## An industry transition



**DEBRA FERGUSON** Technology Editor

"Call me Ishmael." These simple words begin Herman Melville's iconic 1851 novel, Moby Dick. As discussed in high school or lower-level college English classes, this short introduction opens the tale of Captain Ahab's command of the whaleship Pequot on a revenge-driven quest for a white sperm whale credited with severing Ahab's leg. What is not discussed in English classes, however, is that the whaling industry that provides the backdrop of the story was actually the oil industry that preceded petroleum.

## The 'old' oil industry

The earlier oil industry resembles the current one: The quest for oil was hard, dirty, and sometimes dangerous work. The primary end product—whale oil—was used for lighting and lubrication and in the manufacture of some food products. Like petroleum, it provided a basis for products that people needed and wanted. There was a market for as much whale oil as whaling voyages could provide.

Whale bone, a secondary product, was both strong and flexible, and was a precursor to the plastics products currently made from petroleum. Whale bone was also important in the fashion industry of the time: All appropriately dressed ladies wore corsets with whale bone inserts to force their bodies to conform to the fashion designs. Fashions have changed since then, but some clothing is still made from oil products.

Although the whale-oil industry has a long history, the petroleum industry displaced it during a relatively short time. The discovery of oil in Pennsylvania, a new method of refining crude oil into kerosine, and the invention of a lamp to burn the new kerosine product enabled petroleum to replace whale oil as a preferred means of lighting. Kerosine also had a longer shelf life and less objectionable odor than whale oil, and people did what people generally do when they find a better product; they bought it.

In addition to the discovery of oil and the development of processes and products to use it, the whale-oil industry experienced a sharp reduction of whaling ships through two relatively large-scale events. During the US Civil War, the Federal navy sank 24 whaling ships off the coast of Charlotte, NC, to blockade the states of the Confederacy. During an early winter of 1871, 32 ships were trapped and destroyed by arctic ice. Fewer ships meant fewer whaling expeditions and less oil.

The new Pennsylvania oil field provided work for the displaced sailors, however. They were already accustomed to hard, dirty, and somewhat dangerous work through the whaling expeditions, and the new oil field provided steady work that was disappearing in the whaling industry. Although oil-related terminology is difficult to document, it seems reasonable to conclude that the workers who moved from the whaling industry to the petroleum industry also contributed a few words to the oil industry vocabulary: 'Rigging' and 'swabbing' seem to be seafaring terms that were transplanted to the oil patch by former whalers.

## The 'new' oil industry

More recently, the demise of the oil industry has been predicted for several decades. The rationale for this prediction was relatively simple: We're running out of oil. The conclusion that the oil is a sunset industry may have been a bit premature, however. New exploration tools, techniques, and processes have enabled the detection of hydrocarbons that were previously unknown. New drilling equipment, understanding of reservoirs, and methods for producing hydrocarbons have enabled production that wasn't possible before.

Someone may one day figure out how to meet our energy needs with something better and cheaper than oil. If so, that discovery will likely usher in a new industry to replace our current one, just as petroleum replaced whale oil. Until that day, however, the bits will continue turning to the right and the hydrocarbons will continue to flow.

Sunset industry? Not hardly. OGJ