EPA 1312 LEACH TEST and CHLORIDE BURIAL STANDARD

1 kg waste + 2 kg clean soil = 3 kg mix.

Leach with 3 X 20 = 60 kg water, same as 60 liters water.

Result is 3500 mg Chloride per liter (Dr. Stephens' standard).

Total Chloride is 60 X 3500 = 210,000 mg.

Chloride per kg mix is 210,000mg/3kg = 70,000 mg/kg.

NaCl per kg mix is 346,000mg/3kg = 115,000 mg/kg or 11.5% salt.

Chloride per kg waste is 210,000mg/kg.

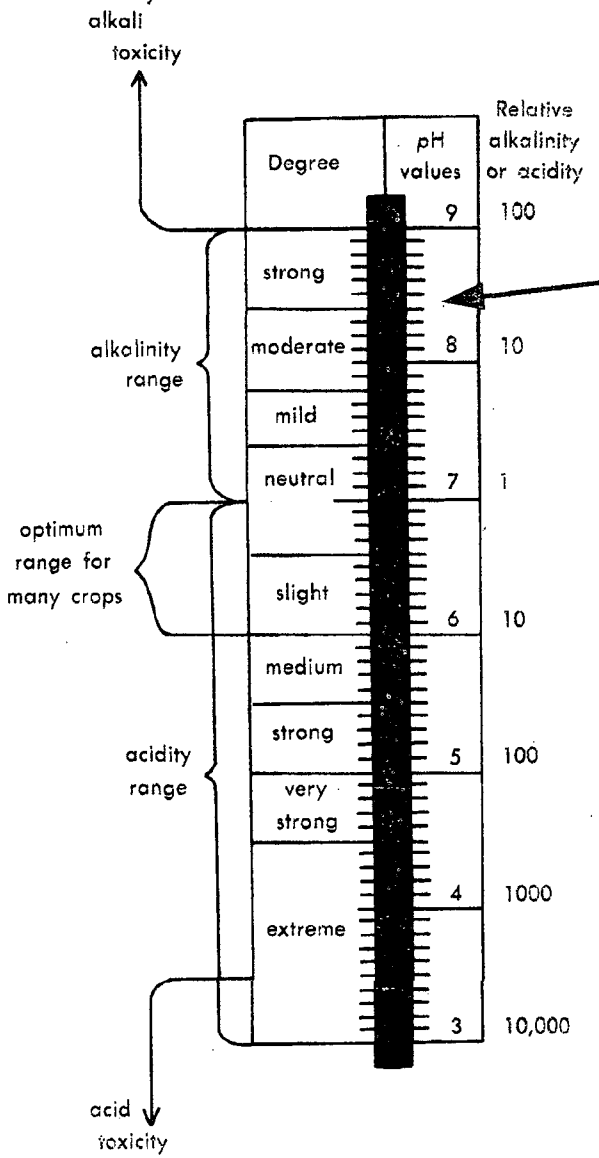
NaCl per kg waste is 346,000 mg/kg or 34.6% salt.

OCD SAMPLING of PIT SOLIDS

Northwest	pH
DP3-01	11.9
DP3-03	12.2
DP3-08	11.5
DP3-09	11.7
DP3-10	11.6
DP3-01	7.96

Southeast	pH	Chloride	(water Cl)
CL-6	11.0	18,600	
DP-1	7.79	8,260	
DP-4	7.8	30,200	
DP-5	7.95	8,910	
DP-7	11.6	55,200	
DPA7	10.8	213,000	
DPH1	9.38	59,100	
DPH2	10.1	144,000	
DPH4	12.1	226,000	(184,000)
DPH5	8.89	87,800	
DPH6	11.4	66,400	(244,000)

FIG. 10.17. *p*H and soil acidity or alkalinity. Note that actual acidity or alkalinity changes 10 times, or 1000 per cent, for each unit of *p*H; also that the point of direct acid toxicity is below the level of extremely acid soils.



pH TOXICITY SCALE OF PLANTS

Alkali toxicity occurs above pH 9.0 .
Strong alkalinity is above 8.5 .

from Wilson and Loomis, Botany, revised edition. Dryden Press, 1957.

"...when crop production declines due to high soil pH, it is usually because the pH is 8.5 or higher and water movement into the soil is drastically reduced."

"Soil pH and Buffer Index," Johnson and Zhang, Oklahoma Cooperative Extension Service. http://osufacts.okstqte.edu