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FEATURED Q&A

Will Argentina's Tight Oil Reserves Meet Expectations?

A drilling pad in the Rincón del Mangrullo block, one of Argentina's leading unconventional gas developments. // File Photo: BBVA.

Q **Led by CEO Miguel Galuccio, Mexico City-based Vista Oil & Gas last month announced it will spend at least $700 million to acquire assets that will make it the fifth-largest oil producer in Argentina, with rights to develop vast swaths of acreage in the country's resource-rich Vaca Muerta shale deposit. Galuccio is the former head of Argentine state oil company YPF, a job he took in 2012 after the government of Cristina Fernández de Kirchner expropriated the company from Spain's Repsol. How attractive is Argentina for oil and gas investors today? What factors are most shaping the future of Argentina's oil and gas production? Will business-friendly policies toward the energy sector that were put in place under the current government of President Mauricio Macri stay in place in subsequent administrations?**

A **RoseAnne Franco, head of oil & gas risk at Verisk Maplecroft:** "While the United States continues to offer opportunities in the tight oil space, for those companies seeking to tap the unconventional segment abroad, Argentina is increasingly compelling. The Macri administration's efforts to unwind price distortions and promote investment, notably in the Vaca Muerta deal announced in January 2017, have placed the play on more competitive footing. YPF and other operators are conducting numerous pilots that are expected to move into development in the early 2020s. However, as unconventional projects scale up, there are 'growing pains' to highlight in the short term. These are expected to give way to new investment in logistics, equipment and oil services. Operators are considering funding to boost pipeline and

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TOP NEWS

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Honduran Energy Executive Accused in Killing Activist

Roberto David Castillo Mejia stands accused of planning the murder of Berta Cáceres, an activist who opposed a dam being built by his company, Desa.

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OIL & GAS

Pemex Seeks Foreign Partners

Chief executive Carlos Treviño told an industry conference Tuesday that Pemex might bring foreign companies into two heavy crude oil fields in the Gulf of Mexico's shallow waters, among other partnerships at home as well as abroad.

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OIL & GAS

Former Petrobras CEO Sentenced to 11 Years for Graft

Aldemir Bendine, a former chief executive of Brazilian state oil giant Petrobras who was brought in to stabilize the company amid a massive graft scandal, was on Wednesday himself convicted of corruption.

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Bendine // File Photo: Brazilian Government.

POWER SECTOR NEWS

Energy Executive Accused of Killing Honduran Activist

Honduran police last week arrested a high-ranking energy industry executive in connection with the 2016 killing of an activist who led a decade-long fight against his company's dam project, The New York Times reported. Roberto David Castillo Mejia, who reportedly has a background with military intelligence, was executive president of the Honduran company, Desarrollos Energéticos, or Desa, that is building the dam at the time the activist, Berta Cáceres, 43, was shot and killed. The executive's arrest came almost two years to the day of the anniversary of her killing. Honduran officials said Castillo was "the person in charge of providing logistics and other resources to one of the material authors already being prosecuted for the crime," according to Reuters. In a statement, Desa defended Castillo and its employees, saying they were "totally unconnected" to the crime. The company went on to accuse authorities of "unjust detention" resulting from "international pressure and campaigns by diverse NGOs to discredit the company." Others detained in the case to date have had connections to the Honduran military. Last year, Global Witness, an nongovernmental organization, named Honduras the deadliest country in the world for environmental activists, documenting more than 120 such people killed there since 2010.

OIL AND GAS NEWS

Former Petrobras CEO Sentenced to 11 Years for Graft

Aldemir Bendine, a former chief executive of Brazilian state oil giant Petrobras who was brought in to stabilize the company amid a massive graft scandal, was on Wednesday himself convicted of corruption, Agência Brasil reported. "The condemned took his position as CEO of Petrobras amid a corruption scandal and with the expectation that he would solve problems," federal judge Sérgio Moro said of Bendine, sentencing him 11 years in prison for taking nearly a million dollars in bribes from construction firm Odebrecht. "The last behavior one would expect from him would be corruption, once again putting at risk the reputation of the company," Moro added, Reuters reported. Bendine, who led state-owned lender Banco do Brasil from 2009 to 2015 and had been considered a skilled businessman from outside the oil industry who could help set Petrobras on firmer footing, was charged last year with the crimes. Authorities also accused Bendine of unsuccessfully seeking bribes from Odebrecht even before he had joined Petrobras, where he worked from February 2015 to May 2016. Bendine's attorneys said throughout the trial that he was innocent.

Pemex Seeks Foreign Partners

Mexican state-run oil company Pemex this week amped up its outreach to foreign partners in the face of increased competition and declining production, Reuters reported. Chief executive Carlos Treviño told an industry conference Tuesday that Pemex might bring foreign companies into two heavy crude oil fields in the Gulf of Mexico's shallow waters. "The name of the game in Pemex right now is partnership," said Treviño. Earlier this week, he said Pemex will look for partners for two deepwater blocks it just won in a January auction. Treviño also said that Pemex hopes Russia's Lukoil will take part in the country's bidding processes for both midstream and upstream business, state-run news agency Sputnik reported. Lukoil said in November that the two companies were planning to discuss the establishment of a joint venture to implement new projects. Pemex is also looking into ways to deepen energy cooperation with Jamaica, Foreign Minister Luis Videgaray said on Tuesday on a Caribbean trip. He added Mexico would be signing a memo-

NEWS BRIEFS

France's Neoen Eyes Stock Market Listing by End of This Year: Report

French renewable energy firm Neoen plans a stock market listing by the end of 2018 that could value the company at $1.24 billion, Reuters reported Wednesday. Founded in 2008, Neoen has been growing quickly in France, Australia and Latin America, notably in Mexico and Argentina. Last December, Neoen broke ground on a 37 megawatt solar plant in Jamaica, which it says will be among the largest in the Caribbean. The company also has a 101 megawatt solar plant in El Salvador.

Drummond Considers Sale of Colombia Assets

Alabama-based Drummond Co., a producer of coal, oil and gas and foundry coke, is exploring the possible sale of at least a portion of its Colombia operations, AL.com reported Wednesday. In a statement, the company said it has engaged Goldman Sachs to "explore investment options" for its equity in Drummond International, which operates large coal mines, railroad facilities and an ocean port in Colombia. Last year, Drummond exported 32.3 million tons of coal from Colombia, making it the largest thermal producer and exporter from the country.

Peru Advances Bidding for Transmission Project

Peru's energy and mines ministry has assigned investment promotion agency ProInversión with handling the bidding for the 500kV La Niña - Piura electricity transmission project, state news agency Andina reported Wednesday. This is the largest project in Peru's 10-year transmission development plan, announced last year, with an estimated cost of $91.1 million, according to Global Transmission Report. The project is part of Peru's planned grid interconnection with neighboring Ecuador.

randum of understanding to provide technical support to Jamaica's oil refinery, Petrojam, which is jointly owned by a unit of Venezuelan national oil company PDVSA.

Latin America Rig Count Up 11 Percent

Houston-based Baker Hughes said Wednesday that the number of drilling rigs actively exploring for or developing oil or natural gas in Latin America in February stood at 199, an increase of 20 rigs over the same month last year, an 11 percent increase. As a region, Latin America had more than twice as many rigs in operation than both Europe and Africa, and nearly as many as Asia, which had 210 rigs operating last month. The Middle East had 396 rigs operating last month. North America led the rig count, with 1,292 rigs operating. Global prices for crude oil have recovered in recent months after losing half their value amid a glut of supply, a downward trend that started in 2014. [Editor's note: See **Q&A** on ways global oil prices are affecting Latin American countries in the Feb. 2 edition of the Energy Advisor.]

Venezuela Refineries Operating at 43% of Capacity

Refineries run by Venezuelan state oil company PDVSA will operate at 43 percent of their total capacity in March due to a lack of spare parts, light crude and feedstock, Reuters reported last week, citing internal documents. PDVSA has been unable to deliver the crude grades its facilities need in order to produce fuels for the domestic market and for export, according to the report. PDVSA's refining network plans to process 701,000 barrels per day of Venezuelan and imported crude in March, but the company has struggled amid an economic crisis in Venezuela, which suffers from the world's highest rate of inflation. Venezuelan officials say they are in talks with debtors over renegotiating the country's $70 billion in foreign bonds. By some accounts, PDVSA and Venezuela are already more than $2.25 billion in default, according to a report from Caracas Capital on Thursday. The International Energy Agency recently forecast that Venezuelan production of oil will decline by 700,000 barrels of oil per day through 2023, Oilprice.com reported Wednesday. The threat of expanded U.S. sanctions on Venezuela to include the oil industry, as well as restrictions on U.S. exports of oil products that are crucial for diluting Venezuela's extra-heavy oil, could worsen the situation for PDVSA, analysts warn. According to data compiled by Bloomberg, Venezuela's imports of heavy naphtha from Gulf Coast refineries in the United States total some 2 million barrels per month. [Editor's note: See related **Q&A** in the Feb. 16 issue of the Energy Advisor.]

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water management capacity. The government is planning on roadway and railway expansions. The well-established services sector will need to step up with a large number of suitable rigs and crews, fracking technology and expertise and sufficient quantities of suitable sand for proppant. Costs remain high as compared to the United States, but labor costs have decreased due to the peso's devaluation. The success of Macri's Cambiemos coalition in the October 2017 midterms suggests support for the administration's current business-friendly direction and position the president well for 2019. Post-2020, we still anticipate pragmatism on the policy front. However, investors will have to remain mindful of community activism and labor. Mapuche communities have raised concerns over groundwater contamination from hydraulic fracturing, and labor is active. Increasing fiscal revenues and local employment should help buffer the sector from volatile policy swings over the longer term."

A **David L. Goldwyn, president of Goldwyn Global Strategies:** "Argentina is an increasingly attractive destination for oil and gas investment. Despite its volatile past, a unique balance of power in the energy sector suggests a period of stability in the fiscal framework, worker wage rates and the availability of prospective acreage to develop. Argentina is unique in that nearly all of its oil and gas acreage has already been allocated, either to YPF or provincial oil companies, in large tracts intended for conventional development. The provincial governments profit from tax and royalty revenue on oil and gas development. The national government profits from its dividend from YPF, and a reduced trade deficit if indigenous production can substitute for imports. The provinces and oil workers are both incentivized to see YPF sell off or joint venture its massive holdings to facilitate development; the company has far more acreage than it has capital or labor to develop itself. This balance of power keeps the unions from raising wages too high and keeps the provinces from overreaching on taxes. YPF is increasingly monetizing its acreage to invite new operators, including Vista, Statoil, Chevron, Exxon and Shell. President Macri has cleverly managed national politics through a gradualist approach. That said, the government still controls natural gas and wellhead prices for oil. Current price levels exceed market prices and therefore incentivize investment. If the day comes when market prices exceed those caps, will the government respect market prices or, as Argentine governments have in the past, will it cap prices and kill off investment and bankrupt the national oil company? Only time will tell, but the current government seems both intent and able to do the right thing."

"Current price levels exceed market prices and therefore incentivize investment."
— David Goldwyn

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POLITICAL NEWS

AMLO Widens Lead Ahead of Mexico's Presidential Election

A new poll shows Mexican leftist presidential hopeful Andrés Manuel López Obrador has extended his lead to 14 points, Reuters reported. AMLO, as he is known, has 35 percent support ahead of the July 1 election, according to a survey by Parametria conducted last week. Polling in second place, Ricardo Anaya of left-right coalition For Mexico in Front, slipped to 21 percent, while former finance minister and ruling Institutional Revolutionary Party hopeful José Antonio Meade slid for the second consecutive month, to 16 percent from 18 percent.

AMLO // File Photo: Salvadoran Government.

Brazilian Court Denies Lula's Bid to Remain Out of Jail

In a unanimous vote, Brazil's Superior Court of Justice on Tuesday denied a bid by former Brazilian President Luiz Inácio Lula da Silva to remain out of jail while he appeals the corruption conviction against him, O Estado de S.Paulo reported. A lower appeals court in January upheld Lula's corruption conviction and increased his sentence to 12 years from the original nine and a half years on corruption and money laundering charges, on which Lula had been convicted last July. Tuesday's 5-0 decision means that the popular former president could be behind bars within weeks, even as he continues his appeals. Lula is the frontrunner ahead of Brazil's October presidential election. However, Brazilian law bars the candidacy of any politician who has a criminal conviction that has been upheld on appeal. Lula, who oversaw strong growth and falling inequality during his 2003-2011 presidency, faces six more trials related to corruption, Reuters reported. Lula has denied wrongdoing and has said that he is being persecuted in order to prevent him from returning to the presidency. "This process is like we are still in the time of the Inquisition, where no evidence was needed, only convictions," Lula told Metropole radio early on Tuesday. Lula's lawyer, Supulveda Pertence, later said the former president was being subjected to a "Kafkaesque trial," Agence France-Presse reported. Despite his popularity, 40 percent of Brazilians disapprove of him, with many seeing him as responsible for systematic corruption uncovered since his presidency, and also for the severe recession that Brazil suffered after he left office. [Editor's note: See Q&A in the Feb. 1 issue of the Advisor.]

THE DIALOGUE CONTINUES

Will Brazil's New Biofuels Policy Yield Better Outcomes?

Q In December, Brazil's Congress approved the RenovaBio program, which requires fuel distributors to gradually increase the amount of biofuels traded each year. In late January, a Brazilian official said the government is expected to publish a draft governance model for the program. As global oil prices rise, what will be the effect on Brazil's biofuel sector? Is the sector competitive in the global market? What effect will the program have on Brazil's energy sector as a whole?

A Pedro Shinzato, market intelligence analyst at INTL FCStone: "RenovaBio is designed to help Brazil comply with its commitments made in the Paris Agreement in late 2015. Through a mechanism of decarbonization credits (CBIOs) and individual environmental efficiency scores for each biofuel producer or importer, it aims to support those who adopt cleaner methods, reducing Brazil's total pollution emissions. In the short to medium term, higher global oil prices may help fuel distributors meet their decarbonization goals. Higher fossil fuel prices tend to stimulate the obligated parties to divert demand from non-renewable to renewable fuels—this is possible in Brazil because most of the nation's cars are flex-fuel vehicles (i.e., they can use either gasoline or pure ethanol). The real test for the Brazilian biofuel sector, however, is the long run: how will things work out if sugar prices rise (most of Brazilian ethanol is made from sugar cane, and mills have to opt to maximize sugar or ethanol production) and crude oil quotes collapse in the future? The answer is still a question mark, while RenovaBio's draft is not yet public. Another pressing question is how corn ethanol production in Brazil will behave from RenovaBio onward. The international biofuel market will benefit from the program. Higher consumption and production in the country, which along with the United States, holds most of the global biofuel supply and demand, may prompt other countries to increase their biofuel production and use as the sector develops more experience and matures, possibly creating new standards that the rest of the world can later adopt."

EDITOR'S NOTE: The above is a continuation of the Q&A in last week's issue of the Energy Advisor.

NEWS BRIEFS

Argentina's Last Military Dictator Bignone Dies at 90

Reynaldo Bignone, the last of four military presidents from Argentina's brutal 1976-83 dictatorship, died Wednesday at age 90, the Associated Press reported, citing the state-run Telam news agency. Bignone had been serving a life sentence under house arrest for human rights crimes that included the torture, disappearances and killing of tens of thousands of people, as well as the kidnapping of babies from their mothers. He served as president of Argentina from July 1, 1982, to Dec. 10, 1983, when he handed over power to Raúl Alfonsín.

Chile's Outgoing President Proposes New Constitution

Michelle Bachelet, Chile's outgoing president, on Tuesday sent a proposal to Congress for a new constitution that would ensure equal pay for men and women and advance a host of other socially progressive priorities, the Associated Press reported. A moderate socialist, Bachelet hands the presidency off on Sunday to conservative President-elect Sebastián Piñera. Some lawmakers criticized the timing of Bachelet's move, but others said it sets a policy agenda that Piñera will need to address when he takes office.

Cuba Imposes New Restrictions on Imports

Cuba's central bank has imposed new restrictions on imports by state-run companies in a bid to curb mounting foreign debt and address a cash shortage, Reuters reported Tuesday. The rules require firms to obtain a letter of credit from the central bank for purchases above the equivalent of $100,000. While the move will likely lead to a short-term plunge in imports, it could also result in a purge of nonessential or insolvent companies.

ECONOMIC NEWS

Trump Planning to Offer Canada, Mexico Tariff Exemptions

U.S. President Donald Trump is planning to offer Canada and Mexico temporary exemptions from the steel and aluminum tariffs that he announced last week, The Washington Post reported Wednesday. The plan is still being finalized, but one possibility would be that Canada and Mexico would receive 30-day exemptions from the tariffs, a period that could be extended, based on the progress in renegotiating the North American Free Trade Agreement, or NAFTA. If the talks to renegotiate the trade accord fail, then Canada and Mexico would be subject to the same tariffs as other countries—a 25 percent tariff on steel and 10 percent on aluminum, Bloomberg News reported. "Here's the situation, and the president has made this public. There's going to be a provision which will exclude Canada and Mexico until the NAFTA thing is concluded one way or another," White House Trade Advisor Peter Navarro said Wednesday. This week, U.S., Canadian and Mexican negotiators meeting in Mexico concluded the seventh round of NAFTA renegotiation talks, with no announcements of breakthroughs on major points of contention. Other U.S. allies could seek similar exemptions, Navarro added. Earlier on Wednesday, White House Press Secretary Sarah Huckabee Sanders said the plan for the tariffs would include "potential carve-outs for Canada and Mexico, based on national security" considerations, as well as potential exclusions for other countries. Among the nations seeking exemptions is Australia, where Foreign Minister Julie Bishop cited the country's status as a "close ally and partner" of the United States in an interview with Sky News. Navarro said Wednesday night in an interview with the Fox Business Network that Trump would sign the tariff proclamations on Thursday surrounded by steel and aluminum industry workers in the Oval Office. However, another source told Bloomberg News that the signing would not happen as planned because attorneys needed to finalize the details.

Eleven Countries to Sign Pacific Trade Deal, Minus U.S.

Eleven Asia-Pacific nations on Thursday signed a slimmed-down version of the massive Trans-Pacific Partnership trade deal, now dubbed the Comprehensive and Progressive Agreement for Trans-Pacific Partnership, or CPTPP, Agence France-Press reported. The United States has backed out of the TPP, leaving Australia, Brunei, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore and Vietnam, representing together 13.5 percent of global gross domestic product, to proceed with the agreement, which is to be signed in Chile. Together, the 11 nations represent 13.5 percent of global gross domestic product, down from 40 percent had the United States stayed in. Critics of U.S. President Donald Trump's decision to pull out say Washington's absence leaves an open path for China to forge stronger ties with Pacific Rim trading partners at the expense of the United States. Chile said membership of the new pact will improve access to markets currently responsible for 17 percent of its total exports. In related news, Canada on Friday is expected to announce the start of formal free trade negotiations with Mercosur, the Southern Cone trade bloc consisting of Argentina, Brazil, Uruguay and Paraguay, the Canadian Press reported. Trade ministry spokesman Joseph Pickerill said Mercosur countries "are keen [on] Canada's approach to trade … and are prepared to do a more comprehensive deal than was ever on the table in the past." [Editor's note: See related **Q&A** on the TPP in the Feb. 2 issue of the Advisor.]

Pickerill // File Photo: @pickerill_joe via Twitter.

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A **Paola Carvajal, principal in the energy practice of Arthur D. Little in Washington:** "So far, Argentina is the only Latin American country in which unconventional production has started commercially, though it is still small relative to its potential. The Vaca Muerta formation is a large, concentrated and broadly known play, with high shale oil and gas potential. The development of its unconventional hydrocarbons has gained the attention of upstream investors mainly because: 1) the government, both at national and local levels, has strongly supported the industry by maintaining higher domestic prices for unconventional gas developments and facilitating the process for licensing the prospective areas; 2) YPF and other established national and international players have developed extended production pilots with positive results; 3) local authorities and communities are familiar with and supportive of the oil and gas industry; 4) the new presidential administration that took over at the end of 2015 removed all export restrictions, taxes and foreign exchange controls, further liberalizing the economy. Argentina reached a total unconventional production of 80,000 barrels of oil equivalent per day in 2017, which represents an accumulated growth of 33 percent from the 2015 level. In the future, the growing supply-demand gaps in the Argentine oil and, particularly, natural gas markets provide life-cycle incentives for investors and producers. As the unconventional production expands the scale, the development of infrastructure to connect the producing fields to markets, the growth of a capable and efficient local service industry, and the support from local communities, will be key to maintaining a profitable unconventional hydrocarbon production. It is difficult to say whether subsequent administrations will maintain the current policies. However, as long as the industry gains momentum, demonstrates a positive impact on local communities and helps reduce the energy deficit in the country, new administrations, regardless of their political ideology, will be motivated to maintain the policies to leverage the benefits of these activity levels in the energy industry."

A **Chris Cote, energy markets analyst at ESAI Energy:** "Argentina's shale basins will be a strong source of production growth, especially for natural gas, in three to five years, but the case for development depends in large part on policy continuity, and, therefore, next year's general election. Investors, wary of Argentina's mercurial political history, seem to trust President Mauricio Macri. Until recently, investors held out on investing in Argentina's shale basins, believing they could get a better deal on labor costs. So Macri spent a lot of political capital negotiating with labor unions province by province to reduce their compensation. The government is guaranteeing gas prices above international prices through 2021. In turn, majors such as ExxonMobil and Chevron, as well as state-owned YPF and other independents, have announced large investments. Now, the big lift for production is developing the energy infrastructure of Vaca Muerta. Lowered tariffs on the import of energy-related capital goods allows companies to bring in rigs and other machinery, but how will they get proppant to the well pad? How will the oil and gas be exported? Water, sand, diesel, steel and trucks will be in high demand over the next few years. Will the price guarantees, labor reforms and economic growth last? To be sure, Macri has pushed through policies that make him unpopular in many areas of Argentina, but the outcome of last October's midterms bodes well for him in 2019. In the background, the uptick in global economic growth will lift Argentina's agricultural and other commodity markets, boosting overall economic growth. Still, voters want cash in their wallets, not in Vaca Muerta. The clock is ticking for Macri to connect the dots."

Editor's Note: On March 27, the Dialogue will be hosting an **event** *in Washington on Argentina's unconventional oil and gas sector.*

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Subscription Inquiries are welcomed at
freetrial@thedialogue.org