

Blue Tide Environmental

By M. Diane McCormick



In re-refining, “you are what you eat,” states Pat Gribbin, Chief Commercial Officer, Blue Tide Environmental.

Blue Tide Environmental (BTE) scours the country to collect superior quality used oils for its new re-refinery, which is already producing vacuum gas oil (VGO) and set to produce the next generation of base oils.

It’s all in the quest to feed North America’s insatiable appetite for truly sustainable, high-performing lubricants capable of meeting ever-changing standards.

“The technology used in re-refined base oil has made significant strides over the years, and it now surpasses the performance of many virgin base oils,” Gribbin explains. “By focusing on high-quality inputs and cutting-edge processes, BTE is pushing the boundaries of what’s

possible in re-refining.”

With its Baytown, Texas facility now online, BTE is an advanced processor positioned to take re-refining to new heights in quality, performance, and sustainability.

Ever Evolving

Blue Tide Environmental was founded by Tailwater Capital in 2021. The current CEO, Dr. Mark Bouldin, played a significant role as the founders recognized “growing environmental concerns and the need for innovative solutions in liquid recycling and oil re-refining,” Gribbin notes. “The aim was to address inefficiencies in traditional re-refining processes and to introduce more sustainable methods.”

When their idea of advanced re-refining started taking



shape, the founders and investors had two questions: Can it be done, and can it make money? With a “yes” to both, they launched a re-refiner that competes on an equal footing with virgin base oil companies.

With Tailwater Capital’s confident backing and under Bouldin’s leadership, the original idea for building a re-refinery was to produce VGO for sale to the fuels market. The most advanced technology and a steadfast commitment to achieving circularity drove BTE’s evolution into today’s state-of-the-art plant.

With 280,000 barrel storage facilities, the site is equipped for front-end distillation and hydrotreating to produce 5,000 barrels of Group II+ base oils a day. The site will co-locate with a two-slip barge dock accessing the

Houston ship channel for efficient, far-reaching transport.

“We don’t see our competition as the re-refining space,” Gribbin states. “We realized the technology has advanced to where we can take a product that is largely discarded and not easily recycled and produce world-class base oils from it.”

In late 2023, Baytown activated its front-end distillate process and began producing VGO. That high-quality, low-sulfur VGO is slated for the hydrotreater, where it serves as the feedstock for Group II+ base oil production, and it is on track to begin by the fourth quarter of 2024.

The high-tech systems deployed at Baytown “set the stage for producing the next generation of base oil quality, which will be essential as market demand grows,”

Gribbin concludes. “The Baytown facility is designed to take re-refining to the next level, particularly in its capacity to produce higher-quality outputs.”

Meticulous process

The superior quality of North American feedstocks is a key factor in elevating base-oil quality, equipping re-refiners to operate competitively without relying on the government subsidies needed to incentivize the collection and recycling of used oils in other regions of the globe. Gribbin concludes, “The North American market works.”

BTE leverages high-quality inputs and its innovative processes “to produce exceptional oils for lubricants and specialty applications that meet stringent standards,” Gribbin explains.

A distinguishing characteristic of advanced processors is the ability to produce VGO while also utilizing it as the feedstock for its base-oil manufacturing. The VGO is not burned and consumed as fuel or applied directly to other uses appropriate for its weight. BTE’s life-cycle assessments show that oil can be recycled up to six or seven times, “providing circularity and sustainability,” unlike many other materials that can only be recycled once, according to Gribbin.

“Not all VGOs are alike,” even with quality inputs, BTE is “very selective about our feedstocks,” explains Steve Lewis, Vice President of Feedstocks & Refinery Sales, Blue Tide Environmental. Customers are prequalified through sample testing in BTE’s on-site laboratory. If approved, the product is tested before and after it arrives at the plant. After being dispatched to guard tanks, it finally streams into the main feed tank.

Such selectivity is “a big deal in re-refining today because used oil quality can be so different,” suggests Lewis. The process efficiently homogenizes feedstock at the front end for assurance of consistency that aligns with BTE’s ISO 9001:2015 quality management system certification. The hydrotreater removes any final contaminants and produces high-quality base oil before a fractionator cuts them into 70, 120, and 220 viscosity grades.

Some of BTE’s pristine base oils supply the traditional lubricants roster, including engine oil, passenger car motor oil, heavy duty engine oil, gear oil, and hydraulic oils. The rest fulfill specialty applications in industrial and consumer products – “our product performs in a lot of different markets and everyday uses,” adds Gribbin.

Like the rest of the industry, BTE is preparing for the next generation of passenger car motor oil. The introduction of ILSAC GF-7 has been accelerated to March 2025 as OEMs seek lubricants that meet strict

fuel economy mandates and sustain engine performance under strenuous conditions. As Gribbin notes, OEMs have set their expectations for lower-viscosity oils that can withstand high temperatures, and “our base oils are designed to meet and exceed these new standards, ensuring we stay competitive and aligned with market demands.”

Recalling the “you are what you eat” maxim, Gribbin notes that synthetic manufacturing and hydrocracking and isomerization technologies are feeding demand for a North American diet of synthetic-type base oils.

“That diet will ultimately find its way to all the re-refiners,” he says, and “it’s been happening already. Those materials are getting better and will allow re-refiners to produce Group III base oils when the timing is right.” Gribbin adds, “BTE has the capability of producing Group III and synthetic oils now, and we can shift into that market when there is sufficient demand to support it.”

Improved lubricants and advanced engines are lengthening the intervals between vehicle oil changes, and overall demand in the North American market remains flat, but Gribbin says that BTE occupies a solid position. Re-refiners can be “the last oil plant[s] standing.”

“If demand were to drop off, the large base oil refiners would feel a bit of a pinch first, simply because their scales are much bigger and they would have to back down,” Gribbin explains.

A future built on trust

Expansion is always on the horizon, as BTE employs 85 people and is still growing. While safety is BTE’s number-one core value, transparency is the key to external and internal relationships that last.

“It’s really about long-term relationships and connectivity,” Lewis says. “Working with our customer base, our vendor base, and our internal team, being transparent is essential.”

The BTE culture, adds Gribbin, “is to do the right thing. It’s a very customer-driven group of individuals. As a company, we are customer-focused, where supplier relationships are critical.”

“A longstanding tradition of not competing with suppliers or customers forges bonds of trust,” Lewis notes.

“Being on the Gulf Coast, we cast a wide net throughout the United States,” Gribbin concludes. “I always say we’re like Switzerland. We don’t compete with our suppliers. Working with these vendors and aggregators allows them to feel good about being a part of the sustainability story by sending used oils to Blue Tide.” ■