NGI's Shale Daily™
Intelligence Press, Inc.
TUESDAY, JANUARY 26, 2021 - VOL. 11, NO. 78

BAKKEN SHALE

Hess Raising Capex Slightly, with Focus Trained in Bakken, Offshore Guyana

Hess Corp. remains laser-focused on developing assets in the Bakken Shale of North Dakota and offshore Guyana, directing the lion's share of its $1.9 billion exploration and production (E&P) capital and exploratory budget to the "high return, low cost" assets for 2021.

The New York City-based producer in the first quarter is set to increase the number of rigs operating in the Bakken to two, with a plan to develop "a large inventory of future drilling locations that generate attractive financial returns at current prices," according to CEO John Hess. This year it expects to drill about 55 gross ...cont' pg. 2

INFRASTRUCTURE

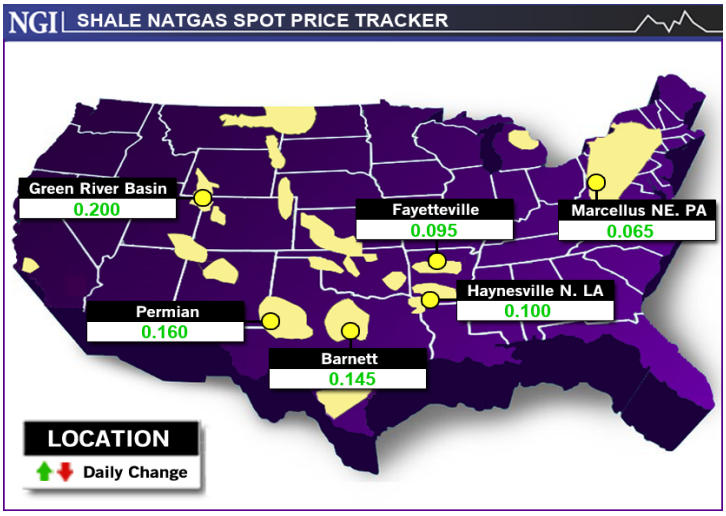
Corpus Port in South Texas Sees 65% Jump in Oil Exports, 26% More LNG Exports in 2020

The Port of Corpus Christi, a growing gateway for energy exports, ended 2020 with record tonnage, mainly attributed to a 65% increase in oil shipments, authorities said.

In addition to increased oil shipments totaling 96.4 million tons, the port saw a 26% increase year/year in liquefied natural gas (LNG) shipments at 8.7 million tons.

The port further solidified its position as the nation's leading energy export gateway with a record 1.9 million b/d of oil exports in December.

"Despite the extraordinary challenges we navigated in 2020, the Port of Corpus Christi and its ...cont' pg. 4



Trade Date: Jan 25; Flow Date(s): Jan 26

Basin/Region	Range	Avg	Chg	Vol	Deals
Gulf Coast					
Barnett	2.360-2.400	2.380	0.145	216	39
Eagle Ford	2.490-2.540	2.520	0.155	596	102
Haynesville - E. TX	2.350-2.480	2.450	0.120	964	135
Haynesville - N. LA	2.430-2.500	2.450	0.100	201	36
Permian1	2.390-2.520	2.485	0.160	1,549	257
Tuscaloosa Marine Shale	2.465-2.480	2.475	0.060	225	42
Midcontinent					
Arkoma - Woodford	2.360-2.480	2.400	0.105	85	20
Cana - Woodford	2.450-2.530	2.505	0.220	200	41
Fayetteville	2.410-2.450	2.430	0.095	100	28
Granite Wash*	2.370-2.500	2.460	0.150	367	77
Northeast					
Marcellus - NE PA2	2.140-2.300	2.185	0.065	189	53
Marcellus - NE PA: Other3	2.140-2.300	2.200	0.075	136	43
Marcellus - NE PA: Tenn4	2.150-2.160	2.155	0.085	54	10
Marcellus - SW PA/WV	2.175-2.310	2.265	0.065	1,375	229
Utica5	2.150-2.430	2.300	0.090	174	42
Rocky Mountains / West					
Bakken	--	--	--	--	--
Green River Basin*	2.655-2.750	2.690	0.200	1,045	210
Niobrara-DJ6	2.465-2.525	2.500	0.170	510	73
Piceance Basin*	2.580-2.600	2.590	0.190	33	12
Uinta Basin*	2.590-2.590	2.590	0.190	19	4
San Juan Basin*	2.620-2.660	2.635	0.170	162	36

Notes: *Table represents fixed-price delivered-to pipeline transactions in USD/MMBtu. These data are comprised of deals that NGI believe represent trading activity in the respective resource plays and may contain gas that was produced from conventional formations. * Denotes a tight sands formation. Volumes may not total due to rounding. For more information, please see NGI's Shale Price Methodology.*

PRODUCTION

California Oil, Gas Drilling Hits Historic Lows in 2020

New oil and natural gas drilling hit historic lows in California last year while a renewed emphasis on abandoned wells turned up a record high number of permanently sealed wells, the state Geologic Energy Management Division (CalGEM) reported Wednesday.

The severe downturn in permitting and new drilling can be seen as a result of the Covid-19 pandemic, "but global commodity prices, our state's economy and local judicial decisions in Kern County have all contributed to the decline," said CalGEM spokesperson Don Drysdale.

Production data for the last two years showed in-state production met only about 32% of demand, ...cont' pg. 6

DJ BASIN

ONE Future Adds Colorado's Crestone Peak to Ranks

Crestone Peak Resources has joined Our Nation's Energy Future (ONE Future), the first producer focused on the Denver-Julesburg (DJ) Basin to do so.

ONE Future is a group of energy companies set on reducing methane emissions to 1% or less by 2025. Crestone is ONE Future's 37th group member and the second energy company this month to be added. West Virginia-based exploration and production company Northeast Natural Energy joined earlier in January.

"Crestone has been recognized by the state of Colorado for its efforts to reduce the impacts of energy production, including protections for public health, air quality, water, and wildlife, and we know that its participation will help advance our mission of minimizing methane emissions from energy production," said ONE Future Executive Director Richard Hyde.

ONE Future is set on displaying an innovative, performance and science-based approach to the management of methane emissions. Its overarching goal is to reach 1% or lower methane emissions across the entire natural gas value chain.

In the three years the coalition has reported its methane intensity, it has surpassed its 1% goal every time. In the 2019 methane intensity report, ONE Future beat its intensity goal by 67%, registering a methane intensity of 0.334%.

"Protecting public health and the environment is a high priority for Crestone, and we have been a leader in adopting technologies and practices that go beyond what's required," said Crestone's David Stewart, vice president of environment, health, safety and regulatory.

"In Colorado, we operate under regulatory requirements that are stricter and more protective than in any other state in the nation. We look forward to learning from other ONE Future members and sharing the ideas, innovations and best practices that have helped us operate successfully in Colorado." ■

Hess Raising Capex Slightly, with Focus Trained in Bakken, Offshore Guyana

Continued from Page 1

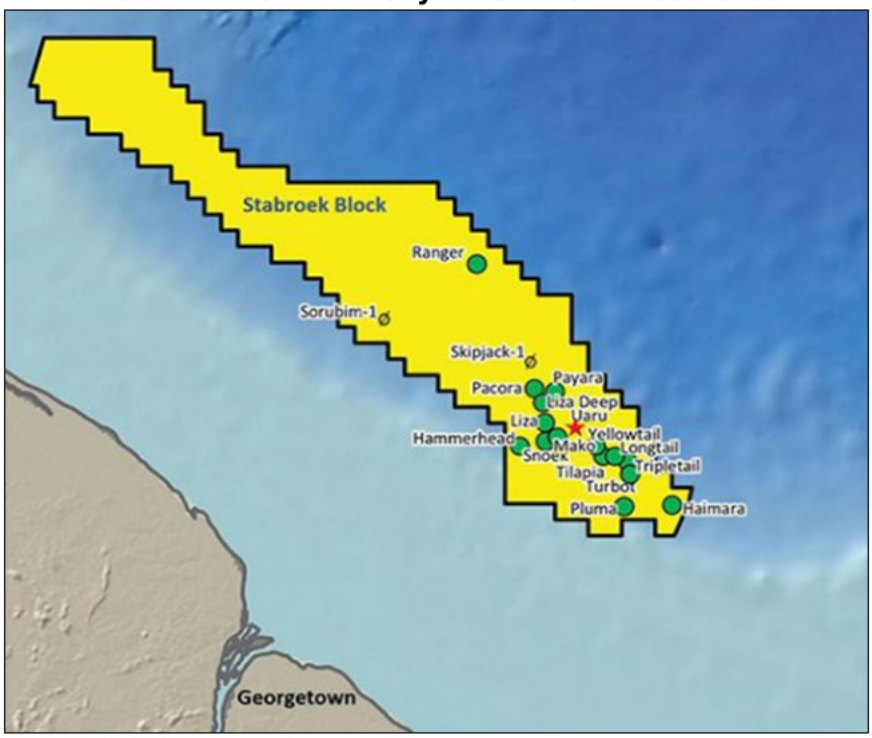
operated wells and to bring online 45. Funds are also included for investing in nonoperated wells.

"By investing only in high return, low cost opportunities, we have built a differentiated portfolio of assets that we believe will provide industry leading cash flow growth over the course of the decade," said the company chief.

The executive had indicated during the third quarter 2020 earnings call that Hess would not add a second rig in the Bakken until West Texas Intermediate (WTI) oil prices approached $50/bbl. WTI reached that threshold earlier this month after Saudi Arabia said it would cut oil production by 1 million b/d in February and March. The Organization of the Petroleum Exporting Countries and its allies, led by the Saudis, agreed to curtail production overall by 7.125 million b/d in February and 7.05 million in March.

Bakken net production is forecast to average around 170,000 boe/d in 2021, according to Hess. This forecast includes the impact of operating a two-rig program beginning in the ...cont' pg. 3

ExxonMobil Offshore Guyana Oil & Gas Discoveries



Source: ExxonMobil

first quarter and a planned 45-day turnaround and expansion tie-in at the Tioga Gas Plant in the third quarter. The E&P expects the outage to reduce full-year production in the Bakken by around 7,500 boe/d net.

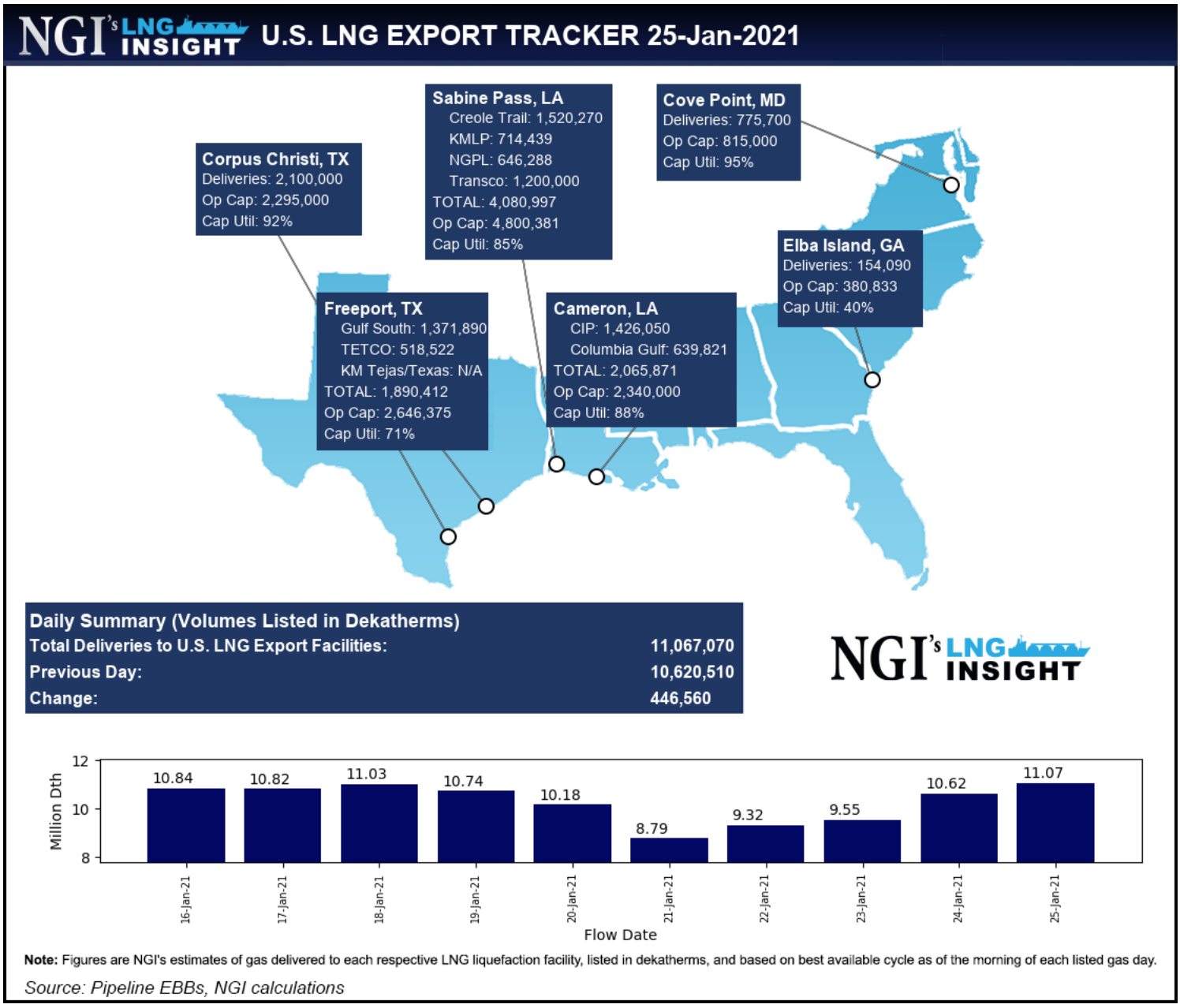
Net production is forecast to average about 310,000 boe/d in 2021, excluding Libya.

Offshore Guyana, Hess, along with partner ExxonMobil, has three sanctioned oil developments, which have a Brent breakeven oil price of $25-35/bbl. The focus in 2021 is to advance the next two sanctioned developments to first oil – Liza Phase 2 in early 2022 and Payara in 2024 – and on front-end engineering and design (FEED) work for future development phases on the Stabroek Block.

It also plans to continue investing in an active exploration and appraisal program, with 12-15 wells planned on the block. Hess in June resumed a four-rig drilling operation in the Stabroek, with two rigs focused on development wells and two on exploration and appraisal activities.

"Our capital program reflects our disciplined approach in the current oil price environment to preserve cash, core capabilities and the long-term value of our assets," the CEO said.

Of the $1.9 billion budget, up from $1.8 billion in 2020, $670 million (35%) is to go toward production, including $450 million for the Bakken and $165 million for production activities at North Malay Basin (Hess 50% and operator) and the Malaysia/Thailand Joint ...cont' pg. 4



Development Area (Hess 50%) in the Gulf of Thailand.

The producer has set aside $780 million (41%) for offshore Guyana developments and $450 million (24%) for exploration and appraisal activities. Another $25 million is associated with the Liza Phase 1 development, which reached nameplate capacity of 120,000 gross b/d in December. Hess has earmarked $450 million for the Liza Phase 2 development with a capacity of up to 220,000 b/d gross, with first production expected in early 2022.

Another $235 million would go toward the Payara development, with a capacity of up to 220,000 b/d gross. First production is expected in 2024. The Stabroek Block would get $70 million primarily for FEED work for future development phases.

Hess also is targeting $450 million to drill 12-15 exploration and appraisal wells on the Stabroek Block. Funds are also included for well planning on Block 42 in Suriname, in which Hess has a 33.3% stake, seismic acquisition and processing in Guyana and the deepwater Gulf of Mexico (GOM) and for license acquisitions.

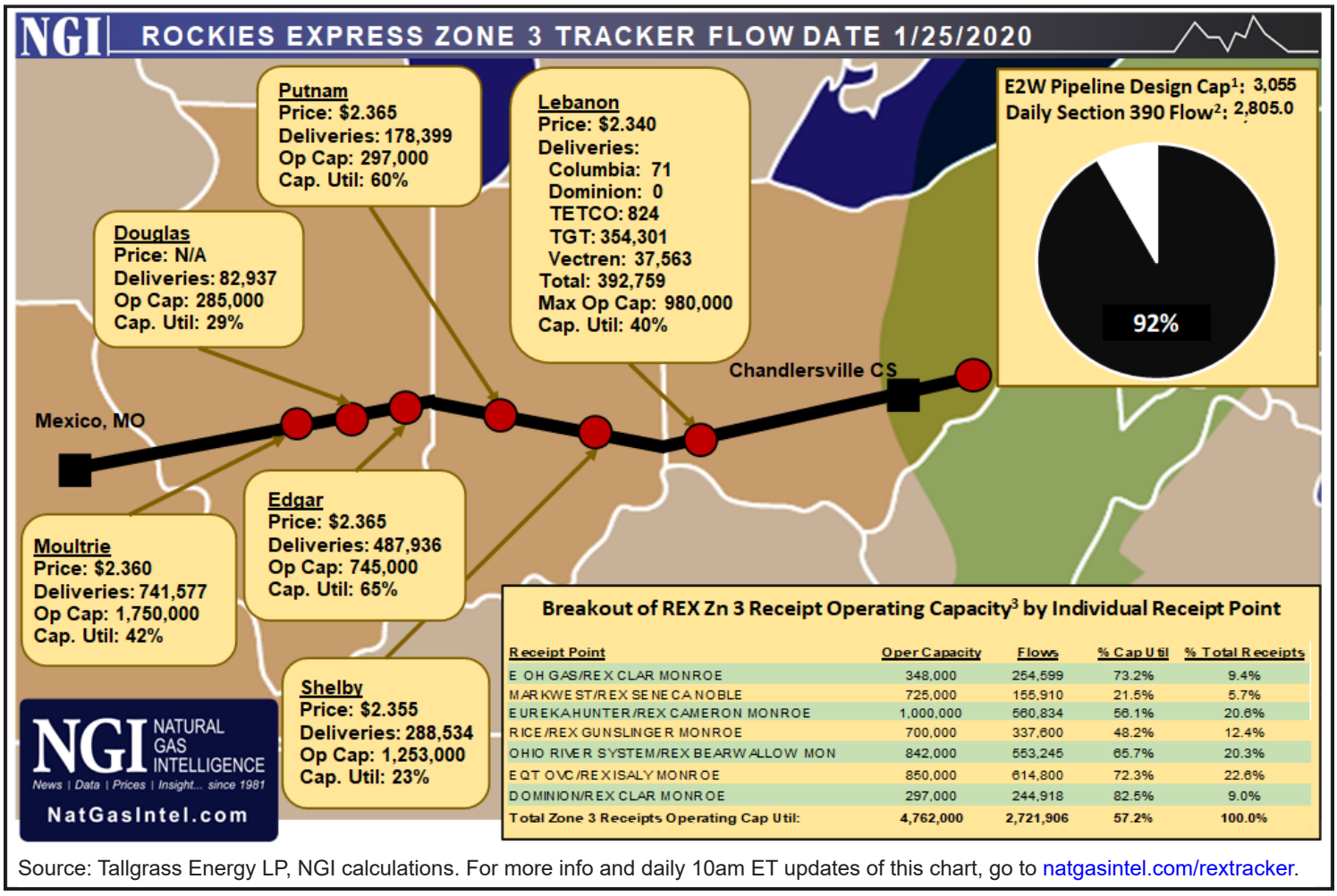
BMO Capital Markets analysts in a note Monday said there were no big surprises on the production and capital expenditures (capex) guidance, but said the Guyana exploration and appraisal activity were "significant."

With GOM spending implied to be only $140 million and not included as production or development capex, BMO said this indicates a production decline throughout 2021, "although minimal activity here was already expected," analyst Phillip Jungwirth said. Activity in Guyana, meanwhile, with 12-15 exploration and appraisal wells planned, provides "an upward bias to the current 8 billion boe resource potential." ■

Corpus Port in South Texas Sees 65% Jump in Oil Exports, 26% More LNG Exports in 2020

Continued from Page 1

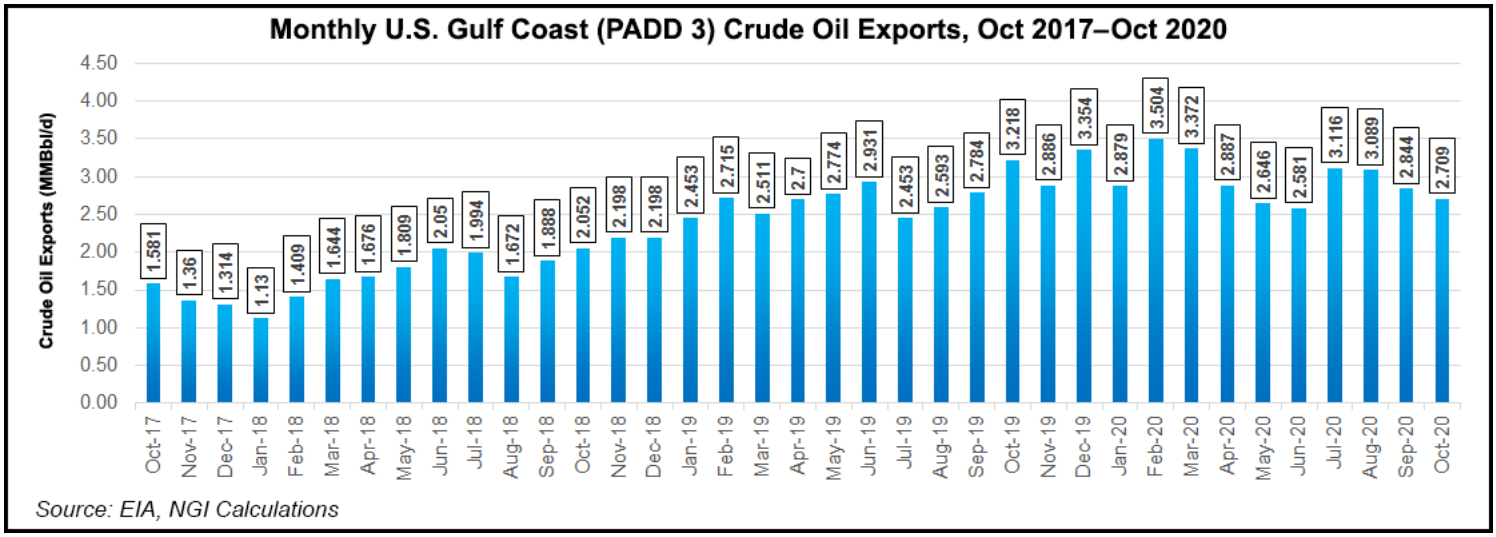
customers have yet again demonstrated the resiliency of this strategic gateway for American goods to reach the global demand centers," said Port CEO Sean Strawbridge. "This record performance is a clear indication *...cont' pg. 5*



Breakout of REX Zn 3 Receipt Operating Capacity³ by Individual Receipt Point

Receipt Point	Oper Capacity	Flows	% Cap Util	% Total Receipts
E OH GAS/REX CLAR MONROE	348,000	254,599	73.2%	9.4%
MARKWEST/REX SENECA NOBLE	725,000	155,910	21.5%	5.7%
EUREKAHUNTER/REX CAMERON MONROE	1,000,000	560,834	56.1%	20.6%
RICE/REX GUNSLINGER MONROE	700,000	337,600	48.2%	12.4%
OHIO RIVER SYSTEM/REX BEARWALLOW MON	842,000	553,245	65.7%	20.3%
EQT OVC/REX ISALY MONROE	850,000	614,800	72.3%	22.6%
DOMINION/REX CLAR MONROE	297,000	244,918	82.5%	9.0%
Total Zone 3 Receipts Operating Cap Util:	4,762,000	2,721,906	57.2%	100.0%

Source: Tallgrass Energy LP, NGI calculations. For more info and daily 10am ET updates of this chart, go to natgasintel.com/rextracker.



of the importance of our critical infrastructure for Texas and the nation…American energy exports remain strong," and the environmental, social and governance programs "continue to lead the sector as we enter an era of economic recovery."

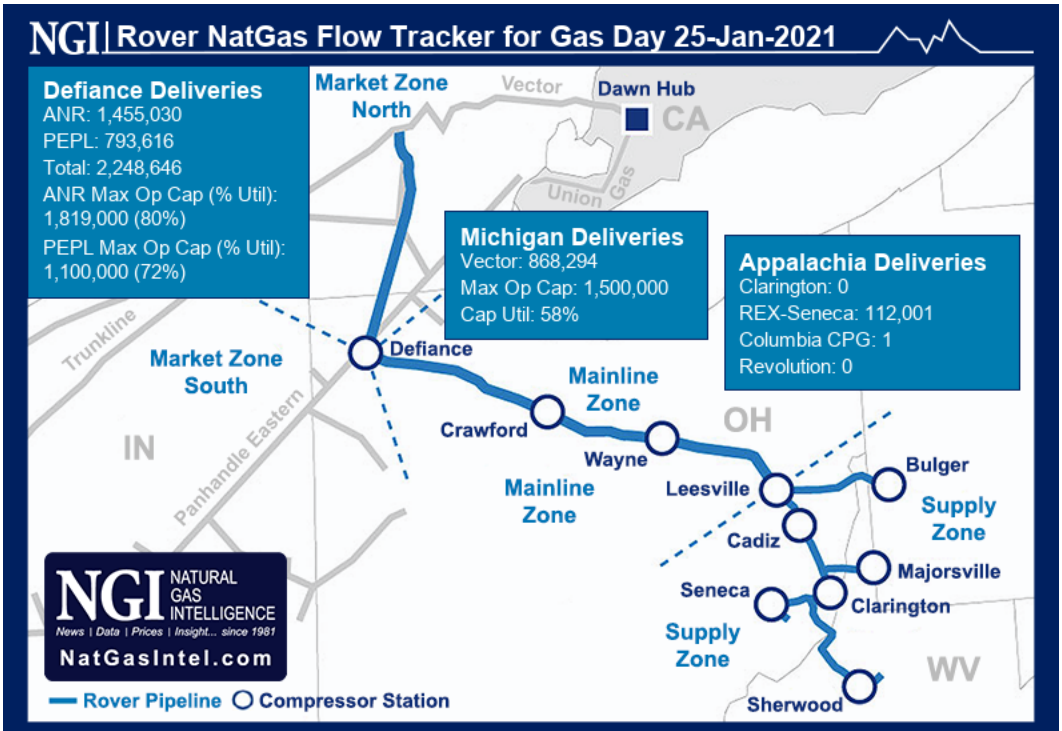
Several new oil-related marine terminals were brought online in 2020, including by Epic Midstream LLC, Buckeye Partners LP's South Texas Gateway, Plains All-American Pipeline LP and Enterprise Products Partners LP's Eagle Ford Terminal joint venture, as well as Pin Oak Corpus Christi and South Texas Cement.

The one LNG export project is Cheniere Energy Inc.'s Corpus Christi Liquefaction facility.

Agricultural exports were up 70% last year at nearly 4.3 million tons.

Overall, the port set a new annual tonnage record of 159.7 million tons in 2020, a 31% increase over 2019, as well as a new monthly record of 15.9 million tons for December, 15% higher year/year.

The strong …cont' pg. 6



Rover Receipt Points	Op Cap	Receipt Vol	% Util
BERNE	350,000	277,797	79%
CADIZ-MW	300,000	121,378	40%
CADIZ-ORS	1,070,000	612,181	57%
CLARINGTON-EUREKA	350,000	207,711	59%
CLARINGTON-OVC	300,000	181,526	61%
CRAWFORD-UGS	350,000	0	0%
HARMON CREEK	400,000	188,085	47%
MADISON	400,000	72,000	18%
MAJORSVILLE	400,000	400,000	100%
REVOLUTION	525,000	0	0%
SENECA	800,000	69,500	9%
SHERWOOD	840,000	839,005	100%
SUNDANCE	406,000	169,682	42%
	System Cap*	**TSQ**	**% Util**
Total Rover Receipts	3,250,000	3,138,865	97%
Total Rover Deliveries	3,250,000	3,228,942	99%

*Represents stated full system capacity. All units in dekatherms.

Source: Rover EBB, NGI calculations & estimates

performance helped push 4Q2020 results to a new quarterly record of 42.2 million tons, surpassing the prior record from 1Q2020.

The port and the Coastal Bend region overall have seen nearly $55 billion in private industrial investments over the past five years, the authorities noted.

Additional investments in infrastructure include the Corpus Christi Ship Channel Improvement Project, which once completed in nearby Ingleside in late 2023 would be the deepest and widest ship channel on the Gulf Coast.

The project received an additional $100 million in federal appropriations in December. Investments include expanded rail capacity to serve all North American markets with three Class 1 railroads and more than 4,000 acres available in public-private partnership development options for companies seeking a more favorable business climate.

"The Port of Corpus Christi plays a vital role to not only the Coastal Bend economy, but that of the State of Texas and the nation," said Port Commission Chairman Charles W. Zahn. "The success that the port has been able to realize in 2020, despite its challenges, is a direct result of everyone working toward a common goal – to ensure essential goods continue to flow during this difficult time and that economic recovery continues on an upward trend." ■

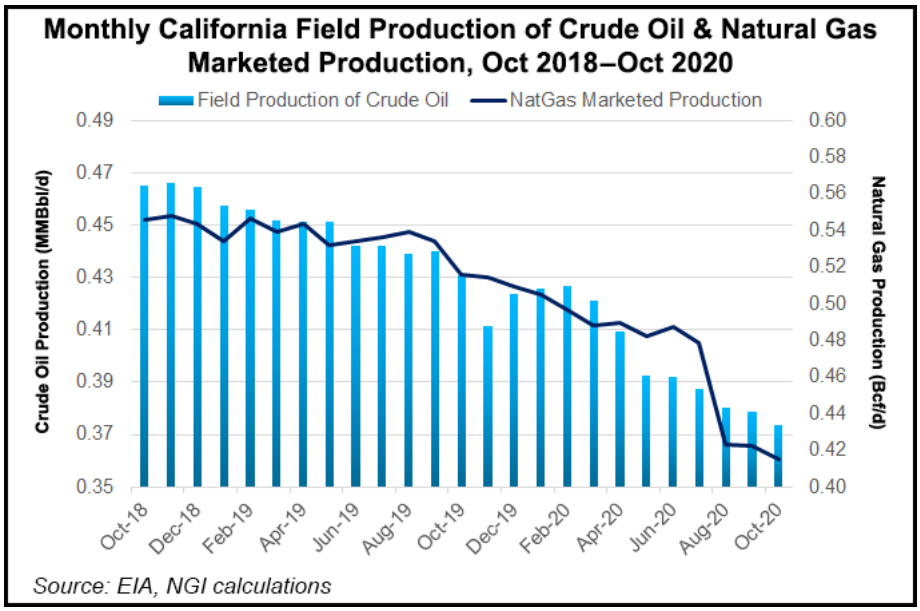
California Oil, Gas Drilling Hits Historic Lows in 2020

Continued from Page 1

according to the California Independent Petroleum Association (CIPA).

"Despite a dip in demand in 2020, imports still made up approximately 68% of total oil consumed in California, continuing Californians' dependence on foreign regimes who don't mitigate their greenhouse gas emissions, don't follow California's safety and environmental standards, and don't share Californians' values," said CIPA CEO Rock Zierman.

New wells spud in 2020 declined year/year by 87% with 138 last year, compared with 1,032 in 2019, CalGEM reported. Oil extraction hit its lowest level in history last year, down 68% from the peak in 1985.



California contributes only 4% of the nation's oil production and it's likely to continue to drop from the list of top producing states, as has been the case over the past few decades, Drysdale said.

Last year's drilling permit total was down 23% from 2019, and permits for hydraulic fracturing were at their lowest level in history at only 83. The average since 2016 had been 220/year. CalGEM also denied 57 fracturing permits, another state record.

In contrast, a record high was recorded for abandoned/idle wells with 3,238 two-year permits issued to permanently seal them in 2020, CalGEM said. More than half of the permits, or 1,730 oil and gas wells, were for plugging and abandonment in 2020.

"This outpaced the number of new drilling permits issued by 65%," Drysdale said. "New state policies, combined with increased enforcement, are driving the increase in oil and gas operators permanently removing wells from operation."

CalGEM last year was criticized for not accelerating efforts to close an estimated 30,000 idle wells.

"CalGEM continues to implement state laws and regulations as mandated, prioritizing public health and safety, and relying on science and sound engineering practices in its regulatory efforts regardless of the direction of our economy and what the ...cont' pg. 7

future holds," Drysdale said.

In the City of Los Angeles alone, critics last year reported up to 1,000 abandoned wells threatening mostly poor residential areas. "The oil industry, not taxpayers, pays 100% of the costs to decommission onshore wells without a viable owner," CIPA's Zierman said at the time. ■

NGI
Intelligence Press, Inc.

NGI's Shale Daily™

Tuesday, January 26, 2021
Vol. 11, No. 78

ISSN 2158-8023 (print)

Shale Daily is published daily, each business day by Intelligence Press, Inc. (703) 318-8848.
For breaking natural gas and shale news and more detailed pricing data, please visit us at: naturalgasintel.com

For a listing of all our premium newsletters and data services, please visit: naturalgasintel.com/premiumservices

Executive Publisher: Dexter Steis (dexter.steis@natgasintel.com). **Editor-In-Chief:** Alex Steis (alex.steis@natgasintel.com). **Managing Editor:** Carolyn L. Davis (carolyn.davis@natgasintel.com). **Analysts/ Price Editors:** Patrick Rau, CFA (pat.rau@natgasintel.com), Nathan Harrison (nathan.harrison@natgasintel.com), Josiah Clinedinst (josiah.clinedinst@natgasintel.com). **Senior Editor – Markets:** Leticia Gonzales (leticia.gonzales@natgasintel.com). **Senior Editor – LNG:** Jamison Cocklin (jamison.cocklin@natgasintel.com). **Senior Editor – Mexico and Latin America:** Christopher Lenton (christopher.lenton@natgasintel.com). **Associate Editor – Markets:** Kevin Dobbs (kevin.dobbs@natgasintel.com). **Associate Editor:** Andrew Baker (andrew.baker@natgasintel.com). **Markets Contributor:** Jeremiah Shelor (jeremiah.shelor@natgasintel.com). **Correspondents:** Richard Nemec (rich.nemec@natgasintel.com), Gordon Jaremko (gordon.jaremko@natgasintel.com), Ronald Buchanan (ronald.buchanan@natgasintel.com), Eduardo Prud'homme (eduardo.prudhomme@natgasintel.com), Adam Williams (adam.williams@natgasintel.com).

Contact us: **EDITORIAL**: editorial@natgasintel.com; **PRICING**: prices@natgasintel.com; **SUPPORT/SALES**: info@natgasintel.com; **ADVERTISE**: adv@natgasintel.com.

Intelligence Press, Inc. © Copyright 2021. Contents may not be reproduced, stored in a retrieval system, accessed by computer, or transmitted by any means without a site license or prior written permission of the publisher.

DISCLAIMERS, LIMITATION OF WARRANTY AND LIABILITY: The Information contained in this newsletter (our Content) is intended as a professional reference tool. You are responsible for using professional judgment and for confirming and interpreting the data reported in our Content before using or relying on such information. OUR CONTENT IS PROVIDED "AS IS" AND WE DISCLAIM ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR YOUR PARTICULAR PURPOSE. Although we believe our Content to be complete and accurate as described therein, we make no representations regarding completeness or accuracy. We will not be liable for any damage or loss of any kind arising out of or resulting from access or lack of access to or use of our Content, including but not limited to your reliance on it, errors in the data it contains, and data loss or corruption, regardless of whether such liability is based in tort, contract or otherwise. NGI's full Subscriber Agreement is available here: naturalgasintel.com/TOS.