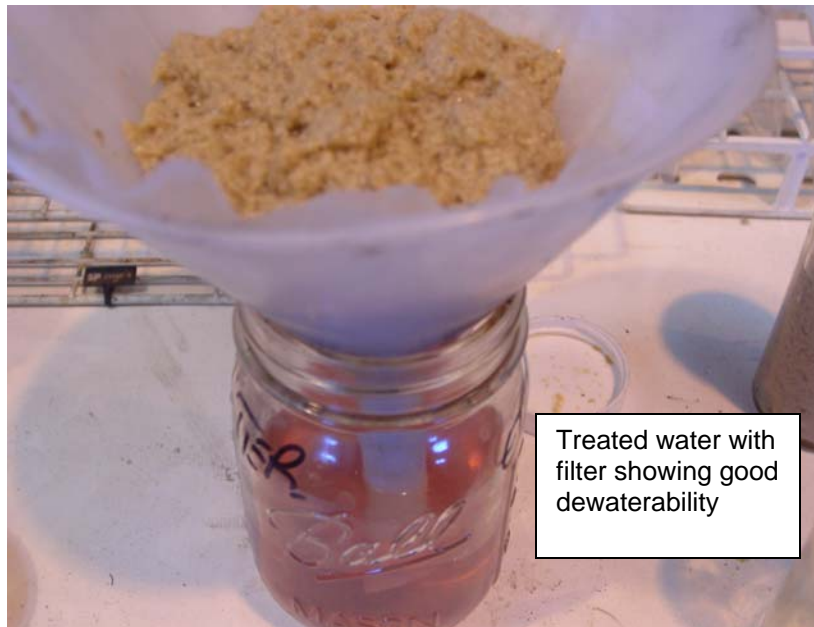
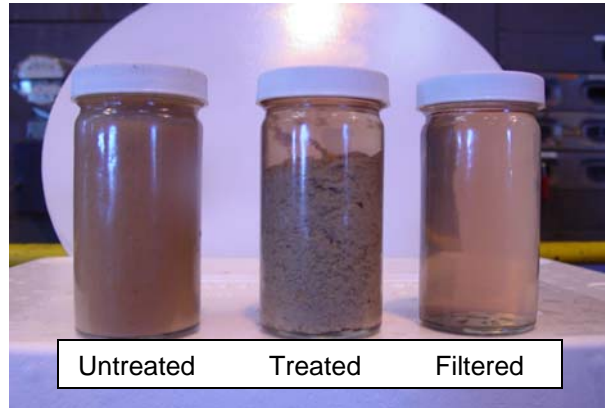




Salmon Processing and Oil Recovery

The water is from a salmon processor where they are using an Andritz 3 phase decanter centrifuge to recover the oil in the salmon parts after packaging the salmon for human consumption. The oil is very valuable for use in the health food industry. The Andritz centrifuge recovers 90% of the oil from the wastestream, but leaves a residual oil emulsion that needs to be treated prior to discharge to the sanitary sewer.

The oil emulsion generated is 2,000 gallons per day and Integrated Engineers, Inc. performed a treatability on the water as shown below. The dosage was 64 lbs of Floccin 1105 per 1,000 gallons treated. The treated water was able to meet the sanitary sewer discharge limits, but will be used instead in a different process at the plant.



Treated water with filter showing good dewaterability

Constituent	Untreated	Treated	% Reduction
Fats, Oils, and grease (FOG)	28,000 ppm	5.9 ppm	99.98%
Biochemical Oxygen Demand (BOD)	88,000 ppm	11,000 ppm	87.5%