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Genefloc GPF
Fernando del Vigo Pisano – Sept07

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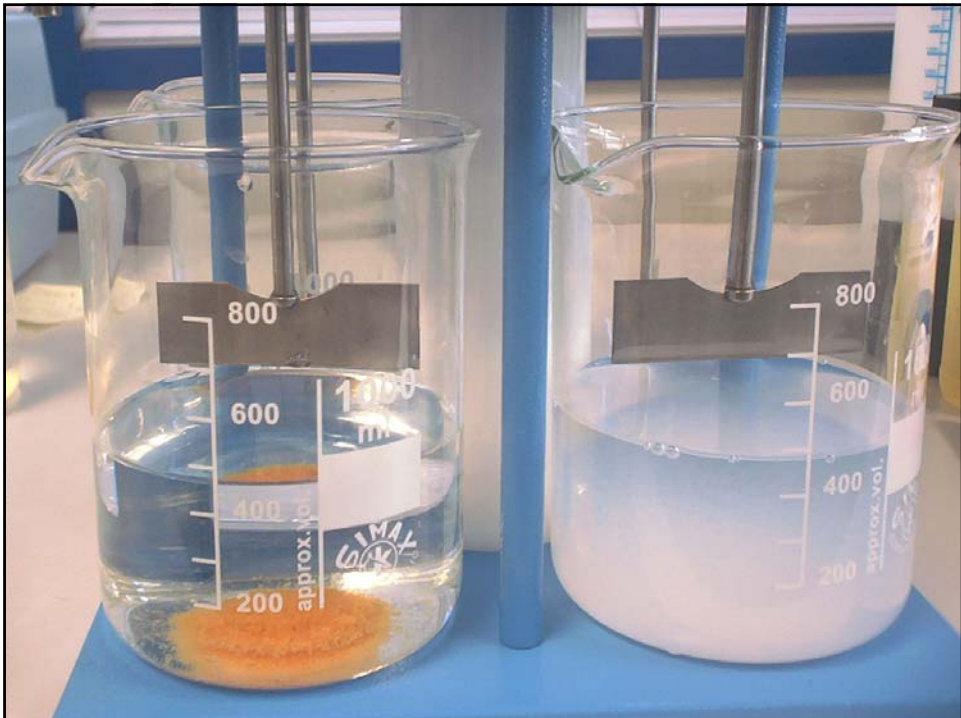
Genefloc GPF

- When to use
 - Reduce the suspended solids in feed water
- Applications
 - Surface water
 - Well water
 - Sea water
 - Waste water (after settling tank)

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- Is the appropriate flocculant?
 - Membrane compatibility certification
 - Jar Test – aprox. dosage (visually or turbidity)
 - SDI – Exact dosage
- Genefloc GPF characteristics
 - Cationic flocculant.
 - Bad performance against organic matter.
 - Excellent performance against colloids.
 - Can be dosed with coagulants.

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Genefloc GPF

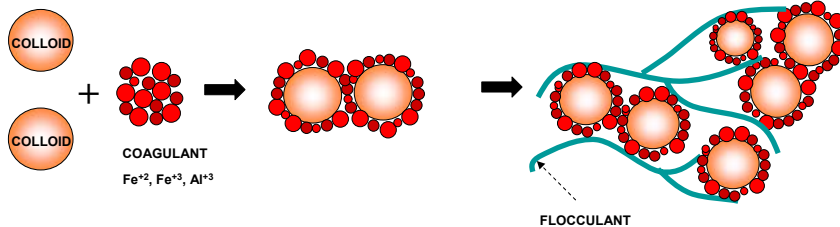


- Achieve the exact dosage?
 - Dose Genefloc GPF before sand filters.
 - Typical dosages: 0,5-3 ppm
 - Typical dosages: 0,5-3 ppm + 3-10 ppm of FeCl₃
 - Check SDI after sand filters.
 - Increase/decrease GPF dosage in order to get the minimum SDI value.
 - Variations in feed water SS concentration will modify the GPF dosage.

Genefloc GPF



- How Genefloc GPF works?
 - Genefloc GPF will catch SS from water, making bigger size flocs.
 - Works alone or after dose Ferric Chloride.



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Genefloc GPF



- How Genefloc GPF works?
 - Genefloc GPF will catch SS from water, making bigger size flocs.
 - Works alone or after dose Ferric Chloride.
 - Creates a prelayer in sand filters.

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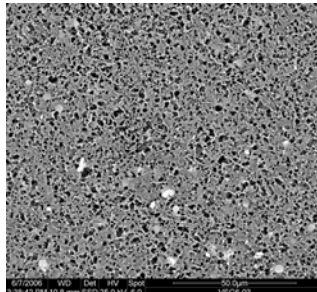
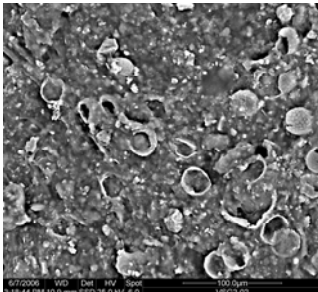


- Genefloc effectiveness?
 - SDI – numeric value + SEM
 - Turbidity
 - Particle counting – quantity and size

Genefloc GPF



- Case study 1
 - Reduction of the SDI of the water from infinite (>6,7) to less than 3 using GPF.
 - Genefloc GPF dosage: 3 ppm
 - SEM of SDI disks untreated and dosing flocculant

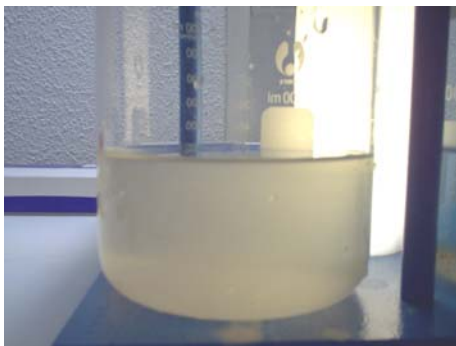


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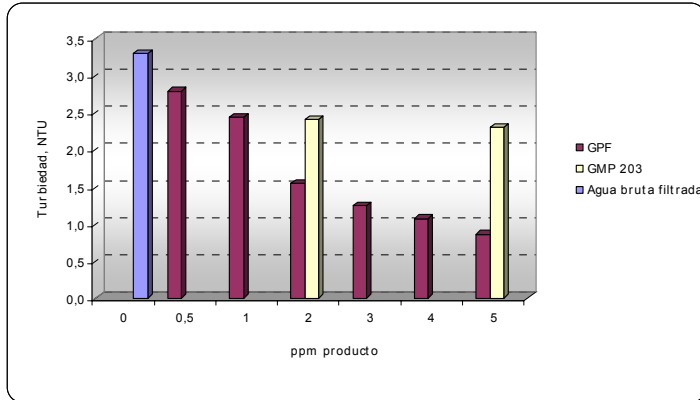


- Case study 2 – Surface water
 - Jar Test with 4 ppm of Genefloc GPF

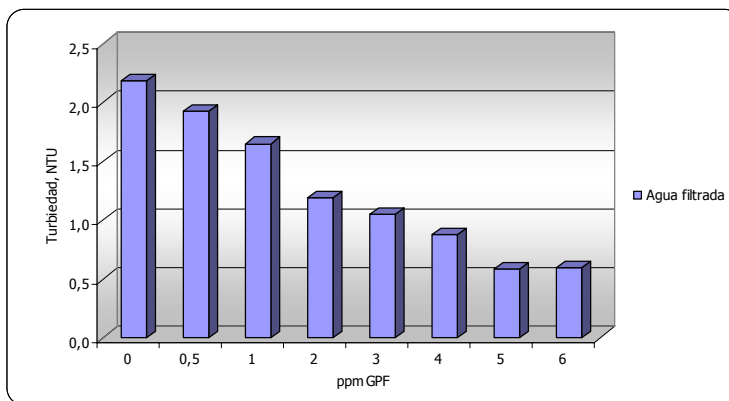


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- Case study 2 – Surface water
 - Improvement of the SDI replacing an anionic flocculant with Genefloc GPF



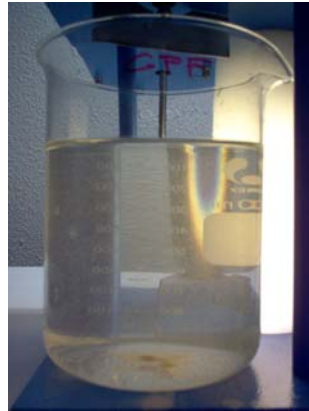
- Case study 3 - Lake
 - Reduction of turbidity Vs. Genefloc GPF dosage



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- Case study 4 – Surface water
 - Jar Test with 5 ppm of Genefloc GPF

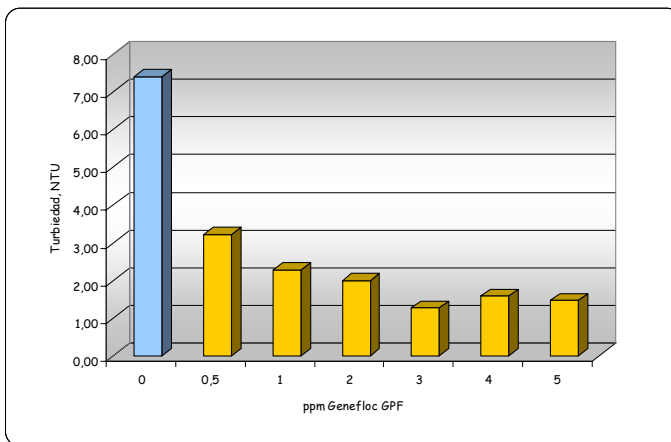


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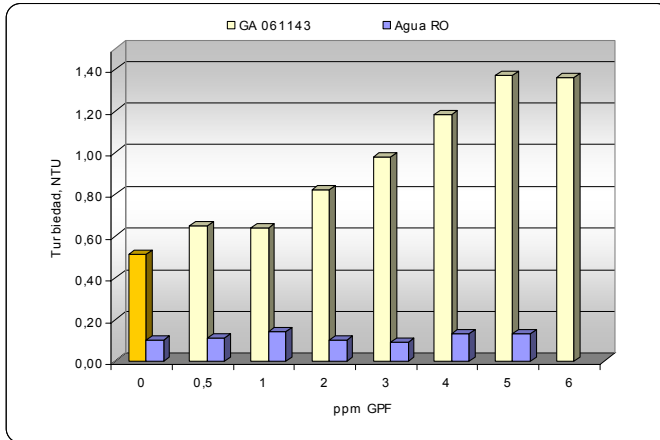


- Case study 4 – Surface water
 - Turbidity reduction Vs. Genefloc GPF dosage



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- Case study 5 – Low SS concentration
 - Turbidity increase Vs. Genefloc GPF dosage



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- Case study 5 – Low SS concentration
 - Turbidity increase Vs. Genefloc GPF dosage
 - Dosing flocculant the turbidity increases. The same dosage does not increase the turbidity of RO water. This means that GPF creates microflocs.

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Comparacion medidas directas

