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# APPLICATION NOTE

## *Effects of Suspended Solid Concentrations (SSC) on OBS<sup>®</sup> Measurements*



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WHEN MEASUREMENTS MATTER

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# Effects of Suspended Solids Concentrations (SSC) on OBS<sup>®</sup> Measurements

This application note discusses the effects of sediment concentrations on OBS<sup>®</sup> measurements.

Of all the factors that influence the signal output of a light-scattering sensor, suspended solids concentrations (SSC) has the largest effect. The concentration of suspended sediment over time and from place to place can easily change by a factor of 1000. In large rivers for example, it is not unusual for SSC to vary from several  $\text{mg l}^{-1}$  to several thousand  $\text{mg l}^{-1}$ . The most linear response to such changes in SSC is obtained with a backscatter-measuring sensor such as our OBS-3+ and OBS-5+. Most other designs cannot respond to them. Figure 1 shows the effects for various types of sediment.

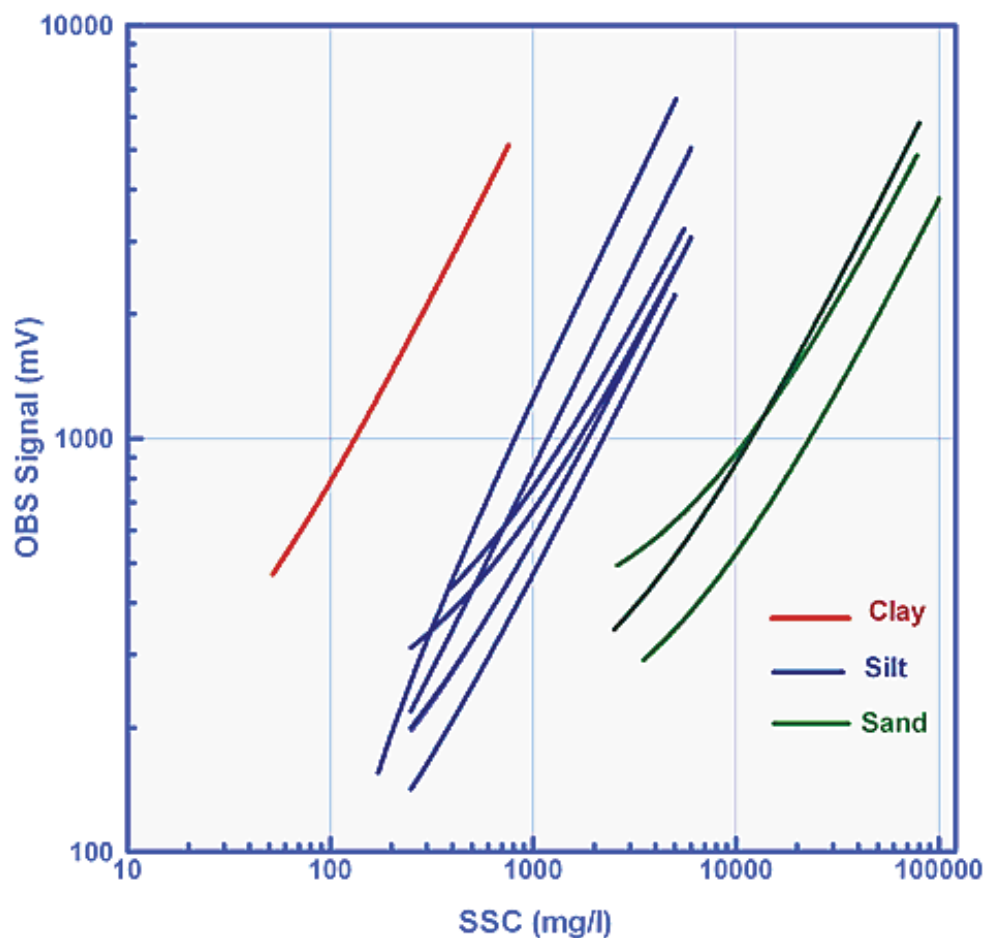


Figure 1. Graph shows the sample calibrations for sand, silt, and clay.

## Reference

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