



## BioPro Lift Station Treatment Dramatically Reduces Hydrogen Sulfide in Municipal Collections System

### Background / Summary

**BACKGROUND:** A mid-sized municipality located in the western United States was operating a 50,000 gallon per day (190m<sup>3</sup>/day) lift station that fed into a two-mile (3.2Km) long sewer line. Hydrogen sulfide levels at the end of the sewer line were historically between 100-600ppm. Because of this high level of H<sub>2</sub>S; corrosion, safety, and public complaints were all concerns of the municipality. The treatment objective was to reduce H<sub>2</sub>S at the end of the sewer line.

**SUMMARY:** Hydrogen sulfide (H<sub>2</sub>S) was reduced by >98% at the outfall of a municipal sewer line, after just two weeks of treatment with the BioPro lift station program.

### Applications

Treatment was administered into the lift station itself. Initial dose was 1kg of BioPro ULTRA hydrated in water and poured in manually. A daily dose of 0.5 gallons (2L) of BioPro SRL was applied with an automated pump at 1am, which was identified as the period of low flow. To demonstrate success as part of our trusted process, **H<sub>2</sub>S concentrations were tracked for two weeks using an air monitor** at the sewer line outfall two miles downstream of the lift station.

### Objectives

- Reduce the high level of H<sub>2</sub>S
- Reduce corrosion and odors
- Improve safety of workers and the system
- Improve public experience of system

### Results

After two weeks, the H<sub>2</sub>S readings had dropped below the 2-ppm minimum reading of the air monitor (Figure 1).

**This is at least a 98% reduction in H<sub>2</sub>S** from the first day of application. This dramatic reduction persisted for as long as monitoring was continued at the outfall (over six weeks).

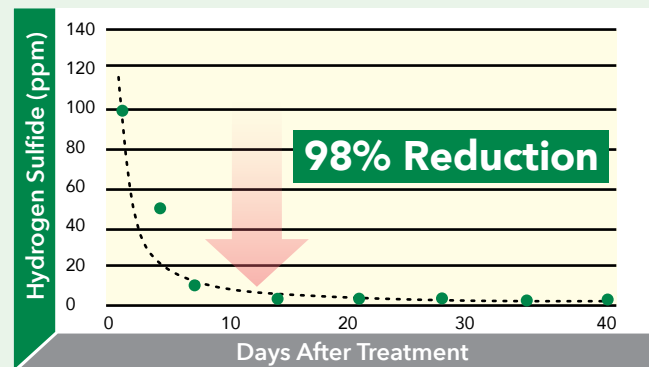


Figure 1: H<sub>2</sub>S results observed after 2 weeks of treatment and monitoring

