

Reduction in VCM emissions of gasholders

Quantities

Plant Remarks	Volume m ³	t _{VC} /y	emission kg _{VCM} /m ² .y	
U	2000	2.5	100 (?)	1991
V	4000	60	10	sixties (measurements)
W	2000	0.3 11	10 500	diffusive hipotesis convective "
X	1500	6.6	19	1993 (measurements) 1 layer ϕ 45 mm floating balls

REDUCTION TECHNIQUES

1) PP ball seal

	diameter of the balls	reduction of emissions	measurements above waterseal
lab scale	1/8"	x 1/5	
SOLVAY plant A	45 mm	x 1/10	at 10 cm
SOLVAY plant B	45 mm	x 1/2	at 100 cm

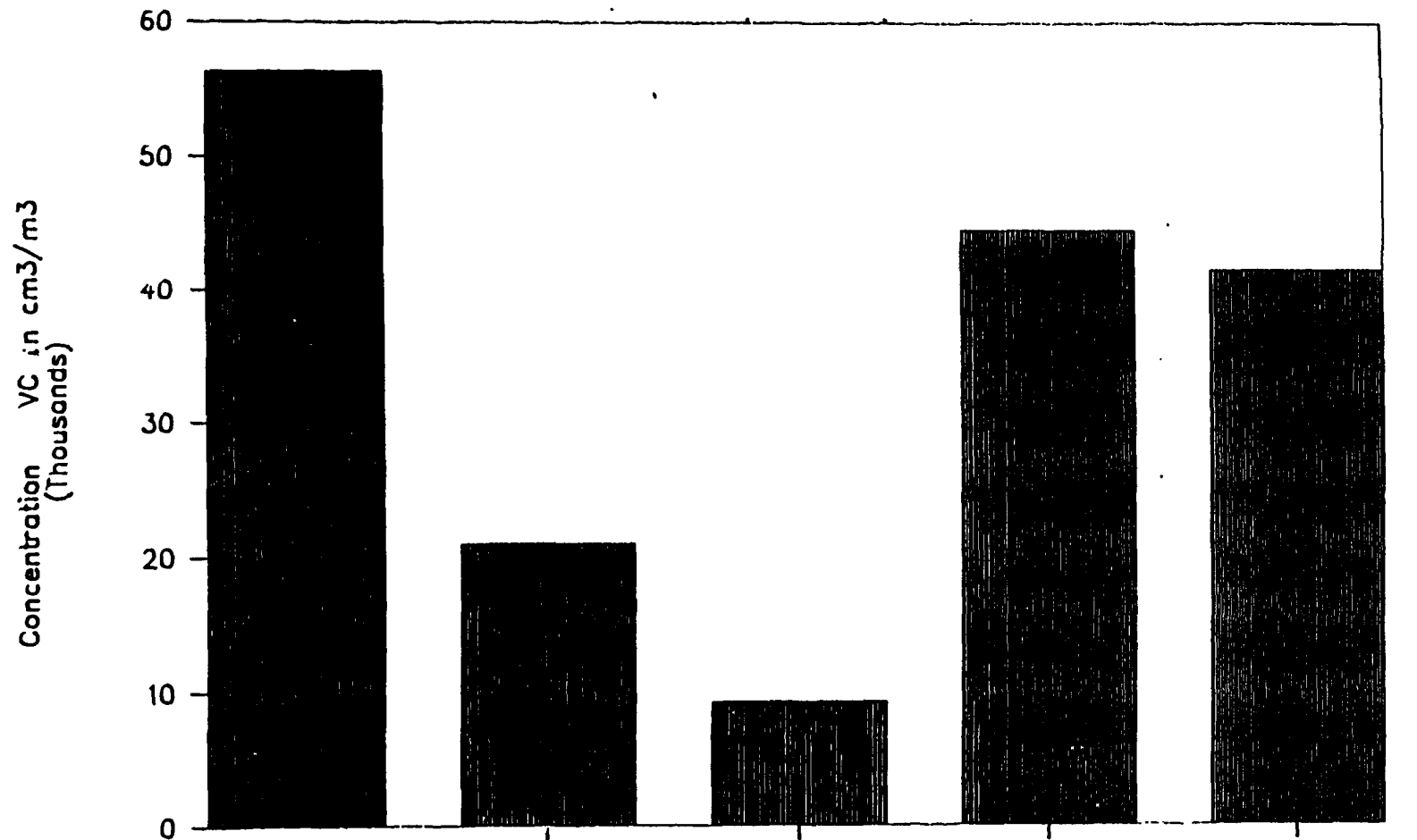
2) Oil seal

Lab scale : reduction function of viscosity and thickness

	thickness cm	VCM (mg/l) above oil seal	
		at 10 cm	at 100 cm
Plant :	1-2	15	4
	3-4	26	3
Remark :	combination of balls and oil seal effect of ball preponderant		

CTL015401

EFFECT OF TYPE OF OIL



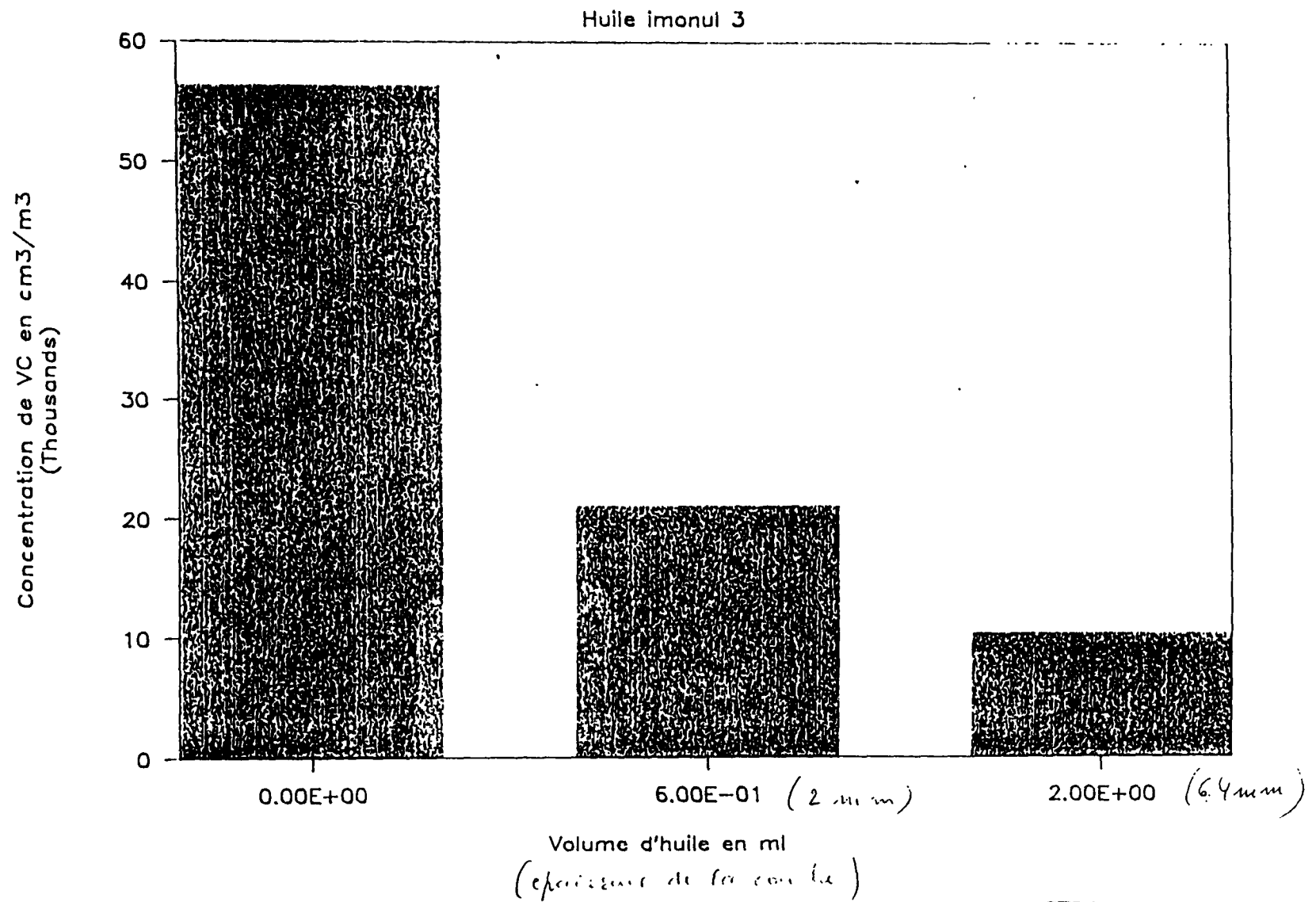
Volume 0.6 ml

Viscosity (Pa.s) 0.45 1.9 0.052 >0.052

"Solubility of VC" (g/kg) 2.3 - 1.8

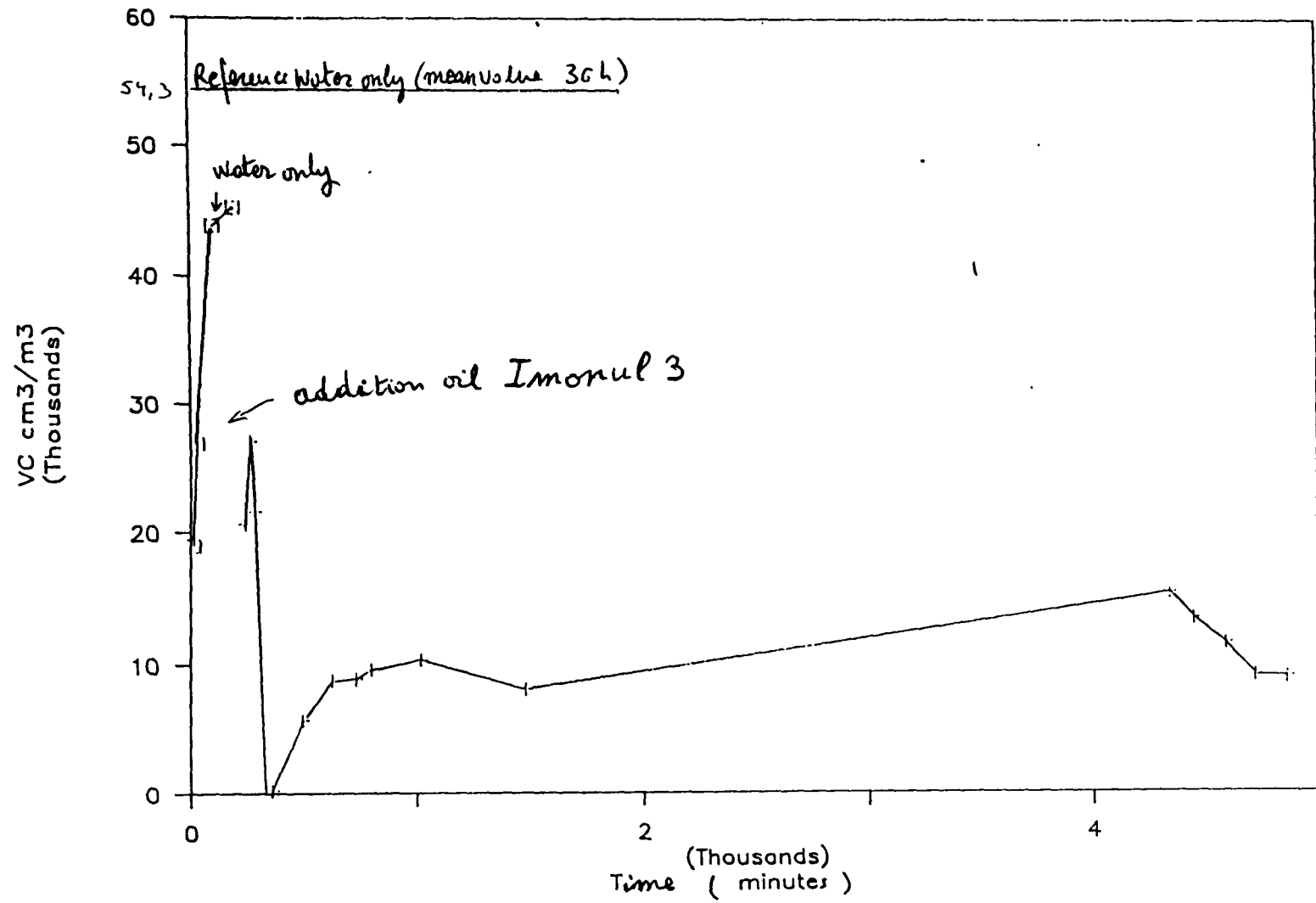
CTL015402

EFFECT OF OIL THICKNESS



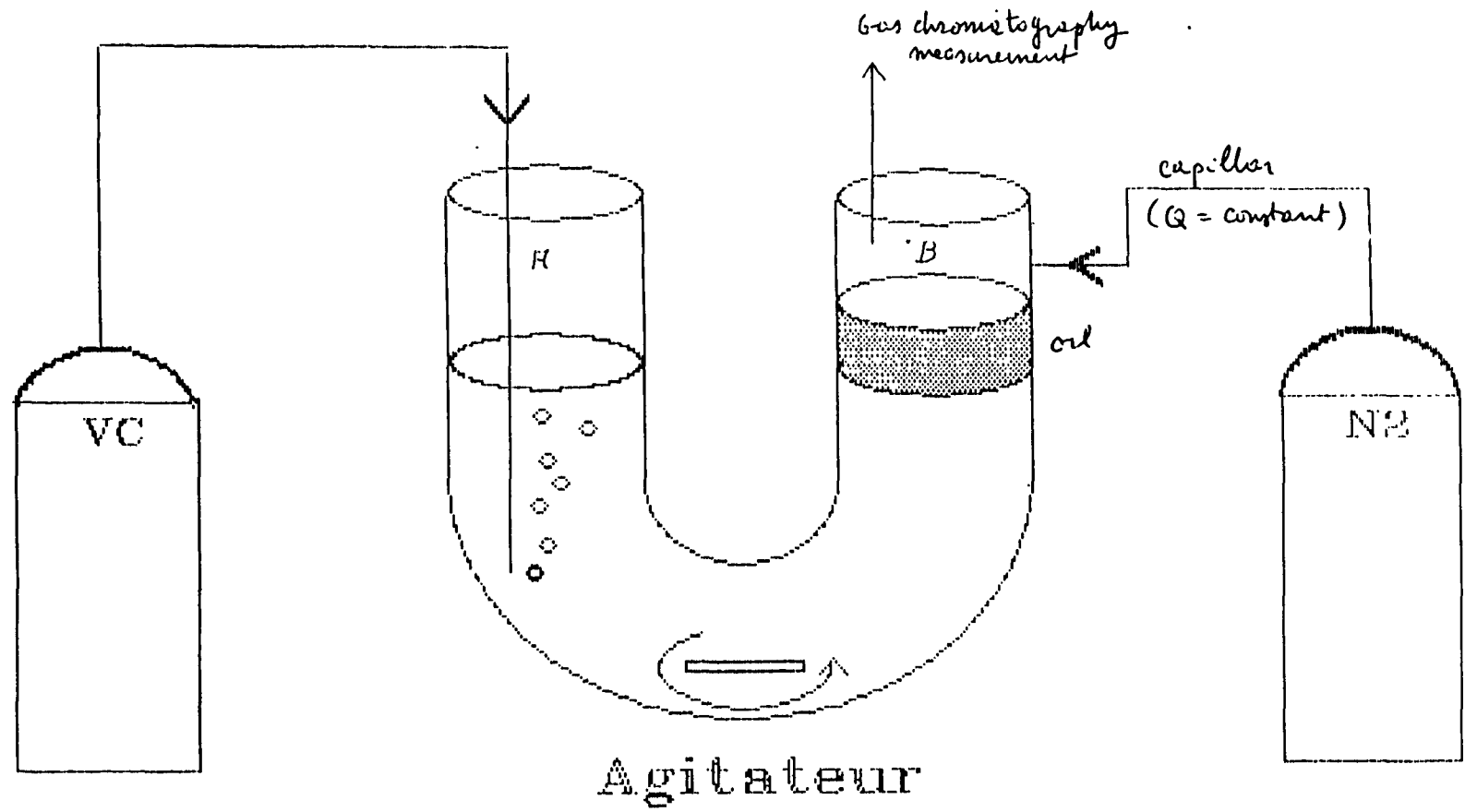
CTL015403

EFFECT OF OIL



CTL015404

EXPERIMENTAL DEVICE



CTL015405