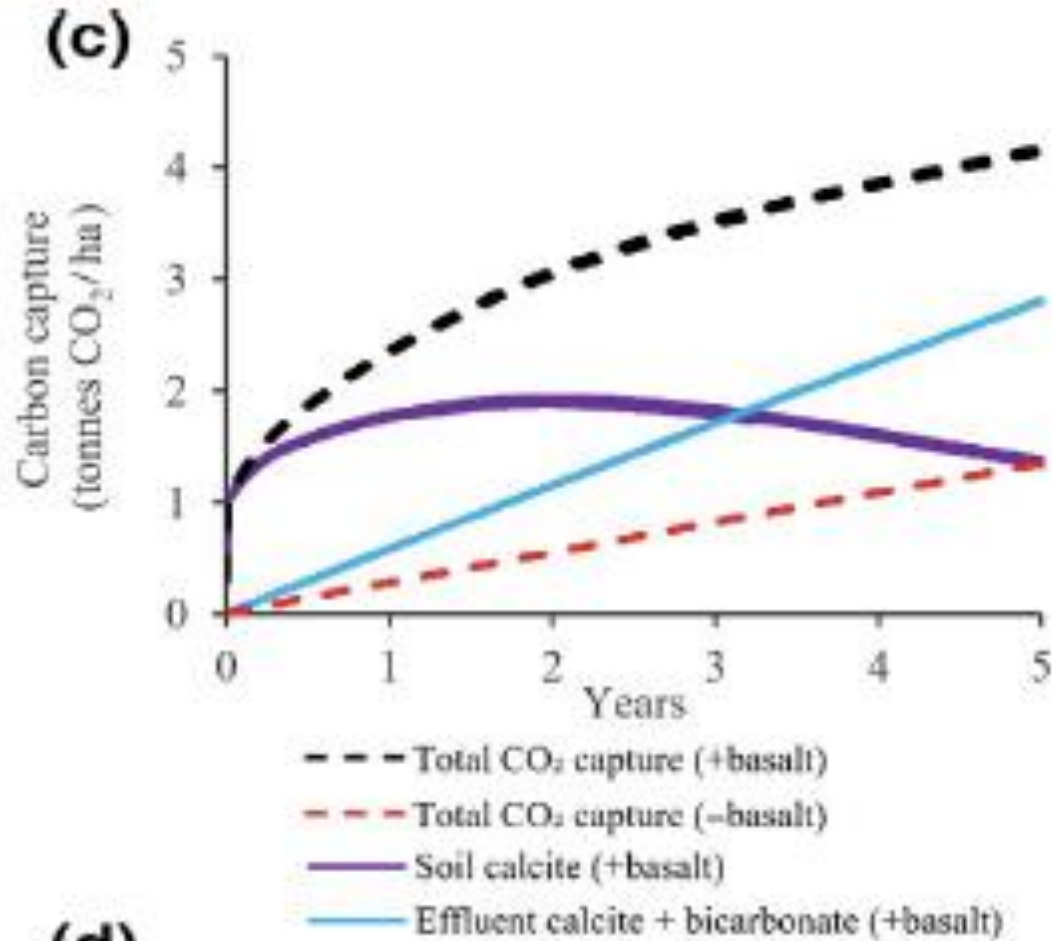


Ultimate tons CO₂/ha diagram. May be one line only – total CO₂ captured so that we can have a band of uncertainty later



(d)

No Basalt case
Amending basalt cases

Soil calcite

Solution 1-10, average,

$$C_{1-10} (\text{mol/L}_{\text{pw}}) * V (500000 \text{ L}_{\text{pw}}/\text{ha}) * 44 (\text{g/mol})/1000000 = M (\text{tones CO}_2/\text{ha})$$

Effluent calcite

Solution 11,

$$C_{11} (\text{mol/L}_{\text{pw}}) * V (500000/10 \text{ L}_{\text{pw}}/\text{ha}) * 44 (\text{g/mol})/1000000 = M (\text{tones CO}_2/\text{ha})$$

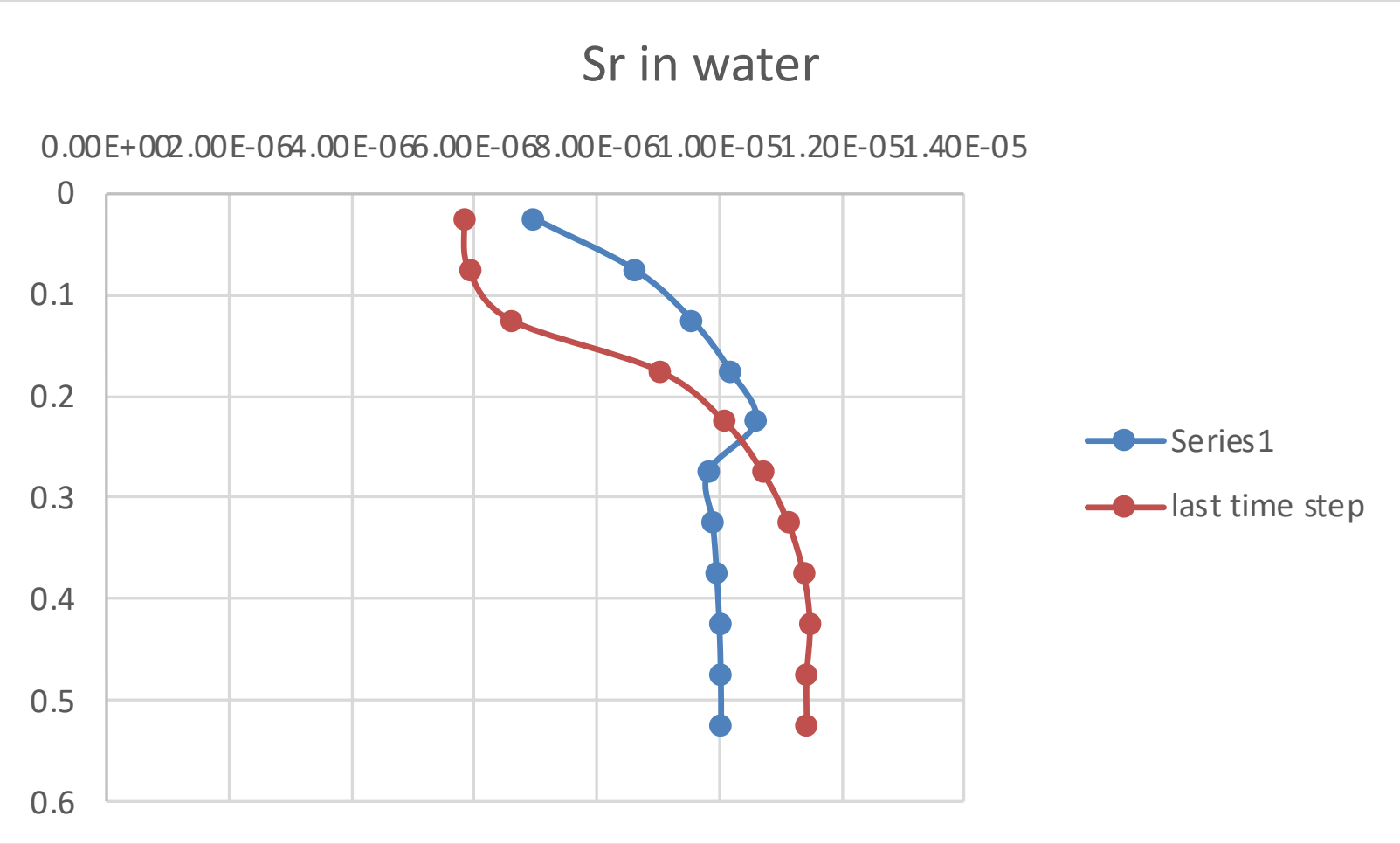
Effluent bicarbonate

Solution 11,

$$\sum_0^t C_{11} (\text{mol/L}_{\text{pw}}) * V (500000/10 \text{ L}_{\text{pw}}/\text{ha}) * 44 (\text{g/mol})/1000000 = M (\text{tones CO}_2/\text{ha})$$

$$\text{Total capture CO}_2 (\text{tones CO}_2/\text{ha}) = \text{Effluent bicarbonate} + \text{Effluent calcite} + \text{Soil calcite}$$

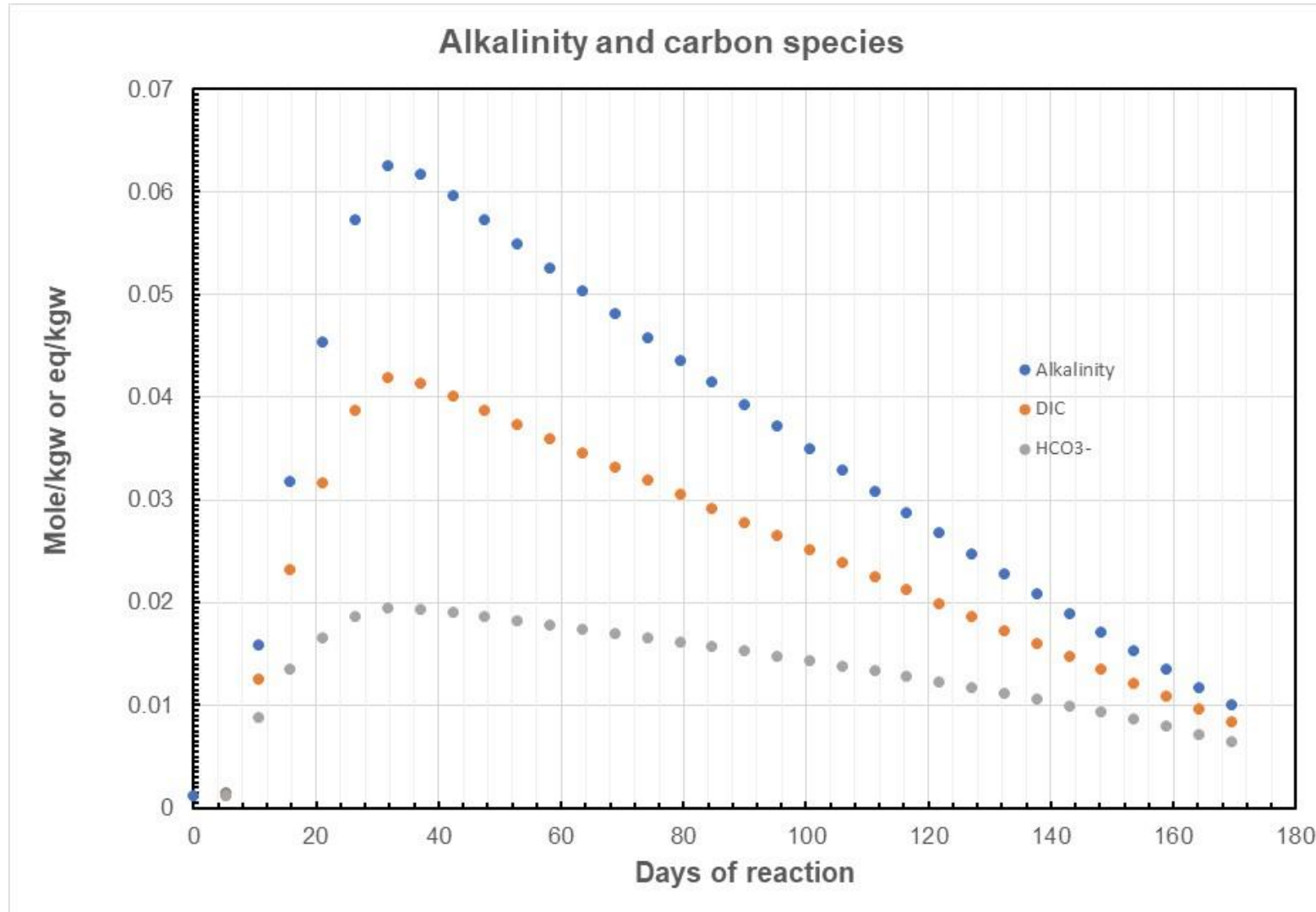
Vertical profile in soils. Vertical axis cm. Horizontal axis change concentrations from mol/kgw to mg/L. Choose three time steps. t=0 the baseline. The last time step. One in middle. W should have pH, other parameters.



pH,

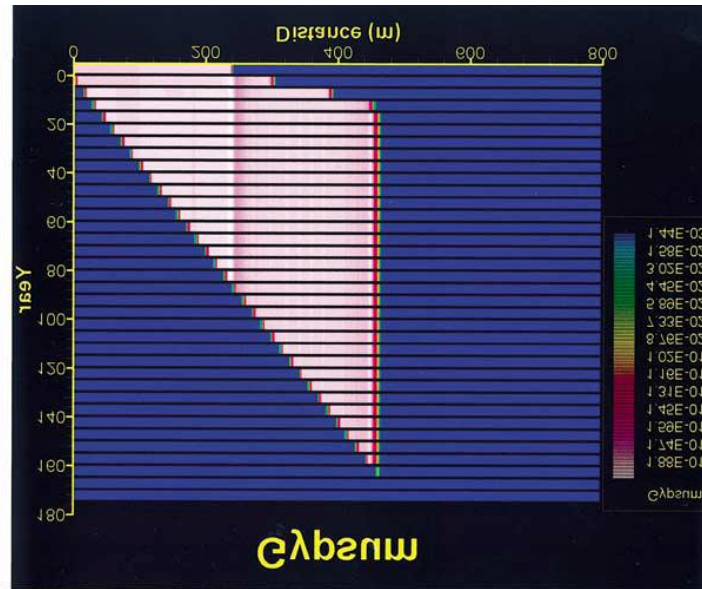
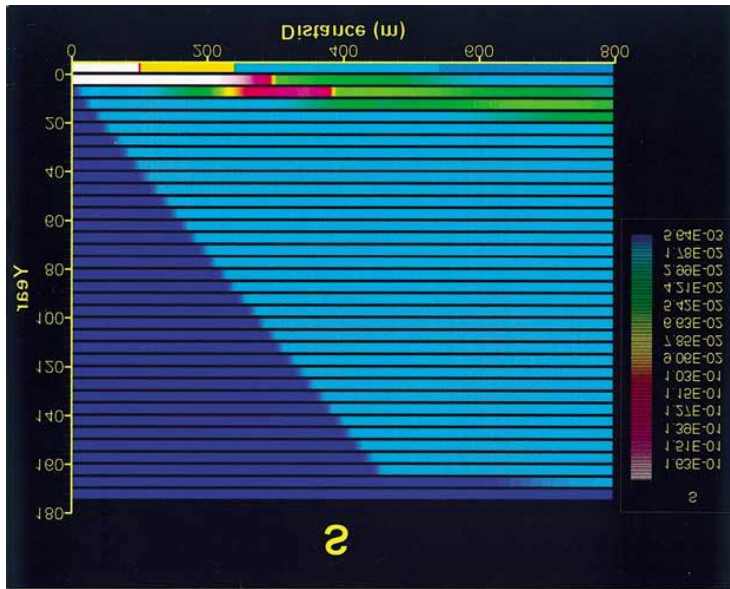
N Na Ca Mg K Al Si Fe Sr Ba
P C(4) Hfo_s Hfo_w
Calcite Chalcedony Al(OH)3(a)
Fe(OH)3(a) O2(g) CO2(g) Quartz
Labradorite Apatite Diopside
Forsterite Fayalite Albite Microcline
Montmorillonite Glass
MikeSorghum

Temporal evolution in Cell 5, 10, and 11. what parameters you want to plot.



pH,

N Na Ca Mg K Al Si Fe Sr Ba
P C(4) Hfo_s Hfo_w
Calcite Chalcedony Al(OH)3(a)
Fe(OH)3(a) O2(g) CO2(g) Quartz
Labradorite Apatite Diopside
Forsterite Fayalite Albite Microcline
Montmorillonite Glass
MikeSorghum



X, depth
Y, years

pH,

N Na Ca Mg K Al Si Fe Sr Ba
P C(4) Hfo_s Hfo_w
Calcite Chalcedony Al(OH)₃(a)
Fe(OH)₃(a) O₂(g) CO₂(g) Quartz
Labradorite Apatite Diopside
Forsterite Fayalite Albite Microcline
Montmorillonite Glass
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