# 2008-27 Salinity Duplicates

## Precision statement for replicate samples drawn from a single Niskin bottle, Autosal analysis:

The pooled standard deviation for Salinity:Bottle for the range 32.3488 to 34.6550 was 0.00075, k = 7 (3 outliers removed) where k is the number of pairs of duplicates.

The pooled standard deviation of pairs of samples (Sp) was calculated by:

 $Sp = SQRT\{sum (d*d)/2k\}$ 

where k is the number of pairs and d is the difference between pairs.

#### Duplicate samples from a single Niskin bottle - Autosal analysis.

Event	Sample	Station	Pressure	Salinity 1	Salinity 2	Rejected	Comment
Number	Number		dbar			yes / no	
11	39	P4		33.3819	33.3820		
24	124	P8		34.4687	34.4691		
24	142	P8		32.3488	32.3501		
38	197	P12		34.4422	34.4413		
53	310	P16		34.6548	34.6550		
63	363	P20		34.6765	34.6673	yes	
63	366	P20		34.6314	34.6263	yes	
72	431	P26		34.6253	34.6204	yes	
91	554	P25		34.5862	34.5841		
91	556	P25		34.5869	34.5878		

#### Precision statement for replicate samples drawn from a single Niskin bottle, Portasal analysis:

The pooled standard deviation for Salinity:Bottle for the range 32.3496 to 34.6519 was 0.0021, k = 7 (6 outliers removed) where k is the number of pairs of duplicates.

The pooled standard deviation of pairs of samples (Sp) was calculated by:

 $Sp = SQRT\{sum (d*d)/2k\}$ 

where k is the number of pairs and d is the difference between pairs.

### Duplicate samples from a single Niskin bottle - Portasal analysis.

Event Number	Sample Number	Station	Pressure dbar	Salinity 1	Salinity 2	Rejected yes / no	Comment
6	13	P2		33.7623	33.7545	yes	One sample flagged 4
6	14	P2		33.7486	33.7468		
6	15	P2		33.3754	33.3714	yes	One sample flagged 4
6	16	P2		33.3719	33.3666	yes	One sample flagged 4
6	17	P2		33.0852	33.0826	yes	One sample flagged 4
6	18	P2		32.7705	32.7675	yes	One sample flagged 4
6	23	P2		32.3510	32.3496		
6	24	P2		32.2664	32.2668	yes	One sample flagged 4
11	33	P4		34.0079	34.0084		
24	127	P8		34.1478	34.1493	yes	One sample flagged 4
38	197	P12		34.4356	34.4352		
53	310	P16		34.6486	34.6519		
72	431	P26		34.6185	34.6193		
83	508	PA-002		32.4818	32.4788		