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PROCESS ANALYZERS

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ChemScan[®] Method Summary #158 Aquatic Humic Substances (AHS)

Aquatic humic substances include most of the naturally occurring dissolved organic matter in water, principally humic and fulvic acid, but not including insoluble humin which is typically removed by filtration prior to analysis. Laboratory analysis of AHS requires sorption on XAD resin or column chromatography on DEAE cellulose. Both methods report results as Dissolved Organic Carbon (DOC). Tannic acid does not respond to these laboratory methods and is not included in AHS measurements. Some fatty acids, phenols, surfactants and proteinaceous materials do interfere with both the XAD and DEAE methods of analysis in the laboratory.

ChemScan Analysis Methods

Humic and fulvic acids both have strong uv absorbance signatures. Filtered or settled raw water samples can be analyzed for AHS content using a shared wavelength for analysis and a second wavelength for subtraction of turbidity on the UV-0254 analyzer or using a full spectrum ChemScan analyzer for analysis of the complete uv absorbance signature. Results are shown as DOC. (See ChemScan Method Summary #159, Dissolved Organic Carbon).