



# Langelier Saturation Index

$$\text{pH} + \text{Temperature } (^{\circ}\text{F}) = \text{Factor} + \text{Calcium Hardness Factor} + \text{Total Alkalinity Factor} - 12.1 = \text{S.I.}$$

### Temperature ( $^{\circ}\text{F}$ ) = Factor

32	.....	0.1
37	.....	0.1
46	.....	0.2
53	.....	0.3
60	.....	0.4
66	.....	0.5
76	.....	0.6
84	.....	0.7
94	.....	0.8
105	.....	0.9
128	.....	1.0

### Calcium Hardness = Factor

5 ppm	.....	0.3
25 ppm	.....	1.0
50 ppm	.....	1.3
75 ppm	.....	1.5
100 ppm	.....	1.6
125 ppm	.....	1.7
150 ppm	.....	1.8
200 ppm	.....	1.9
250 ppm	.....	2.0
300 ppm	.....	2.1
400 ppm	.....	2.2
800 ppm	.....	2.5
1000 ppm	.....	2.6

### Total Alkalinity = Factor

5 ppm	.....	0.7
25 ppm	.....	1.4
50 ppm	.....	1.7
75 ppm	.....	1.9
100 ppm	.....	2.0
125 ppm	.....	2.1
150 ppm	.....	2.2
200 ppm	.....	2.3
250 ppm	.....	2.4
300 ppm	.....	2.5
400 ppm	.....	2.6
800 ppm	.....	2.9
1000 ppm	.....	3.0

### Calculation Results

+ 0.3 to - 0.3 = Balanced Water

Greater than + 0.3 = Carbonate Scale Formation

Less than - 0.3 = Corrosive Water

TDS less than 1000 ppm - 12.1

TDS more than 1000 ppm -12.2