

# PRESS RELEASE

## Innovative Hexavalent Chromium Remediation System Has Been Successfully Demonstrated at the City of Los Banos

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[Aqua Metrology Systems](#) (AMS), the leader in real-time water quality analysis, has recently completed the successful demonstration of a proof of concept for the treatment of hexavalent chromium (Cr(VI)) at the City of Los Banos in California. The SafeGuard™ H2O system developed by AMS offers an innovative approach to providing an economical and reliable remediation treatment for small and large water systems affected by contamination from Cr(VI), a known carcinogen. The novel technology generates a stannous ion reagent in-situ via an electrolytic process and also features an online Cr(VI) monitoring analyzer to ensure remediation of Cr(VI) to below 10 ppb.

The SafeGuard H2O was successfully demonstrated at one of the City's wells that has elevated Cr(VI) levels of 40 ppb and extremely challenging water quality due to the presence of uranium, high conductivity, and hardness. This type of water composition is particularly problematic for traditional Cr(VI) treatment systems based on ion exchange or zerovalent Cr(VI) remediation and excellent for detailing the treatment efficacy of the SafeGuard H2O system.

During the two-week evaluation period, the SafeGuard H2O system was demonstrated to be highly stable and efficient in generating targeted stannous reagent levels into the raw water stream to convert hexavalent chromium into its non-toxic trivalent form (Cr(III)).

"The demonstration site was visited by several engineering groups and potential water treatment partners that were impressed by the simplicity, effectiveness, and low capital/operating cost of the SafeGuard H2O system. This system offers the prospect to many Californian cities, including smaller communities, of having access to drinking water in which the health risk posed by the presence of carcinogenic Cr(VI) has been mitigated," said Rick Bacon, CEO Aqua Metrology Systems. "While these initial results are very encouraging and exceeded our expectations, full-scale evaluation is required to further demonstrate the long-term system performance of SafeGuard H2O to provide on demand Cr(VI) remediation in field conditions", Bacon continued. "Based on the positive experimental results at Los Banos, we know there's a high probability for the SafeGuard H2O technology to be scaled and to this end we are looking to secure funding and identify cities where full-scale independent validation of the SafeGuard H2O systems can be undertaken."

SafeGuard H2O generates a stannous ion reagent on demand using non-toxic, food grade reagent precursor material. As a result, there is no shelf life of the reagent and operational costs are drastically reduced since shipping and handling of hazardous chemicals associated with other chemical treatment systems are entirely avoided.

The system also features built in online sensors to monitor influent water quality parameters and an online Cr(VI)/Total Cr/Tin monitoring system to continuously analyze components of interest in all critical process steps. This results in a highly accurate process that also ensures reliable reagent dosing control through manipulation of site-specific process parameters since real time adjustments to process parameters can be made and then reported to the main control system.

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## About AMS

[Aqua Metrology Systems Ltd.](#) (AMS) is the leader of online analytical instrumentation for the detection of water contaminants, specifically disinfection by-products and trace metals, across municipal and industrial sectors. We believe real-time water quality analysis is essential to environmental protection. As a result, our technical solutions provide accurate and reliable data on water quality contaminants through continuous monitoring.

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### Aqua Metrology Systems US

1225 E. Arques Avenue,  
Sunnyvale CA 94085  
United States

[www.aquametrologysystems.com](http://www.aquametrologysystems.com)

### CONTACT

Rick Bacon  
+1 617 543 6522

[rbacon@aquametrologysystems.com](mailto:rbacon@aquametrologysystems.com)

