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ELECTROMEDIA® PRESENTATION

“Technologies For Treatment Of Iron, Manganese, Arsenic, & Sulfides In Drinking Water”

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FILTRONICS

Industrial & Municipal Filtration Systems
4000 Leaverton Court • Anaheim, CA 92807-1610
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Filtronics Water Treatment Solutions

- Nearly 30 Years Experience
 - Incorporated In 1974
- ***Electromedia***®
 - A New Approach To Filtration
- Over 600 Systems Installed In The U.S.
- Extensive Local Support Network
- Widespread Regulatory Acceptance
- A Growing Company For A Growing Industry

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Electromedia® Description

- ***Electromedia®*** Is a Granulated, Naturally Occurring Sand-like Filtering Media
- Mined & Processed in the United States
- Can Filter Particles As Small As 2 Microns
- Not a Resin, Plastic, or Silica Product
- Specially Processed Mineral That Can Filter up to 15 GPM/SF
- All Media Components Are NSF 61 Certified

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***Electromedia®* Benefits**

- Automatic PLC-Controlled Operation
- 5, 10, 15, 18 GPM/SF
- 4 Minute Backwash
- No Regeneration Required
- Permanent Media - Remains For Life Of The System
- No Air Scour Needed
- Simple Treatment Process

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Pilot Testing

- Why Pilot Test?
 - Verifies Chemical Oxidation Demands
 - Identifies Chealeated Iron & Manganese Problems
 - Provides Basis For Performance Warranty



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ARSENIC - Coagulation & Filtration

- Process...
 - Coagulation & Filtration Process Very Similar To Standard Iron, Manganese, & Sulfide Oxidation & Filtration Process
 - Chemical Oxidation Demand Must Be Met
 - Iron Must Be Present Or Added To The Raw Water For Arsenic Reduction
 - Phosphates Can Interfere
 - **Must Pilot Test**



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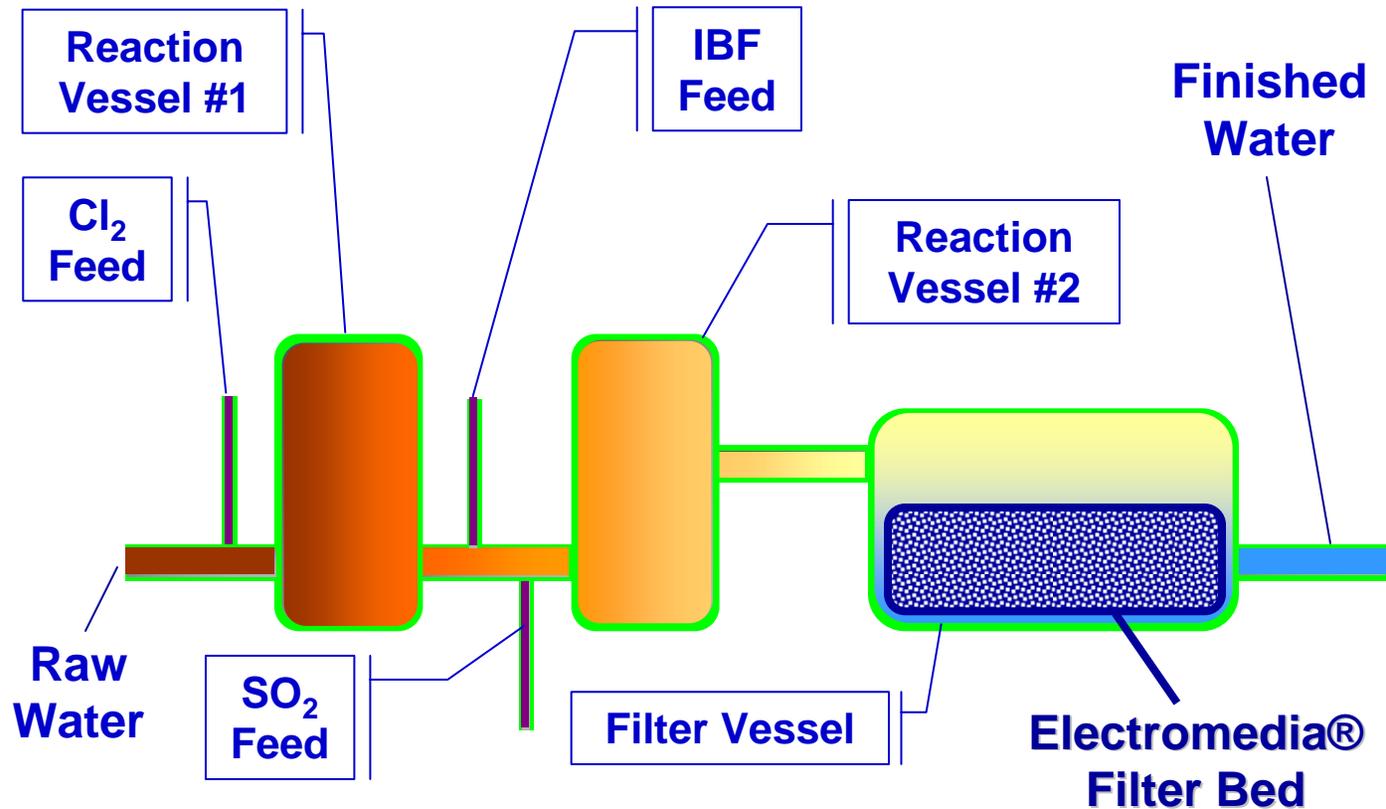
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Electromedia® Arsenic Removal Process



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ARSENIC - Coagulation & Filtration

- **The Electromedia® Advantage**

- Recent 3rd Party Validated Testing* Shows Highly Efficient Raw Water Arsenic Reductions Between 93 to 97%

- 69 µg/l Arsenic In Raw Water
 - 1.43 mg/l IBF Added
 - Arsenic Level Reduced To Average Of 5 µg/l - Greater Reduction Possible With Increased Cl₂ or IBF Feed



* *Park City, UT*

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ARSENIC - Coagulation & Filtration

- **The Electromedia® Advantage**
 - No Hazardous Waste Generated
 - Backwash Falls Well Below The T-CLP 5 mg/Kg Rule
 - Backwash Disposal Not An Issue
 - May Discharge Directly To Sanitary Sewer
 - Concentrated Solids May Go To Landfill
 - Low Backwash Volumes Make Waste Water Reclaim An Attractive Option



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ARSENIC - Coagulation & Filtration

- **The Electromedia® Advantage**
 - Automated Operation Reduces Human Involvement & Error In Dealing With Arsenic
 - Inexpensive System With Simple Chemical Feed The Only Differentiator Between Arsenic Units And Our Standard Plants
 - Minimal IBF Feed Requirements Mean Very Low Additional Operating Cost



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ARSENIC - Coagulation & Filtration

- **The Electromedia® Advantage**

- Permanent Media (Unlike GFH, Ion Exchange, Or Greensand) Never Needs Replacement
- No Membranes Or Elements To Foul With Arsenic (Thus Becoming Hazardous Waste)
- Electromedia® Never Becomes Hazardous
- Proven Technology With Systems In The Field - Not Experimental



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ARSENIC - Coagulation & Filtration

- **The Electromedia® Advantage**
 - Filtration Rates As High As 15 GPM/SF Possible Even With Introduction Of Iron Based Flocculent



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THANK YOU!

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- **Topics For Additional Discussion...**

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[Ozonation](#)

[Media & NSF Approval](#)

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