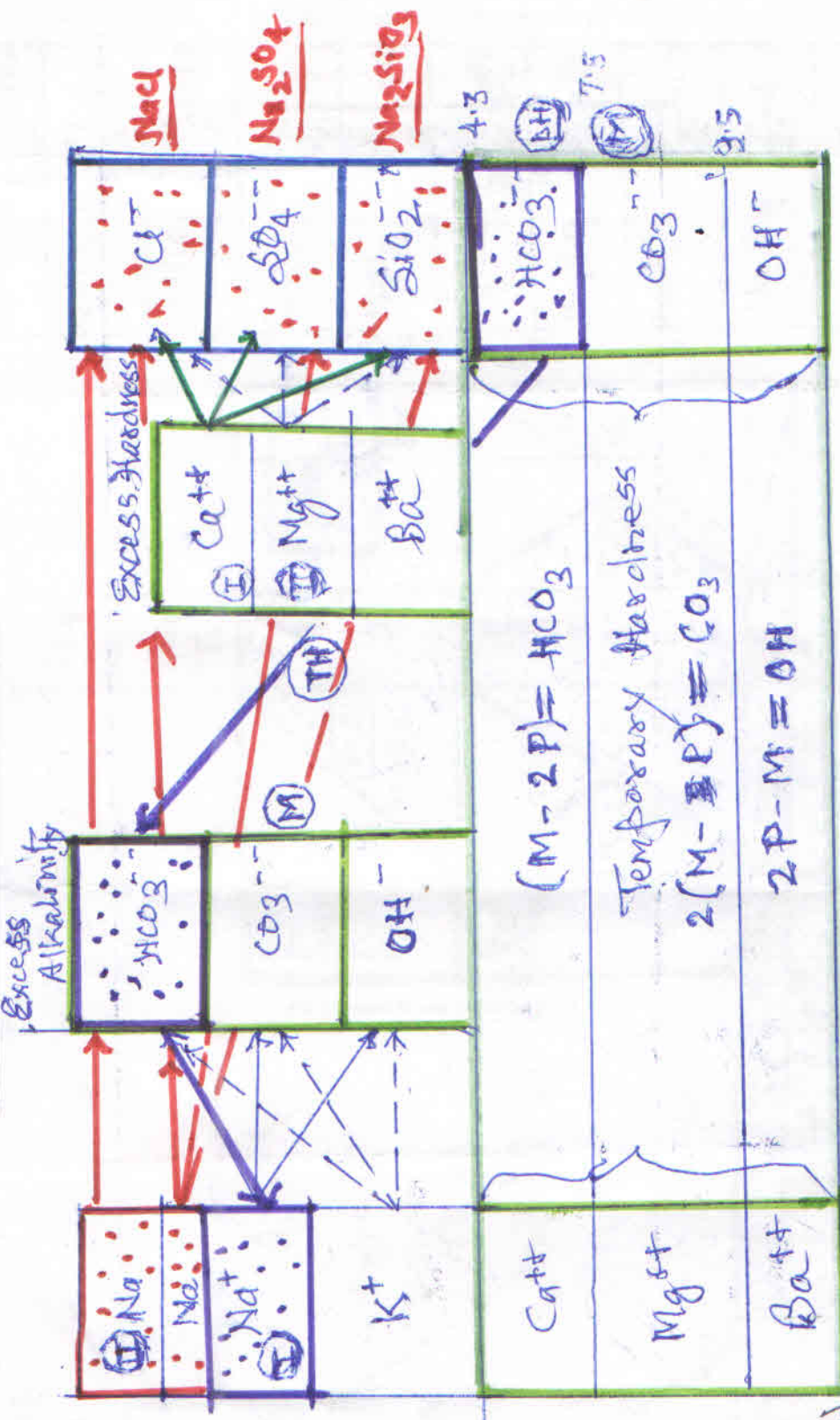


# SALT BALANCE



## Sequences

$Ca > Mg > Na > K$  (Cation)  
 $OH > CO_3 > HCO_3 > Cl > SO_4$  (Anion)

$SiO_2 > PO_4$   
 Total Anion - TH = Na  
 $(HCO_3 + Cl + SO_4) - (Ca + Mg) = Na$

$(M - 2P) = HCO_3$

Temporary Hardness  
 $2(M - 2P) = CO_3$   
 $2P - M = OH$

Total Salt = Cations + Anions

by SOB



Reading in ppm to epm & back

Conversion	Factor
$\text{Ca}(\text{HCO}_3)_2$	$\frac{81}{50} = 1.62$
$\text{Mg}(\text{HCO}_3)_2$	$\frac{73}{50} = 1.46$
$\text{NaHCO}_3$	$\frac{84}{50} = 1.68$
$\text{CaCl}_2$	$\frac{55}{50} = 1.10$
$\text{MgCl}_2$	$\frac{47.5}{35.5} = 1.34$
$\text{MgSiO}_3$	$\frac{130}{30} = 4.33$
$\text{Na}_2\text{SiO}_3$	$\frac{61}{30} = 2.03$
$\text{NaCl}$	$\frac{58.5}{50} = 1.17$
$\text{Na}_2\text{SO}_4$	$\frac{71}{48} = 1.48$
$\text{Na}_3\text{PO}_4$	$\frac{164}{95} = 1.72$
$\text{CaCO}_3$	$\frac{100}{50} = 2.0$
$\text{MgCO}_3$	$\frac{42}{50} = 0.84$
$\text{NaNO}_3$	$\frac{50.85}{50} = 1.017$
$\text{CaSO}_4$	$\frac{136}{50} = 2.72$
$\text{MgSO}_4$	$\frac{120}{50} = 2.4$

prepared by S.C. Bhattacharya  
1.25

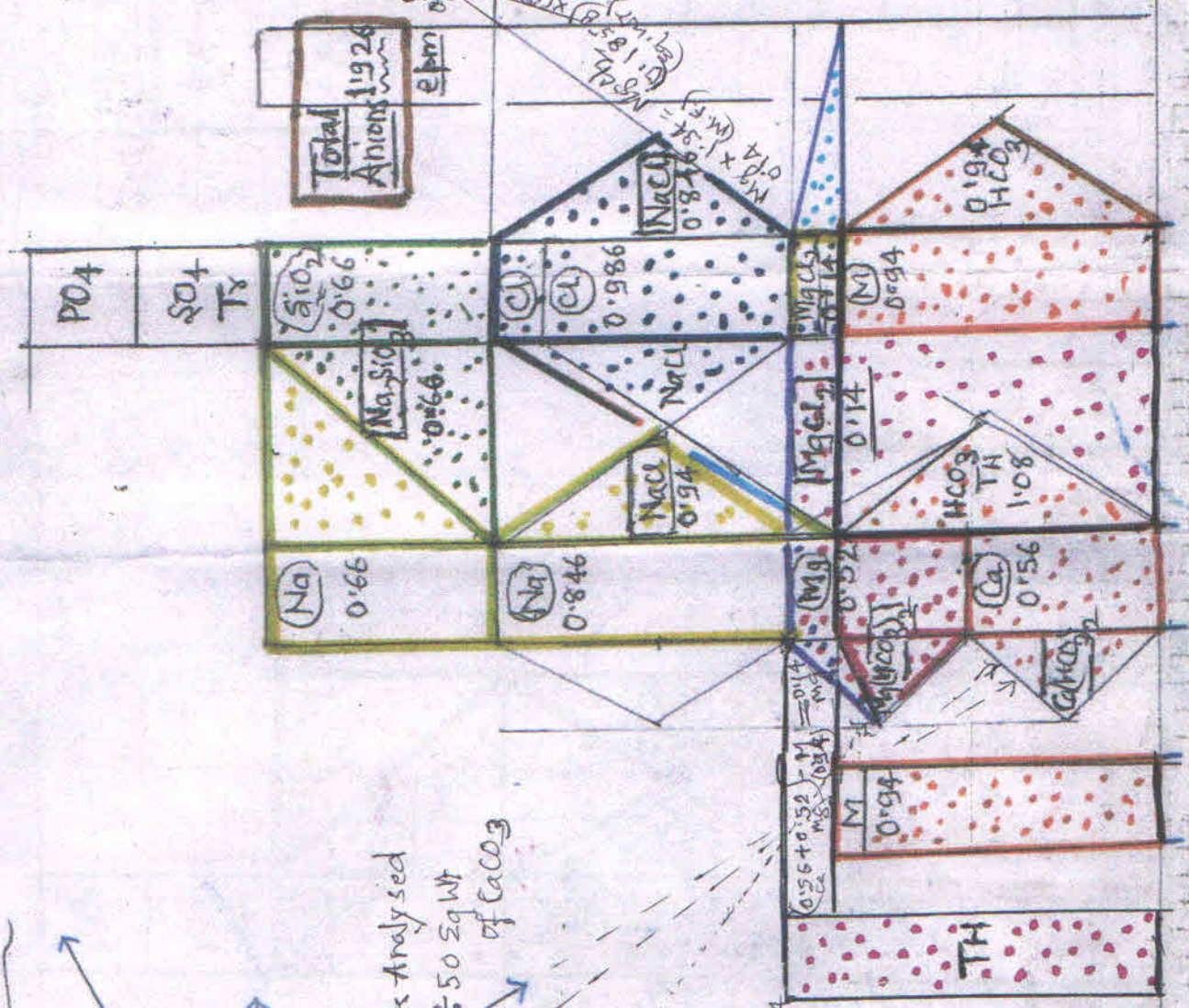
# SALT BALANCE

When  $\text{TH} > \text{M}$

TH - 7.3	M - 4.7
TH > M	5.4 > 4.7

As Analyzed  
÷ 50 Eq Wt  
of  $\text{CaCO}_3$

ppm	as $\text{CaCO}_3$	as $\text{CaCO}_3$
CaH	28	
MgH	26	
SO4	78	
SiO2	19.8	
P		
Cl		



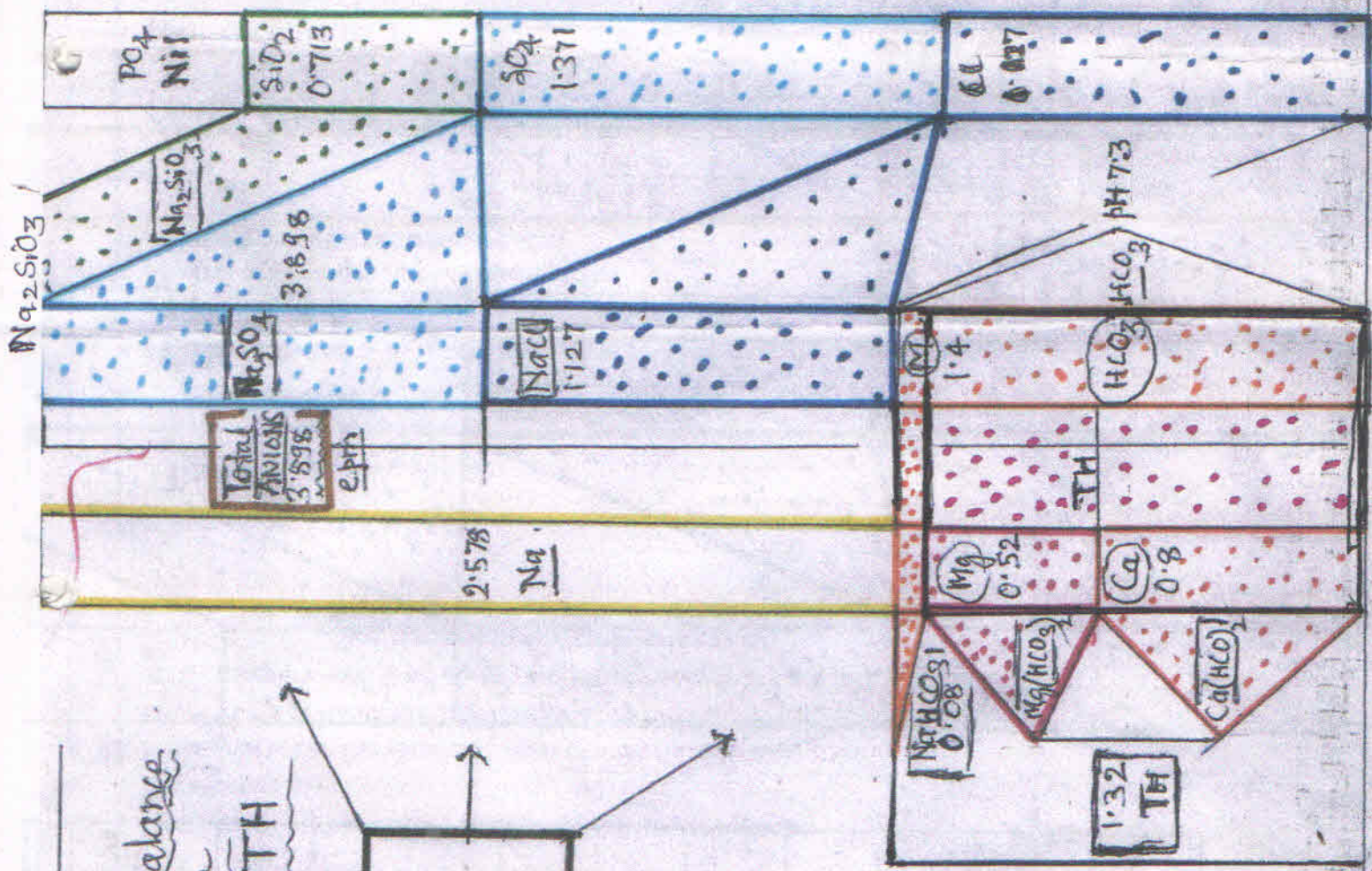
\* we are in the process of updating all payment records



SALT Balance  
When  $M > TH$

pH = 7.3  
M > TH  
70 > 66

	ppm
CaH	40
MgH	26
Cl	40
PO4	Nil
SiO <sub>2</sub>	21.4
Fe	Tr
SO <sub>4</sub>	65.8
SP Cond	456 MS/cm
TDS	3042



Reading PPM to ~~SP~~ back

Conversion	Factors
Ca(HCO <sub>3</sub> ) <sub>2</sub>	$\frac{81}{50} = 1.62$
Mg(HCO <sub>3</sub> ) <sub>2</sub>	$\frac{73}{50} = 1.46$
NaHCO <sub>3</sub>	$\frac{84}{50} = 1.68$
CaCl <sub>2</sub>	$\frac{55}{50} = 1.10$
MgCl <sub>2</sub>	$\frac{47.5}{35.5} = 1.34$
MgSiO <sub>3</sub>	$\frac{42}{30} = 1.40$
Na <sub>2</sub> SiO <sub>3</sub>	$\frac{61}{30} = 2.03$
NaCl	$\frac{58.5}{50} = 1.17$
Na <sub>2</sub> SO <sub>4</sub>	$\frac{71}{48} = 1.48$
Na <sub>3</sub> PO <sub>4</sub>	$\frac{164}{95} = 1.72$
CaCO <sub>3</sub>	$\frac{100}{100} = 1.0$
MgCO <sub>3</sub>	$\frac{42}{50} = 0.84$
NaNO <sub>3</sub>	$\frac{85}{65} = 1.37$

CaSO<sub>4</sub> = 1.40  
MgSO<sub>4</sub> 60/48 = 1.25  
Prepared by R.C. Bhasarda



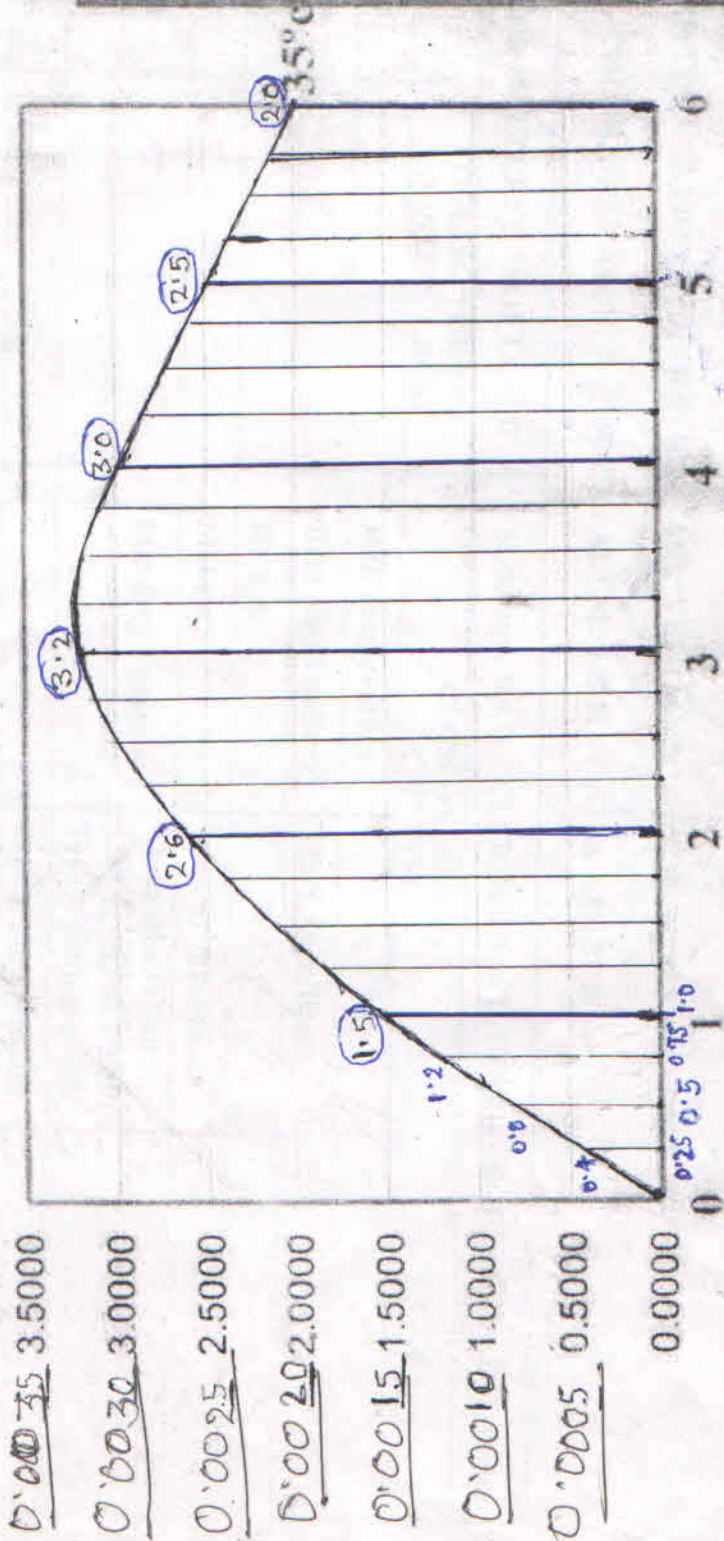
0.0010  
0.0015  
0.0020

1.50 2.60 3.20 3.00 2.50 2.00 X

1 2 3 4 5 6

VALUE  
CHART'S  
COLUMN  
WISE

6	0.00200
5	0.00250
4	0.00300
3	0.00320
2	0.00260
1	0.00150



Rep.  
1000