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New Permian Refinery In The Works

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AUSTIN, TX.–Thanks to the area's soaring oil production–projected by many to average 3.5 million barrels a day by year's end and jump almost a million barrels more in 2019–crude sold in the Permian Basin continues to sell at a discount from posted prices for West Texas Intermediate crude in Cushing, Ok.

Although the scenario can frustrate operators awaiting more take-away capacity to transport their crude eastward to the Gulf Coast refining complex, the conditions may prove to be a refiner's dream, especially for a facility with the dual advantages of proximity to the burgeoning crude supply and the means to transport products to market.

The significant need for a refinery capable of processing lighter crude from the Permian's steady supply of available oil and access to markets in need of refined products are motivating Austin-based MMEX Resources Corporation to embark on a crude processing venture expected to lead to a full-scale Permian-based refinery.

In March, the company signed a term sheet with an international fund to provide as much as 80 percent of a $49 million debt component to help build a crude distillation unit at Fort Stockton, Tx., in the southern Delaware Basin.

MMEX personnel break ground on the company's Pecos County, Tx., refinery in November 2017. MMEX expresses plans for the facility's first phase to speed the date at which it begins to generate income and is scheduled to begin commercial operations in the second half of 2019, during which it will distill Permian Basin crude oil into low-octane naphtha, diesel and residual fuels.

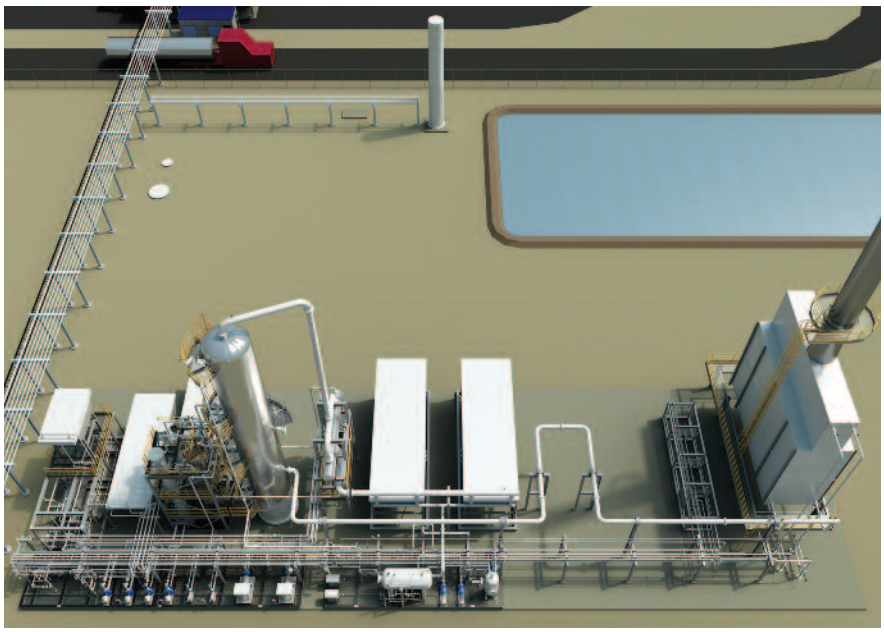
Two Phases

MMEX expresses plans to begin constructing the simplified refinery–which allows for distillation of crude into low-octane naphtha, diesel and residual fuels–by midsummer, says President Jack Hanks, adding that commercial operation is projected to start in the third quarter of 2019. Later this year, Hanks says MMEX will file for a second refinery permit as a separate project to culminate in a full-scale green-field refinery to produce transportation grade diesel, gasoline, liquefied petroleum gas and jet fuel. The phase two refinery is projected to have a capacity as great as 100,000 barrels a day of Permian crude, Hanks says.

A Midland native whose expertise was honed by experience developing natural gas processing, power generation and refining infrastructure in Peru, Hanks says readily available rail access and the continual Permian boom are behind MMEX's decision to plan a refinery that can supply transportation fuel to growing markets in western Mexico and possibly the western United States, as well as access seaborne transportation outlets to South American markets.

The plant also will have the flexibility to supply feedstocks to the traditional Gulf Coast refining hub, he adds.

"The Permian Basin is the largest oil field in the world, so why not locate a refinery there and divide development into two phases, so we can get up and going on phase one while we work on the permitting process for phase two?" Hanks poses. "We can do that while not having to build pipelines to get to market because of the existing availability of rail."



This rendering simulates what the 10,000 barrel a day crude distillation unit at MMEX's Permian Basin refinery will look like after phase one construction is complete. After finishing the second phase, the company says, the facility will be able to produce a full range of transportation-grade fuels and eventually may expand to a capacity of 100,000 bbl/d.

In March, MMEX completed road construction on an easement acquired from the state's University Lands office to gain access to the project site in Pecos County, Tx. The company says it has retained Interstate Treating Inc. of Odessa, Tx., as the primary contractor for the distillation unit's engineering, procurement and construction. Houston-based VFuels LLC is working from its headquarters as the subcontractor in the process of designing, fabricating and delivering the modular processing equipment for the distillation unit, Hanks says. Rail access is being designed and constructed by by Via Rails Engineering Inc. of Maribel, Wi., and Fort Worth.

All three firms are working with engineers from the lender–which is currently choosing to remain publicly unknown under a confidentiality agreement–and owner to complete the due diligence in order to execute a final credit agreement, Hanks reports.

Speedier Timeline

MMEX Resources initially considered launching the project by aiming to construct the 50,000 bbl/d full-scale refinery capable of producing a full range of transportation-grade fuels, and which could expand to take in 100,000 bbl/d, Hanks says. However, discussions with the Texas Commission on Environmental Quality and an in-depth analysis of full-scale permitting prompted the company to conclude it should construct the distillation unit first to accelerate the initiation of cash flow, he says.

Permitting approval for the full-scale refinery likely would have required 15-18 months, with construction also likely to take at least that long again, a time frame that probably would have put off the facility's first income until 2021, Hanks estimates. In contrast, the distillation unit can be completed in about 12-15 months, he suggests.

"We hope by the third quarter of this year to start our filing application for the large-scale refinery," he says.

TCEQ issued a permit for the crude distillation unit in August 2017, Hanks reviews. Production from the distillation unit is expected to include 4,000 bbl/d of non-transportation grade diesel used primarily in drilling fluid, Hanks says. Distillation unit production also will include an additional 2,900 bbl/d of naphtha for feedstock in other refineries, and 2,820 bbl/d of atmospheric tower bottoms, a residual fuel oil that can be used for refining feedstocks and as marine fuel, he says.

The company already has secured a five-year contract to sell all distillation unit diesel production to Pilot Thomas Logistics, a provider of fuel, lubricants and chemicals to the energy, marine, mining and industrial markets and part of the family of companies that includes Pilot Flying J truck stops. "It's our understanding that Pilot Logistics plans to market diesel to the Permian Basin," Hanks says.

With crude oil production continuing to climb, especially in the Delaware Basin, and production selling at a discount to posted WTI futures prices, MMEX Resources is unconcerned about the availability of oil feedstock, he says. The company signed a letter of intent for a crude gathering agreement a year ago with EnLink Midstream for as much as 50,000 bbl/d of oil, Hanks says.

"It is very difficult today to build a new refinery anywhere, particularly on the Texas Gulf Coast," he says. "We wanted to go to a place where we could obtain land at a reasonable price for a site. We wanted to be near a crude supply and to have rail transportation availability from West Texas to the Texas Gulf Coast and western Mexico."

Ready Railways

The availability of a refined product line from El Paso, Tx., to Phoenix may provide an additional outlet for refined products, but the quickest payoff for products from the full-scale refinery will be realized from rail transportation to western Mexico, Hanks reasons.

The Texas Pacifico South Orient Railroad transverses the plant site, he points out. The line, owned by the Texas Department of Transportation but operated by Grupo Mexico subsidiary Ferromex, extends east to around San Angelo, Tx., and westward to Presidio, Tx., with existing connections to larger rail networks in both directions.

"We located on that line specifically so we could move product east and west, including east into Dallas-Fort Worth or Temple, Tx., and down to the Houston-Pasadena refinery market or on to Corpus Christi, Tx., or Brownsville, Tx." Hanks elaborates. "Once the large-scale refinery is up and going, we will look at western Mexico because of the interconnection at Presidio by Ferromex, which has rail facilities all over Mexico from a connection across a bridge that has been rebuilt with funding from Ferromex and the U.S. Department of Transportation."

Typically, transporting by rail is more expensive than pipeline, but product pipeline construction to the Texas Gulf Coast or western Mexico represent a major expense and significant delay, he says.

"Discount the time and expense of building pipelines, and rail has a lot of advantages," Hanks considers. "The rail-

road transverses our property and, going east, has access to Burlington Northern Santa Fe Railroad with connections to Houston-Pasadena and elsewhere. It's all there with no two-or-three-year wait to build a pipeline. We are doing something very different."

Mexico's Ferromex lines include connections to several ports on the country's Pacific Coast, he notes, a gateway to export points.

"But there is also a burgeoning demand for product in western Mexico in areas such as Chihuahua City, Torreon and other places with more access provided by the deregulation movement in Mexico," Hanks says.

Thinking Big

The refining venture is not Hanks' first, he points out. After graduating from the University of Texas law school, Hanks, who also holds an undergraduate degree in petroleum land management from UT, worked at Pennzoil in Houston and later in Washington, representing companies before the Federal Energy Regulatory Commission.

In 1986, he launched Maple Resources Corporation and began acquiring producing properties, including Cabot Corporation's gas processing plants and gathering systems in West Texas, he reviews. In 1992, Hanks decided to sell the assets and moved to Peru.

His company there, Maple Peru, acquired a 4,000 bbl/d refinery in Pucallpa, along with three producing oil fields, and built the $273 million Aguaytia Project, which included natural gas production, processing, pipelines, fractionation and power generation, Hanks details. After MMEX was founded in 2010, he says, the Peru assets were sold.

"Being from West Texas and Dallas, we started focusing on the U.S. market again and that led to the idea of building a green-field refining complex in West Texas," he says. "We started with a 50,000 bbl/d concept, but we saw there was so much crude available and realized that if we added to the cost by a third, it could double the capacity. We looked at going from 50,000 bbl/d to 100,000 bbl/d. We haven't decided on the refinery's full capacity, but it will be somewhere in that range."

A 50,000 bbl/d plant can cost $500 million, and the price tag expands to $875 million for double the capacity, Hanks estimates. For Fort Stockton, construction will provide an additional economic shot in the arm, something which the facility also is likely to do for the upstream industry at work in the Delaware Basin, he points out.

"We would have a construction component of 100-plus jobs in phase one, in terms of direct employment, which doesn't include catering, housing and associated activity," Hanks reports. "That constitutes a big boost to Pecos County. The larger refinery would have as many as 400 employees during the peak of the construction phase. We also are really speaking about a pretty large incremental tax base in the county. We have a lot of support from the community and the county." ❐