



Saturation Index Calculations

Champion Technologies, Inc.
(Based on the Tomson-Oddo Model)

Site Information

Company	Sonat Raton LLC
Field	VPR A
Point	14
Date	9/25/1999

Water Analysis (mg/L)

Calcium	72
Magnesium	46
Barium	0
Strontium	0
Sodium*	615
Bicarbonate Alkalinity	1,327
Sulfate	20
Chloride	424

* - Calculated Value

Appended Data

CO2	2 mg/L
H2S	0 mg/L
Iron	4 mg/L

TDS-2,508

Physical Properties

Ionic Strength*	0.04
pH†	8.20
Temperature	90°F
Pressure	50 psia

* - Calculated Value † - Known/Specified Value

Calcite Calculation Information

Calculation Method	Value
pH	8.20
Bicarbonate Alkalinity Correction(s)	Value
None Used	---

SI & PTB Results

Scale Type	SI	PTB
Calcite (Calcium Carbonate)	1.49	69.5
Gypsum (Calcium Sulfate)	-3.12	N/A
Hemihydrate (Calcium Sulfate)	-2.88	N/A
Anhydrite (Calcium Sulfate)	-3.37	N/A
Barite (Barium Sulfate)	N/A	N/A
Celestite (Strontium Sulfate)	N/A	N/A