

M. A. Rogers

OFFICE MEMORANDUM

TO M. Wheeler, H-8 / MS 490

DATE: Jan. 17, 1977

FROM John Umbarger

SUBJECT Calibration For Screening Station

SYMBOL H-1

MAIL STOP

0866 General

The NaI based screening station located in the basement of OHL has an energy window set at approximately 12-40 keV. For soil samples (~70 grams) placed in petri dishes with the dishes located flush with the detector face, the system has the following sensitivities:

Background (unshielded)--165 cpm

²³⁹Pu soil--9.3 pCi/cpm
-- detection limit(3σ level, 10 min count) = 100 pCi/g

⁹⁰Sr soil--3.6 pCi/cpm
-- detection limit (3σ level, 10 min count) = 50 pCi/g

For core samples, these calibrations will be modified somewhat. The detection limits will improve with the addition of detector shielding.



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