



Helping accelerate the development of Mobil 1 have been the thousands of hours of testing in Formula One and endurance racing with programs like Corvette Racing at venues such as Sebring and Le Mans.

Corvette's golden elixir

WHILE Corvette has evolved through six generations, so has its original engine fill, Mobil 1. Fifteen years ago, Mobil 1 became the lubricant of choice to provide Corvette customers the utmost in performance. While Mobil 1 is still the factory fill, the sixth-generation formula is vastly superior to the original recipe thanks to the research and development efforts of a team headed by William Maxwell.

Maxwell graduated in engineering from Drexel University and joined what was then called the Mobil Technology Company. Because he was present at the creation of the first consumer synthetics, he's ideal to guide *CQ* readers through six generations of Mobil 1.

The search for a viable test-tube lubricant began before World War II. Synthetic oil made of polyalphaolefins and esters was finally ready for customers in the 1970s. The first generation of Mobil 1 delivered wholesale improvements in hot and cold lubricating ability, wear protection and resistance to sludge formation.

The second generation of Mobil 1 had a more powerful additive system and was first used as factory fill in the 1992 Corvette. The third generation had a lower phosphorous content thanks to international regulations. Phosphorous is an effective anti-wear additive but it also fouls catalytic converters. The fourth generation

of Mobil 1 in 1996 also had lowered phosphorous content and contained a third synthetic called alkylated aromatic fluid, according to Maxwell. "Like polyalphaolefins, this is a pure carbon-hydrogen molecule except it has rings attached at the end. So, we made strides in both environmental compatibility and wear protection."

In 2002, the standards for gasoline engine lubricating oils were revised to meet more rigorous warranty requirements, so Mobil took the opportunity to add a new synthetic fluid that has a cushioning effect to extend the life of connecting rod bearings and other highly loaded components. Marketed as Mobil 1 SuperSyn, this fifth-generation formulation contains the same three synthetic fluids but the new densely packed molecules serve as small shock absorbers.

Mobil raised the bar again in 2005 with a new sixth-generation formulation that delivers improved efficiency in sixth-generation Corvettes. This means better fuel economy and more power at the wheels as a result of the friction reductions delivered by a new chemical additive.

"We're already working on a seventh-generation Mobil 1," adds Maxwell. "While it's extremely satisfying to continue hiking the bar with new formulations, there is one downside: I seldom find time to drive my '69 Corvette." ■