

## **ANALYSIS OF EXTRACTABLE ORGANIC MATTER (EOM) FROM THE NORWEGIAN NOM TYPING PROJECT SAMPLES BY GC-MS**

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The "NOM (Natural Organic Matter) typing project samples" from eight different water sources in the Southern part of Norway were analysed for extractable organic matter. Aliquots of the NOM samples were soxhlet extracted using acetone/DCM mixture (7% v/v). The extracts were concentrated and analysed by using GC-MS. The total extractable organic matter was quantified by using an external standard. The components present in the extracts were identified and the area profiles were subjected to multivariate data analysis.

The results indicate that the quantity of the extractable organic matter is proportional to the DOC (Dissolved Organic Carbon) of the NOM. The extracts were found to contain higher aliphatic hydrocarbons, mono aliphatic acids and phthalates. The compounds in the first two classes were identified as compounds arising from the transformation of NOM in water. The phthalates are concluded as coming from the environmental contamination or contamination during the NOM isolation of the water samples.

The NOM in these samples are found to fall into three groups. It appears that the catchment area or some other factors related to catchment area of the water samples, influences the characteristics of the NOM.

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