METHOD STATEMENT

Determinand:
Biological and Microscopic Examinations

Matrix:
Water Samples

Principle of Method:
This method describes a general procedure in which organisms / ad-hoc particulate matter are either mounted onto a glass slide and examined under a high-powered, phase contrast microscope or placed into a Petri dish and examined under 3-dimensional binocular microscope. The organism(s) is identified, and its significance assessed. Photographs may be taken and included in a formal report.

Sampling and Sample Preparation:
Samples should be taken in a clean suitable container. Where sample processing cannot be conducted immediately, every effort should be made to ensure that samples are refrigerated in the dark between 2°C - 8°C. The sample should be presented to the laboratory in the same condition that it was sampled, i.e. if the sample is wet, ensure that it remains moist during transportation to the laboratory. Do not wet a dried sample.

Interferences:
This test is a direct microscopic examination. The subject matter of these AD-Hoc samples is not routine and therefore the experience of the analyst and their ability to interpret what is observed is paramount to the success of the examination. It is essential that the analyst has a recognised level of invertebrate identification skills. Knowledge of the full life cycles of UK and European aquatic and terrestrial organisms is critical, as is the ability to identify organisms by partial or fragmented remains. A basic knowledge of plant life and identification is imperative.

Reporting of Results:
Results are reported against – Biological examination. The determinand result should be data entered as "See Report" A copy of the report must be sent to the customer via email. Careful consideration should be given to the wording of the final report since the analyst should take care not to unintentionally offer consultancy regarding specific client problems.

References:
Wildlife of Britain (definitive visual guide) – Dorling Kinsley, 2008, ISBN-10: 1405329327, ISBN-13: 978-1405329323.

A Key to the Major Groups of British Freshwater Invertebrates– P.S. Croft, 1987, ISBN-10:1851531815, ISBN-13: 9781851531813.

Freshwater invertebrates, A key to family level – Julian C. Piper, 2002