Xylem saves refinery $2 million annually

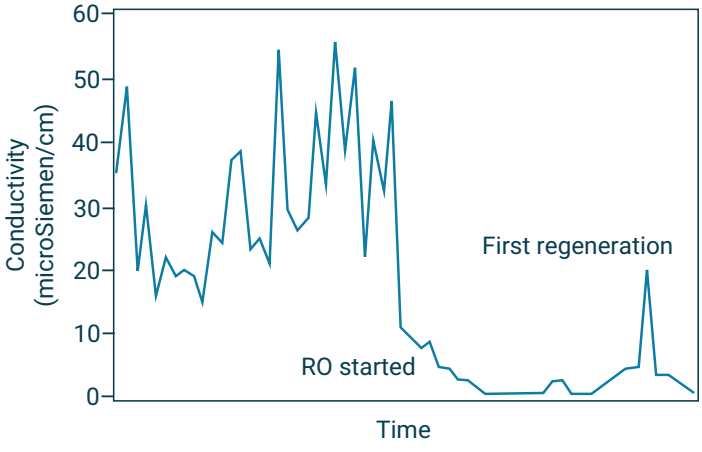


A major U.S. refinery relies on Xylem to remain environmentally compliant while updating capital and reducing costs with its water treatment system.

Challenge

A West Coast refinery turned to Xylem for help to provide more consistent and reliable quality of purified boiler feedwater. The refinery, using up to 1,500 gpm of demineralized boiler make-up water, was experiencing a variety of problems including: aging demineralizers, pending environmental legislation, excessive operation costs, wide variations of raw water quality and limited capital to address these issues.

Boiler makeup water quality improvement



Solution

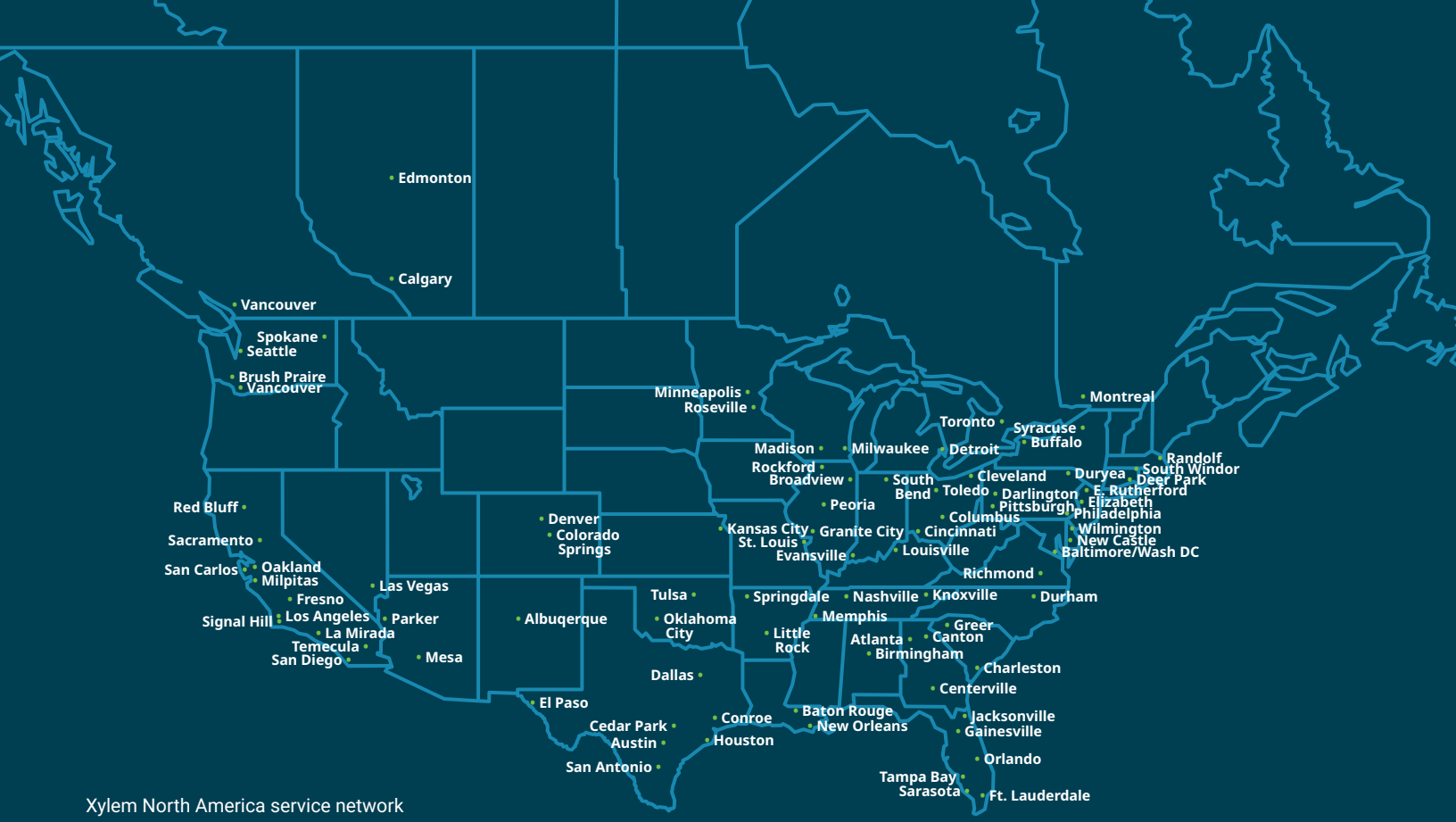
After a thorough on-site needs analysis by the local Xylem sales engineer, Xylem was selected to design, install and operate a 1,500-gpm mobile-based Reverse Osmosis (RO) system.

- Within a three-month time period, a high-purity water system was installed and put into operation feeding the refinery's existing demineralizers.
- The system consists of trailer-mounted carbon filtration, sodium softening and reverse osmosis.
- To conserve plant water and minimize waste, the RO reject water is used for cooling tower makeup.

Results

The installation of this system provided:

- $100,000 per month reduction in the refinery's operating costs
- $50,000 per month savings in water, energy and treatment chemicals from boiler blowdown reduction
- Total net savings from the first month's operation exceeded $160,000
- Higher purity makeup water improved waterside cleanliness, resulting in greater reliability of the boiler operation and lower maintenance costs
- Demineralizer waste volume was reduced 93% from 750 gpm to 50 gpm resulting in lower waste treatment demand and reduced outfall



Xylem North America service network

North America service network

Our North America service network is backed by more than 80 offices staffed with certified technicians and applications experts who can solve your problems. In addition, Xylem provides response flexibility through either a lease or capital purchase option, and the company offers assured liability protection through environmentally safe waste destruction.

Services available

- Activated carbon supply, removal and reactivation services
- Filter media supply and removal
- Ion exchange resin supply
- Membrane supply and cleaning programs
- Parts and expendables
- Service contracts
- Temporary/emergency water systems

Technologies available

- Reverse Osmosis (RO) membrane filtration
- Conventional clarification and filtration
- Oil/Water separation
- Granular activated carbon adsorption
- Demineralization
- Inorganic metals removal
- Chemical addition

Xylem delivers cost-effective, reliable systems guaranteed for quality, safety, and compliance. Our trained service staff is available to make sure your systems is running at peak performance and to your specification. For your water treatment system, choose the partner that is committed to taking care of the world's water…and yours.

xylem.com

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