Oil and Gas News Briefs Compiled by Larry Persily May 21, 2015

B.C. agrees to fiscal terms with Petronas for LNG project

(Wall Street Journal; May 20) - The province of British Columbia and Malaysia's stateowned energy company Petronas on May 20 said they had agreed on fiscal terms to promote construction of a liquefied natural gas export terminal near Prince Rupert. The Pacific NorthWest LNG project development agreement, which must still be ratified by the provincial legislature, provides assurances on issues such as infrastructure and aboriginal consultation, along with a promise of compensation if a future provincial government targets the LNG industry for a tax increase or tougher environmental rules.

A separate royalty agreement sets out minimum output targets and a long-term royalty rate for the company's gas production in northeastern B.C. The memorandum of understanding sets royalty rates at an initial 6.06 percent in the first year, rising to 13.36 percent by 2038. Premier Christy Clark said the deal allows the province to budget for expected revenue, while giving Petronas assurances that royalty rates won't change.

The project is one of 19 proposed for B.C.'s West Coast. Construction has yet to start on any due to regulatory hurdles and shifting profitability assessments, but government and industry officials consider Pacific NorthWest LNG the frontrunner. In December, Petronas missed a self-imposed deadline for making a decision by year-end 2014, citing high development costs and falling energy prices. Since then, the project has worked to resolve environmental and community-impact issues, especially those of First Nations.

The provincial environmental assessment office approved the project last November, but the federal environmental assessment agency isn't expected to issue its decision until later this year. "There is heavy lifting remaining on this project," said project CEO Michael Culbert. The First Nation in the area of the terminal last week rejected a 40-year cash deal to support the project, citing potential harm to nearby salmon habitat.

First Nation opposition presents legal question for LNG project

(Business in Vancouver; May 19) – The decision by the Lax Kw'alaams First Nation in British Columbia not to accept an offer from Pacific NorthWest LNG raises a number of questions, such as whether Petronas, which has yet to make an investment decision, might cut its losses if First Nations mount an all-out battle. The Lax Kw'alaams is not the only band opposing the project; the Luutkudziiwus house of the Gitxsan First Nation has been building cabins as part of blocking the proposed pipeline path to the LNG plant.

Should the project get the green light against the Lax Kw'alaams' wishes, however, the First Nation could file an aboriginal title claim, which could bog down the project in the courts. "From a legal perspective, it would be a very complex case that would take an awfully long time to wind its way through the courts," said David Austin, a lawyer at Clark Wilson specializing in energy and aboriginal law.

"Since it is a complex case, would an LNG developer be patient while it was winding its way through the courts, or would it seek alternatives in another part of the world?"

Companies deny Wood Mackenzie report of delays for Australia LNG

(Bloomberg; May 19) - Chevron and Japan's Inpex Corp. face potential delays in starting liquefied natural gas projects in Australia, according to consulting firm Wood Mackenzie. Chevron's Wheatstone and Inpex's Ichthys ventures could start output in mid-2017, later than the companies forecast, Angus Rodger, Asia-Pacific analyst at Wood Mackenzie, said in an interview in Melbourne, where he's attending a conference. Chevron and Inpex, however, said the export projects remain on schedule.

The plants are among six Australian liquefied natural gas developments under construction. While Australia is forecast to become the world's biggest exporter of the fuel later this decade, its LNG industry has seen delays and cost overruns. Ichthys in northern Australia must bring together multiple projects, including one of the world's longest underwater pipelines and a central production platform to form one development, an "extremely challenging" feat, Rodger said.

The \$29 billion (Australian) Wheatstone development in Western Australia is almost 60 percent complete and expected to start in late 2016, Chevron said in an e-mail. The lchthys project, estimated to cost \$34 billion, is expected to start production at the end of 2016, its website shows. But Peter Coleman, CEO of Woodside Petroleum, which acquired a stake in Wheatstone earlier this year, told reporters in Melbourne that start-up "may or may not slip into early 2017."

U.S. exports could help push LNG market toward more spot sales

(Bloomberg; May 19) - The U.S. is about to change the global LNG market. When the first tanker carrying liquefied natural gas leaves Cheniere Energy's Sabine Pass terminal in Louisiana in December, it will turn traditional consumers into new traders with more bargaining power. That will transform a market dominated by long-term contracts into one where spot trading gains prominence, similar to crude oil.

Since the first LNG cargo went to the U.K. from Algeria under a long-term contract in 1964, buyers opted for guaranteed supply because the fuel was scarce. That's now

changing because shale gas will transform the U.S. into the world's third-biggest LNG exporter by 2020. Spot trading will probably account for almost half of all transactions by then, up from 29 percent last year. Suppliers are now signing deals going as short as two or three years rather than 20 years, according to Cheniere CEO Charif Souki.

"We see the U.S. as a major contributor to the development of the LNG spot market as the volumes start to ramp up," Jamie Buckland, head of investor relations at GasLog, in London, which owns 22 LNG tankers, wrote in an e-mail May 14. Companies including Tokyo Gas have said they will seek to profit from buying and selling U.S. cargoes that, unlike those on most current contracts, are not tied to a specific destination. The additional LNG coming to the market from the U.S. will open up new trade opportunities.

Cheniere says it is talking with LNG buyers in China

(Reuters; May 19) - Chinese buyers are eyeing long-term supplies of liquefied natural gas from Cheniere Energy's U.S. export operations, a company official said May 19. Cheniere is set to be the first LNG exporter from the Lower 48 states, with cargoes to start by the end of 2015 from its plant under construction at Sabine Pass, La. Cheniere also has committed to building a liquefaction plant at Corpus Christi, Texas. However, no Chinese buyers have signed up for any U.S. LNG so far. That could change soon.

"There's a lot of interest from Chinese buyers for long-term LNG volume, especially for 2020 onwards," said Nicolas Zanen, vice president for Asia at Cheniere Marketing. He said some Chinese buyers had already begun moving to secure supplies, although he did not provide any details. "The Chinese market is a very interesting market for us. I wouldn't be surprised if in the future we are delivering LNG to China," Zanen said on the sidelines of an oil and conference in Malaysia's capital city, declining to say more.

The United States — looking for overseas markets for its shale gas glut — is set to become the world's third biggest exporter of LNG by 2020, behind Qatar and Australia.

Tokyo Gas looks to invest in more U.S. production as price hedge

(Reuters; May 18) - Tokyo Gas, Japan's biggest gas utility, is looking to invest in more U.S. shale gas production as a pricing hedge to liquefied natural gas imports from the United States set to start next year, a company executive said May 18. The company has inked contracts to buy 1.9 million metric tons per year of LNG from U.S. producers (about 90 billion cubic feet of gas), and aims to invest in an equal volume in the upstream sector, said Shigeru Muraki, a board member and adviser at Tokyo Gas.

The company has contracted to buy 1.4 million tons of LNG a year from the Cove Point, Md., project, and 500,000 tons from Mitsui's share of output from the Cameron project

at Hackberry, La., Muraki said. In 2013, Tokyo Gas bought a stake in a shale gas field in the Barnett Basin in Texas from Quicksilver Resources that would give it enough gas for 350,000 to 500,000 tons of LNG per year.

Muraki said U.S. LNG delivered to Asia — based on U.S. gas prices, plus liquefaction and transportation costs — is competitive to traditional oil-indexed contracts from other suppliers when oil is at \$70 a barrel, but loses its cost competitiveness when oil is at \$50 a barrel. Commenting on global market conditions, Muraki said LNG is expected to remain in oversupply through 2020, citing slower growth in China and a possible demand drop of 20 million tons per year in Japan if it restarts 24 nuclear reactors, though local opposition to nuclear and new safety rules could delay the restarts.

GAIL signs preliminary deal to sell some of its U.S. LNG to Shell

(Reuters; May 20) – GAIL, India's largest state-owned natural gas distributor, has signed a preliminary deal to sell some of its contracted volumes of liquefied natural gas to Shell, as GAIL looks to offload LNG that could be surplus to what it needs for its own domestic customers. The LNG volumes that would be sold to Shell would include U.S. supplies contracted by GAIL, three sources with knowledge of the matter said.

GAIL has also signed preliminary agreements with other buyers in addition to Shell, the sources said. GAIL is under contract to take LNG from the Cheniere Energy plant under construction at Sabine Pass, La., and also holds booked capacity at the Dominion export plant under construction in Cove Point, Md. The two contracts cover 5.8 million metric tons per year of LNG, starting in two or three years.

Shell's offer was among the most attractive received, one of the three sources said. GAIL's LNG purchase contracts with the U.S. project developers price the cargos at U.S. Henry Hub gas prices plus liquefaction costs. If oil prices are high, the LNG could be significantly less costly than supplies priced under traditional oil-linked contracts.

Proposed Nova Scotia LNG project gains provincial permit

(The Chronicle Herald; Halifax, Nova Scotia; May 19) - After an environmental assessment, Nova Scotia's provincial environment minister has granted Bear Head LNG approval to build an 8-million-tons-per-year liquefied natural gas plant. The approval comes with 32 caveats the company must accept before starting construction.

The conditions, released May 19, require Bear Head to produce several management, monitoring and contingency plans for air emissions, greenhouse gases, noise, birds, wildlife (especially species at risk), road traffic and water sources. The developers must also agree to cease construction work upon discovery of an archeological site or

artifact. Moreover, Bear Head will have to operate and consult with a community liaison committee that must include municipal, Mi'kmaq and citizen representatives.

All costs associated with the development of these plans will be the responsibility of Bear Head and must be approved by the Environment Department. Bear Head LNG, a wholly owned subsidiary of an Australian company, is looking to turn an unsuccessful effort of an LNG import project that it purchased from Anadarko Petroleum last year into an export facility, targeting mostly the European market. Bear Head has all of its environmental permits but still needs to line up sources of gas and buyers for the LNG.

Australia's LNG industry has its share of worries, survey says

(Sydney Morning Herald; May 18) - A lack of competitiveness, unwieldy regulations and inflexible industrial relations threaten to derail a bonanza from the liquefied natural gas sector in Australia as it transitions from a \$250 billion investment phase into production. Industry leaders point to workers' "entitlement attitude," declining productivity and a lack of competition within Australia as risks to industry, as well as inefficient contracting and complex and inconsistent regulation, says a survey by global consultancy Accenture.

The release of the Accenture report May 18 coincides with an oil and gas conference in Melbourne, where Australia's competitiveness in the price-pressured global LNG market will be discussed. Last year's collapse in oil prices has added pressure on Australia's slew of new LNG projects because prices in their long-term sales contracts are linked to oil. Some analysts have warned that the latest batch of mega-projects will struggle to be competitive in a well-supplied market where international competition is heating up.

But federal Industry Minister Ian Macfarlane said the companies building such long-life projects are well aware that prices cycle up and down. "Companies make investments for 30 years and they understand that the prices will cycle through." The Accenture survey, which took input from executives and leaders across the industry, service companies, industry advisers and government, found that confidence in the readiness of Australia's LNG sector was low in industrial relations and competitiveness, in particular.

BHP says Australia LNG project 'falls lower' on its list of priorities

(Bloomberg; May 17) - BHP Billiton is lowering the priority of its proposed \$10 billion Scarborough liquefied natural gas project with partner ExxonMobil in Australia amid a fall in prices and increasing sales competition from the United States. "LNG prices are down quite a bit from last year," Tim Cutt, BHP's petroleum president, told reporters May 18 in Melbourne. The project "falls a bit lower" on the list of opportunities, he said.

In September, Cutt said he backed development of what could be the world's largest floating LNG project. Exxon said at the time that significant progress had been made, but it needed to find ways to make Scarborough more profitable and solve challenges including water depths. "We're probably not moving quite as quickly as we were last year, but it's still a very important asset" that will be built at the right time, Cutt said.

Scarborough "fits into the quite-challenging category" because of ocean conditions, Angus Rodger, an Asia-Pacific analyst at energy consulting firm Wood Mackenzie, said in an interview from Melbourne. The offshore technology was originally intended for shallower water, he said.

Natural gas industry faces increasing opposition to pipelines

(USA Today; May 17) - The U.S. is producing record amounts of natural gas, generally viewed as cleaner and preferable to coal for electric power generation. But building the infrastructure necessary to bring that fuel to market is increasingly difficult. That was the message from industry executives at "Infrastructure Week" held in Washington, D.C., by America's Natural Gas Alliance, an industry group.

Among them was Diane Leopold, president of Dominion Energy, whose company is proposing a \$5 billion, 550-mile gas pipeline from West Virginia to Virginia and North Carolina. Dominion also is building a liquefied natural gas export plant on Chesapeake Bay, Md. 'While this may be the most exciting time in our history, it also may be the most challenging," Leopold said, citing an "increase in high-intensity opposition" to infrastructure projects. "It is becoming louder, better funded and more sophisticated."

ANGA President Marty Durbin suggested opponents of projects like Dominion's pipeline and LNG export plant are taking a cue from resistance to the Keystone XL pipeline, the stalled project that would carry Alberta oil sands production to the U.S. Gulf Coast. "These aren't new issues," Durbin said of safety and property access. "These are things that pipeline developers have had to deal with for a long time. But we've seen a change in the debate. I call it the Keystone-ization of every pipeline project that's out there, that if you can stop one permit, you can stop the development of fossil fuels."

North Dakota farmers, ranchers frustrated over salty wastewater spills

(Wall Street Journal; May 16) - For most of the years since wildcatters began tapping the North Dakota prairies for oil, energy companies have existed peacefully with the farmers and ranchers who dominate the state's economy. But a dispute has broken out over pipeline spills — not oil, but salty wastewater. The latest came last week, when 220,000 gallons of brine leaked on an Indian reservation. In particular, agricultural

interests are frustrated that oil drillers and pipeline companies haven't agreed to use technology that farmers say could quickly detect leaks.

"There's probably nothing more toxic to land than salt water," said Troy Coons, a farmer and chairman of the Northwest Landowners Association, an agriculture group. Farmers don't want to stop oil production, he said, noting that many receive income for wells on their land, but they want tighter rules to prevent spills. Briny wastewater is a byproduct of oil production, coming up with the oil and gas. Drillers separate it from the good stuff and then get rid of it, usually by piping it to reinjection wells for underground disposal.

At least 11 brine pipeline spills have been detected so far this year in western North Dakota. That includes an Oasis Petroleum leak earlier this month that spilled 630,000 gallons of brine on grazing land and into a tributary of a lake. But the catalyst for agricultural opposition was a record leak discovered in January that had allowed nearly 3 million gallons to spill before it was discovered. The 6-month-old pipeline had a monitoring system to detect leaks, but nobody turned it on amid a rush to lay more pipe, according to state officials and an executive with the company that owns the line.

State legislatures act to protect drilling from local restrictions

(Wall Street Journal; May 19) – A Texas city last year banned fracking; state lawmakers want to make sure that never happens again. Republican Gov. Greg Abbott on May 18 signed a law that prohibits bans on hydraulic fracturing and makes it harder for local officials to control where oil and gas wells can be drilled. Similar efforts are cropping up in New Mexico, Ohio, Colorado and Oklahoma, where both legislative chambers have passed a bill limiting local governments to "reasonable" limits on oil and gas activities.

This is all part of a broader legislative and judicial effort, backed by the oil industry, to limit local governments' ability to regulate drilling. Backers say the Oklahoma and Texas bills were proposed in response to a voter-approved ban on fracking in Denton, Texas, last November. One of the authors of the Texas bill said his motivation was to protect an economically important industry. "Oil is a huge job driver for the state of Texas," said state Sen. Troy Fraser, a Republican from the central part of the state.

The law has angered officials in Denton, about 50 miles northwest of Dallas, where residents approved the first ban in the state. Officials there said they supported it only after failed efforts to resolve quality-of-life problems including a well explosion and noisy drilling near homes and schools. "It's a bad situation when city leaders' hands are tied," said Denton Councilman Kevin Roden. "There seems to be an attitude that big state government knows better than the citizens of a city." Other critics of the bill said the balance of power between cities and the energy industry had been tilted toward drillers.

Yukon Territory gold mine would consider using LNG for power

(CBC News; May 16) - Kaminak Gold Corp. is aiming to finish a feasibility study for its Coffee Gold project near Dawson City, in Canada's Yukon Territory, by the end of the year. The Vancouver-based mining company wants to build an open-pit gold mine at a property about 80 miles south of Dawson City, and Kaminak is considering trucking in liquefied natural gas to power mine operations. "Certainly the environmental footprint would be less with LNG and it would be more cost-effective," said CEO Eira Thomas.

Thomas recently told an audience at the Dawson City Gold Show that the site could contain more than 4.2 million ounces of gold. "Every project has to go various stages of assessment, and because the results of our preliminary economic assessment were so strong and we didn't identify any red flags for the project ... we decided it merited going straight toward a feasibility study." The study is estimated to cost about \$30 million.

Yukon First Nation will invest in LNG-fueled power plant

(Yukon News; Whitehorse, Yukon Territory; May 15) - The decision to invest in Yukon Energy's liquefied natural gas-fueled power plant in Whitehorse, the Canadian territory's capital city, is supported by the Kwanlin Dun First Nation community, according to its chief. Members were provided information about the deal at a packed meeting at the Kwanlin Dun Cultural Centre, and almost everyone supported the investment, said Chief Doris Bill in an interview this week. The plant is to go online this summer.

"I can tell you the majority of the citizens that were in the room, with the exception of one, were in favor — maybe two," she said. "I think we have done our due diligence. We asked many questions and educated ourselves about LNG and this particular project." The deal will see the First Nation invest up to 50 percent of value of the \$43 million project, with the option to do the same for future phases. It will also give the First Nation first rights to access the supply if it decides to get into the LNG business on its own.

The decision on how much money to contribute to the project will be made shortly, but no date has been set, the chief said. Yukon Energy had also been in discussions with the Ta'an Kwach'an Council about partnering on the LNG project, but that First Nation backed out in late 2013, citing concerns over hydraulic fracturing. The LNG for the power plant will be trucked in from a liquefaction plant in Delta, B.C., near Vancouver, and will be comprised of a mix of conventional and fracked gas.

Oil exports to Canada help ease pressure on U.S. storage capacity

(Wall Street Journal; May 19) – Crude oil exports to Canada provided a crucial relief valve for U.S. producers this year, according to a new report from data provider

Genscape. Almost 19 million barrels were shipped by sea from the U.S. Gulf Coast to Canada's eastern coast through early May, Genscape said. Without those shipments, storage terminals in Corpus Christi, Texas, would have run out of capacity by now, the report said. U.S. law that bans oil exports allows an exception for shipments to Canada.

As U.S. shale oil and Canadian oil sands production have increased in recent years, more oil has crisscrossed the border, allowing both nations to cut their imports from outside North America. However, growing output has raised concerns that some storage locations could run out of room, particularly at the U.S. storage hub in Oklahoma. Storage capacity in Texas is also filling up.

"Had waterborne shipments to Canada not been possible, other transportation routes ... would have needed to be secured or production cuts would have been needed," the Genscape report said. The U.S. exported 26.7 million barrels of crude oil to Canada in the first two months of 2015, an 86 percent increase over last year, according to the most recent data from the U.S. Energy Information Administration. That includes all exports to Canada, not just cargoes from the Gulf Coast to Canada's eastern coast.