



**Biological Effects Quality Assurance in Monitoring Programmes /  
National Marine Biological Analytical Quality Control Scheme  
CONTRACTOR STATEMENT OF PERFORMANCE  
Year Sixteen (2009 / 2010)**

**Contractor details:**

**Name of organisation:** Unicomarine Ltd.  
**Contract start:** 1994/95  
**Contract duration:** 16 years  
**Statement Issued:** May 2011  
**Statement Number:** 16/CSOP7

**Summary of audit results/modules prepared for the invertebrate, particle size & fish components:**

*External OS audit*

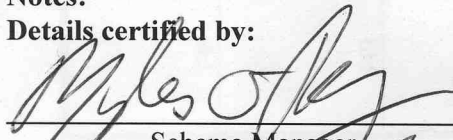
Module Name & LabCode	Exercise	Results (Bray-Curtis Similarity Index – Flag)
Own Sample (OS) LB1601	OS41	98.7 - Pass (Good)
Own Sample (OS) LB1601	OS42	99.3 - Pass (Good)
Own Sample (OS) LB1601	OS43	100 – Pass (Excellent)
Own Sample (OS) LB1611	OS41	100 – Pass (Excellent)
Own Sample (OS) LB1611	OS42	95.8 - Pass (Good)
Own Sample (OS) LB1611	OS43	100 - Pass (Excellent)
Own Sample (OS) LB1612	OS41	99.5 – Pass (Good)
Own Sample (OS) LB1612	OS42	99.7 – Pass (Good)
Own Sample (OS) LB1612	OS43	100 - Pass (Excellent)
Own Sample (OS) LB1613	OS41	99.6 - Pass (Good)
Own Sample (OS) LB1613	OS42	99.3 - Pass (Good)
Own Sample (OS) LB1613	OS43	99.8 - Pass (Good)
Own Sample (OS) LB1614	OS41	98.9 - Pass (Good)
Own Sample (OS) LB1614	OS42	99.5 - Pass (Good)
Own Sample (OS) LB1614	OS43	97.6 - Pass (Good)
Own Sample (OS) LB1615	OS41	100 - Pass (Excellent)

*Modules prepared*

Module Name	Exercise	No. Subscribing Laboratories
Particle Size Analysis (PS)	PS34/35	12
Ring Test (RT) - Invertebrates	RT37/38	24
Ring Test (RT) - Fish	-	-
Reverse Ring Test (F_RRT) - Fish	F_RRT01	20
Laboratory Reference (LR)	LR14	16
Own Sample (OS)	OS41 – 43	33
Macrobenthic Analysis (MB)	MB17	13

**Notes:**

**Details certified by:**

  
 Scheme Manager  
 Myles O'Reilly (SEPA)



  
 NMBAQCC Chair  
 Tim Mackie (NIEA)

**\*\* This is not an Accreditation Certificate \*\* The NMBAQCC Scheme is not an Accreditation Scheme \*\***

## Description of Scheme components and associated performance standards

In the table overleaf, for those components on which a standard has been set, 'Pass', 'Excellent', 'Good' and 'Acceptable' flags indicate that the laboratory's results met or exceeded the standards set by the NIMBAQC Committee; 'Fail', 'Poor' and 'Bad' flags indicate that the results failed to meet these standards. The Scheme standards are under continuous review.

Code	Component / Module	Annual exercises	Purpose	Description	Standard
PS	Particle Size Analysis / Particle Size	2	To assess the performance of laboratories when undertaking analysis of a prepared sample of sediment using their normal methods.	Prepared sample of sediment distributed to laboratories for particle size analysis and calculation of derived statistics using their normal technique.	Laboratories are required to determine the %silt-clay (<63µm), median, mean, sort and IGS(Ski) statistics to within $\pm 2SD$ of the mean of the results from all laboratories.
F_RRT	Fish / Fish Reverse Ring Test	1	To assess the accuracy of identification of fish taxa familiar to the participating laboratory / fish team.	A request to view 15 fish taxa from the laboratory's / fish team's on going monitoring surveys and / or in-house reference collection. Laboratories return material for examination.	No standard set for this component. Presented overleaf is simply a statement of participation, as comparisons between the identifications made by the laboratory and those made following re-analysis are not applicable.
OS	Benthic Invertebrate / Own Sample	3	To assess the performance of laboratories when analysing macro-invertebrate samples from their own sampling program.	Request made to laboratories for list of samples or data matrix of samples available for re-examination. Three samples selected from this list/matrix by Unicomarine Ltd. and re-analysed after receipt. Re-analysis includes resorting of residues, identification of fauna, enumeration of fauna and estimation of biomass.	<p><b>Primary Standard:</b> Similarity (based on Bray-Curtis) – 5 Tier System of classifying individual Own Samples.</p> <p>100% Pass, Excellent 95 - &lt;100% Pass, Good 90 - 95% Pass, Acceptable 85 - 90% Fail, Poor – Remedial Action Suggested &lt;85% Fail, Bad – Remedial Action Required</p> <p><b>Secondary Standards:</b> The number of taxa extracted by laboratory should be within <math>\pm 10\%</math> or <math>\pm 2</math> taxa (whichever is greater) of the total extracted following re-analysis. Number of individuals extracted by laboratory should be within <math>\pm 10\%</math> or <math>\pm 2</math> individuals (whichever is greater) of the total extracted following re-analysis. Biomass determination <math>\pm 20\%</math>.</p>
RT	Benthic Invertebrate / Ring Test	2	To assess the accuracy of identification of a wide range of fauna covering the major groups of marine macro-invertebrates and fish.	Distribution of twenty-five individually numbered but unnamed specimens for identification. Each laboratory receives same species but different specimens. These are indicated as either invertebrate or fish tests.	No standard set for this component. Results presented as the number of differences at the specific level between the identifications made by the laboratory and those made by Unicomarine Ltd. Multiple results may appear here if more than one individual has participated from the laboratory. Values in parenthesis are the mean number of specific differences for the circulation.
MB	Benthic Invertebrate / Macrobenthic sorting	1	To assess the performance of laboratories when analysing macro-invertebrate samples distributed by the Scheme.	Macrobenthic samples collected from a single location or artificially created are distributed unsorted to laboratories for analysis.	No formal standard set for this component but results are assessed using the same criteria, and are flagged accordingly, as described for OS component. Values in the table are the Bray-Curtis similarity index for the laboratory. The mean value for this exercise for all laboratories are shown in parentheses for comparison.
LR	Benthic Invertebrate / Laboratory Reference	1	To assess the accuracy of identification of fauna familiar to the participating laboratory.	A request to view 25 taxa from the laboratory's in-house reference collection. Laboratories return reference material for examination.	No standard set for this component. Presented overleaf is simply a statement of participation, as comparisons between the identifications made by the laboratory and those made following re-analysis are not applicable.