



## Project Profile

### Iron Removal



Layne pilot tested, designed and furnished a complete iron removal facility for Artesian Water Company's Old County Road facility. The system consists of induced draft aerators followed by horizontal pressure filters. In 1995, Layne installed two (2) 6'-6" sq. x 12'-0" high, aluminum induced draft aerators containing redwood slat tray internals and two (2) 10'-0" diameter x 26'-0" long, two-cell horizontal filters containing sand filter media. In 1999, a third aerator and filter were furnished by Layne to increase the plant capacity to 2100 gpm (3 MGD). Layne designed a PLC based backwash control system that enables the Operator to initiate the filter backwash cycle based on either time or differential pressure across the filter bed. Wastewater and sludge handling systems were also provided as part of the system.

**Owner:** Artesian Water Company  
Newark, DE

**Contact:** John Thaeber  
302-453-6900

**Engineer:**  
Layne Christensen Company,  
Integrated Groundwater Services.  
Bridgewater, NJ

**Process Design:**  
2100gpm  
1.25mg/L Iron

**Equipment:**  
(3) model No.HF-120.26.2. S  
Filters  
(3) model No.IDA-78.12 Aerators



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Layne Christensen Company

West...800-336-5374  
Central...800-407-4449  
East...800-269-4590  
South...800-356-3824

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