

THE UNIVERSITY OF MISSISSIPPI
DEPARTMENT OF HEALTH & SAFETY
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TRITIUM BIOASSAY REPORT

Name _____ SSN _____ Birth Date _____

Sample Date _____ Building _____ Room/Lab Number _____

Concentration of Tritium (H-3)

C_s (gross sample counts per minute) = _____ cpm

C_b (background counts per minute) = _____ cpm

E (counting efficiency for tritium) = _____

V (volume of sample) = _____ ml

Concentration = $[C_s - C_b] / [(2.22 \times 10^6 \text{ dpm/uCi}) E V]$

Concentration = _____ uCi/ml

Minimum Detectable Activity Determination

R_b (background count rate) = _____ cpm

T (counting time) = _____ minutes

E (counting efficiency for tritium) = _____

V (volume of sample) = _____ ml

MDA = $[2.71 + 4.65 (R_b T)^{1/2}] / [(2.22 \times 10^6 \text{ dpm/uCi}) E V T]$

MDA = _____ uCi/ml

Sample prepared by _____ Sample counted by _____ Date _____