**CASE STUDY**

MRI Inclined Plate Settlers  
MRI Hoseless Cable-Vac™ Sludge Collector  
Arvada, Colorado

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**Ralston Water Treatment Plant**

Location: Arvada, Colorado  
Plant Type: Municipal water treatment  
Product(s) Installed: MRI Inclined Plate Settlers; MRI Hoseless Cable-Vac™ Sludge Collector  
Year Installed: 1999 (plate settlers)  
2004 (sludge collector)

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Design Flow Rate: 10 MGD/basin  
Basin Size: 56' x 25' x 17.5'  
Loading Rate: 0.272 GPM/ft²  
Residence Time: 26 minutes  
Effluent Turbidity: 0.4 NTU

Raw Water Source: Reservoir  
Normal Turbidity: 4 NTU (raw water) / 0.4 NTU (effluent off plates)  
Highest Turbidity: 50 NTU (raw water) / 1 NTU (effluent off plates)  
Coagulant: Alum  
Effects of Spikes on Plate Settlers: Maintains < 1NTU  
Type of Sludge Removal: Hoseless Cable-Vac™ Sludge Collector