Saturation Index Worksheet

SI= pH + Tf + Cf + Af - TDSf

1. Write down the values for each of the 5 water balance variables in the Value column.
2. Using the chart to the right, find the factor for each value and write it below in the Factor column. If the value isn't listed, use the *next highest* value. For pH, the factor is the value (write the pH value in the pH factor column).
3. Add together the first 4 numbers in the "Factor" column. Write down the subtotal.
4. Subtract the Total Dissolved Solids factor from the Subtotal and record the Saturation Index. Values from -0.3 to +0.5 are considered Balanced. Ideal is zero.
5. If not balanced, adjust by choosing an "Ideal" value for a factor(s). See Appendix B-1. Repeat Steps 1-4.

Temperature		Calcium Hardness		Alkalinity		Total Dissolved Solids	
°F	Tf	ppm	Cf	ppm	Af	TDS	TDSf
32	0.0	25	1.0	25	1.4	≤ 800	12.1
37	0.1	50	1.3	50	1.7	801-1,500	12.2
46	0.2	75	1.5	75	1.9	1,501-2,900	12.3
53	0.3	100	1.6	100	2.0	2,901-5,500	12.4
60	0.4	125	1.7	125	2.1	>5,500	12.5
66	0.5	150	1.8	150	2.2		
76	0.6	200	1.9	200	2.3		
84	0.7	250	2.0	250	2.4		
94	0.8	300	2.1	300	2.5		
105	0.9	400	2.2	400	2.6		
		800	2.5	800	2.9		

	Value	Factor	New Value	Factor
pH		→		→
Temperature		+		+
Calcium Hardness		+		+
Total Alkalinity		+		+
Sub-Total		=		=
Total Dissolved Solids (TDS)		-		-
Saturation Index		=		=

	Value	Factor	New Value	Factor
pH		→		→
Temperature		+		+
Calcium Hardness		+		+
Total Alkalinity		+		+
Sub-Total		=		=
Total Dissolved Solids		-		-
Saturation Index		=		=