



CARUS™ 8500 WATER TREATMENT CHEMICAL SOLVES CORROSION ISSUE

Case History

BACKGROUND

A city located in the midwest (United States) exceeded the lead compliance rule of greater than 15 ppb. There was discoloration on primarily plumbing fixtures, and long hydrant flushing times greater than 30 minutes, resulting in USEPA mandated monitoring of lead and quarterly testing of lead dissolution throughout the distribution system.

The city was using three wells located in confined deep aquifers and treating an average of approximately 1.1 MGD (4000 m³/day) to over 2000 connections or a population of 7500. All three well systems have radium removal systems using a Hydrous Manganese Oxide process filtered through anthracite/sand mixed pressure filters. All filtered water is fluoridated, chlorinated and pumped directly into elevated storage prior to being sent to the distribution system. All wells are monitored and controlled by a computer system at the plant for maintaining consistent water pressure.

WATER QUALITY DATA

Iron:	0.1-0.5 mg/L
Hardness:	280-340 mg/L
pH:	7.3-7.5
Manganese:	0.01-0.05 mg/L
Temp:	13° C (55.4° F)

EVALUATION

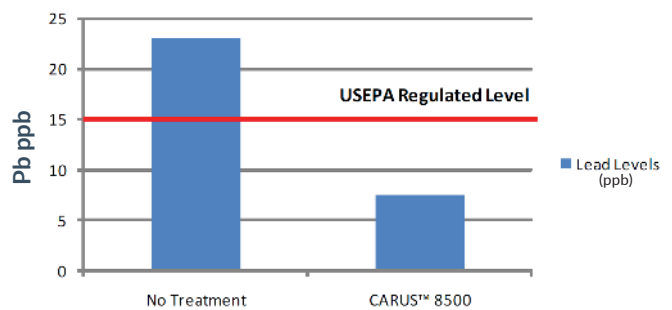
Carus evaluated the water quality and considered the lead leaching as they evaluated the proper product selection for this municipality. Carus recommended a 6-month trial using liquid CARUS 8500 at 4.0 mg/L as product or 1.5 mg/L as total phosphate (34.7 lbs/MGD or 4 kg/m³).

RESULTS

Within 60 days, the Superintendent observed color control on plumbing fixtures, and first draw lead samples tested were all within 95% of 15 ppb meeting the USEPA regulation.

One year later: The first draw lead samples taken were all less than 7.5 ppb, well below the 15 ppb action level. The hydrant flushing times were reduced from 30 minutes to less than five minutes, maintaining color control in the distribution system.

LEAD LEVELS



Carus Headquarters USA

315 Fifth Street | Peru, IL 61354 | Tel +1 (815) 223-1500 | 1(800) 435-6856 | Fax +1 (815) 224-6697
carusllc.com | salesmkt@carusllc.com

Carus Europe

Calle Rosal 4, 1-B | Oviedo, Spain 33009 | Tel +34.985.785.513 | Fax +34.985.785.510

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