

TYPICAL REPORT LAYOUT

A typical report layout for this SASS Proficiency Testing Scheme will be based on the following template:

Introduction and scope of PTS

Results of the Proficiency Testing Schemes run between (in no particular order) DWAFs Institute for Water Quality Studies; Umhlatuze Water; Midvaal Water Company; Rand Water; Scientific Services East London; Umgeni Water; Botswana Water Utilities Corporation, Magalies Water (Vaalkop), Universities of the Orange Free State, and Port Elizabeth, during December 2000.

For confidentiality your results are referred to in all Tables and Figures as Analyst Code

Sample description and method of tests

A raw SASS sample collected from kwaZulu Natal, preserved and stained was dispatched via courier to the first on the attached list of SASS analysts. This sample was circulated to each of the analysts sequentially. Analysis was by re-suspension of the sample into clean water, half an hour of identification and recording of invertebrate families, with results centrally compiled and analysed by Umgeni Water.

Results

Results for respective analysts supplying data are reported in Table 1 and graphically in Figures 1 to ???. Outlier results were assessed according to the method advocated by the American Society for Testing and Materials (ASTM) (1979). Only Lab X was deemed to be an outlier according to this procedure (Z scores ≥ 2).

The Z scores (used to statistically evaluate performance of respective analysts) have been included in the summary of results (Table 1).

Table 1. Summary table of SASS metrics and basics comparative statistics (December 2000)

| Analyst Code | 1 | 2 | 3 | 4 | Mean | Std. Dev'n |
|---------------------|----------|----------|----------|----------|-------------|-------------------|
| Total Score | 76 | 79 | 72 | 78 | 76.25 | 3.10 |
| Nr of Families | 14 | 16 | 15 | 13 | 14.50 | 1.29 |
| ASPT | 5.4 | 4.9 | 4.8 | 6.0 | 5.28 | 0.55 |
| Z Score SASS | -0.08 | 0.89 | -1.37 | 0.57 | | |
| Z Score No.Families | -0.39 | 1.16 | 0.39 | -1.16 | | |
| Z Score ASPT | 0.23 | -0.68 | -0.86 | 1.32 | | |

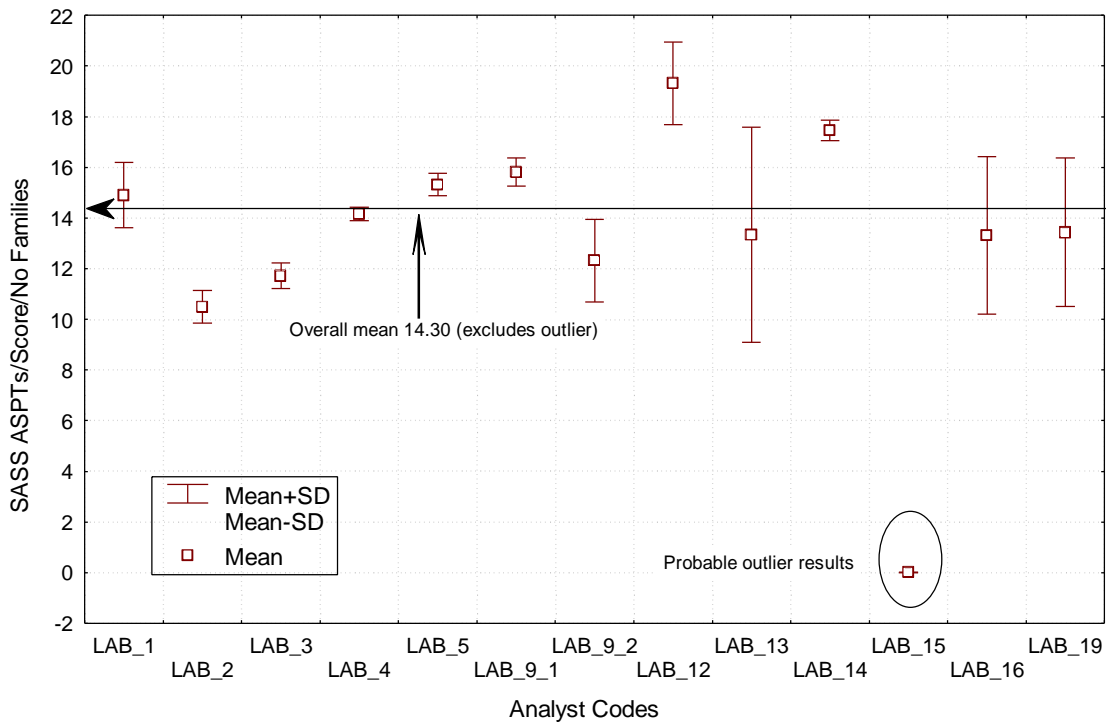


Figure 1: Graphical presentation of SASS PTS results (December 2000).

(Note there may be 3 of these figures to represent each of the SASS metrics).

In terms of these criteria all analysts in this PTS were deemed to be satisfactory for all metrics related to the SASS method i.e. SASS Score, Number of families, and ASPT.

An example of an ordination diagram reflecting these sorts of results is presented in Figure 2

Conclusion and Remarks

Analyst X and Y appear to be outliers in this PTS (distance from the central cluster of analysts in the ordination diagram).

As there is no “true value” for SASS metrics which can be assigned to the test sample it can only be assumed that the overall mean from all participants is approaching some central tendency for respective metrics in the test sample. There is a reasonable spread of means, from all participants, around the overall mean. This indicates no particular bias, either under or overestimating the “true” SASS metrics.

All analysts faired well in this PTS with good agreement obtained for all SASS metrics. Only one family (Planaria) appeared to be causing some confusion between analysts. This problem area should be addressed by individual practitioners.

These results show that

The next SASS PTS is planned for March 2000.

Thank you for your participation. We trust this exercise is proving useful to all concerned.

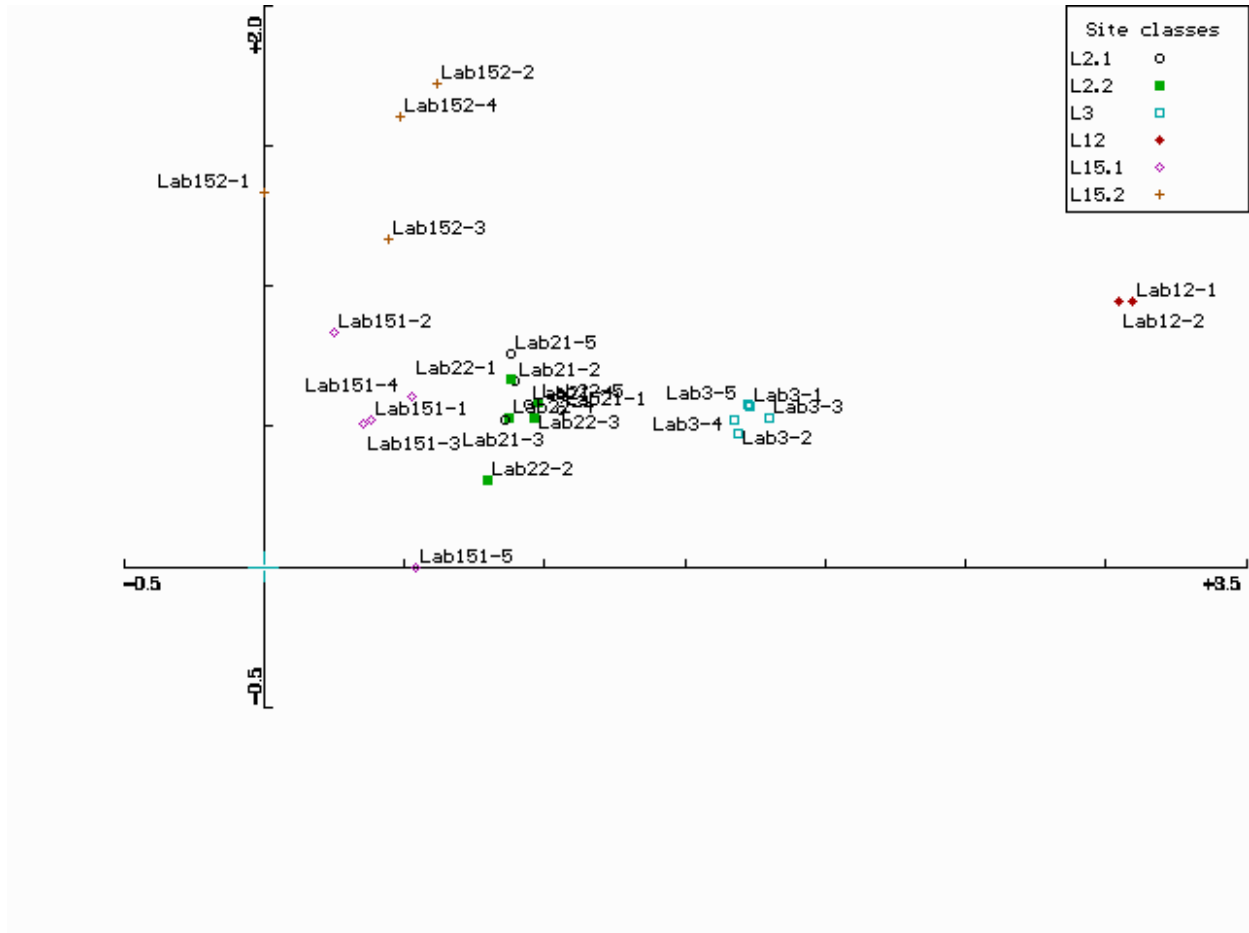


Figure 2. Ordination diagram of SASS family data from December 2000 SASS PTS.

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