissions

The leaders of Canada's 10 provinces and three territories ended a three-day conference deeply divided over attempts to set absolute reductions in greenhouse gas emissions and start a national carbon-trading program.

They ran into a brick wall set up by Alberta, Newfoundland and Nova Scotia — three petroleum producing provinces — who oppose the "cap and trade" approach which involves across-the-board reductions in GHGs, while allowing higher polluting industries to buy credits from those that operate below established limits.

Alberta Premier Ed Stelmach — who entered the conference telling his peers: "Don't mess with Alberta" — wanted no part of that proposal.

He said carbon trading would only result in money being moved out of Alberta without any net reduction in Canada's GHGs.

Newfoundland's Danny Williams objected to acting with "undue haste and hurting the economy down the road."

He said the premiers should not try to "save the world on the back of Alberta," which accounts for 80 percent of Canada's hydrocarbon output, while Yukon Premier Denis Fentie noted that, effective July 1, Alberta is imposing a C$15 per metric ton penalty on its 100 largest polluters who emit more than 100,000 metric tons of GHGs annually.

Twelve agree on tougher auto emissions

Ontario Premier Dalton McGuinty who was the leading advocate of "hard-caps" on GHGs, found himself in the minority when 12 of the leaders agreed to enact tougher emission standards on automobiles.

McGuinty feared that would hike vehicle costs by C$1,000 to C$3.000, harming his province's most important industry, which provides direct and indirect employment for 326,000.

"It's easy for my 12 colleagues to say they're going to look at a sector that doesn't affect their own particular jurisdiction," he said.

"What I'm saying is that what we should have in place is a national reduction plan for greenhouse gases emitted by all Canadian industry in all provinces."

McGuinty estimated the "cap and trade" system would reduce GHGs by 20 million metric tons by 2020.

Instead, he said the leaders left their conference having accomplished nothing, suggesting it is now up to the Canadian government to provide the financial support and incentives needed to make headway in lowering GHGs.

—GARY PARK

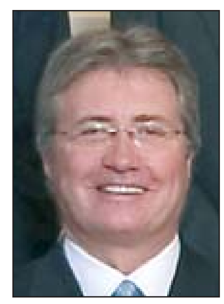
● EXPLORATION & PRODUCTION

Hebron project gets a second chance

By GARY PARK
For Petroleum News

A 16-month cooling off period might have done the trick — at least for Danny Williams.

The firebrand premier of Newfoundland, who is never known for ducking a debate or starting one, won't talk about the details underlying the revival of negotiations with the Chevron Canada-led partnership backing the Hebron offshore oil project.



DANNY WILLIAMS

The best Williams will offer these days is that a "deal could be done at any time; it's just a question of whether the parties can get over what they feel are the important points. We've narrowed that gap dramatically."

Chevron is even more reserved about the announcement Aug. 9 that efforts to reach fiscal terms are back on track.

Chevron spokesman Tim Murphy told Petroleum News it would be inappropriate to comment on the issues being discussed, the status of the negotiations, or whether the consortium has a deadline in mind.

He said the partners are "committed to advancing the project … and are working very hard to reach a positive conclusion."

Murphy would not say whether the partners are open to dealing again with the Newfoundland government's demand last year for a 4.9 percent equity stake in Hebron and its insistence on a C$500 million hike in the province's generic royalty rates over the project's estimated 25-year production life.

Chevron has previously calculated the royalties at C$8 billion to C$10 billion.

The partners are ExxonMobil 37.9 percent, Chevron 28 percent, Petro-Canada 23.9 percent and Norsk Hydro 10.2 percent.

… a "deal could be done at any time; it's just a question of whether the parties can get over what they feel are the important points. We've narrowed that gap dramatically."

—Newfoundland Premier Danny Williams

Talks at 'delicate stage'

With talks now at a "delicate stage," Williams is treading carefully, although he did say Newfoundland is holding out for an equity share.

"I'd prefer not to get into the details," he told reporters in St. John's, Newfoundland, on Aug. 11. "Suffice it to say, we, as a province, have not moved (on the 4.9 percent equity) position at all."

Williams suggested the Hebron partners might have been enticed back to the negotiating table by the outlook for oil prices.

"I think they realize this is an attractive, stable project," he said.

In addition, Williams said the chance for 100 percent utilization of Newfoundland's facilities might have swayed the consortium, given that further delays might have seen that opportunity disappear.

When talks collapsed in April 2006, the plans involved an C$11 billion development cost to remove 731 million barrels of heavy crude at a peak rate of 100,000 barrels per day. The startup then was targeted for 2012.

But Chevron has since been working to update project costs as well as estimating the potential economic benefits for the Newfoundland economy.

Paul Barnes, Atlantic manager for the Canadian Association of Petroleum Producers, welcomed the resumption of talks as "positive" and a chance to revive momentum that was lost when negotiations broke down.

He told the St. John's Telegram that other developments "more or less stalled as a result of the collapse of Hebron and the industry has been basically at a standstill since."●

FINANCE & ECONOMY

OilSands Canada closes IPO

Middlefield Group, on behalf of OilSands Canada Corp., said the fund has completed an initial public offering of 5 million units at C$10 apiece for gross proceeds of C$50 million.

Groppe, Long & Littell, a Houston-based oil and gas consulting firm, will be special advisor to Middlefield, providing it with an analysis of the global economic and political forces impacting the prices of oil and natural gas.

Henry Groppe, founder of the firm, will primarily be involved in providing services to the fund.

The fund has been created to provide long-term capital appreciation by investing in an actively managed, diversified portfolio comprised primarily of publicly listed energy-related equity securities of issues that operate in or have exposure to the Canadian oil sands sector.

The fund has been created to provide long-term capital appreciation by investing in an actively managed, diversified portfolio comprised primarily of publicly listed energy-related equity securities of issues that operate in or have exposure to the Canadian oil sands sector.

Up to 20 percent of the portfolio may be invested in securities of private issuers which are seen as acquisition targets or could become publicly listed in the near and midterm.

In the oil and gas and mining sectors, Toronto-based Middlefield has acted as agent or manager for more than C$1.5 billion of resource investments since 1983.

—GARY PARK

continued from page 1

TARGET

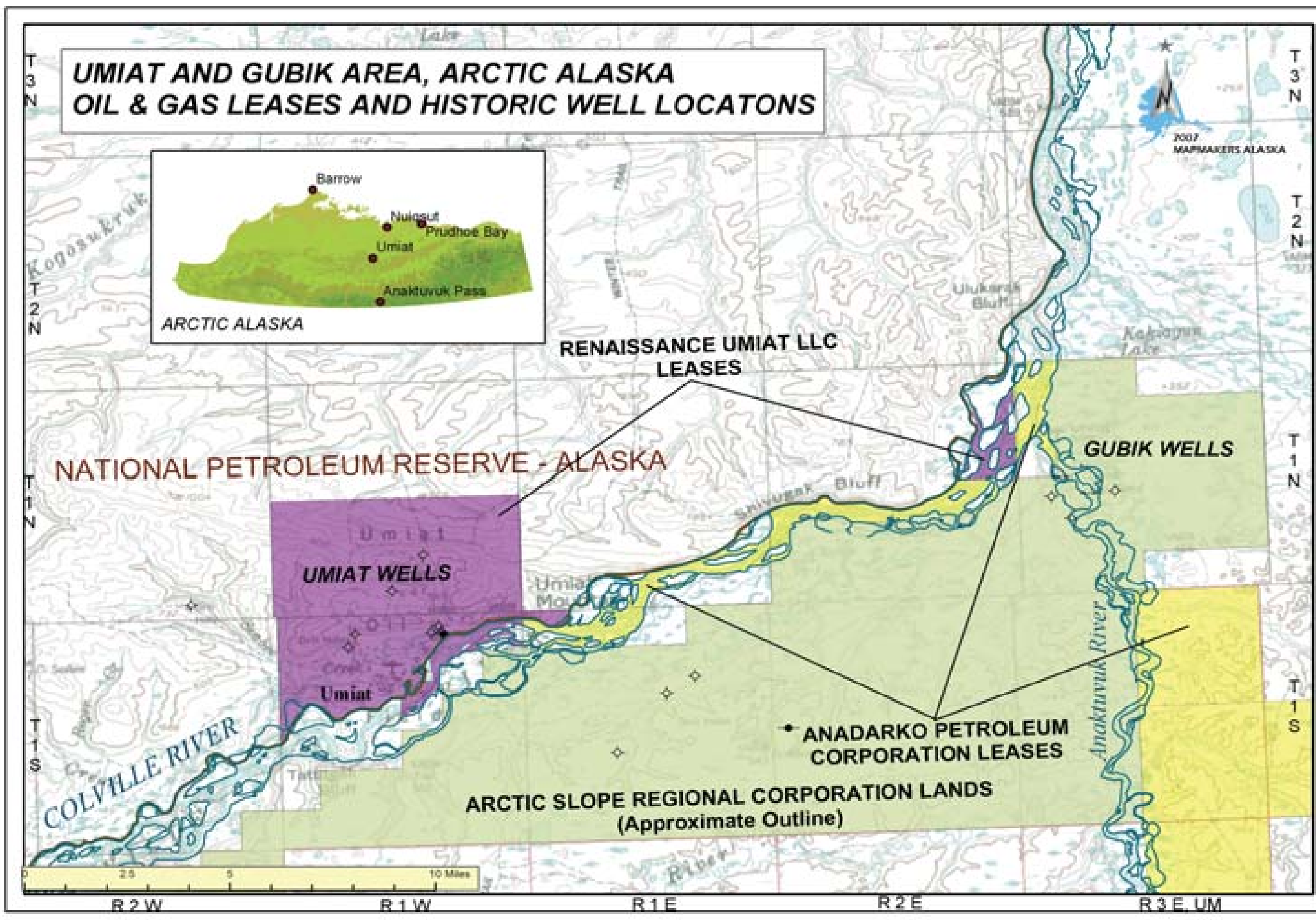
partner in the National Petroleum Reserve-Alaska and in the Colville River unit, which holds the Alpine field. But ConocoPhillips and Anadarko's risk there will be cushioned by the fact that the NPR-A Alpine satellite discovery ConocoPhillips might be drilling next to — Spark (CD-7) — also holds a great deal of oil whereas Gubik is viewed as strictly a gas field.

Neither company has publicly confirmed plans for the coming winter drilling season, but both have drilling rigs under contract that can do the work and Petroleum News industry sources say Gubik and Spark DD are at the top of the list pending board and partner approval.

In the case of the Gubik field, Mark Hanley, Anadarko's top official in Alaska, told Petroleum News in February that the company and its Brooks Range Foothills partners, BG Group and Petro-Canada, had ordered a lightweight drilling rig and remote camp from Nabors Alaska Drilling. Both are still scheduled to arrive in December.

Nabors Rig 105 and the camp, he said, would be owned and operated by Nabors, but were being built at the request of the operator of the partnership, Anadarko, "for a multi-year drilling program with extensions options" in the Brooks Range Foothills. Gubik is in the Foothills, just a few miles east of the southeast boundary of NPR-A.

Rig 105, which is being built in Alberta, is a "mobile rig, not a wheeled rig, so it can be broken down and transported on rolligons," Hanley said.



Wanted assurance of access to gas line

Over the past few years Anadarko has talked about drilling a gas well, but before making the investment company officials wanted to be certain a gas pipeline would be built — and would accept gas from outside the giant Prudhoe Bay oil field. Ninety-nine percent owned by North Slope oil producers BP, ConocoPhillips and ExxonMobil, Prudhoe Bay contains 24.5 trillion cubic feet of gas and could conceivably keep the gas line full for its first 10 years of operation at 4.5 billion cubic feet a day, even if one-third of Prudhoe's natural gas was reinjected back into the field to boost oil recovery. (The gas at Prudhoe was discovered while its owners were exploring for oil.)

Under the 2007 Alaska Gasline Inducement Act — i.e. AGIA — builders of a gas line from the North Slope have to treat all gas sellers fairly, even if fellow gas producers BP, ConocoPhillips and ExxonMobil, competitors of companies such as Anadarko, win state approval under AGIA to build the line. Because simply having a pipeline would not encourage nonowners of the line to spend hundreds of millions of dollars on gas exploration and development, Hanley told Alaska legislators in 2006 when a contract with the big three producers was in front of the Legislature for approval. Nonowners, Hanley told them, had to have access to the pipeline and know that the line would be expanded if they discovered new gas fields. (The U.S. Geological Survey puts undiscovered, technically recoverable natural gas onshore and offshore Alaska's North Slope at more than 200 tcf, and discovered gas outside Prudhoe Bay at about 11 tcf, 8 tcf of which is in the undeveloped Point Thomson field.)

After the proposed gas line contract was nixed in 2006 by the Legislature and a new governor had been elected, Anadarko's Alaska Exploration Manager Doug Wilson said the Houston-based independent was gearing up for a 3-D seismic survey in the gas-prone Brooks Range Foothills with the intention of drilling a gas exploration well in the winter of 2007-08.

Anadarko, BG and Petro-Canada hold approximately 2.2 million acres between the Canning and Colville rivers along the southern boundary of the North Slope, an area referred to as both the Brooks Range Foothills and the North Slope Foothills. The Gubik leases (see adjacent map), which Hanley said are part of that partnership, sit primarily on Native land, the surface of which is owned by Arctic Slope Regional Corp. A few leases are on state land, most of which have been purchased in recent lease sales by Anadarko and included in the Foothills partnership, Hanley said.

According to USGS, the Gubik field holds approximately 600 billion cubic feet of recoverable gas, and was discovered by the U.S. Navy more than 50 years ago while exploring for oil in the petroleum reserve.

Anadarko has drilling permits in place for Gubik and several other gas-prone prospects in the Foothills that expire in a year, a state official told Petroleum News.

Ayak also a possibility for Anadarko

But Anadarko has more going on next winter than possibly drilling Gubik or one of its other Foothills gas prospects. The company will have two drilling rigs under contract in the upcoming winter drilling season — Nabors 105 and Akita 63.

The Akita rig will be used on the other side of the North Slope at the company's Jacob's Ladder oil prospect, which Anadarko started drilling this past winter. The company told state officials it plans to go back this coming winter with a newly winterized Akita 63 to finish drilling.

Once Anadarko has finished drilling Jacob's Ladder, Petroleum News sources say it will likely drill another eastern North Slope prospect near Jacob's Ladder — a rumor not confirmed by Anadarko. But two years ago company officials did tell the state that they hoped to drill Anadarko's Ayak prospect in the expired Slugger unit, which is near Jacob's Ladder and south of Badami.

ConocoPhillips: Delineation wells near Spark

ConocoPhillips has said very little to permitting agencies about its plans for the coming year except that it would likely be doing only infield drilling and exploration or delineation drilling near existing fields. One area that company officials have mentioned is next to a proposed Alpine satellite, CD-7, which is the Spark discovery in NPR-A (see adjacent Alpine satellite map). That information is in line with the five-year NPR-A drilling plan for 11 wells that ConocoPhillips submitted to the U.S. Bureau of Land Management (see related story and map on page 9 of this issue).

The Spark DD wells (Nos. 9-12) in that plan are in sections 21, 21, 28 and 21, respectively, of T10N-R2E, UM. All are in the Northeast NPR-A planning area, directly adjacent to the proposed site for CD-7, which has been evaluated as a development node with permanent road access and a pipeline to Alpine. Spark is about 15 miles southwest of the Alpine oil field.

If the Spark and nearby Lookout (CD-6) discoveries are developed, as little as two

see **TARGET** *page 20*

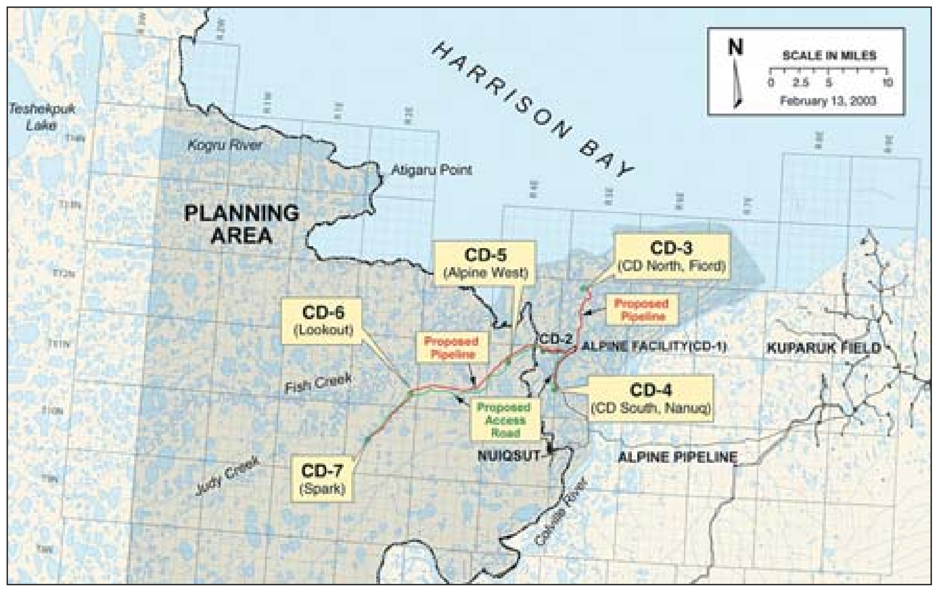
continued from page 19

TARGET

miles of pipeline would be needed to connect the Spark DD sites, the agency said.

The Spark No. 1A discovery well tested 1,550 barrels per day of liquid hydrocarbons and 26.5 million cubic feet per day of gas.

There is no indication that ConocoPhillips has secured additional drilling rigs for the upcoming winter exploration season. But the company has two good exploration rigs under contract that could easily be moved to the Spark DD well sites — Doyon Rig 141 at Kuparuk, currently undergoing summer maintenance, and Doyon Rig 19, currently drilling at Alpine satellite CD-4.



Five companies, max of 20 wells, including Chevron at White Hills

At least five other companies are looking at drilling exploration wells on Alaska's North Slope this winter, including Chevron (as many as six wells), the Brooks Range Petroleum Corporation Group (two to three wells), Pioneer Natural Resources (two wells), Renaissance Umiat (seven or eight wells) and Savant Alaska (one well).

Chevron recently began the permitting process to drill up to six wells in its first exploration drilling season at the White Hills prospect, with the potential for additional wells in subsequent years.

Chevron told the Alaska Department of Environmental Conservation in a recent application that it "plans to conduct a regional, multiyear onshore oil and gas exploration drilling program during the winter months on the North Slope" at its White Hills prospect in the Brooks Range Foothills, west of the Sagavanirktok River and east of the Colville River. (See Petroleum News July 29 story at www.petroleumnews.com/pnads/681052678.shtml.)

The company will be using another new rig from Nabors, Rig 106. It and Rig 105 will be the first "purpose-built AC rigs for the North Slope," Dave Hebert, Nabors' Alaska general manager, told Petroleum News earlier this year.

Rig 106 will be used first at Chevron's Happy Valley field on the Kenai Peninsula and then taken to the North Slope before the end of the year.

BRPC Group: Possibility of 2-3 wells

BRPC Group, which completed a 130 square mile North Shore 3-D seismic survey this past spring, is going back in to finish drilling and testing its North Shore exploration well, state officials told Petroleum News. Brooks Range confirmed this information. The joint venture partners said in April that they had discovered oil at their North Shore No. 1, north of Prudhoe Bay in the central North Slope. The offshore well was drilled from onshore to its target under the Kuparuk River delta, encountering "approximately 70 feet of oil-charged Ivishak sandstone formation," BRPC Group said.

The joint venture partners have Nabors Rig 27E under contract for the upcoming winter and have told state officials they are hoping to move forward in the near future on a North Shore development, and that they are looking at drilling two to three new wells in the upcoming winter season. At least one of those wells will likely be another North Shore well, plus a well in the Titania area onshore immediately south of ConocoPhillips' Colville River unit.

The BRPC Group consists of AVCG LLC, its operating subsidiary Brooks Range Petroleum Corp. and its co-ventures TG World Energy Inc., Ramshorn Investments Inc. and Bow Valley Alaska Corp.

The BRPC Group did not confirm its drilling plans with Petroleum News because the partners had not yet finalized their plans, but a representative did say two to three wells was probable.

Talk of Pioneer drilling Gwydyr Bay leases

Pioneer has told companies interested in leasing the Doyon-Akita Arctic Fox drilling rig that it's hoping to use the rig to drill its Gwydyr Bay leases north of Prudhoe Bay this coming winter.

Pioneer did not confirm the information, but it makes sense since no other company has come forth to say it has a contract for the Arctic Fox — and Pioneer was initially going to drill and put its Gwydyr Bay leases into production before its Oooguruk unit.

In January 2005 the company said it planned to drill two wells during the winter of 2005-06 at its Gwydyr Bay acreage just north of the BP-operated Prudhoe Bay unit as part of its plan to "commercialize several small oil discoveries" that would tie into Prudhoe infrastructure.

The previous fall Pioneer applied to the State of Alaska for exploration and production permits that included a four-acre gravel pad and a 2.8-mile gravel access road to a site three miles north of Prudhoe's T Pad, which is in the vicinity of BP's Pete's Wicked No. 1 exploration well.

"The Gwydyr Bay area contains relatively small isolated hydrocarbon accumulations" discovered during exploration by BP and ARCO, Pioneer said in its applications. "These oil fields have not previously been developed due to their relative isolation and size."

The company "proposes to utilize a simple design and cost structure to develop these outlying fields." A six- to 12-month drilling program is planned with a conventional diesel-powered drilling rig, a coiled-tubing workover rig, waterflood and gas lift facilities, Pioneer said at the time.

When Petroleum News asked Pioneer about Gwydyr Bay, the company's director of government and public affairs, Tadd Owens, said Aug. 15, "At this time we are focused almost entirely on our Oooguruk and Cosmopolitan projects. We continue to evaluate other business opportunities in Alaska however our plans beyond Oooguruk and Cosmopolitan for the 2008 season have not been finalized."

Renaissance plans to drill at Umiat

One company very willing to talk about its plans for the upcoming drilling season was Renaissance Umiat LLC. (Renaissance Alaska LLC is the managing member of Renaissance Umiat.)

Company executive Mark Landt told Petroleum News Aug. 14 that Renaissance is in the process of permitting "11 or 12 well locations" in the NPR-A oil field, which straddles the eastern border of the reserve and was discovered by the U.S. Navy in the same time period as the nearby Gubik gas field. (See related story in the March 11 issue of Petroleum News at www.petroleumnews.com/pnads/112551196.shtml.)

Because the reservoir, which holds very light oil, is shallow — 200 to 1,400 feet deep — Landt expects to get seven or eight wells drilled this winter using either the Doyon-Akita Arctic Wolf rig or a rig it would bring in from Canada.

The company, he said, would likely be sharing some ice road and logistical costs with Anadarko if it drilled at Gubik.

Landt said Renaissance is in the process of re-staking some of its well locations, which are all in NPR-A, and expected to start filing permit applications in the third or fourth week of August.

USGS estimates Umiat holds 70 million barrels of recoverable oil, but Renaissance has put estimates closer to 100 million barrels.

Landt said the U.S. Navy drilled 11 wells in the Umiat field in the 1940s and 1950s, plus a deeper test well, the No. 1 Seabee, in 1979. The reason the field has not been developed is "generally due to the remoteness from infrastructure and pipelines and due to historically low oil prices," he told Petroleum News in March.

One challenge the field poses is that some of the oil is in permafrost.

Savant plans Beaufort well near Liberty

Independent Savant Alaska is still on track to drill its Beaufort Sea Kupcake prospect in the first quarter of 2008 with Kuukpik Rig 5, Savant COO and Executive Vice President Greg Vigil told Petroleum News. (See related articles in the July 8 and July 15 issues of Petroleum News.)

Kupcake is adjacent to BP's Liberty prospect and is expected to hold approximately 100 million barrels of recoverable oil.

The Kupcake well site is in 14 feet of water about three miles offshore in Foggy Island Bay, approximately 8,000 feet west of the Liberty No. 1 discovery well. BP has pegged Liberty's recoverable oil at between 120-130 million barrels and is currently moving toward field development.

The Kupcake project has an approved oil spill plan and is completely permitted except for the "APD permit from AOGCC," which the company can't get until it becomes "a signatory on Prudhoe Bay unit ballot 201 for waste disposal," Vigil said.

"Once we have that document … become a signatory, we can get our APD," he said.

Independent True North Energy Corp. is a partner in Kupcake.●

Editor's note: Watch for 2007-08 exploration updates in coming issues of Petroleum News.