

PRESS RELEASE

Online Hexavalent Chromium Analyzer Validates RCOF Treatment Process Piloted at California Water Utility

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A California Water Utility experiencing elevated levels of hexavalent chromium [Cr(VI)] in their drinking water supply is the first commercial application to use a real-time water quality monitor developed by [Aqua Metrology Systems Ltd](#) (AMS) to provide high frequency, reliable, and accurate data on hexavalent and total chromium.

The Utility obtains water from a groundwater source where Cr(VI) is naturally occurring and has dissolved into the supply exceeding the regulatory MCL at 8 of their 12 inland wells. Whereas the regulatory MCL has been set at 10 ppb with a January 1, 2020 compliance deadline, these 8 wells average 13 ppb Cr(VI).

Under the technical guidance of Corona Environmental Consulting, LLC., a Reduction/Coagulation/Oxidation/Filtration (RCOF) process is being pilot tested to verify a treatment approach for the Utility. The [MetalGuard™](#) Cr(VI) monitor has been installed to provide real-time and multi-stream analysis of influent and effluent hexavalent chromium levels for a variety of simulated operational conditions (e.g., varying chemical feed doses, contact time, and backwash frequencies) being applied to the RCOF process.

The MetalGuard Cr(VI) monitor uses a self-calibrated voltammetric detector specifically developed to allow selective determination for hexavalent and total chromium down to 1 ppb. The monitor evaluates multiple process streams, in this instance 1 raw water and 4 sample streams, and produces results in 30 minutes. The monitor operates fully unattended and continuously, 24/7, delivering between 45 and 50 analytical readings per day.

“The access to reliable near real time data in the field has been a valuable tool,” said Craig Gorman, Water Process Engineer, Corona Environmental Consulting, LLC. “Using the MetalGuard analyzer allows us to adjust operational conditions in the field without having to wait for confirmatory laboratory results. Ultimately this has allowed us to quickly progress through our testing matrix with the end goal of identifying a cost-effective and efficient treatment design for full-scale implementation.”

Rick Bacon, CEO of Aqua Metrology Systems, added “Only online monitors can deliver the level of high frequency real-time water quality data necessary for engineering firms to assess ‘what if’ scenarios during pilot studies in a timely and cost-effective manner. The data collected during the pilot study will continue to prove beneficial to the Utility once their remediation system is fully operational. The information can be used to control the dose rate and cost of treatment chemicals and to detect quickly any signs of a failure in the treatment system that may put water quality at risk.”

To access the latest information about Aqua Metrology Systems visit our [Industry News Room](#).

About AMS

[Aqua Metrology Systems Ltd](#). (AMS) is the leader of online and offline analytical instrumentation for the detection of water contaminants, specifically disinfection by-products and trace metals, across municipal and industrial sectors. We believe high frequency data is essential for effective design, project validation, and process control. As a result, our technical solutions are designed to provide reliable and repeatable information on water quality contaminants through continuous, real-time monitoring. The real-time environmental data we provide helps drive smart decisions.

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