Solids Flux Analysis - Class Assignment

The following solids flux curve was generated from settling velocity data collected at various MLSS concentrations from a pilot scale activated sludge bioreactor. Using this data determine the recycle ratio for a mixed liquor concentration of 5,000 mg/L and an underflow concentration of 12,000 mg/L. What is the required surface area of the secondary clarifier at this condition?

Given: $Q = 1$ mgd
$Co = 5,000$ mg/L
$Cu = 12,000$ mg/L