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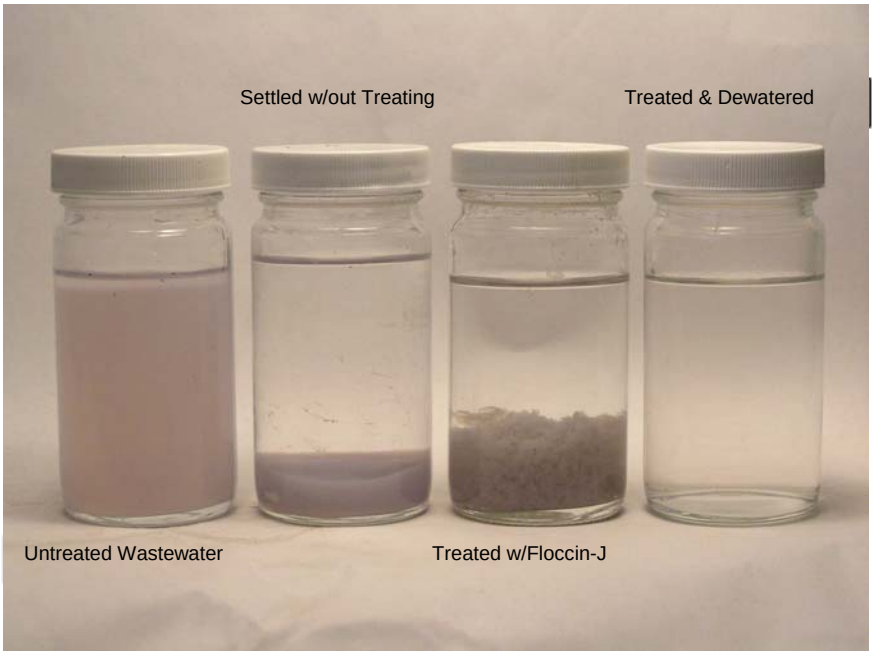
Wastewater Experts

Aluminum Anodizer



This facility anodizes aluminum components in a bath of sulfuric acid. The pH of the untreated wastewater is around 4, so it must be adjusted to near neutral for disposal. Adjusting the pH reduces the solubility of the various metals, causing them to settle out as shown above in the second jar from the left. The facility currently hauls the pH-adjusted wastewater off at a cost of 25 cents per gallon.

The sample was received at a pH of 4.2. One jar was adjusted to a pH of 7.0 and allowed to settle, which took approximately 30 minutes. Another jar was pH adjusted to 7.0 and then treated with Floccin-J at a dose rate of 2 grams per liter (16-17 lb per 1,000 gal). The final treated pH was 6.7. The floc formed was excellent (3rd jar from left) and it dewatered quickly (4th jar, far right). At a cost of $1.50 per pound (not including freight), the treatment cost is 2.5 cents per gallon.

Results from CAM17 metals analysis are presented below.

Analyte	Untreated	Treated	Limit	Reduction
Chromium (µg/L)	1570	2.2	1000	99.9%
Copper (µg/L)	3500	9.3	1000	99.7%
Mercury (µg/L)	<0.15	0.04	0.1	73.3%
Zinc (µg/L)	6310	9.9	500	99.8%

ND: Not detected
TSS: Total Suspended Solids

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