Methyl-coenzyme M reductase (MCR) from methanogenic archaea catalyzes the final step in the biological synthesis of methane. MCR contains an essential cofactor at the active site, which is a redox-active nickel tetrahydrocorphin, Coenzyme $F_{430}$. The active form of MCR contains Ni(I)-$F_{430}$. $F_{430}$ is the most reduced tetrapyrrole in nature, containing only five double bonds. UV-visible, magnetic circular dichroism (MCD), mass spectroscopic, and $^1$H and 2-dimensional NMR results demonstrate that the tetrapyrrole ring can undergo two-electron reduction to generate a species, called $F_{330}$, with an absorption peak at 330 nm. Two protons, one exchangeable and one non-exchangeable, are incorporated when $F_{430}$ is reduced with sodium borohydride, while two deuteriums (one exchangeable and one non-exchangeable) are incorporated when sodium borodeuteride is the reducing agent. $^1$H-NMR spectroscopy has been used to localize the position on the tetrapyrrole ring at which the hydride addition occurs. $^1$H-NMR and MCD spectroscopic and computational results indicate $F_{330}$ contains a low spin, most likely divalent Ni center. Thus, the conversion of $F_{430}$ to $F_{330}$ involves tetrapyrrole ring reduction but not metal-centered reduction. On the other hand, generation of the active Ni(I) form of the coenzyme with Ti(III) citrate, known as red1, involves a one-electron metal-centered reduction and not tetrapyrrole ring reduction. Computational work indicates that both ring reduction and metal center reduction cause similar shifts in the UV-visible spectra.