



# Single Chemical Treatment For Oily Wastewater

### *Problem*

A waste treatment facility in Southern California was unable to get consistent clarification of oily wastewater, especially soluble oil. Wide fluctuations in detergent concentration, oil content, pH, and soluble salts made it difficult for any one chemical to produce sewerable water.

### *Solution*

A demulsifier was developed which was ready for use and required no handling. After extensive lab testing on dozens of incoming streams, ECA\* 4FC was selected. Added at 500-2500 ppm and followed by caustic addition to pH 9-10, ECA 4FC resulted in rapid settling of oily floc and successfully treated all types of oily water.

### *Results*

The customer now routinely treats mixtures of oily water by metering in ECA 4FC during transfer from the holding tanks to settling tanks, upstream of the transfer pump. Downstream of the pump, sodium hydroxide (50% strength) is added to give a final pH of 9.5. The treated water is then settled in 10,000-gallon tanks. Overnight, the floc compacts to 5-10% by volume and is removed for further dewatering. The clear water is tested prior to discharge to the sewer. Typical oil content: 25-100 ppm.

*\*Trademark of Emulsions Control, Inc.*