2012-12 Salinity duplicates

Precision statement for replicate samples drawn from a single Niskin bottle:
The mean difference for Salinity:Bottle for the range 34.3639 to 34.6835 was 0.0010,
k = 26 (0 outlier removed) where k is the number of duplicates.

Precision analysis and the determination of outliers
Precision was determined by analyzing replicate samples drawn from one Niskin.
Outliers are discarded on the basis of Chauvenet's criteria. The statistic is calculated using the following formula:

$$\sigma = \left[\frac{1}{n-1} \sum_{1}^{n} (x_i - x_m)^2 \right]^{\frac{1}{2}}$$

The maximum deviation, dmax, is compared with the individual residuals from the original concentrations.
If a replicate's residual is greater than dmax, this reading can be rejected based upon Chauvenet's criterion.

Duplicate samples from a single bottle

Event Number	Sample Number	Station	Pressure dbar	Value 1	Value 2	Rejected yes / no
15	118	P4	1252.0	34.4634	34.4638	
15	120	P4	1001.4	34.4068	34.4040	
22	186	P8	2002.3	34.5975	34.5972	
22	189	P8	1001.2	34.3891	34.3865	
29	233	P12	3001.3	34.6491	34.6498	
29	239	P12	1001.4	34.3705	34.3700	
46	373	P16	3002.4	34.6583	34.6585	
46	378	P16	1001.2	34.3850	34.3841	
61	487	P20	3001.2	34.6562	34.6565	
61	492	P20	1001.3	34.3639	34.3658	
78	605	P26	4002.3	34.6835	34.6824	
107	813	P4	1251.5	34.4686	34.4676	
107	815	P4	1001.1	34.3927	34.3928	