SOME THINGS WE'VE WORRIED ABOUT

— SOME NEW AND (MAINLY) OLD DATA

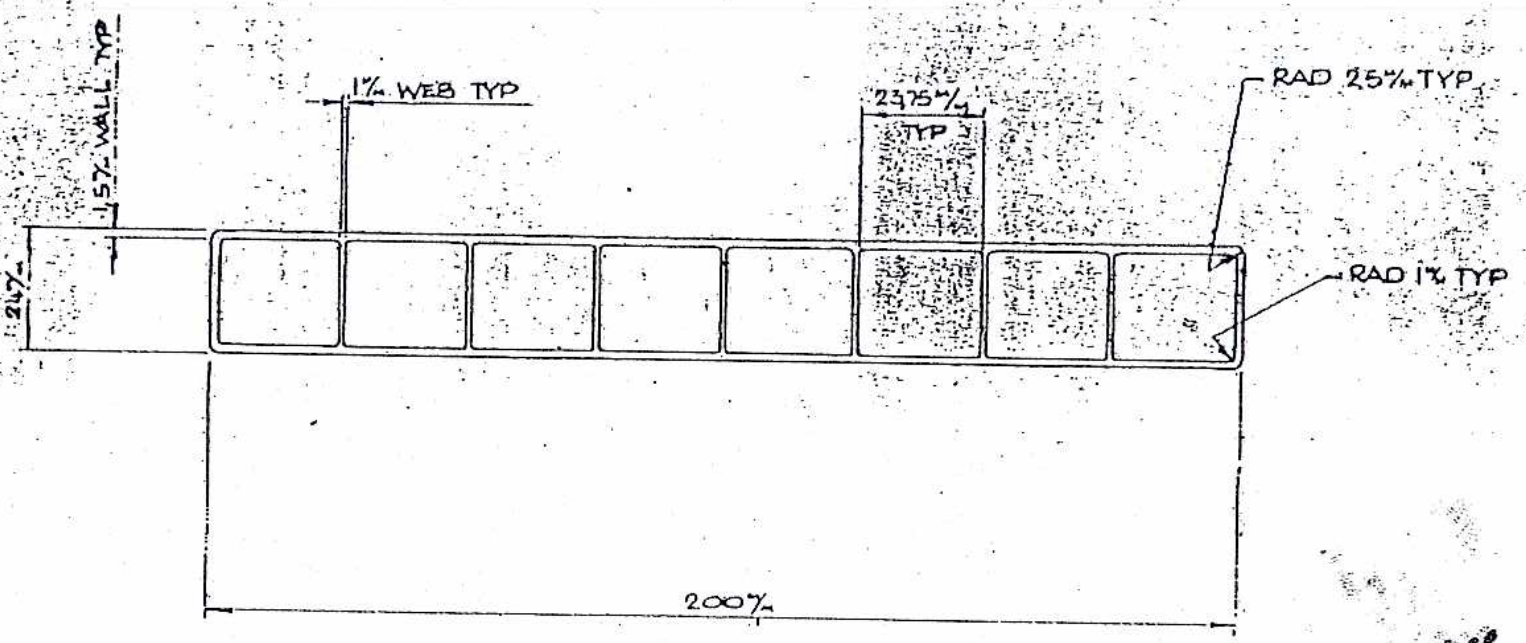
K.R. MINN

- CREEP
- TEMPERATURE EFFECTS
- REFLECTIVITY
- OXYGENATION OF SCINTILLATOR

L.B. PLASTICS LIMITED

TOOL ROOM COPY
INVALID ELSEWHERE

EXTRUSION USED FOR MINOS TESTS
— MADE ~50 TEST MODULES

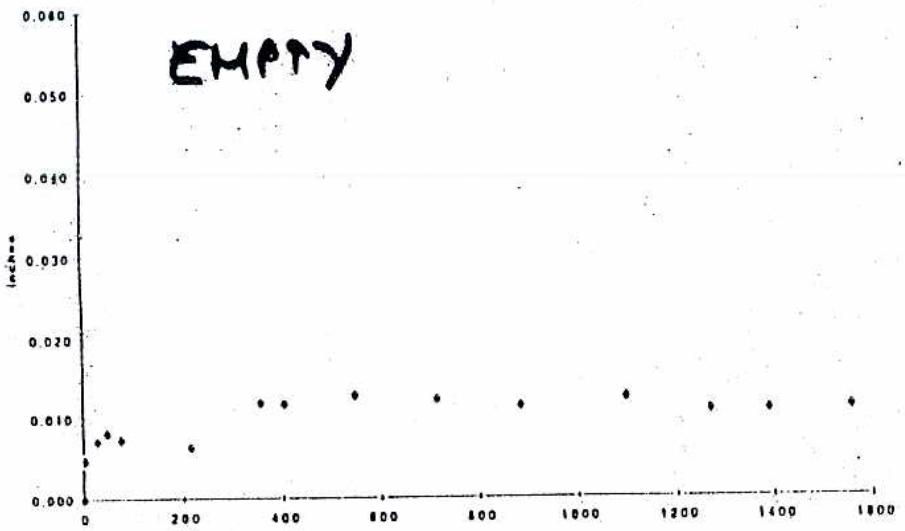


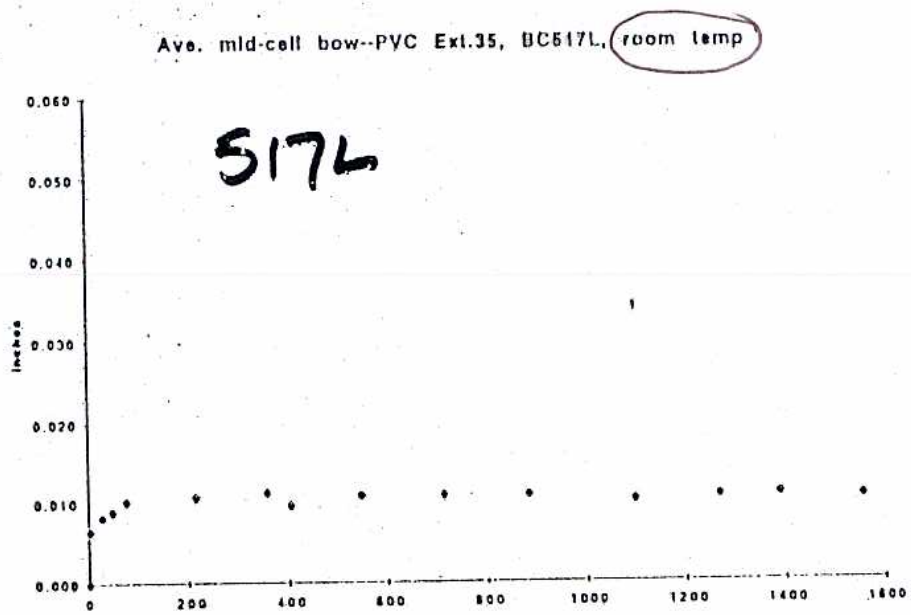
quote. $32.66 ea
100 @ 11"x8"x24'
(min quantity)

A SIG. DATE MODIFICATIONS	UNLESS OTHERWISE STATED GENERAL TOLERANCE ± 0.0" (±.25 mm)	SUBJECT TO ANY EXISTING RIGHTS OF THIRD PARTIES THE INFORMATION CONTAINED IN THIS DOCUMENT IS THE PROPERTY OF L.B. (PLASTICS) LTD. AND SHOULD NOT BE COPIED IN WHOLE, OR IN PART, OR USED FOR MANUFACTURE OR OTHERWISE DISCLOSED WITHOUT THE PRIOR WRITTEN CONSENT OF THE COMPANY. ©	SCALE SIZE DATE 27 · 11 · 73	MATERIAL SHEERLINE DRAWN P. Robinson	L.B.(PLASTICS) LTD. FIRS WORKS NETHER HEAGE DERBY.	DESCRIPTION 200% SHEERLINE PLANK. DRG. No. LBP/LB/1304

TOTAL P.02

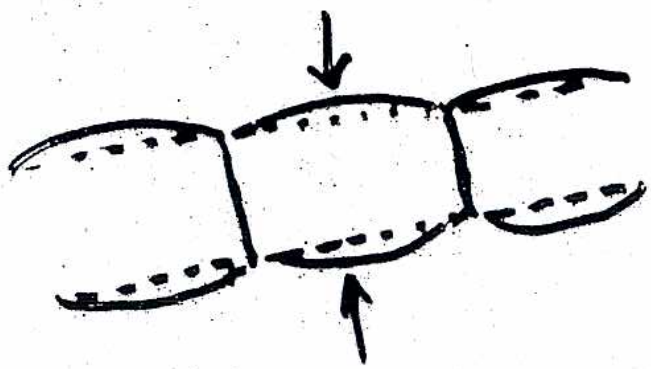
Ave. mid-cell bow at T= room temp.



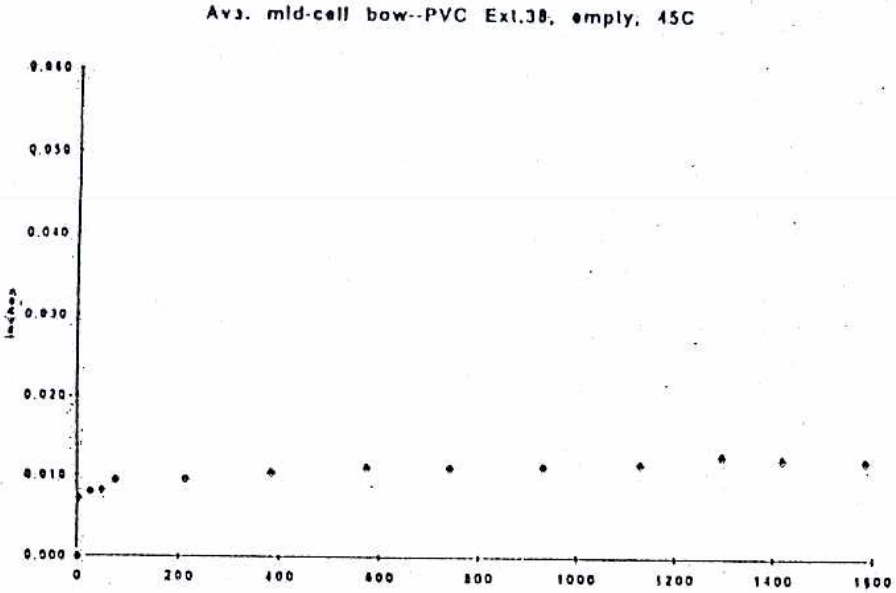


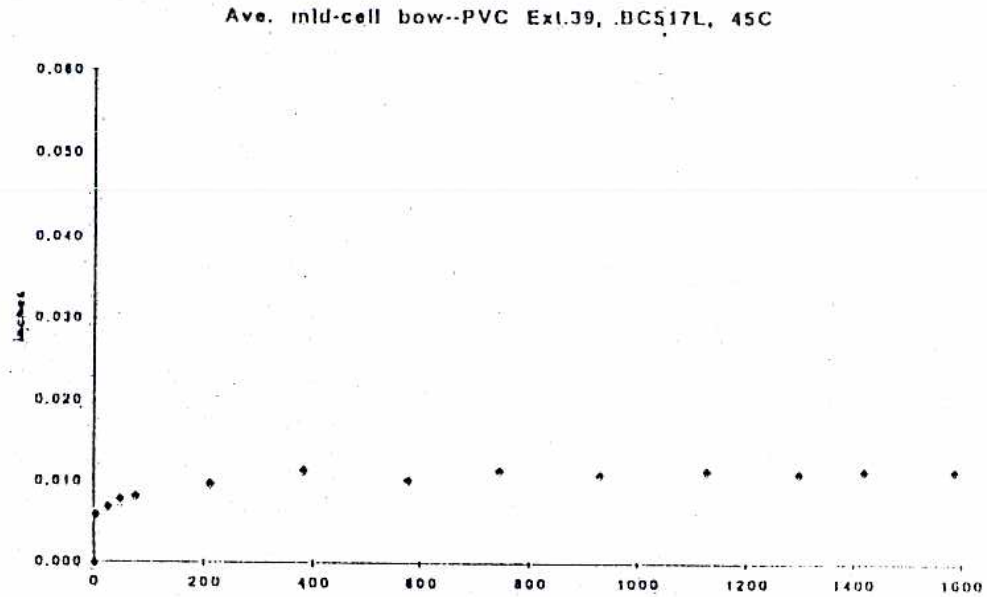
TIME (HOURS) →

25psi



Ave. mid-cell bow at T= 45C





25psig.

- NO OBVIOUS CREEP IN 2 MONTHS UNDER EXTREME CONDITIONS.

- DISPLACEMENTS AS EXPECTED FROM PVC ELASTIC MODULI

-LONGER TEST BY MATT HANSEN (MECH. ENG.)

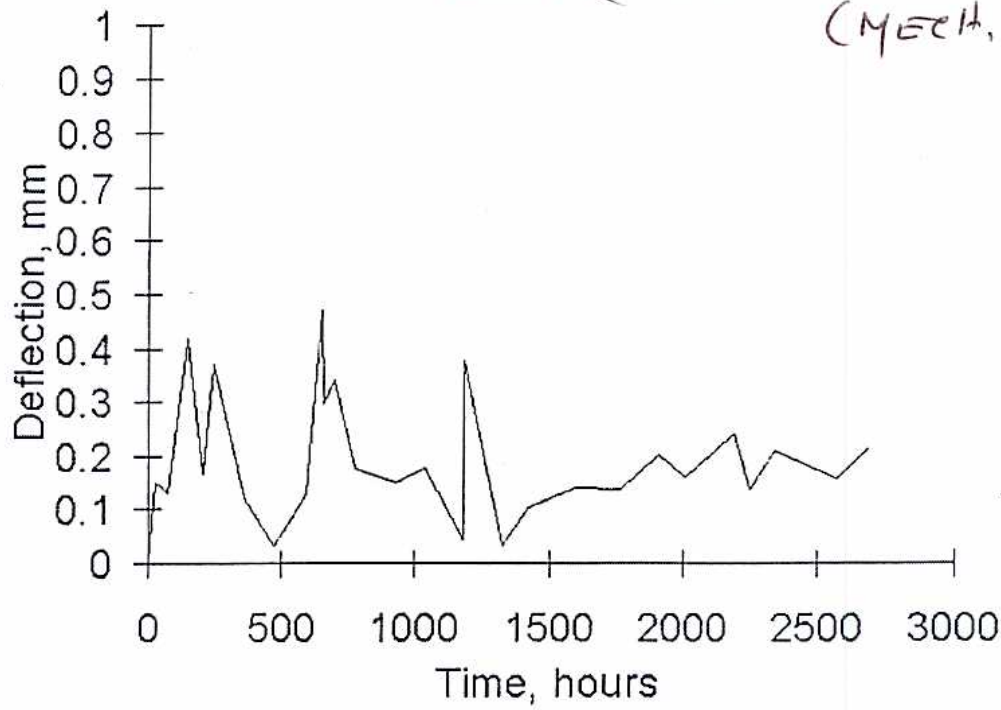


Figure 4.3: Change in Elongation of an Internal Wall of a PVC Extrusion over Time, Internal Pressure = 144.8 kPa, Wall Thickness = 1.0 mm, Scintillator = Bicron 517L

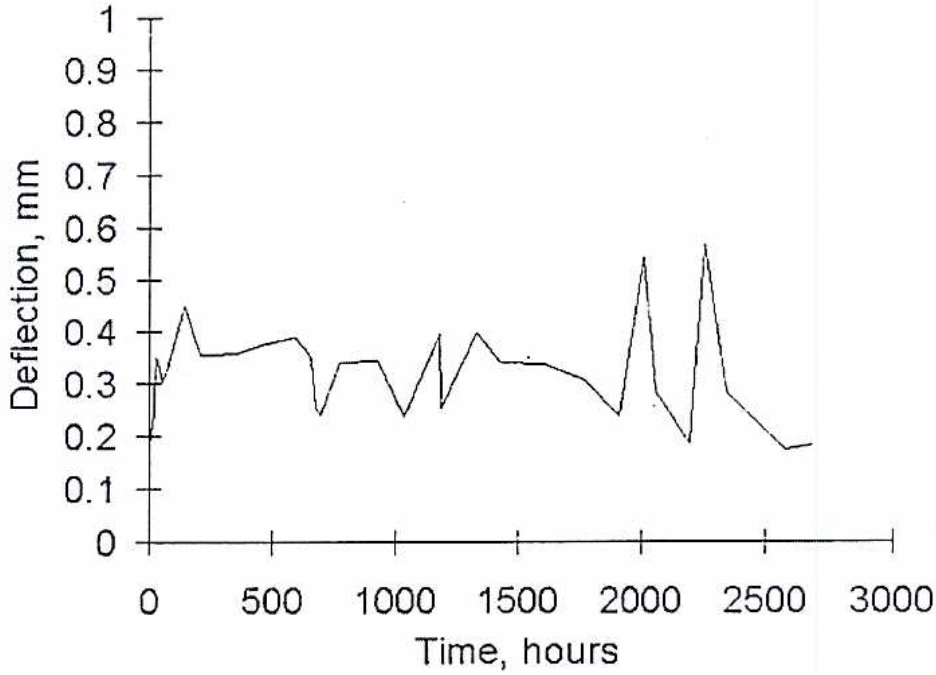
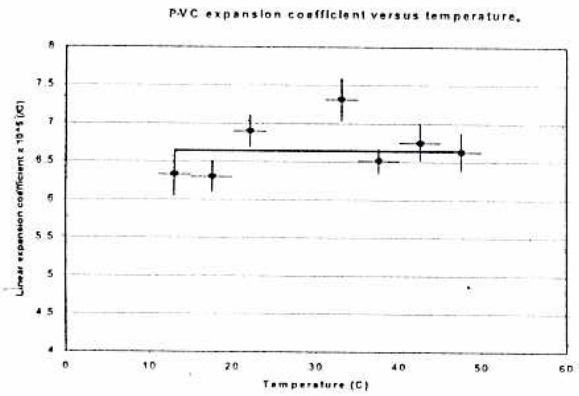
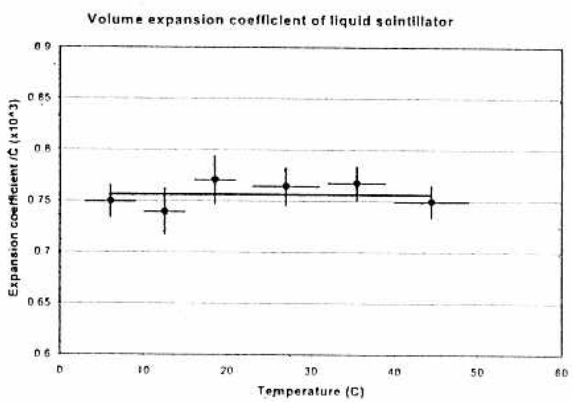


Figure 4.4: Change in the Mid-cell Bow in the Outer Wall of a PVC Extrusion over Time, Internal Pressure = 144.8 kPa, Wall Thickness = 1.5 mm, Scintillator = Bicron 517L

Thermal expansion data





Results:

PVC linear coeff. = $(6.7\pm0.2)\times10^{-5}$/C

Scint. volume coeff. = $(7.65\pm0.07)\times10^{-4}$/C

So,

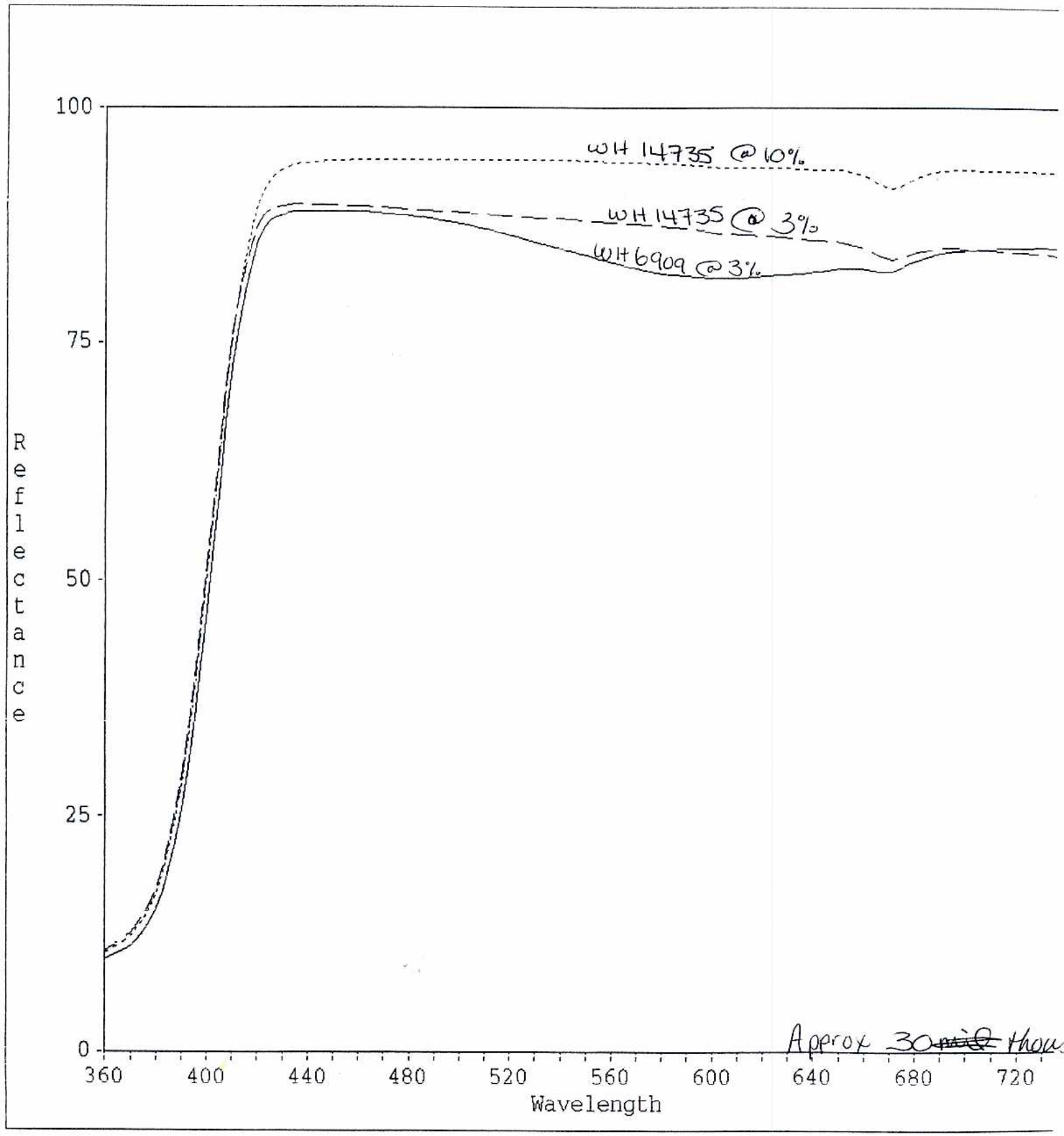
17.5 m extrusion expands 0.12 cm/^{o}C

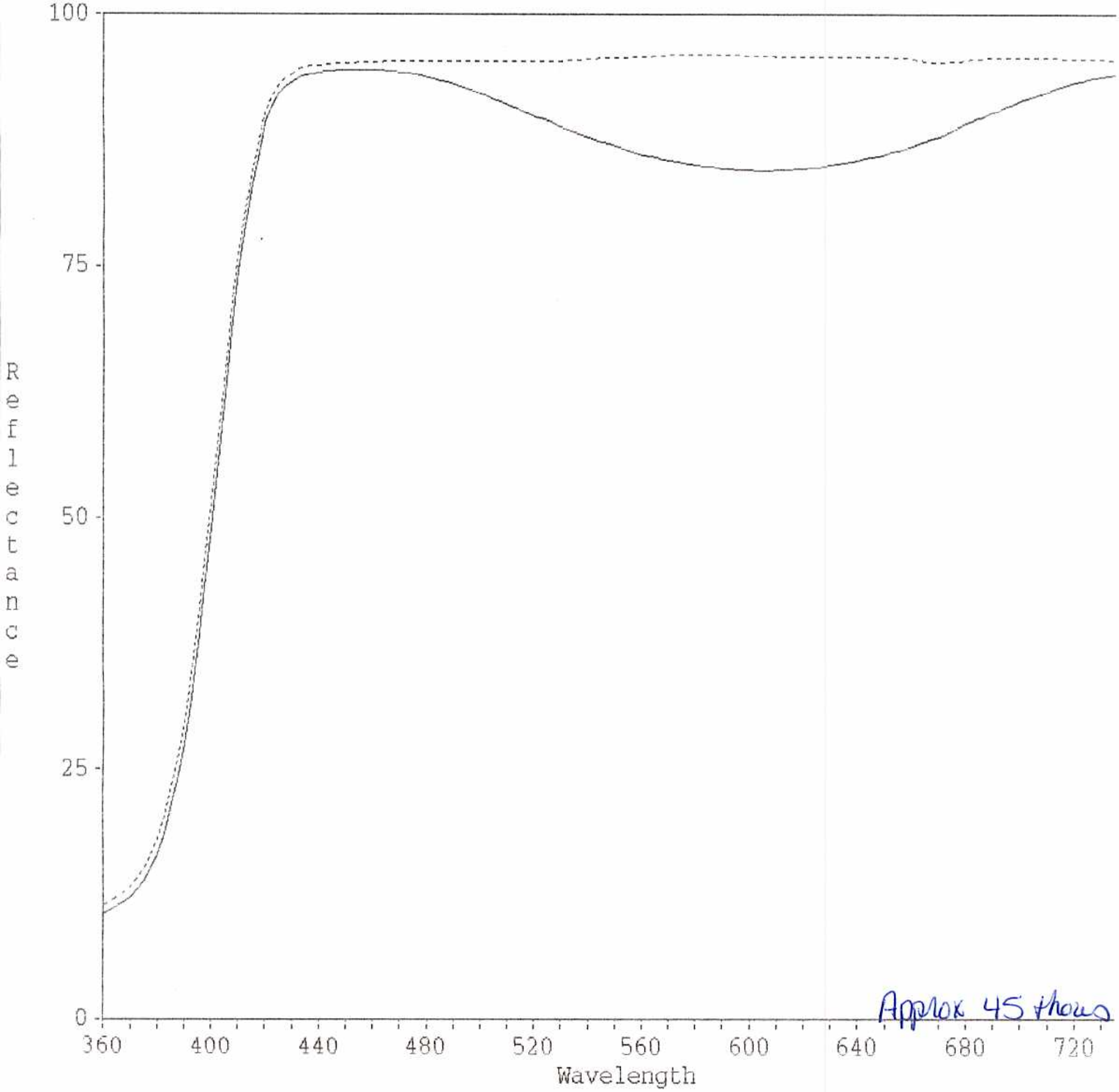
90 m long detector by 0.60 cm/^{o}C

Scintillator in 32 cell extrusion by 0.82 liters/^{o}C

5/01/96 Korlin Concentrates: Stratford, Ontario 1:18PM

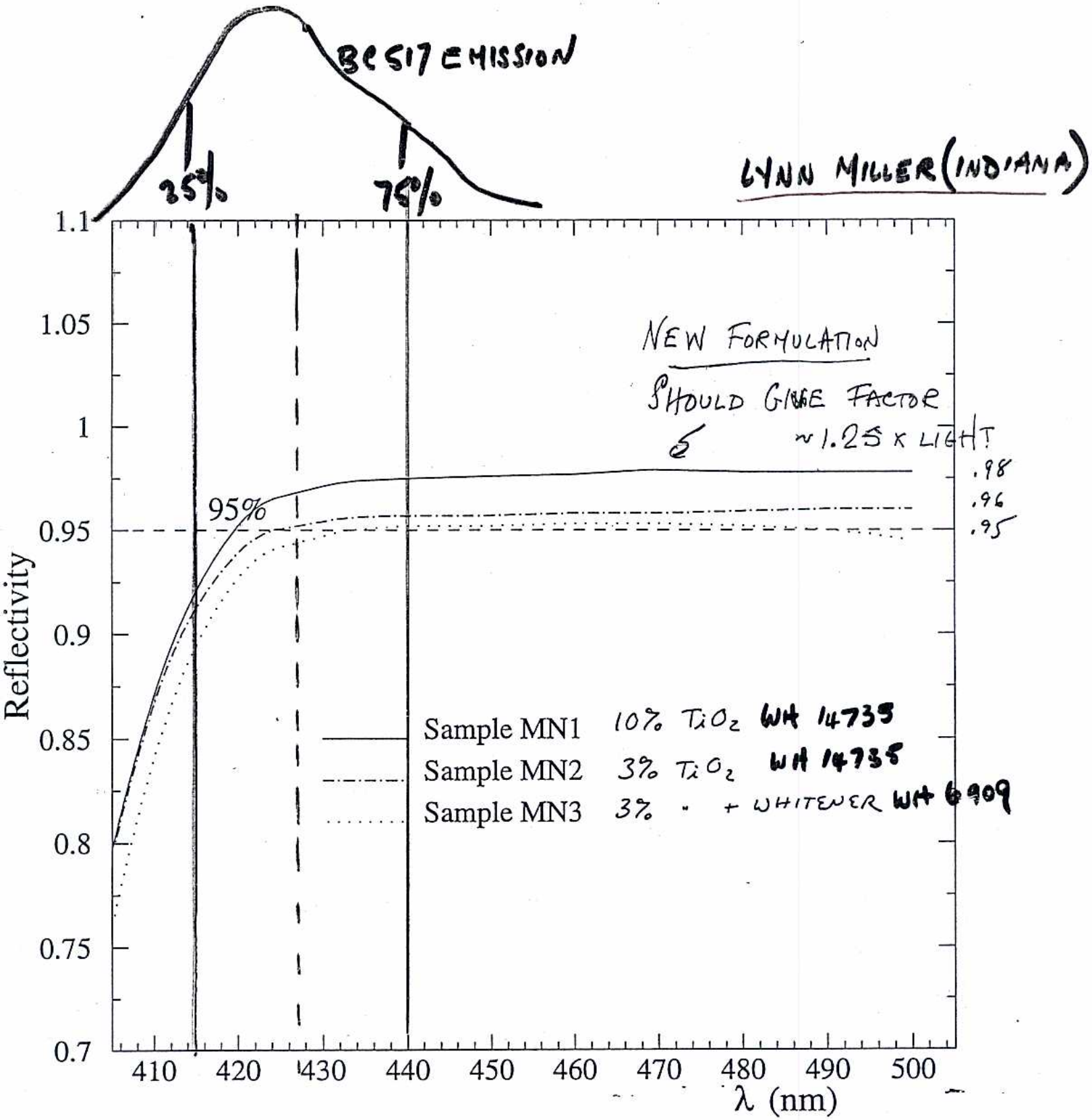
OPTIVIEW Ver. 1.3 - KA



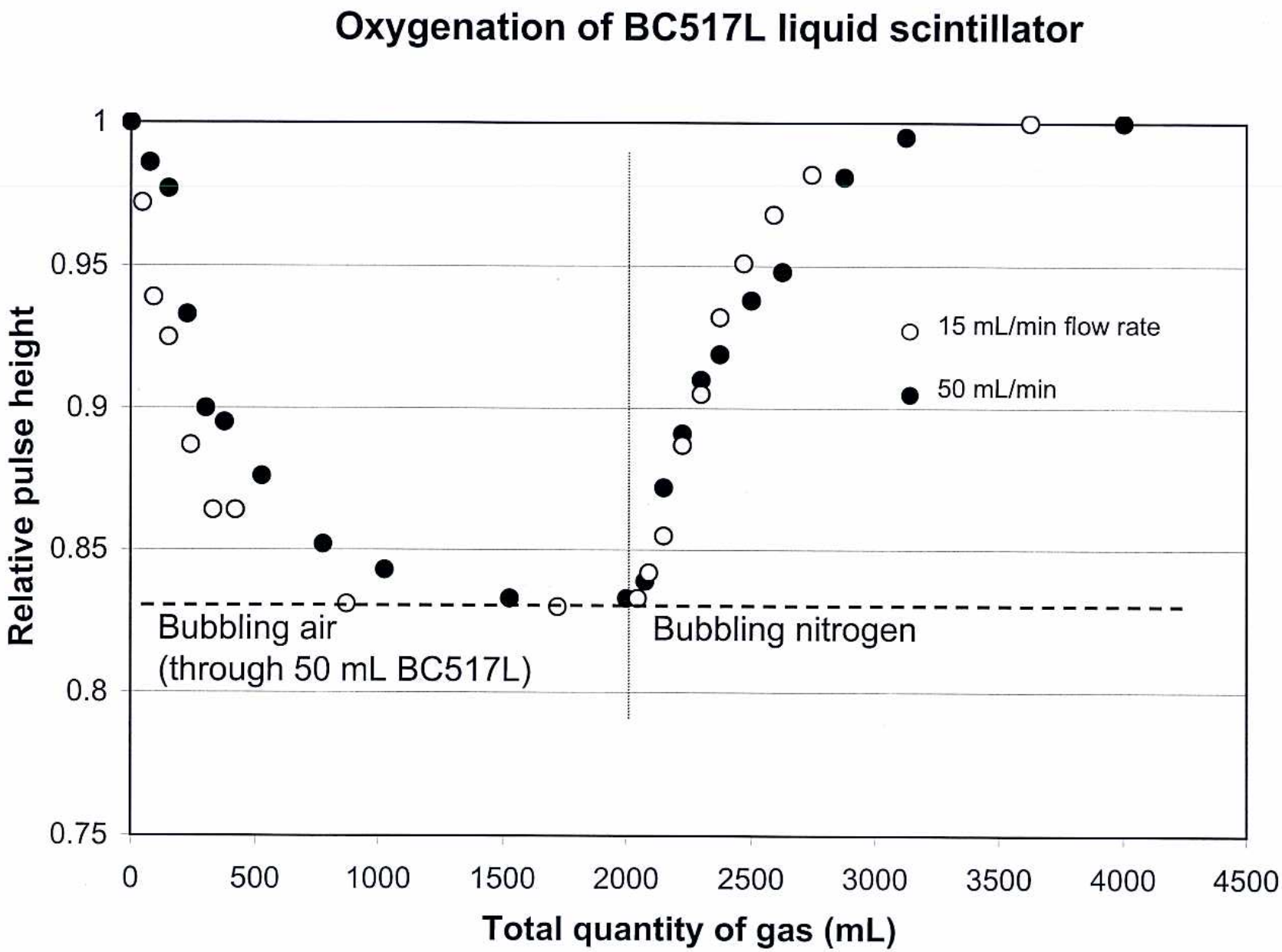


LEGEND:

Standard	Trial 1
15% WH6909	15% WH14735



MEASUREMENTS OF SAMPLES FROM KORLIN – MADE BY LYNN MILLER



— SMALLER EFFECT THAN ADVERTISED