



Team Viking

eCIP

Case Study

A Low Impact CIP Method For Cleaning Boiler Feed Water Tubes In SAGD Applications

With enhanced chemistry and methods, Team Viking has collaboratively established a comprehensive program for BFW cleaning. This is an important cleaning due to the total steam flow available for injection to the wells is a critical parameter for all SAGD operators as steam production directly relates to the potential oil production of a facility. While the efficiency of steam use, typically measured by the Steam to Oil Ratio, varies from reservoir to reservoir, for every facility, more steam production results in more potential oil production. As a result, maximizing steam production is of foremost interest to facility operators and maximizing Boiler Feed Water (BFW) temperature is an important step in ensuring maximum steam production.



Each burner on a boiler has a maximum allowable fuel rate and once that rate is reached the boiler cannot be fired any harder. To maximize steam production, as much of the energy from the fuel as possible should be directed to boiling the feed water (latent heat) as opposed to warming the feedwater up to its boiling point (sensible heat). Thus, optimizing the BFW temperature into the boiler is vital. One way of ensuring a high BFW temperature is waste heat recovery from the process. Heat exchangers are used to transfer excess process heat into the BFW. Over time the heat exchangers can foul because of impurities in the water. This fouling reduces heat transfer and inhibits recovery of the waste heat. Maintaining clean heat transfer surfaces ensures the process heat is captured efficiently and the BFW temperature is as close to optimum as possible.



This program has a series of benefits and helps solve complex problems. At Team Viking we enjoy working on impactful cleanings collaboratively.

