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Market Timing Great for Limetree Bay Restart

Prospects for St. Croix refinery.

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Well Positioned

Limetree Bay Refining plans to restart a former Hovensa plant in St. Croix, U.S. Virgin Islands, at the end of 2019. The refinery's initial processing capacity of 200 thousand barrels/day represents a significant addition to the North American stack, helping to replace the loss this year of Carlyle's 335 mb/d Philadelphia Energy Solutions plant in Pennsylvania. If it opens on time before year-end, Limetree will be well positioned to take advantage of a void in Caribbean refining left by Venezuela's collapse as well as IMO 2020 changes to the bunker fuel market. The plant's location in the middle of world trade routes conveys some advantage, but it must compete with Gulf Coast refineries to supply regional markets. Higher fuel costs compared with U.S. rivals will damp margins, but a tolling agreement with BP could insulate Limetree from market exposure. This is the first of two notes detailing the operation, potential product market, and commercial prospects for the refinery.

Background

Limetree Bay is located on St. Croix and was historically operated as a joint venture refinery by Hess Oil and PDVSA (Hovensa) until its closure in 2012 after three years of losses. At its peak, the plant processed up to 650 mb/d, making it the largest refinery in the Americas, but it was only running 350 mb/d when it shut. In December 2015, the refinery was sold to Limetree Bay Ventures, owned by a consortium consisting of ArcLight Capital (79%), a syndicate of other investors (14%), and Freepoint Commodities (7%). Limetree Bay's initial commitment was to operate the site as a storage terminal (Exhibit 1) and review reopening the refinery. The terminal executed a 10-year agreement for 10 million barrels of storage capacity with China Petrochemical Corp., or Sinopec, in 2016. A second storage contract for 3 million barrels of capacity was also signed with part owner Freepoint. The terminal currently has 74 tanks with over 20 million barrels of storage capacity including 8 million crude and 12 million refined product barrels, according to a 2017 company presentation. Ten petroleum loading docks can handle vessels up to Suezmax size (55-foot draft).

Exhibit 1 Limetree Bay Terminals, St. Croix, U.S. Virgin Islands

Source: Company presentation, Limetree Bay.

Restart

According to press announcements, Limetree is investing $1.4 billion to restart the refinery with an initial 200 mb/d processing capacity due on line by the end of 2019. The restart was approved by the Virgin Islands government in August 2018. No official announcement regarding progress on the project has been made since December 2018, but we assume it's still on track. Air and emissions permits were rolled over from the previous owner by the Environmental Protection Agency. The refurbished refinery will have one crude distillation unit, a reformer, extensive desulfurization capacity, and a 62 mb/d coker unit to process heavy residual fuel. The new investment includes a single-point mooring buoy linked by pipeline that allows Limetree to offload fully laden 2 million-barrel very large crude carriers. The refinery has a long-term contract for 12 million barrels of storage capacity at the terminal. According to a February 2019 Moody's investment rating on Limetree's debt, the storage terminal has struggled to break even and is reliant on the success of the refinery to service its obligations. In December 2018, Limetree announced a partnership with BP under which the latter will supply crude to the refinery and manage product offtake. BP has also entered into a long-term tolling agreement for a portion of the refinery's capacity. The announcement highlighted Limetree's strategy to provide clean low-sulfur fuels for the marine market, which we discuss below in detail, as well as to process a growing supply of Latin American sour crudes.

Tolling

Limetree's tolling agreement with BP operates like a lease on a portion of the refinery's processing capacity. Although details haven't been provided, these arrangements aren't uncommon for investor-backed refiners wishing to limit their exposure to market risk. The idea is that BP sources and delivers crude feedstock to the plant in return for receiving an agreed yield of refined products and paying Limetree a tolling fee per barrel for processing. Typically, the types of crude processed and the yields are

agreed between the partners based on refinery configuration. The advantage to BP is that it receives only the agreed product output they need, excluding less desirable components. The advantage for Limetree is that it gets a guaranteed refining margin from the tolling fee and can increase returns by processing additional volumes on its own account when conditions are favorable.

BP can source crude for the refinery from equity production that includes its extensive offshore Gulf of Mexico assets such as Mars, Southern Green Canyon, and Thunder Horse as well as onshore shale crude from the Eagle Ford and Permian basins, where the company purchased BHP production assets in July 2018. Given the refinery configuration with a coker, BP is also likely to purchase heavier crudes from suppliers such as Brazil, Colombia, and Ecuador as well as Venezuela (if that country's output recovers from its current meltdown) and Mexico. Although BP is a large upstream player in North America, it operates only two refineries in the Lower 48: a 430 mb/d plant in Whiting, Illinois, and a 242 mb/d plant in Ferndale, Washington. The company doesn't have a refinery in the Gulf Coast region that—as we detail below—supplies significant exports into the Caribbean and Central and South American markets. The tolling arrangement with Limetree gives BP flexibility to increase supply into those markets.

We should note that tolling arrangements aren't risk-free. In fact, a prior toll agreement that BP Trading made with North Atlantic Refining for the 115 mb/d Come by Chance refinery in Newfoundland fell apart in 2016 after a dispute erupted over refining yields and crude quality. Under the circumstances, we'd expect the Limetree deal to have covered those eventualities up front, but if the arrangement doesn't work financially for both parties, it can lead to acrimony.

Refined Product Markets

We'll turn now to an analysis of possible markets for the refinery output. Given that we don't know for sure how much of the initial 200 mb/d capacity is pledged to the BP tolling agreement, the actual markets supplied will differ depending on the split. As a major oil company, BP has an existing downstream distribution and marketing network that it can supply from the Limetree deal. As we detail below, Limetree also has connections with local and U.S. distribution networks that it can leverage. Either way, there appears to be plenty of market opportunity.

Location

The principal advantage that Limetree possesses is location. The Caribbean is at the center of world trade routes and can service markets throughout the Americas as well as Europe and West Africa. Exhibit 2 shows distances to market, from a Duff & Phelps analysis of the refinery after Hovensa shuttered the plant in 2012.

Exhibit 2 Distances to Market

Source: Duff & Phelps.

Caribbean Void

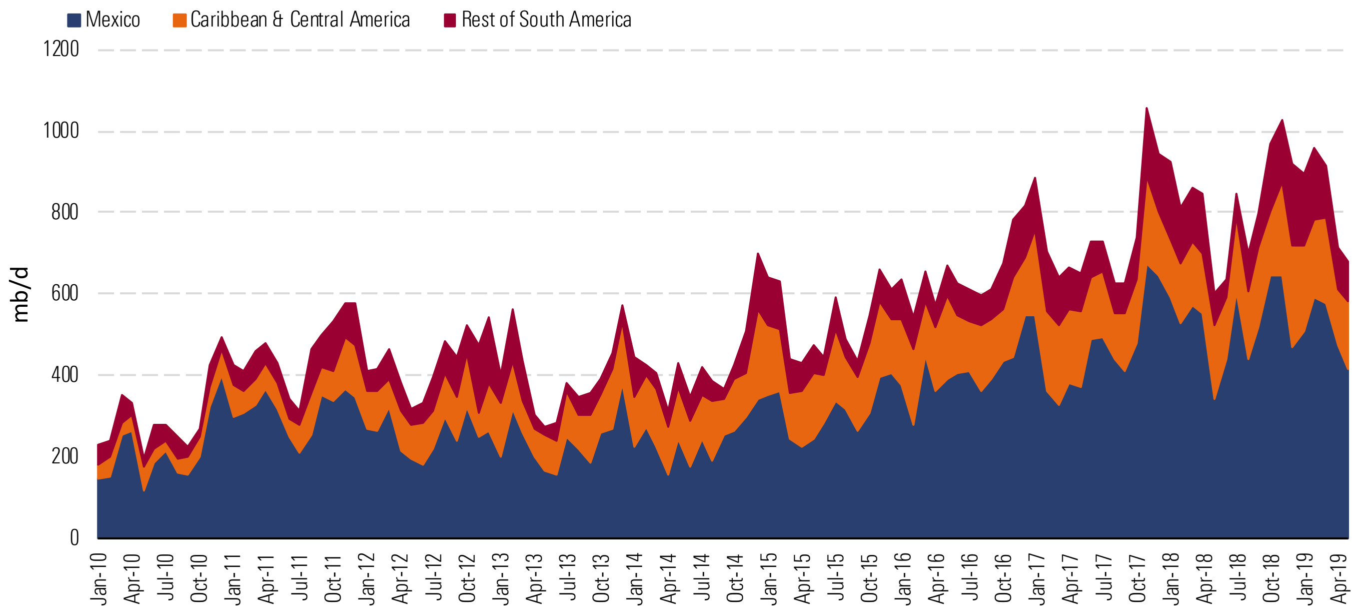
The Limetree Bay refinery should be able to take immediate advantage of an opportunity to supply refined products into Caribbean and Central American markets in the void created by the meltdown of Venezuela's national oil company, PDVSA, and the imposition of sanctions on the country this year by the Trump administration. As we pointed out over a year ago (see PDVSA Meltdown Creates Caribbean Opportunity), PDVSA was previously the predominant supplier of crude and refined products into Caribbean and Central American markets. PDVSA's crude production has fallen from 3 mmb/d in 2000 to less than 0.75 mmb/d in June 2019, according to secondary sources quoted by OPEC in its June 2019 report. The knock-on effect of PDVSA's woes includes most of the Caribbean refining industry, which was previously supported by joint venture ownership with PDVSA, as well as subsidized crude supply under the Petrocaribe agreement. These arrangements no longer function, leaving deteriorating island refineries scrambling for crude and downstream markets starved of product. Casualties include the 335 mb/d Isla refinery on Curacao previously leased to PDVSA, the 235 mb/d San Nicolas refinery on Aruba shuttered in 2012, and promised new investment by PDVSA's U.S. affiliate, Citgo, as well as significantly reduced throughput at Cuban and Jamaican refineries that previously received Venezuelan crude. In

addition, the 175 mb/d Point Fortin refinery in Trinidad and Tobago closed in November 2018 and awaits offers of reinvestment before reopening. The loss of these plants and underperformance of the remaining fleet leaves the Caribbean market heavily reliant on imports from outside the region—primarily the United States. Limetree Bay can provide much-needed immediate service to these close-by markets.

Central America, Mexico, and South America

In addition to latent Caribbean demand, Limetree and BP can also compete in Central American, Mexican, and South American markets. These have been the focus of growing gasoline and distillate exports from Gulf Coast refiners in the past decade. U.S. gasoline exports to Mexico increased 250%, from an average 214 mb/d in 2010 to 549 mb/d in 2018, according to Energy Information Administration data (Exhibit 3). Over the same period, U.S. exports to the Caribbean and Central America increased fourfold, from 43 mb/d in 2010 to 176 mb/d in 2018. Gasoline exports to the rest of South America averaged 40 mb/d in 2010, increasing threefold to 123 mb/d in 2018. U.S. distillate exports to South America have more than doubled since 2010 to average over 1 million b/d in 2018, with 30% of that total going to Mexico, 27% to the Caribbean and Central America, and 43% to other South American destinations. Taken together, the 1 mmb/d distillate and 0.8 mmb/d gasoline as well as smaller quantities of fuel oil and jet kerosene, exported to Central and South America by Gulf Coast refineries, represent a ripe market for Limetree to pursue.

Exhibit 3 U.S. Gasoline Exports to Mexico, Caribbean and Central America, and South America



Source: EIA.

As well as being geographically well placed to serve Central and South American markets, Limetree can also leverage existing relationships. For example, Limetree's principal investor, ArcLight, owns TransMontaigne Partners, which has a network of refined product terminals across the U.S., including a recently expanded Brownsville, Texas, operation linked by pipeline to the Mexican border, providing a direct supply route to that market. Minority Limetree investor Freepoint Commodities also has fuel oil supply contracts with Puerto Rican and Virgin Island utilities, currently fulfilled by imports from South America, which could be directly served by the new refinery.

In a forthcoming second note, we will discuss the market for Limetree products on the U.S. East Coast region, which is net short of gasoline and diesel. We will also detail the opportunity provided for the refinery by the International Maritime Organization regulations due in force in January 2020, which restrict ship fuel to a very low 0.5% sulfur level. The IMO regulation is expected to have a dramatic impact on ship bunker fuel markets as well as demand for low-sulfur distillates. Our analysis will finish with a review of the new refinery's headwinds. M

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