POR-2215(EX)
(WT-2215)(EX)
EXTRACTED VERSION

OPERATION SUNBEAM, SHOT SMALL BOY

Project Officer's Report—Project 2.9

Fallout Collection and Gross Sample Analysis

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23 October 1964

NOTICE:
This is an extract of POR-2215 (WT-2215), Operation SUNBEAM, Project 2.9.

Extracted version prepared for
Director
DEFENSE NUCLEAR AGENCY
Washington, DC 20305-1000

1 September 1985

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE

AD-A995 435

REPORT DOCUMENTATION PAGE

Field	Content
1a REPORT SECURITY CLASSIFICATION	UNCLASSIFIED
1b. RESTRICTIVE MARKINGS	
2a SECURITY CLASSIFICATION AUTHORITY	
2b. DECLASSIFICATION / DOWNGRADING SCHEDULE	
3 DISTRIBUTION / AVAILABILITY OF REPORT	Approved for public release; distribution is unlimited.
4 PERFORMING ORGANIZATION REPORT NUMBER(S)	
5. MONITORING ORGANIZATION REPORT NUMBER(S)	POR-2215 (EX) (WT-2215) (EX)
6a. NAME OF PERFORMING ORGANIZATION	1-Naval Radiological Def. Lab 2-Lab. of Nuc. Med. & Radiation Biology
6b OFFICE SYMBOL (If applicable)	
7a. NAME OF MONITORING ORGANIZATION	Defense Atomic Support Agency
6c. ADDRESS (City, State, and ZIP Code)	1-San Francisco, California 2-University of California at Los Angeles, Los Angeles, California
7b ADDRESS (City, State, and ZIP Code)	Washington, DC
8a. NAME OF FUNDING / SPONSORING ORGANIZATION	
8b OFFICE SYMBOL (If applicable)	
9 PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER	
8c. ADDRESS (City, State, and ZIP Code)	
10 SOURCE OF FUNDING NUMBERS	PROGRAM ELEMENT NO / PROJECT NO / TASK NO / WORK UNIT ACCESSION NO
11 TITLE (Include Security Classification)	OPERATION SUN BEAM, SHOT SMALL BOY; PROJECT OFFICER'S REPORT - PROJECT 2.9 - Fallout Collection and Gross Sample Analysis, Extracted Version
12 PERSONAL AUTHOR(S)	J. D. Sartor, W. B. Lane and K. H. Larson
13a TYPE OF REPORT	
13b TIME COVERED	FROM ______ TO ______
14 DATE OF REPORT (Year, Month, Day)	841023
15 PAGE COUNT	508
16 SUPPLEMENTARY NOTATION	This report has had sensitive military information removed in order to provide an unclassified version for unlimited distribution. The work was performed by the Defense Nuclear Agency in support of the DoD Nuclear Test Personnel Review Program.

17 COSATI CODES

FIELD	GROUP	SUB-GROUP
18	3	
18	8	

18 SUBJECT TERMS (Continue on reverse if necessary and identify by block number)
SUN BEAM, SMALL BOY, Fallout, Gamma Radiation, Radiation Measurements

19 ABSTRACT (Continue on reverse if necessary and identify by block number)

The objectives of this project were to (1) make quantitative collections of fallout in order to determine mass per unit area, ionization decay rate, and gamma ray spectra, size activity distribution and size distribution versus time of deposit; (2) measure during fallout, the deposition dynamics of arrival time, mass deposition rate, and time of cessation; (3) determine the size distribution and concentration of airborne fallout debris as a function of time after bursts and to measure the amount and size distribution of that fraction penetrating test ventilation intake configurations; and (4) estimate visability, near ground level, in the dust cloud produced by blast and shock.

The quality and kinds of measurements made on this operation were considerably improved over previous weapon test field work as a result of the experience gained by project personnel over the years. Sufficient data were obtained to satisfy most of the project objectives.

Field	Content
20 DISTRIBUTION / AVAILABILITY OF ABSTRACT	☒ UNCLASSIFIED/UNLIMITED ☐ SAME AS RPT ☐ DTIC USERS
21 ABSTRACT SECURITY CLASSIFICATION	UNCLASSIFIED
22a NAME OF RESPONSIBLE INDIVIDUAL	Mark D. Flohr
22b TELEPHONE (Include Area Code)	(202) 325-7559
22c OFFICE SYMBOL	DNA/ISCM

DD FORM 1473, 84 MAR — 83 APR edition may be used until exhausted. All other editions are obsolete.

SECURITY CLASSIFICATION OF THIS PAGE
UNCLASSIFIED

FOREWORD

Classified material has been removed in order to make the information available on an unclassified, open publication basis, to any interested parties. The effort to declassify this report has been accomplished specifically to support the Department of Defense Nuclear Test Personnel Review (NTPR) Program. The objective is to facilitate studies of the low levels of radiation received by some individuals during the atmospheric nuclear test program by making as much information as possible available to all interested parties.

The material which has been deleted is either currently classified as Restricted Data or Formerly Restricted Data under the provisions of the Atomic Energy Act of 1954 (as amended), or is National Security Information, or has been determined to be critical military information which could reveal system or equipment vulnerabilities and is, therefore, not appropriate for open publication.

The Defense Nuclear Agency (DNA) believes that though all classified material has been deleted, the report accurately portrays the contents of the original. DNA also believes that the deleted material is of little or no significance to studies into the amounts, or types, of radiation received by any individuals during the atmospheric nuclear test program.

OPERATION SUN BEAM

SHOT SMALL BOY

PROJECT OFFICERS REPORT—PROJECT 2.9

FALLOUT COLLECTION AND GROSS SAMPLE ANALYSIS

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ABSTRACT

The objectives of this project were: (a) to make quantitative collections of fallout in order to determine mass per unit area, ionization decay rate and gamma ray spectra, size-activity distribution, size distribution versus time of deposit: to perform limited leaching studies; to assess the relative amounts of short-lived induced products in the fallout; and to provide Project 2.10 (Physicochemical and Radiochemical Analysis) with gross and size-separated fallout samples for further physical, chemical, and radiochemical analyses. (b) To measure, during fallout, the deposition dynamics of arrival time, mass deposition rate, and time of cessation. (c) To determine the size distribution and concentration of airborne fallout debris as a function of time after burst, and to measure the amount and size distribution of that fraction penetrating test ventilation intake configurations. (d) To estimate visibility, near ground level, in the dust cloud produced by blast and shock.

To satisfy these objectives 6 manned fallout stations and 73 other collection stations were established in Frenchman Flat; 24 stations were installed in the Indian Springs Valley (18 miles east of ground zero); and 247 points were instrumented for fallout collection by mobile field teams directed across the predicted path of the fallout by radio and telephone. Most of the closer stations were instrumented with gamma intensity versus time recorders fielded by Project 2.11. Complete analytical facilities for gross fallout analysis were set up at the Nevada Test Site (NTS).

The fallout was well-placed through the close-in array, with 3 out of 6 manned stations receiving significant amounts; of the other 73 Frenchman Flat stations, 40 were within the 10 mr/hr at 1-hour line, and in Indian Springs Valley, measureable amounts of fallout were deposited at 15 of the 24 stations. Of the 247 off-site stations established, 97 were contaminated with fallout debris.

The quality and kinds of measurements made on this operation were considerably improved over previous weapon test field work as a result of the experience gained by project personnel over the years prior to the moratorium. Sufficient data were obtained to satisfy most of the project objectives.

Crater dimensions were determined by aerial photography. The crater was merely a shallow irregular indentation in the playa with no characteristic lip. It is evident that the term surface burst only loosely describes this event.

The particle size and gamma activity distribution data reported have not been examined and interpreted. It appears, however, that active fallout particles were formed which were larger than the native soil particles originally present in the vicinity of ground zero. In this respect, the close-in Small Boy fallout superficially resembled that from Operation Jangle S shot more than Frenchman Flat soil.

Na^{24} was the only induced gamma activity noticeable in the measurements of this project. There appeared to be little relative fractionation of gamma-emitting nuclides from station to station, because the decay curves were very much alike. The slopes of the field decay curves measured with the NRDL Project 2.11 gamma intensity-time recorders also showed little spread, averaging about $t^{-1.3}$.

Measurements made on fallout samples exposed o air showed a continuing loss of iodine over a period of 12 days following the burst. The fraction of activity associated

with the particles due to iodine was lower than expected, which may have been due to initial fractionation and inability of the analytical procedure to remove iodine trapped within insoluble particles.

Composite decay curves derived from off-site field measurements and laboratory measurements on various off-site fallout samples showed no significant difference from the classical $t^{-1.2}$ decay rule.

The maximum contamination at any off-site sampling station was detected at a distance of 18 miles from ground zero. At this location 30 percent of the activity was associated with the less than 44 micron size fraction. At 200 miles from ground zero, 59 percent of the activity was associated with the less than 44 micron size fraction.

As expected, the particle size of the fraction exhibiting the highest specific activity decreased with increased distance from ground zero.

PREFACE

During the field phase of the Small Boy operation, SOP Number 140-1 was received from Headquarters, Field Command DASA, announcing that the former ITR/WT reporting procedure had been replaced with the POIR (Project Officers Interim Report) and POR (Project Officers Report). In conformance with this instruction, primary emphasis in this report has been given to an orderly presentation of the reduced data. Detailed analysis, correlation, and interpretation, therefore, remain as subjects for future reports.

This project, under the sponsorship of the Office of Civil Defense, was a joint venture between NRDL, San Francisco, and the Laboratory of Nuclear Medicine and Radiation Biology, University of California at Los Angeles. It was possible to prepare the POIR as an integrated report because all participants were together at the time. With the present separation, and the inherent difficulties in combining many data, this report has been organized basically as two reports within one set of covers, although every effort has been made to cross-calibrate instruments, correlate different collector types, and to report results in comparable units. Part 1 covers the NRDL work in Frenchman Flat and Indian Springs Valley, Part 2 the UCLA collections and measurements extending from the Indian Springs Valley out to 250 miles from the flat. The prefatory and appended materials embrace the entire report.

The authors wish to acknowledge the aid extended by Myron B. Hawkins (United Research Services, 1811 Trousdale Drive, Burlingame, California) in the determination of gamma attenuation factors for the manned stations. The cooperation of Mr. Philip Allen and staff of the U. S. Weather Bureau, Las Vegas, Nevada, in providing preshot wind data is appreciated. Thanks are also due the Officer in Charge, Construction Battalion Base Unit, Port Hueneme, California, and the Commanding Officer of Naval Mobile Construction Battalion ELEVEN for providing 22 Seabees to participate in the project; the Commanding General, 1st Marine Division, the Commanding General, 3d Marine Air Wing, and the Commanding General, Force Troops, Fleet Marine Force, Pacific, for providing the 24 Marine officers and men constituting the mobile fallout teams; and the 3d Marine Aircraft Wing for short-notice aerial photography of the Frenchman Flat-Indian Springs Valley area. Finally we wish to thank the Commanding Officer, Light Photo Squadron VFP-63, for obtaining aerial color transparencies of the crater area before and after the shot.

The project is indebted to Carl F. Miller, Program 2 Technical Director and AEC/DOD Fallout Studies Coordinator, for his considerable assistance in the form of suggestions, criticisms, and encouragement.

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CHAPTER 1

INTRODUCTION

1.1 OBJECTIVES

a. To make quantitative collections of fallout in order to determine mass per unit area, ionization decay rate and gamma ray spectra, size-activity distribution, size distribution versus time of deposit; to perform limited leaching studies; to assess the relative amounts of short-lived induced products in the fallout; and to provide Project 2.10 (Physicochemical and Radiochemical Analysis) with gross and size-separated fallout samples for further physical, chemical, and radiochemical analyses.

b. To measure, during fallout, the deposition dynamics of arrival time, mass deposition rate, and time of cessation.

c. To determine the size distribution and concentration of airborne fallout debris as a function of time after burst and to measure the amount and size distribution of that fraction penetrating test ventilation intake configurations.

d. To estimate visibility, near ground level, in the dust cloud produced by blast and shock.

The objectives and requirements of this project may be identified in whole or in part with the quantities and parameters listed in the "OCD Weapons Test Fallout Program", as follows:

1. Formation of Fallout

e. Composition of the device.

f. Composition and physical properties of the environmental materials at shot point.

i. Fraction of important radioelements associated with the particles as a function of particle size.

l. Crater dimensions.

2. Distribution of Fallout

d. Wind field as a function of altitude, area, and time during the fallout event.

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4. Alteration of Exposures by Countermeasures

b. Ingress of fallout particles into ventilation systems.

f. Contamination and decontamination of water.

1.2 BACKGROUND

Starting with Operation Greenhouse in 1950, many laboratories have participated in major fallout study programs during Operations Jangle (1951), Ivy (1952), Castle (1954), Wigwam (1955), Teapot (1955), Redwing (1956), Plumbbob (1957), and Hardtack (1958). Results on the measured physical properties of fallout from these operations and others have been summarized recently in Reference 1, one of a series of reports which will eventually cover all aspects of fallout properties which have been investigated. Many other reports in the four areas of interest have been generated from these basic measurements.

The present project, embracing a comprehensive set of physical and chemical measurements on fallout at a reasonably large number of sampling points, is intended to provide badly needed checkpoints for the existing fallout formation, distribution, and countermeasure models, and to extend knowledge of the basic short- and long-term mechanisms involved in fallout interactions with land targets.

In spite of the large number of fallout measurements on record, it should be appreciated that Small Boy is only the second non-coral land near-surface burst (first, Jangle S) held in over a decade of weapon testing; hence it is not surprising that fallout data of this type is lacking. The quality and kinds of measurements made on Small Boy have been considerably improved and extended as a result of experience gained over the years in weapon test field work, laboratory analysis, and model development.

1.3 THEORY

The identification and development of radiological countermeasures and the evaluation of the effectiveness of radiological countermeasure systems requires information and data on radioactive fallout produced by nuclear explosions. The data needed may be divided into four sub-program study areas. These are: (1) the formation of fallout; (2) the distribution of fallout; (3) the radiological exposure environment; and (4) the alteration of the exposure environment by countermeasures.

Theoretical studies, data compilations, or empirical generalizations of experimental data in each of the four sub-programs may be considered in terms of a thermochemical model of the fallout formation process, a meteorological model of the distribution process, a hazard model of the exposure environment, and a countermeasure system model for methods that can be used to change, in a desired way, the exposure environment. The collections, field measurements, and analyses of this project contribute most directly to the formation or evaluation of the theoretical or empirical models in all of the above sub-program areas.

Further, weapon field tests provide a means of proof-testing experimental methods designed to obtain new and more reliable data concerning each type of event. The additional knowledge gained in describing the radiological conditions aid directly in testing and evaluating the effectiveness of counter-measure systems of varying degrees of complexity. This, in turn, leads to experience which is now lacking in developing concepts for large scale radiological defense operations.

CHAPTER 2

PROCEDURE

2.1 PLANNING

This project participated in the single shot, Small Boy, fired on a 10-foot wooden tower at 1130 hours PDT 14 July. Ground zero was in Frenchman Flat, at Nevada state coordinates N 747907.43 and E 717118.39. In the early planning, it was assumed the device would be the   to be detonated on a 10-foot non-metallic tower in Frenchman Flat at 1000 hours. At a late date,
                    with an estimated yield of   was mentioned as a possible substitute. The closest manned station was therefore relocated from 4000 feet to 4500 feet from zero to allow for this possibility. Estimates of blast overpressures, thermal effects, and initial radiations were based upon Reference 2.

Original safety criteria dictated that the fallout pattern be confined to a 60° sector centered on 085°T, at least out to $\sim$100 miles from the Nevada Test Site. The NTS and adjacent environs in which this operation took place has been described in earlier reports (References 3 and 4). The fixed fallout collector array was therefore located generally eastward of zero with a strong bias to the northeast.

In the cooperative effort between NRDL and the Laboratory of Nuclear Medicine and Radiation Biology (NMRB), University of California, Los Angeles, the NMRB group was responsible for the off-site studies from eighteen to approximately two hundred miles from ground zero. This group utilized procedures and instruments which proved reliable at Operation Plumbbob (Reference 5). Several improvements in design and operation were made for this operation as a result of experience and expediency.

During the first week in July it was disclosed that a fallout pattern to the north (azimuth approximately 020°T) would also meet safety criteria. A hurried addition of 20 miles of road and 21 new collection stations was started 9 July and completed by 11 July. At the 1600 weather briefing on 12 July it appeared that the outlook for winds from the west was promising. Most of the new northern stations were therefore moved back to the east of zero, the work being completed by H-6 hours.

Unfortunately, accurate prediction of westerly winds is particularly difficult, and sustained winds toward the east have a very low probability of occurrence at the Nevada Test Site (NTS) during July. These uncertainties increased the necessity for mobility in establishing off-site stations for collection and measurement of fallout debris.

Planning estimates of fallout mass per unit area, particle size range at a given location, and 1-hour gamma ionization rates along the downwind axis of the pattern were based on a pre-publication version of a simplified fallout model described in Reference 6. The NRDL D Fallout Model (Reference 7) was used with an actual acceptable NTS wind structure to yield standard intensities (r/hr at 1 hour for the complete deposit, measured 3 feet above the ground) at each of the station locations. These typical values in turn became the controlling factors in planning shelter withdrawal and sample recovery times and routes. A maximum allowable dose of 3.0 r for the operation was assumed.

It was recognized that the predictions of both models mentioned were based on particle size-activity distributions associated with Jangle S-like soils. In contrast, however, the Frenchman Flat ground zero soil, to a depth of at least 30 feet in the vicinity of zero, contained virtually no particles $>$ 150 microns in diameter; therefore, any large particles found in the fallout would have to have been formed by aggregation, sintering of small particles, or freezing of drops derived from molten soil. Whether the Small Boy fallout particle size distributions would resemble those of Jangle S or the fine material of the shot environment was a point of major uncertainty.

Since the molten volume must be small compared to the total crater volume, it appeared that a sizeable fraction of the total activity would condense on the large available surface presented by the physically unaltered fine particles. In this event, the fallout would extend many miles downwind in larger amounts than estimated, and the close-in fallout would be correspondingly depleted. For recovery planning then, a model pattern such as shown in Figure 2.1 resulted in conservative dose estimates.

2.2 INSTRUMENTATION

<u>2.2.1 Collector Rationale</u>. Many of the project objectives could not have been met unless the samples collected were representative, in the manner desired, of the deposit at the location at which they were collected. Three approaches in collector design were used here:

1. The granular collector, for which the geometry (essentially flush with the ground) and collecting surface characteristics simulated natural terrain. Another example of this type was the buried collector, filled with soil and buried flush with the ground surface, so that the collecting area was indistinguishable from the surrounding terrain. This type of collector partakes in any redistribution of material, due to wind and weather, that may take place after fallout deposition;

hence the fallout catch present at recovery time may not be indicative of the original fallout deposition at the collection site. This type of collector was therefore ideally suited to ecological and weathering studies and less useful in documenting primary fallout.

2. A second approach was exemplified by an always-open large-area collector in which a thinly-greased aluminum foil was exposed in a plane a few inches above the ground. The collecting surface was unrelated to the terrain over which it was placed and was intended to be 100-percent retentive for particles up to at least 200 micron in diameter. Disturbing wind bias effects about the edges were minimized by exposing the collector in a close-packed square cluster measuring 16 feet on a side. This collector was placed at locations (sufficiently distant from zero) where the deposit was not expected to saturate the surface. A safety factor was built-in in this respect however, since the surface tension of a grease film, especially in direct intense sunlight, tends to wet small particles rapidly. A disadvantage of this collector was that particle recovery required a solvent for the grease film and washing facilities. The accuracy of the fallout mass per unit area determined from this collector depended on the particle recovery efficiency and, more importantly, the degree to which the fallout catch had been adulterated by local dust. All collectors

were subject to the last-named difficulty; a collector which may be opened and closed when desired represents an attempt to improve the signal-to-noise ratio of fallout to background.

3. A third approach was used in the basic tray collectors, 2 feet by 2 feet by 2 inches deep. They were exposed at locations where it was possible that the fallout could completely cover horizontal surfaces. In order to meet the conflicting requirements that all particles contacting the interior of the collector be retained unaltered, and yet be 100-percent recoverable by dry techniques, two things were done: (a) all interior surfaces were restricted to degreased aluminum, except for certain collectors noted later which were coated with the same grease used on the large-area collectors mentioned in Paragraph 2 above, and (b) an insert of aluminum louvers, inclined 45° to the vertical, was provided to create dead air cells, thereby minimizing blow-out of fine particles. Lastly, and probably more important, the louvers prevented bounce-out of the large ($>$ 500 micron) particles. The louver insert could be completely disassembled for ease of decontamination.

Limited tests made at Camp Parks prior to the field phase of this operation (see Appendix A) were sufficient to show the superiority in large particle retention of the louvers over the hexcell inserts used at Redwing (Reference 8) and Plumbbob (Reference 9).

2.2.2 Field Collectors and Instruments. The major features of the individual collectors and other instrumentation are given below, categorized as (1) total fallout collectors, (2) incremental fallout collectors, (3) airborne particle collectors, and (4) other instruments.

Gamma intensity versus time (GITR) measurements in the fallout field were made by Project 2.11 (Reference 10), principally at Project 2.9 station locations. Their instrumentation included the NRDL Model 103 GITR (GS) and the NRDL Low-Level GITR (GR), both recording instruments. Gamma-intensity instruments utilized by Project 2.9 and described in Part 2, Section 6.3.1 of this report, were the UCLA GITR (GU) and time of arrival detectors (TOAD).

Maps of Projects 2.9 and 2.11 station locations are shown in Figures 2.2 and 2.3, respectively. The Project 2.9 station locations, elevations, and descriptions are listed in Table 2.1. A complete station instrumentation summary appears in Table 2.2. Other instrumentation abbreviations used in these figures and tables are given in the following paragraphs.

(1) Total Fallout Collectors

Major Platform Collector (PC). The basic collection unit was an aluminum tray, 24 inches by 24 inches by 2 inches deep. An insert of bare aluminum louvers, spaced on 1-1/4 inch centers and inclined at 45° to the vertical was provided to eliminate bounce-out of large particles and, by the creation of dead-air cells in the tray, to minimize loss of fine particles. The manned station major platform installation as shown in Figure 2.4 consisted of twenty-four close-packed trays (96 ft^2)

in a square array of five trays on a side. The supporting square wooden platform was 20 feet on a side and approximately 18 inches above grade at the center. The center position was vacant to allow space for the incremental collector described below. A buffer zone of louvers 2 feet in width was provided around the array to eliminate edge effects. These louvers, and all trays with louvered inserts, were oriented on the platform so that the louvers opened toward the west, the direction of the predicted surface winds. The order of placement on the platform is shown in Figure 2.4a.

The entire platform was covered by a sliding wooden cover which was operated manually from within the adjacent manned shelter. This cover was not completely dust tight however, so a large fixed sheet of polyethylene plastic was secured directly over the trays to provide the real seal against background dust. The plastic was removed prior to shot time by the station personnel. Individual trays were closed upon recovery with gasketed aluminum covers retained with eight bronze ⊔ clips.

Two additional trays were clipped to the top of the sliding cover. These were designated as platform open (PO) collectors.

Open-Close Collector (OC). This was a self-powered device, shown in Figure 2.5, which exposed an 18 inch by 21 inch by 2 inch deep aluminum collecting tray with louver insert for a desired sampling interval (Reference 8). Those located within 9,800 feet of zero contained a preset timer which controlled opening and closing times. Those installed beyond 9,800 feet were opened and closed manually by hardwire signal from a manned station. An OC station, as shown in Figure 2.6, consisted of a 10-foot by 12-foot wooden platform approximately 1 foot high, equipped with one OC collector surrounded by ten open trays identical to the PC trays. A buffer zone of louvers, designed to eliminate edge effects, formed the boundary. The PC and OC tray covers were retained with bronze U clips. The individual tray covers were put on at recovery time.

These platforms, as well as the AO platforms described next, were originally covered with a sheet of 6 mil clear polyethylene. Unfortunately, this material, when heated by the sun, displayed a strong tendency to become welded to the sharp edges of the aluminum louvers. The plastic was therefore replaced with a pair of 4-foot by 8-foot tempered masonite panels, held down by a two-by-four. The resulting seal was somewhat less than perfect. The order of placement of trays is shown in Figure 2.4a.

Always Open Collector (AO). The basic collector tray was the PC tray unit described above. An installation consisted of a square wooden platform 10 feet on a side and approximately 1 foot above grade, equipped with an array of nine collectors and a surrounding buffer zone of louvers. The AO station is shown in Figure 2.7. The order of placement of trays is shown in Figure 2.4a.

Large Area Collector (LA). The unit collector consisted of a sheet of 0.002-inch aluminum foil coated with a thin film (10 to 15 microns, ~ 1 g/ft^2) of white petrolatum. Each foil was supported by a 4-foot by 4-foot panel of untempered hard-board. The panels were mounted in pairs about 6 inches off the ground on a 4-foot by 8-foot frame. A station installation consisted of eight frames of collectors, arranged to form a square 16 feet on a side (256 square feet).

The panels were placed on station in pairs, face to face, so that the sampling surfaces remained clean during the preshot period. At arming time, the upper panel was simply folded back, thus exposing the sampling surfaces.

Granular Collector (GC). An always-open UCLA collector approximately 8.6 ft^2 (29 by 47 inches) by 3/8 inch deep, lined with mylar film, and filled flush with 1.6 kg of 1/8 inch to 3/16 inch spherical polyethylene granules which simulated soil. A bar across the center of the collector divided it into two equal areas; the granules in each section were removed separately by means of a two-piece mylar liner. A number of these collectors were set out at NRDL stations in order to provide direct inter-collector correlations. A more detailed description of these collectors is given in Part II, Section 6.3.1.

Shelter Decay Sampler (SD). Consisted of a 12-inch diameter funnel (with closure) mounted on a sample delivery tube leading into the shelter. The particles collected thereby were used to determine fallout arrival time as samples for early decay measurements. The measurements were made in the shelter inside a 2-inch-thick lead box which closely surrounded an AN/PDR-39 survey meter as the detector in a near-contact geometry. The sampling funnel is shown in Figure 2.4.

Early Recovery Sampler (ER). An aluminum box 6 inches on a side with a spring-loaded cover. The cover was designed to close when the sampler was retrieved with a grappling hook suspended from a helicopter. A loop of rope suspended 15 feet above the ground on bamboo poles, 15 feet apart, provided a reasonably easy-to-hit target for a helicopter flying ~ 25 mph at an altitude of 150 feet.

Buried Collector (BC). This collector was identical to the tray used in the OC collector described above except that no louvers were included. The collector was filled to the brim with soil and buried flush with the ground surface. The sampling surface was therefore indistinguishable from the surrounding terrain.

(2) Time-Incremental Fallout Collector

Incremental Fallout Collector (IC). This was a device at each of the manned stations for serially exposing 20 trays identical to the platform collectors for any desired time interval. The trays were loaded into towing frames in one half of a dust-tight trunk 80 feet long (Figure 2.8) which passed under the center of the major platform. They were advanced to the exposure port (directly in the center of the platform) by means of a cable and winch system manually operated by personnel in the adjacent shelter. Precise indexing of a tray with the port was done visually through the 12-inch diameter trunk connecting shelter and platform. The tray was then raised by a foot pedal into exposure position against a gasket-seal. The exposure height was such that the top of the IC tray was flush with the other collectors on the platform (Figure 2.9). After the desired exposure, the tray was lowered and the line advanced, so that by cessation of fallout, all twenty trays had been translated from one half of the trunk to the other.

(3) Airborne Particle Collectors

Ventilation Intake Unit (VI). These units, shown in

Figure 2.10, consisted of a system of six vertical pipes of 3-inch OD installed adjacent to each of the manned stations. A constant air flow rate, designed to be 50 cfm, was passed through a high efficiency filter located at the exit of each of five pipes. The sixth pipe was a dummy collector with no air flow. Table 2.3 is a tabulation of the face areas of the intakes, average calculated face velocities, and particle sizes whose terminal velocities equal the average face velocity. The rates actually obtained in the field by Flowrator* measurements were lower than 50 cfm due to failure of the motor generators to run at the 60 cycles/sec indicated.

It will be noted in Table 2.3 that the cylindrical hoods were intended to bracket a range of face velocities from 500 feet per minute, the minimum recommended in ventilation design practice, down to 25 feet per minute. The particle sizes given were the largest size that can be lifted and carried into the system. Neither time nor instrumentation were available to determine the actual face velocities of these intakes. The hood proportions shown in Figure 2.11 were arbitrarily selected. The top of the hood was positioned 4 inches above the 3-inch OD pipe for all intakes except the smallest, which was positioned 2 inches above the pipe. The skirt depth below the top of the pipe was equal to twice the difference of the radii of the pipe and the

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* Fischer and Porter Co., Warminster, Pennsylvania.

hood. All intake openings were at the same height above the base. To protect the system from blast at the close-in station (S1S), the hoods were suspended from springs and could be pulled down and latched, sealing the intakes. The latches were released by a solenoid controlled by a remote switch inside the manned station after the blast wave had passed.

A transition piece below the 3-inch pipe expanded the air passage to a 12-inch-square section over a filter which was supported on a fine (100 mesh) brass screen and a coarse (8 mesh) stainless steel screen, as shown in Figure 2.12. The portion of the intake over the filter was latched and hinged to permit installation and recovery of the filter. All joints were flanged and gasketed to prevent air leakage. The filter media was Microsorban*, a filter of polystyrene fiber with an efficiency of greater than 99.5 percent against 0.3 micron particles. The media was soluble in xylene and had a pressure drop of about 8 inches of water (0.59 inches of mercury) with an air velocity of 50 ft/min (50 cubic feet per minute through a 1-square-foot area). The size of the filter was a compromise to obtain a tolerable pressure drop for the anticipated filter loadings and a reasonable size for handling during sample recovery, processing, and counting.

Air flow to each intake was controlled by a motor-actuated damper with control switches in the manned stations. The damper

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* Gelman Instrument Company, Chelsea, Michigan.

could be opened as the filter became loaded, thus maintaining a constant pressure drop across the system and a constant air flow through the intake. Air was pulled into the system by a Sutorbuilt* positive displacement blower with a total capacity of 250 cubic feet per minute at 6 inches of mercury vacuum and 26.3 inches of mercury atmospheric pressure. The blower was connected to a manifold common to each of the five test intakes. Power for the blower was provided by a 7-1/2 horsepower electric motor. A 1/16-inch stainless steel orifice plate with a 1.10-inch diameter square-edged orifice was used to measure the air flow to each intake. The pressure drop across the orifice was indicated on manometers inside the manned station. The sensitivity of the air control system permitted control within $\pm$ 5 percent for a 1/2 inch of water (3.7×10^{-2} inches of mercury) change in the manometer reading.

Sequential Air Sampler (SA). These samplers were used to obtain environmental air samples sequentially at each of the manned stations. The samplers consisted of two basic parts: (1) a constant-flow suction unit, and (2) a group of 10 Anderson sampling heads. Each sampling head was modified as shown schematically in Figure 2.13 with a slide gate orifice

* Sutorbuilt Corporation, Compton, California.

that was sized to produce the same air inlet velocity as in the VI Open Pipe unit (1,000 linear feet per minute). A complete sampler is shown in Figure 2.14.

Basically, the Anderson sampler head consisted of five stages. Each of the first four stages consisted of a perforated metal plate. The particle-laden air was drawn through the holes and impacted on a metal pan. Deposition of particles in the pan was dependent upon the size, density, and velocity of the particles. The air then passed over the edge of the pan and into the next stage. The hole size in the perforated plates was smaller in each succeeding stage, producing a corresponding increase in the jet velocities. The net result was a collection of particles in four size ranges. A Millipore* filter was added as the fifth stage to collect any particles that might still have been entrained in the air stream.

Air was drawn through the sampling head by an A.C. Schmidt 2-APR constant-flow suction unit** adjusted to pump 1.0 cfm against any resistance up to 11.75 inches of mercury. Clean sampling heads with fresh filters gave a resistance of 4 inches of mercury.

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* Millipore Filter Corporation, Bedford, Massachusetts.

** Schmidt Instrument Co., P.O. Box 111, San Carlos, California.

The slide gate on the inlet and the solenoid valve on the outlet were opened simultaneously on each head sequentially by a manually operated switch inside the manned stations.

A typical field installation of a VI and an SA sampler is shown in Figures 2.15 and 2.16, respectively.

(4) Other Instrumentation and Measurements

Wind Velocity Recorder. This was a standard service instrument AN/UMQ-5B, RD 108/UMQ-5 for diagnostic and interpretive support. One unit was installed 8 feet above the ground at each manned station, with readout in the adjacent shelter.

Visibility Measurements. Equipment consisted of a series of ten square optical targets, painted fluorescent orange, to be observed at each manned station with the shelter periscope (unit magnification). The targets were located in a northward direction from each shelter, approximately level with the periscope objective. The dimensions and distances were chosen to produce a constant angular size (Figure 2.17). All ten targets were visible simultaneously in the 20° field-of-view of the periscope. The layout was as follows:

Objective to Target Distance (ft)	Target Size (in)
10	3.0
14	4.2
20	6.0
27	8.1
38	11.4
53	15.9
74	22.2
103	30.9
144	43.2
200	60.0

Liquid Samplers. Open trays containing liquid reagents were exposed directly to the fallout for Project 2.10 (Physicochemical and Radiochemical Analysis) at a limited number of stations in Frenchman Flat. Three reagents were used: 0.5 N sodium thiosulphate for radioiodine determinations, distilled water, and 0.1 N HCl for solubility studies. The liquids were simultaneously filtered and transferred to polyethylene bottles at recovery time. The solid fraction on the filter was also sent to Project 2.10.

Collector Correlations. As may be seen from examination of Table 2.2, generally the OC stations were in close to zero where the dust background from shock and blast was greatest; the AO platforms were next, followed by the LA collectors in the Indian Springs Valley; and finally the most distant off-site locations were instrumented with the UCLA GC collectors. At some stations however, collectors were intermixed in order to obtain direct experimental correlation of the fallout catch among the several types of collectors. These special installations included:

2 PO collectors on the large cover of each major platform, S1S, S1N, S2, S3, S4, S5.

1 5-collector platform at Stations IS 14, 16, 18, 20, 22, and 24; and one 4-collector platform at IS 7, 8, 9, 10, 11, 12.

2 BC's in natural terrain near Stations S1S, S1N, S2, S3, S4.

2 GC's on undisturbed terrain near S1S, S1N, S2, S3, S4.

1 GC on undisturbed terrain at Stations 700, 702, 703, 704, 706, 707.

1 LA collector at Station 707.

In addition, as covered in Section 2.4, Indian Springs Valley was instrumented with 20 GC's placed at IS 5 through IS 24, yielding additional correlation data with the 24 fixed LA collectors.

2.2.3 Manned Stations. The manned stations consisted of an instrumented 4-man fallout shelter; a connected major sampling platform with cover; air sampling, ventilation intake and wind measuring equipment; Project 2.11 gamma-intensity versus time (GITR) instrumentation; and a remote-operated gasoline motor generator with a 100-hour fuel supply. Most of these elements are visible in Figure 2.18.

The shelter proper, described fully in Reference 11, was made of 10-gauge galvanized iron corrugated drainage pipe 8 feet in diameter and 10 feet long. The entrance was steel plate with two right-angle turns to eliminate direct radiation from the surface. The exterior closure was a 20-gauge honeycomb core steel door. A 12-inch diameter by 30-foot long steel pipe, joined to the shelter in the bulkhead opposite the entrance, was the operating trunk between the shelter and platform. The steel cables operating the IC came through the trunk directly onto hand-operated winches in the shelter. The cable system for raising and lowering the IC's was also led through the trunk to a foot-pedal. Each IC tray was positioned visually via the trunk, by aligning a flashlight-illuminated Scotch-Lite* reference line on the tray with fiducial

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*3M Corporation, Minneapolis, Minnesota.

lines on the fixed structure. A 3-inch thick lead plug with a 3-inch diameter central peephole provided shielding over most of the trunk opening in the shelter wall. A 1-1/2-inch pipe directly above the trunk contained the operating ropes for the platform cover.

The ventilation system produced a flow rate of at least 75 cfm through a 20-inch I.D. mushroom cover containing a rubberized hair and fiberglass pre-filter pair and an 11-3/4-inch by 11-3/4-inch by 7-inch deep Ultrafilter.* A Chicago Model FBH-1 hand-operated blower was provided as a standby in the event of power failure. The Ultrafilter was located in the entranceway with at least 3 feet of earth between it and shelter personnel. Blast protection afforded by the shelter at its weakest points (end walls and passageway) was approximately three times greater than the 1 to 2 psi overpressure expected at the closest installation. A periscope** was installed, providing 360° of horizontal vision with an $\sim 20^{\circ}$ field-of-view at unit magnification.

In addition to the PC, PO, SD, IC, VI, SA, wind velocity, and visibility measuring equipment previously described, shelter instrumentation included a thousandth-of-a-day electric clock and an electrical control panel for operating the hard-wire OC stations, monitoring the GITR start signal (with manual

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*Mine Safety Appliances Co.

**Tinsley Laboratories, Berkeley, Calif. Model D-0624.

backup), and monitoring and controlling (including re-start) of the 12.5 kw motor generator power supply.

Shelters S1S and S1N were additionally instrumented by other NRDL projects with standard field calorimeters for thermal radiation measurements (Reference 12) and neutron dosimeters for determining thermal- and fast-neutron flux versus depth in the shelter backfill (Reference 13).

Project 2.11 instrumentation included a special remote reading T1B (RR) with a 500 r/hr or 50 r/hr capability, depending on location, and a variety of direct reading dosimeters (DR), film packs, and radiacs.

Miscellaneous equipment and supplies included one 115-volt ac communications radio and one 12-volt dc radio-telephone, food and water for 100 hours, a first aid kit, lanterns, respirators, gas masks, tools, a chemical toilet, and sleeping bags. Two 4-wheel drive vehicles were available at each shelter for evacuation.

The six shelters were set in excavations 5 feet 7 inches deep, bringing the platform operating trunk flush with the original grade, and backfilled until there was at least 3 feet of earth cover in all directions. After backfilling, an area of approximately 100 feet by 100 feet was graded, stabilized with emulsified asphalt, and roped off.

The two closest shelters, at 4500 and 7,200 feet, differed from the others in that they were covered with 5 feet of tamped and rolled fill; the entranceways were made of 3/16-inch instead of 1/8-inch plate, stiffened with I-beams at critical points; and the ventilation intakes could be closed against blast and remotely opened. In addition, the platform and IC trunk at 4500 feet were sandbagged against blast, and vehicle and generator revetments were provided.

Gamma attenuation calculations were made before the shot for all the manned stations, after the method of Reference 14; in addition, actual measurements were made on 3 of the stations, using the traveling Co^{60} source technique (Reference 15). The calculated and measured protection factors, and the properties of the soil backfill, are presented in Table 2.4. It can be seen that in general the agreement was excellent.

2.2.4 Laboratory Facilities. The entire analytical facilities of Project 2.9 were located in a tent and trailers at the C.P.1 (NRDL equipment) and quonsets and trailers in and adjoining the Mercury Compound (UCLA equipment). Both sites were equipped with the usual laboratory fume hoods, glassware, standard filtering and sieving equipment, balances, etc. The special NRDL equipment and radiation counters are listed below:

Drying Oven

A large oven (5 feet by 2-1/2 feet by 3 feet high) for drying samples in their collection trays in order to insure maximum recovery effectiveness and to minimize sieving difficulties. The sieving equipment was washed in acetone and also dried in this oven.

Gamma Radiation Counters

One well-type 3 inch diameter by 3 inch high NaI scintillation counter taking sample tubes up to 1-1/4 inches in diameter. The crystal was mounted on an EMI type 9578B 3-inch multiplier phototube whose output was fed directly into a Systron model 1091-3 scaler. The scaler gate was controlled by a Nuclear Dual Timer. A John Fluke Model 412A high-voltage power supply provided dynode string voltage for the multiplier phototube.

One end-on 1-1/2-inch diameter by 1/2-inch high NaI scintillation counter. The crystal-source distance was 8-3/4 inches. Shielding consisted of a lead cylinder 2 inches thick, 7 inches I.D., with a 1/8-inch polyethylene liner. The crystal was mounted on a Dumont 6292 multiplier phototube whose output drove a gain-of-ten preamp and a cathode follower. The signal was then fed into a Systron model 1091-3 scaler whose gate was controlled by a Nuclear Dual Timer. A John Fluke Model 400 BDA high-voltage power supply provided the dynode string voltage for the multiplier phototube.

Three end-on low-geometry 1-1/2-inch diameter by 1-inch high NaI scintillation counters. The source-detector distance was 41 inches, and the floor area and door were large enough to accept 2 feet by 2 feet collection trays. A 2-inch thick lead shield surrounded the whole. A swing-out lead aperture was provided to further decrease sensitivity for extremely hot samples ($> 10^{14}$ fissions). The detector was mounted on a Dumont 6292 multiplier phototube whose output drove a gain-of-ten preamp and a cathode follower. The signal was then fed into a Systron model 1091-3 scaler which was controlled by a Nuclear Dual Timer. A John Fluke Model 412A high-voltage supply provided dynode string voltage for the multiplier phototube.

All readings were normalized to a standard response of 32,100 c/m for 100 μg of Ra on the floor of the counter. This standardization permits direct application, if desired, of the calibration data for a similar counter reported in Reference 16.

On the basis of the count rates obtained with this standard, all UCLA gamma activities reported for CH-1 (Part 2 of this report) should be multiplied by 0.578, derived as follows:

Date	Standard	NRDL Scintillation Counter c/m	UCLA CH-1 c/m
4 July 1962	100 μg Ra	32,100 (all data was normalized to this value)	50,000
4 July 1962	Cs^{137}, #654	-	18,450
duration	Cs^{137}, #654		~ 20,500 (visual average)

The required normalization is therefore

$$\frac{32,100}{50,000} \times \frac{18,450}{20,500} = 0.578$$

One 4-pi gamma ionization chamber. An argon-filled (600 psig at 70°F) steel ionization chamber 11 inches in diameter by 14 inches high, shielded with 3 inches of lead, with a reentrant sample thimble 1-3/4 inches I.D. by 12 inches deep. Current produced in the chamber by ionizing radiation was applied to suitable load resistors; the resultant voltage drop drove a plate difference amplifier and was read out on a microammeter. The useful ionization current output ranged between 4×10^{-10} and 3×10^{-5} ma. All readings were normalized to a standard response of 5.60×10^{-7} ma for 100 μg of radium. Construction and absolute response details may be found in References 8 and 17.

One Penco 100-channel gamma ray pulse-height analyzer employing a 4-inch diameter by 4 inch high NaI(Tl) crystal detector.* Samples were counted using the 1/2-inch or 3/4-inch diameter collimators, both 6 inches long, or were placed directly on the crystal, depending on sample strength. The instrument is fully described in Reference 18, and a report of the spectral analyses made at Small Boy is contained in Reference 13.

All counters were cross-calibrated with at least one kind of reference standard. Actual fallout collections were also used to determine the effects of various geometries and gamma spectral changes with time.

2.3 OPERATIONS

On D−1 day, final field preparations were completed and movement of personnel to their shot-time locations begun. Project 2.9 control was established physically with Program 2 control

* Made available by NRDL personnel on the CETO Operation BREN Project.

at the Forward Control Point (a Butler building ~4 miles .st of GZ) thereby achieving direct communications with other Program 2 projects, Rad Safe, air operations, and others, as diagrammed in Figure 2.19. A member of Project 2.9 was also stationed with the Weather Bureau Fallout Forecasting Unit, relaying the predicted off-site fallout pattern to the Mobile Fallout Team Control Center at Mercury. NRDL D-model close-in fallout predictions were phoned back from San Francisco within 40 minutes after receipt of the predicted shot time wind structure.

2.3.1 Aerial Photography. Four aerial photographic missions were accomplished over the Small Boy event area to determine crater dimensions. These were executed during the comprehensive aerial photographic operations coordinated jointly by NRDL and the Navy's Light Photographic Squadron-63 during July 1962 at the Nevada Test Site. Each mission consisted of two jet photographic aircraft (RF-8A) obtaining large area coverage with simultaneous exposures of panchromatic, ektacolor, and infrared films. Scales ranged from about 1:10,000 to 1:40,000. Pre-event coverage was obtained on 5 and 12 July, with post-event coverage on 14 and 15 July. The 14 July coverage was obtained at about H+6 hours after shot time. A detailed report of this Small Boy aerial photographic coverage is included in the report* of the aerial

* Aerial Photographic Operations and Residual Signatures of Nuclear Explosions, Nevada Test Site", Lt Col F.L. Vuillemot, USMC, USNRDL report (in preparation), (FOUO).

photographic operations.

2.3.2 Arming and Recovery

In Frenchman Flat station collectors and instrumentation were armed between H-24 and H-3. All arming parties were out of the Flat by H-4 except the 24 manned station personnel who were buttoned-in and mustered by H-4 also.

In Indian Springs Valley arming of the twenty-four fixed stations was accomplished between H-7 and H-3.

At fallout arrival time, planned measurements at the manned stations were initiated, reported periodically to the forward C.P., and carried to completion. Withdrawal from the shelters was completed by H+8 hours (1930 hours) via pre-selected evacuation routes.

Six early recovery samples were collected by helicopter between H+1 and H+2 hours and delivered to the C.P. 1 laboratory for radiochemical analysis and ionization decay measurements. Recovery of collectors and recordings in Frenchman Flat and Indian Springs Valley by 2- or 3-man teams commenced at H+6 and required two days to complete, as shown in Table 2.5.

Radiation readings were also made with T1B survey meters during recovery. The instruments were held about 3 feet above the ground, but exact procedure varied from team to team. In some cases, readings were taken on top of or alongside the station GITR, if one was present; in other cases an eyeball average for the station area was recorded. The results are rough, therefore, but probably typical of the usual gamma survey.

2.4 ANALYTICAL PROCEDURE

2.4.1 Basic Collectors. Fallout collections were processed and distributed in accordance with a comprehensive plan satisfying Project 2.9 and Project 2.10 (Radiochemical Analysis) requirements. In general, the basic collectors employed in Frenchman Flat (AO, OC, PO, IC) were assayed for gross gamma activity in the low-geometry scintillation counter before any handling losses or aliquoting errors were incurred. One collector from each location was set aside unopened as a gamma decay sample.

Removal of the contents of the collectors was usually done by dry brushing, followed by a recount for recovery loss. The sample was then weighed. The samples were subjected to either wet or dry sieving to obtain size distributions and counted to obtain specific activity. Comparisons between sieving methods were carried out. The +44 micron diameter fractions were dried and sieved according to standard procedure, while the -44 micron fractions were sized by settling technique in 2-foot-high thermally-insulated water columns. Aliquots drawn at various times from a fixed height were then centrifuged, dried, weighed, and counted. Ionization decay and gamma spectral measurements were made on certain of these fractions, as well as on other gross collections.

At NRDL all sample activity, weight, and size data were put on cards for reduction and processing in the IBM 704. Preliminary handwork included generation of composite decay curves for the low-geometry scintillation counter and the 4π ion chamber, so that all counts could be reduced to a common time (arbitrarily chosen at 100 hours) for comparison. It was also necessary to construct from the data a coincidence loss curve for the scintillation counter.

2.4.2 Other Collectors.

BC Collectors. The only analysis made on these collectors was a gross gamma assay in the scintillation counter.

LA Collectors. The samplers were recovered by placing two 4 feet by 4 feet panels face-to-face, thereby sealing the collection in and extraneous material out. The aluminum foil sandwich was cut into four 2 feet by 2 feet squares, which were placed in a clean tray together and counted in the scintillation counter. Following assay, the fallout collection was removed from the greased-foil surface by brushing with xylene each of the eight 2 feet by 2 feet sheets one at a time in a special rack. Approximately two liters of xylene were required for the total 256 square feet of collector normally exposed at a station. After surface removal and three washings with xylene, the slurry was thoroughly dried on a hot plate and taken through the wet-sieving process previously described.

<u>GC Collectors</u>. Following exposure of the trays, the mylar sheets were gathered around the pellets and tied, forming a package 6 to 8 inches in diameter. Each sample was then individually bagged for transport back to the C.P. laboratory. The activity was assayed by counting the packaged pellets intact on the floor of the low-geometry scintillation counter.

After counting, the samples were sent to the UCLA Mercury laboratory for separation of the fallout from the plastic pellets.

<u>ER Samples</u>. Twelve of the ER samplers were successfully recovered by helicopter between H+1 and H+2 hours. Only one however, from Station S2, contained enough material ($\sim 10^{14}$ fissions) to be useful. The contents were removed and radiochemically analysed by Project 2.10 personnel for Mn^{56} and Na^{24} by the following visual classifications: gross collection, spheres, sand, and sintered particles. Separation purity was checked by decay and gamma spectrometry.

2.4.3 Ventilation Studies.

Ventilation Intake Units. Figure 2.20 shows a block diagram of the analytical procedures used to process these samples. The sealed bags were counted in the end-on counter to obtain a total activity count before any processing losses could be incurred. The use of the end-on counter for the initial counts was necessitated by the physical size of the samples. The cup samples which were too small for particle size analysis were weighed, transferred to test tubes, and used for decay counting in the end-on counter and the 4-pi ion chamber. The VI filters were dissolved in xylene, the solution centrifuged, and the solids concentrated in a beaker. After thorough washing with xylene to completely remove the filter medium, the solids were dried and counted. The samples were then weighed and transferred to a test tube and counted in the 4-pi ion chamber. Those samples whose activity level was too low for an accurate reading were counted in the more sensitive well counter.

SA Units. Each stage of the Anderson samplers in the SA sampling units was counted in the NRDL end-on scintillation counter. The particles were then removed from the collecting dishes by dry brushing, transferred to test tubes, and counted in the 4-pi ion chamber and well counter. Weights were obtained on all fractions counting above background in the end-on counter.

2.4.4 Leaching and Exchange Studies. Leaching of gamma-emitting radionuclides from fallout particles was determined for solutions of pH 1, pH 6, pH 10, and xylene. Fallout particles were sieved to obtain sized fractions from the 12 (1410μ), 24 (707μ), 42 (354μ), 80 (177μ), 170 (88μ), and 325 (44μ) mesh screens. Aliquots of these fractions were added to 25 ml of the various solutions in centrifuge tubes. In some cases duplicate or triplicate tubes were prepared so that the effect of time of contact could be measured.

The percentage of gamma activity which leached into the solution was determined by centrifuging the tubes, decanting the supernate into a clean tube, and measuring both the solid and liquid fractions in a 4-pi ionization chamber. Gamma spectra were taken on selected samples.

The exchange of gamma emitting radionuclides from fallout particles to montmorillinite clay and adobe soil was studied. The clay and adobe were passed through a 325-mesh sieve to obtain particles less than 44 micron in diameter. Fallout particles were sieved to obtain sized fractions from the 12, 24, 42, 80, 170, and 325 mesh screens. Aliquots of the fallout particles were mixed with 10 grams of clay or adobe in test tubes containing 25 ml distilled water. Triplicate samples were prepared so that the effect of time of contact for 1, 3, and 8 days could be measured.

After the required time had clapsed the particles of fallout and clay or adobe were physically separated by washing through a 325-mesh sieve. The fallout particles which were retained on the sieve were dried and transferred to a clean test tube. The percentage of gamma activity which exchanged from the fallout to the clay or adobe was determined by counting both fractions in the 4-pi ionization chamber.

2.4.5 Radioiodine Release. Two weighed samples from Station 203 and two from Station 507 were placed in petri dishes on D+2, 16 July, and exposed to normal air currents and sunlight. A third sample from each station was added at the same time to a test tube containing 50 ml of 0.05 M sodium thiosulfate, thus effectively trapping any radioiodine to be released from the particles. One sample from the petri dishes was added to thiosulfate solution on 20 July after 6 days of air exposure, and on 26 July after 12 days of air exposure the remaining set of samples was placed in thiosulfate.

On 27 July the radioiodine was measured in the following manner: each test tube was measured initially in the 4-pi ionization chamber. The slurry of thiosulfate solution and fallout was transferred from the test tube to a bubble column. The iodide was oxidized with nitrous acid, and the iodine transferred to another bubble column containing sodium thiosulfate by drawing a stream of air through the system. The iodine was extracted from the second thiosulfate solution by again oxidizing with nitrous acid and extracting into carbon tetrachloride. The carbon tetrachloride fractions were then measured in the 4-pi ionization chamber to determine radioiodine.

TABLE 2.1 STATION DESCRIPTION

Frenchman Flat Stations

Station Designator H & N Coordinates	Station Designator NRDL No.	Location of Station Distance From GZ E (ft)	N (ft)	S (ft)	Slant (ft)	Station Elevation (GZ = 3078 ft.) (ft)	ΔE (ft)	GZ Visible Yes	GZ Visible No	Type**	Special Features
541.85	0005	2000W	6000		6330	3080	2	X		II	None
541.86	0009	2000W	10000		10200	3100	22	X		II	"
541.08	003		4000		4000	3078	0	X		I	"
541.09	005		6000		6000	3078	0	X		I	"
541.10	007		8000		8000	3087	9	X		II	"
541.75	009		10000		10000	3100	22	X		II	"
541.84	0011		14000		14000	3140	62	X		II	"
541.14	013	2000	4000		4470	3078	0	X		I	None
541.17	014	2000		4000	4470	3078	0	X		I	"
541.15	015	2000	6000		6330	3086	8	X		II	"
541.16	017	2000	8000		8250	3095	17	X		II	"
541.76	019	2000	10000		10200	3115	37	X		II	"
541.83	021	2000	14000		14200	3150	72	X		II	"
541.01	100*	4500			4500	3078	0	X		I	Area around shelter stabilized with emulsified oil
541.19	101	4000	2000		4470	3078	0	X		I	None
541.18	102	4000		2000	4470	3078	0	X		I	"
541.20	103	4000	3500		5310	3084	6	X		II	"
541.17	104	4000		4000	[illegible]	3078	0	X		II	"
541.02	105*	4000	6000		7220	3057	9	X		II	Area around shelter stabilized with emulsified oil
541.21	107	4000	8000		8950	3100	22	X		II	None
541.77	109	4000	10000		10800	3118	40	X		II	"
541.82	111	4000	14000		14600	3155	77	X		II	"
541.25	200	8000			8000	3118	40	X		III	None
541.26	201	8000	2000		8250	3122	44	X		III	"
541.24	202	8000		2000	8250	3110	32	X		III	"
541.03	203*	8000	4000		8950	3130	52	X		III	Area around shelter stabilized with emulsified oil
541.23	204	8000		4000	8950	3190	112	X		III	None
541.27	205	8000	6000		10000	3135	57	X		III	"
541.28	207	8000	8000		11310	3135	57	X		III	"
541.29	209	8000	10000		12800	3138	60	X		III	"
541.78	211	8000	12000		14800	3150	72	X		III	"
541.22	213	8000	14000		16150	3160	82	X		III	"
541.33	300	12000			12000	3215	137	X		III	None
541.34	301	12000	2000		12200	3235	157	X		III	"
541.32	302	12000		2000	12200	3230	152	X		III	"
541.35	303	12000	4000		12650	3250	172	X		III	"
541.31	304	12000		4000	12650	3310	232	X		III	"
541.36	305	12000	6000		13400	3250	172	X		III	"
541.37	307	12000	8000		14800	3230	152	X		III	"
541.04	309*	12000	10000		15600	3220	142	X		III	Area around shelter stabilized with emulsified oil
541.38	311	12000	12000		17000	3210	132	X		III	None
541.39	313	12000	14000		18500	3190	117	X		III	"
541.79	315	12000	16000		20000	3200	122	X		III	"

*Shelter location. **See last sheet of this table.

TABLE 2.1 CONTINUED

Frenchman Flat Stations

Station Designator H & N Coordinates	ERDL No.	Location of Station Distance from GZ: E (ft)	N (ft)	S (ft)	Slant (ft)	Station Elevation (GZ - 3018 ft) (ft)	(ft)	GZ Visible Yes	GZ Visible No	Type**	Special Features
541.43	400	18000			18000	3300	282	X		IV	None
541.44	401	18000	3000		18250	[illegible]	307	X		IV	"
541.42	402	18000		3000	18250	[illegible]	632		X	IV	Behind range of hills between GZ and station
541.45	403	18000	6000		19000	[illegible]	322	X		IV	None
541.46	405	18000	9000		20100	3410	332	X		IV	"
541.47	407	18000	12000		21600	3300	302	X		III	"
541.48	409	18000	15000		24500	3300	282	X		III	"
541.05	411*	18000	18000		25500	3370	292	X		III	Area around shelter stabilized with emulsified oil
541.85	413	18000	21000		27700	[illegible]	342	X		III	None
541.54	501	26000	1500		26000	3580	602		X	IV	Behind range of hills between GZ and station
541.53	502	26000		1500	26000	3300	722		X	IV	"
541.55	503	26000	4500		26400	3040	562		X	IV	"
541.52	504	26000		4500	27100	3330	742		X	IV	Between two ranges of hills 4600 to 4800 ft high
541.51	506	26000		7500	26400	3560	762		X	IV	"
541.50	505	26000	7500		27100	3700	622	X		IV	None
541.06	507*	26000	10500		28000	[illegible]	642	X		IV	Area around shelter stabilized with emulsified oil
541.57	509	[illegible]	13500		[illegible]	3800	782	X		IV	None
541.58	511	[illegible]	[illegible]		[illegible]	3630	602	X		IV	"
541.61	513	[illegible]	[illegible]		[illegible]	3700	622	X		IV	"
541.62	600	34000			[illegible]	[illegible]	762		X	IV	Behind range of hills between GZ and station
541.63	601	34000	[illegible]		[illegible]	[illegible]	802		X	IV	"
541.61	602	34000		4000	34200	[illegible]	912		X	IV	"
541.64	603	34000	8000		34900	[illegible]	922	X		IV	None
541.65	605	34000	12000		36100	[illegible]	1002	X		IV	"
541.70	700	46000			46000	[illegible]	1132		X	IV	Between two ranges of hills 4600 to 4800 ft high
541.71	701	46000	4000		46200	[illegible]	1162		X	IV	"
541.69	702	46000		4000	46200	4120	1142		X	IV	"
541.72	703	46000	8000		46700	4400	1322		X	IV	"
541.68	704	46000		8000	46700	4200	1122		X	IV	"
541.73	705	46000	12000		47500	4560	1462		X	IV	"
541.67	706	46000		12000	47500	4200	1122		X	IV	"
541.74	707	46000	12000		47500	4550	1482		X	IV	"

* Shelter location.

** See last page of this table.

TABLE 2.1 CONTINUED

Indian Springs Valley Stations, Type V.

Station Designator NRDL No.	Location of Station Distance From GZ E (ft)	N (ft)	S (ft)	Slant (ft)	Station Elevation (GZ = 3078 ft.) (ft)	ΔE (ft)	GZ Visible Yes	No
IS-1	80000		24500	83700	3100	22		X
IS-2	81500		20 00	84000	3100	22		X
IS-3	82500		16 00	84100	3100	22		X
IS-4	82500		12 00	83400	3100	22		X
IS-5	83000		8000	83400	3100	22		X
IS-6	84000		4500	84100	3100	22		X
IS-7	85000		700	85000	3100	22		X
IS-8	86700	3300		86300	3100	22		X
IS-9	87000	7000		87500	3100	22		X
IS-10	87500	11000		88200	3120	42		X
IS-11	87800	15000		89200	3120	42		X
IS-12	88000	19500		90100	3140	62		X
IS-13	88500	23500		91500	3150	72		X
IS-14	88500	27500		92500	3150	72		X
IS-15	88500	31300		94000	3160	82		X
IS-16	88000	35500		95000	3200	122		X
IS-17	86500	39500		95200	3210	132		X
IS-18	85000	43500		95500	3200	122		X
IS-19	83800	48500		96900	3180	102		X
IS-20	83000	51000		97400	3200	122		X
IS-21	83000	56000		100100	3210	132		X
IS-22	85000	60500		104300	3220	142		X
IS-23	86500	65000		108200	3220	142		X
IS-24	87500	69000		111500	3230	152		X

Note:

Type I. Stations were located on the dry lake bed of Frenchman Flat. The terrain was flat and smooth with no vegetation. Very dusty when wind was blowing or vehicular traffic nearby. Stations were at same elevation as ground zero.

Type II. Stations were located around the dry lake bed on flat, sandy terrain. Vegetation in the form of low growing sagebrush was sparsely distributed around the stations. These stations ranged from 2 feet to 77 feet higher in elevation than ground zero. Very dusty when wind was blowing or vehicular traffic nearby.

Type III. Stations were located on the eastern slope of Frenchman Flat. The ground surface was covered with a layer of small rocks and a crust of soil. As long as the crust was not disturbed there was no dust problem except from vehicular traffic on roads. Stations were all located on upwind side of roads. Vegetation was heavier and Joshua trees from 6-8 ft high in evidence. Elevation of these stations ranged from 30 to 230 feet above ground zero.

Type IV. Stations were located on the upper eastern slope of Frenchman Flat. Terrain was rough and rocky. Heavy vegetation consisting of sagebrush and cactus. Very little dust generated by winds. Elevations ranged from 282 to 1432 feet above ground zero.

Type V. These stations were located in Indian Springs Valley, some 19 miles due east of ground zero. A range of mountains, the Spotted Range, lies between the valley and Frenchman Flat. Stations IS-1 through IS-9 were located on a dry lake bed with little vegetation around them. Stations IS-10 through IS-24 were located progressively up the northern slope of the valley. Vegetation in the form of sagebrush and yucca trees became heavier.

TABLE 2.2 STATION INSTRUMENTATION

Part 1. Manned Stations.

Station	SIS(100) 4500 ft	SIN(105) 7200 ft	S2(203) 8900 ft	S3(309) 15,000 ft	S4(411) 25,000 ft	S5(507) 28,000 ft
Set of Visibility Targets	1	1	1	1	1	1
Film Badge at GS	1	1	1	1	1	1
GS	1(60h)	1(60h)	1(60h)	1(12h)	1(12h)	1(12h)
BC	2	2	2	2	2	2
SD	1	1	1	1	1	1
VI	1	1	1	1	1	1
SA	1	1	1	1	1	1
ER	1	-	1	-	-	-
GC	2	2	2	2	2	
Installation IC	1	1	1	1	1	1
Platform Cover PO	2	2	2	2	2	2
Major Platform PC	1	1	1	1	1	1
Timing Radio	1	1	1	DN-11	DN-11	DN-11
				——— Hard Wire Signal ———		
RR	500 r/hr max.	500 r/hr max.	500 r/hr max.	500 r/hr max.	50 r/hr max.	50 r/hr max.
DR (Dosimeter) at GS 0-200	2	2	2	1	1	1
0-600	2	2	2	1	1	1
Calorimeter	1	1	-	-	-	-
DR (Dosimeter) Interior 0-1r	8	8	8	8	8	8
0-10r	8	8	8	8	8	8
AN/PDR-18	2	2	2	2	2	2
CDV-700	2	2	2	2	2	2
Iodine Gas Sampler	-	1	-	-	1	-
Project 2.12 OC Collector	-	1	-	1	-	1
Orsat Gas Analyzer	-	-	-	-	1	-
Wind Velocity Recorder	1	1	1	1	1	1

Note: All abbreviations are explained in Section 2.2.2.

TABLE 2.2 CONTINUED

Part 2. Frenchman Flat Stations.

Station	OC Station	AO Station	ER	Control by			GS		GR		2.8 Badge	DR (Dosimeters)			Specials Proj.2.10
				Radio	Manual	Wire	12 hr	60 hr	1 r/hr	10 r/hr		0-?	0-200	0-600	
0003		1[a]	1								1				
0005		1[a]			1		1				1		1	1	
0009		1[a]	1		1		1				1		1	1	
009	1[b]			1			1				1		1	1	
007		1	1	1			1				1		1	1	
005		1		1			1				1		1	1	
003	1[b]		1	1				1			1		1	1	
0011		1[a]	1		1		1				1		1	1	
019	1[b]			1			1				1		1	1	
017		1	1	1			1				1		1	1	
015	1[b]			1				1			1		1	1	
013	1[b]		1	1				1			1		1	1	
014	1[b]		1	1			1				1		1	1	
021		1[a]	1		1		1				1		1	1	
111		1[a]	1		1		1				1		1	1	
109		1		1			1				1		1	1	
107	1[b]		1	1				1			1		1	1	
103	1[b]		1	1				1			1		1	1	
101	1[b]		1	1				1			1		1	1	
102	1[b]		1	1			1				1		1	1	
104		1	1	1			1				1		1	1	
213		1[a]	1		1		1				1		1	1	
211	1		1			W(S3)	1				1		1	1	
209	1		1			W(S3)		1			1		1	1	
207	1		1			W(S3)	1				1		1	1	
205	1[b]		1			DN-11		1			1		1	1	
201	1[b]		1	1			1				1		1	1	
200	1[b]		1	1			1				1		1	1	

TABLE 2.2 CONTINUED

Part 2. Frenchman Flat Stations (continued).

Station	OC Station	AO Station	ER	Control by: Radio	Control by: Manual	Control by: Wire	GS 12 hr	GS 60 hr	GR 1 r/hr	GR 10 r/hr	2.8 Badge	DR (Dosimeters) 0-2	DR (Dosimeters) 0-200	DR (Dosimeters) 0-600	Specials Proj. 2.10
202		1	1	1			1				1		1	1	
204	1[b]		1	1			1				1		1	1	
319		1[a]	1		1		1				1		1	1	
317		1[a]			1		1				1		1	1	
315		1				W(S3)	1				1		1	1	
313	1		1			W(S3)	1				1		1	1	
311	1					W(S3)	1				1		1	1	
307	1					W(S3)	1				1		1	1	
305	1					W(S3)	1				1		1	1	
303		1				W(S3)	1				1		1	1	
301	1					W(S3)	1				1		1	1	
300		1				W(S3)	1				1		1	1	
302	1					W(S3)	1				1		1	1	
304		1[a]				W(S3)	1				1		1	1	
413	1					W(S4)	1				1		1	1	
409	1					W(S4)	1				1		1	1	
407	1					W(S4)	1				1		1	1	
405	1					W(S4)	1				1		1	1	
403	1					W(S4)	1				1		1	1	
401	1					W(S4)	1				1		1	1	
400		1				W(S4)	1				1		1	1	
402		1[a]				W(S4)	1				1		1	1	
513		1				W(S4)	1				1		1	1	
511	1					W(S4)	1				1		1	1	
509		1				W(S5)	1				1		1	1	
505		1				W(S5)	1				1		1	1	
503	1					W(S5)	1				1		1	1	
501		1				W(S5)	1				1		1	1	

TABLE 2.2 CONTINUED

Part 2. Frenchman Flat Stations (continued).

Station	OC Station	AO Station	ER	Control by Radio	Control by Manual	Control by Wire	GS 12 hr	GS 60 hr	GR 1 r/hr	GR 10 r/hr	2.8 Badge	DR (Dosimeters) 0-2	DR (Dosimeters) 0-200	DR (Dosimeters) 0-600	Correlation Samples	Specials Proj. 2.10
502	1					W(S5)	1				1		1	1		
504		1[a]				W(S5)	1				1		1	1		
506		1[a]				W(S5)	1				1		1	1		
607		1									1					
605		1				W(600)	1				1		1	1		
603		1									1					
601		1				W(600)	1				1		1	1		
600		1		1							1					
602		1				W(600)	1				1		1	1		
707		1				W(705)				1	1	1			1-IA 1-GC	H_2O Na2 0.1N HCl 0.5 $Na_2S_2O_3$
705		1		1						1	1	1	1			
703		1		1						1	1	1	1		1-GC	H_2O 0.1N HCl 0.5 $Na_2S_2O_3$
701		1				W(703)				1	1	1	1			
700		1									1				1-GC	
702		1[a]		1					1		1	1	1		1-GC	
704		1[a]									1				1-GC	
706		1[a]				W(702)			1		1	1	1		1-GC	
Sums	32	41	26	23	8	37	53	8	2	4	73	6	67	61		

a. 4 collector (AO station).
b. Contained pre-set timer for opening and closing.

Note: All abbreviations are explained in Sections 2.2.2 and 2.2.3.

TABLE 2.2 CONTINUED

Part 3. Indian Springs Valley Stations.

Location		Collectors AO	Collectors IA	1 r/hr Max GR	GU	GC	Toad	Film Badge	DR (Dosimeters) 0-2	DR (Dosimeters) 0-200
IS	1		1	1				1	1	1
	2		1	1				1	1	1
	3		1	1				1	1	1
	4		1	1				1	1	1
	5		1	1		1		1	1	1
	6		1	1		1		1	1	1
	7	1[a]	1	1		1		1	1	1
	8	1[a]	1	1		1	1	1	1	1
	9	1[a]	1	1		1		1	1	1
	10	1[a]	1	1		1	1	1	1	1
	11	1[a]	1	1		1		1	1	1
	12	1[a]	1	1		1		1	1	1
	13		1	1		1		1	1	1
	14	1[b]	1	1	1	1		1	1	1
	15		1	1		1		1	1	1
	16	1[b]	1	1		1		1	1	1
	17		1	1		1		1	1	1
	18	1[b]	1	1		1	1	1	1	1
	19		1	1		1		1	1	1
	20	1[b]	1	1		1		1	1	1
	21		1	1		1		1	1	1
	22	1[b]	1	1		1	1	1	1	1
	23		1	1		1		1	1	1
	24	1[b]	1	1	1	1	1	1	1	1
Sums		12	24	24	1	20	5	24	24	24

a. Five collector AO station.
b. Four collector AO station.

TABLE 2.3 SUMMARY OF VENTILATION INTAKE DIMENSIONS, FACE VELOCITIES, AND THEORETICAL PARTICLE SIZE EXCLUSION

Intake No.	Nominal Hood Diam.	Inlet Face Area	(1) Air Flow = 50 ft^3/min, Pipe Velocity 1190 ft/min: Average Velocity At Face of Inlet	(1) Excluded Particles Larger Than: Spherical Sand	(1) Excluded Particles Larger Than: Irreg. Quartz	(2) Air Flow = 46 ft^3/min, Pipe Velocity 1095 ft/min: Average Velocity At Face of Inlet	(2) Excluded Particles Larger Than: Spherical Sand	(2) Excluded Particles Larger Than: Irreg. Quartz	(3) Air Flow = 42.5 ft^3/min, Pipe Velocity 1012 ft/min: Average Velocity At Face of Inlet	(3) Excluded Particles Larger Than: Spherical Sand	(3) Excluded Particles Larger Than: Irreg. Quartz
	Inches	ft^2	ft/min	μ	μ	ft/min	μ	μ	ft/min	μ	μ
0(4)	-	0.047	0	-(5)	-(5)	0	-(5)	-(5)	0	-(5)	-(5)
1	-	0.042	1190	-(5)	-(5)	1095	-(5)	-(5)	1012	-(5)	-(5)
2	20	1.966	25	40	49	23	39	47	22	38	46
3	15	0.971	51	57	68	47	55	65	44	53	63
4	10	0.481	104	83	108	96	79	102	88	76	96
5	5	0.081	617	485	617	568	450	570	525	415	525

(1) Designed Air Flow
(2) Measured Air Flow at Station S1S
(3) Measured Air Flow at Stations S1N, S2, S3, S4, S5
(4) Dummy Pipe - No Air Flow
(5) Pipe Open Without Cover - No Exclusion

TABLE 2.4 SHELTER GAMMA RADIATION PROTECTION FACTORS

Shelter	Distance From GZ	Minimum Backfill Depth and Soil Density		Protection Factor		
				Calculated		Measured
	ft	ft	lb/ft^3			
S1S	4,500	4.4	126	70,000 470,000	(front) (back)	* *
S1N	7,200	4.8	126	70,000 470,000	(front) (back)	*
S2	8,900	3.4	126	50,000 130,000	(front) (back)	50,000 140,000
S3	15,600	3.6	126	63,000 190,000	(front) (back)	71,000 140,000
S4	25,400	3.6	103	30,000 48,000	(front) (back)	32,000 48,000
S5	28,000	3.6	103	30,000 48,000	(front) (back)	- -

*The special backfill used for these shelters was discovered to have come from the region of Priscilla ground zero. It produced a background of ~ 0.2 mr/hr inside the shelter, sufficiently large to negate all attenuation measurements with the available 70 curie Co^{60} source.

TABLE 2.5 STATION RECOVERY AND GAMMA RADIATION SURVEY

NRDL Station No.	Time of Recovery	T1B Survey Reading	NRDL Station No.	Time of Recovery	T1B Survey Reading
	(H+hrs)	(mr/hr)		(H+hrs)	(mr/hr)
100	5.25	3,000	603	28.30	220
	25.00*	-	605	28.10	200
101	30.50	4,400	607	28.00	15
200	4.45	300	703	25.60	30
201	25.10	1,400	705	25.20	90
203	4.25	5,000	707	24.80	190
	5.25	3,400			
	25.00*	400	IS-10	29.00	0.5
300	4.83	100	IS-11	28.75	1.3
301	4.59	5,000	IS-12	28.50	1.5
303	29.25	1,400	IS-13	28.25	19
305	29.00	450	IS-14	28.00	15
307	3.00	40	IS-15	27.75	12
400	24.66	12	IS-16	27.50	12
401	24.59	1,200	IS-17	27.25	12
403	24.42	1,400	IS-18	27.00	12
405	24.28	350	IS-19	26.75	10
407	24.15	4	IS-20	26.50	2.8
501	53.30	6	IS-21	26.25	1.8
503	25.30	600	IS-22	26.00	1.0
505	25.60	1,000			
507	2.75	3,400			
	25.50*	200			
509	49.00	36			
601	28.50	24			

*Station Recovery Time

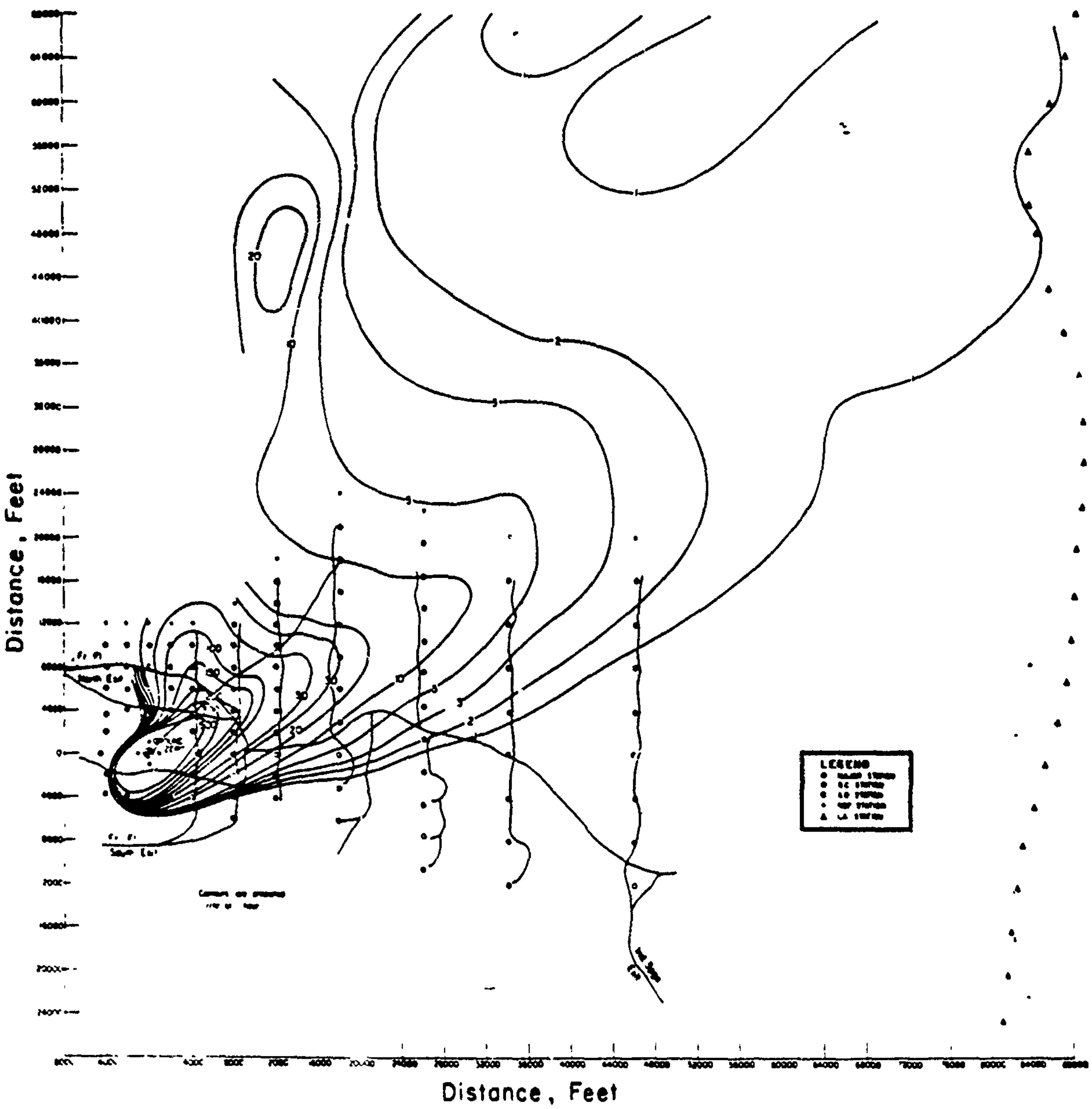


Figure 2.1 Planning fallout model (contours are predicted r/hr at 1 hour).

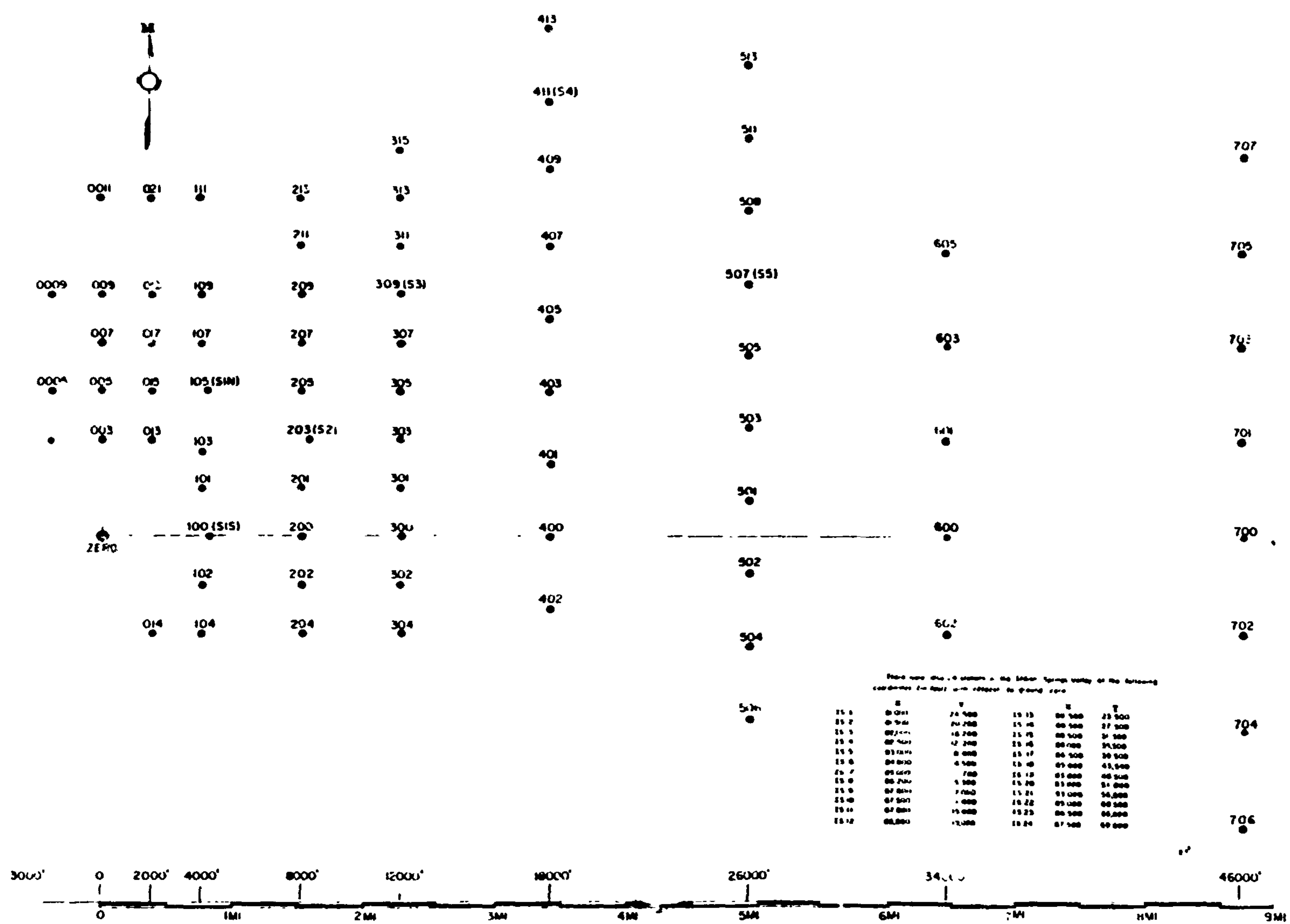


Figure 2.2 Project 2.9 fallout collection array.

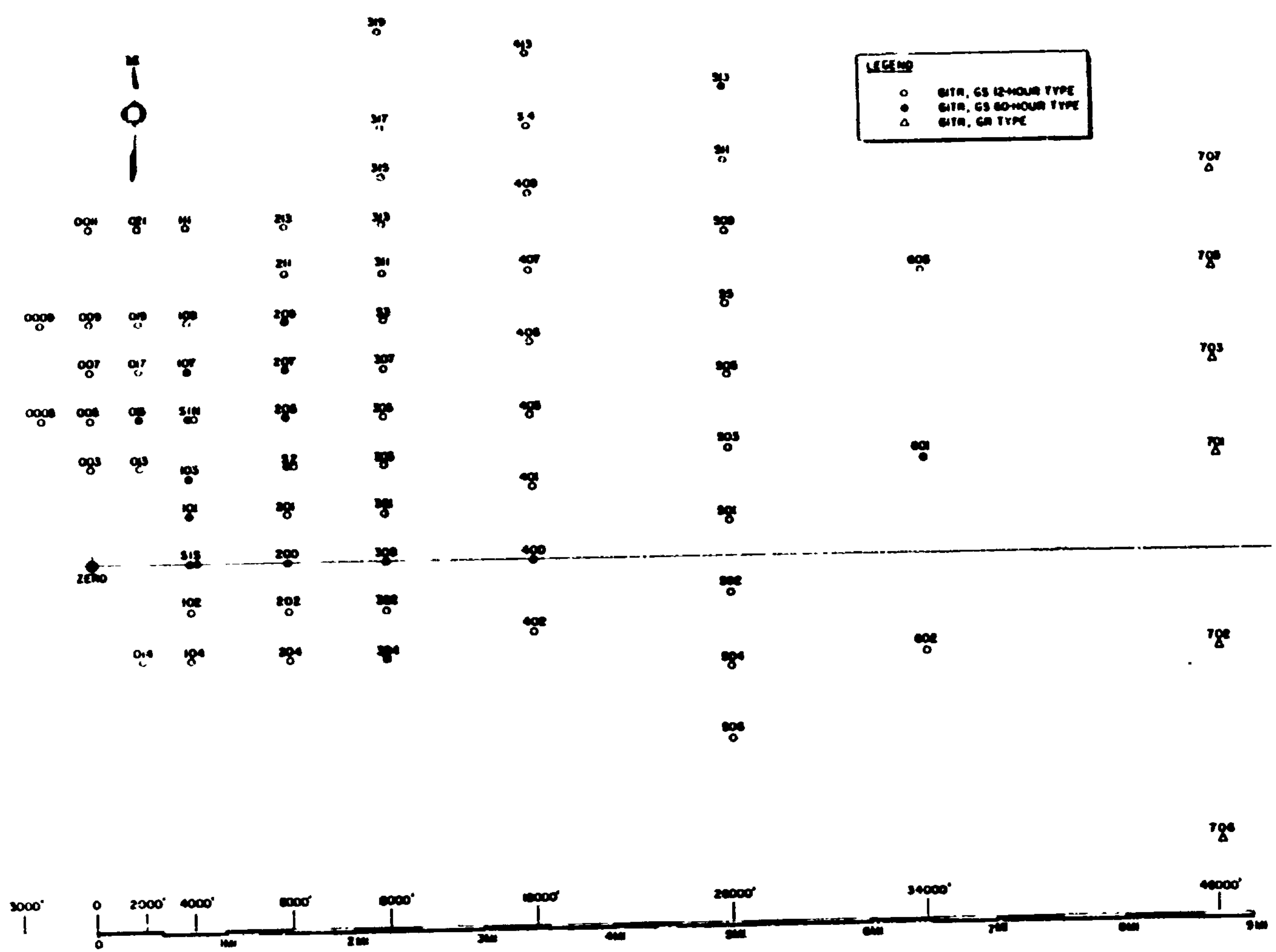


Figure 2.3a Location of Project 2.11 gamma ionization versus time recorder stations.

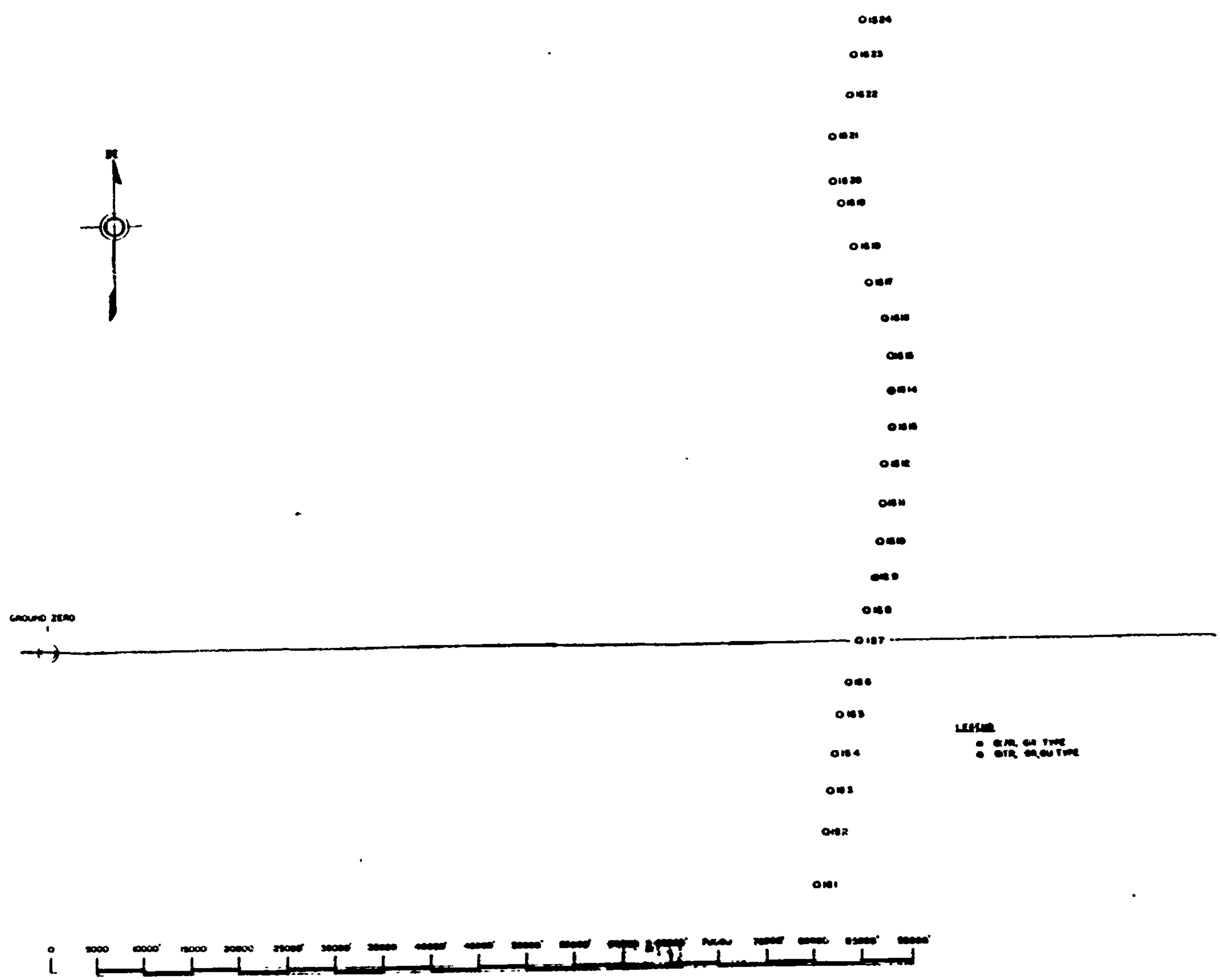


Figure 2.3b Location of Project 2.11 gamma ionization versus time recorder stations.

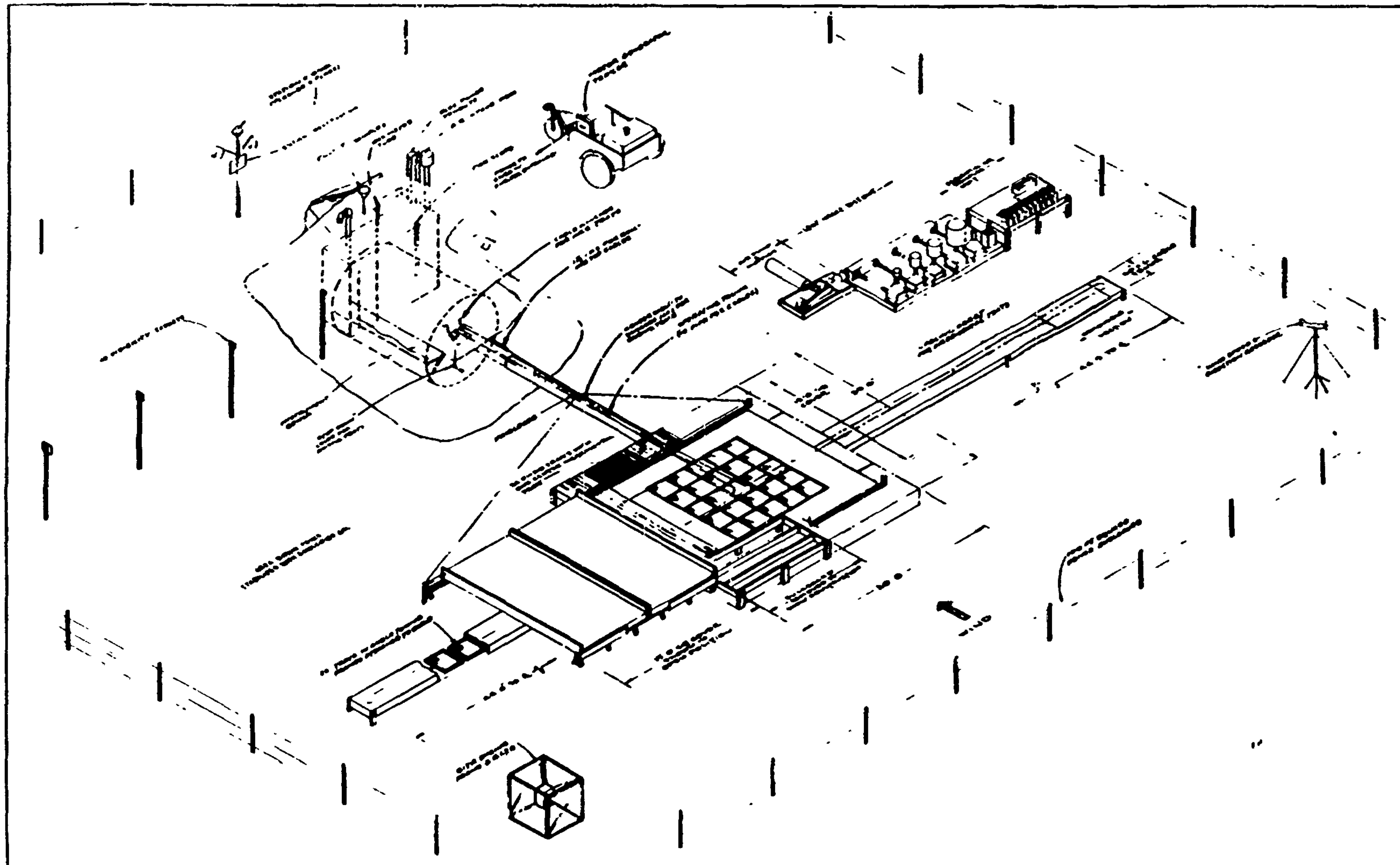


Figure 2.4 Major platform installation, manned stations.

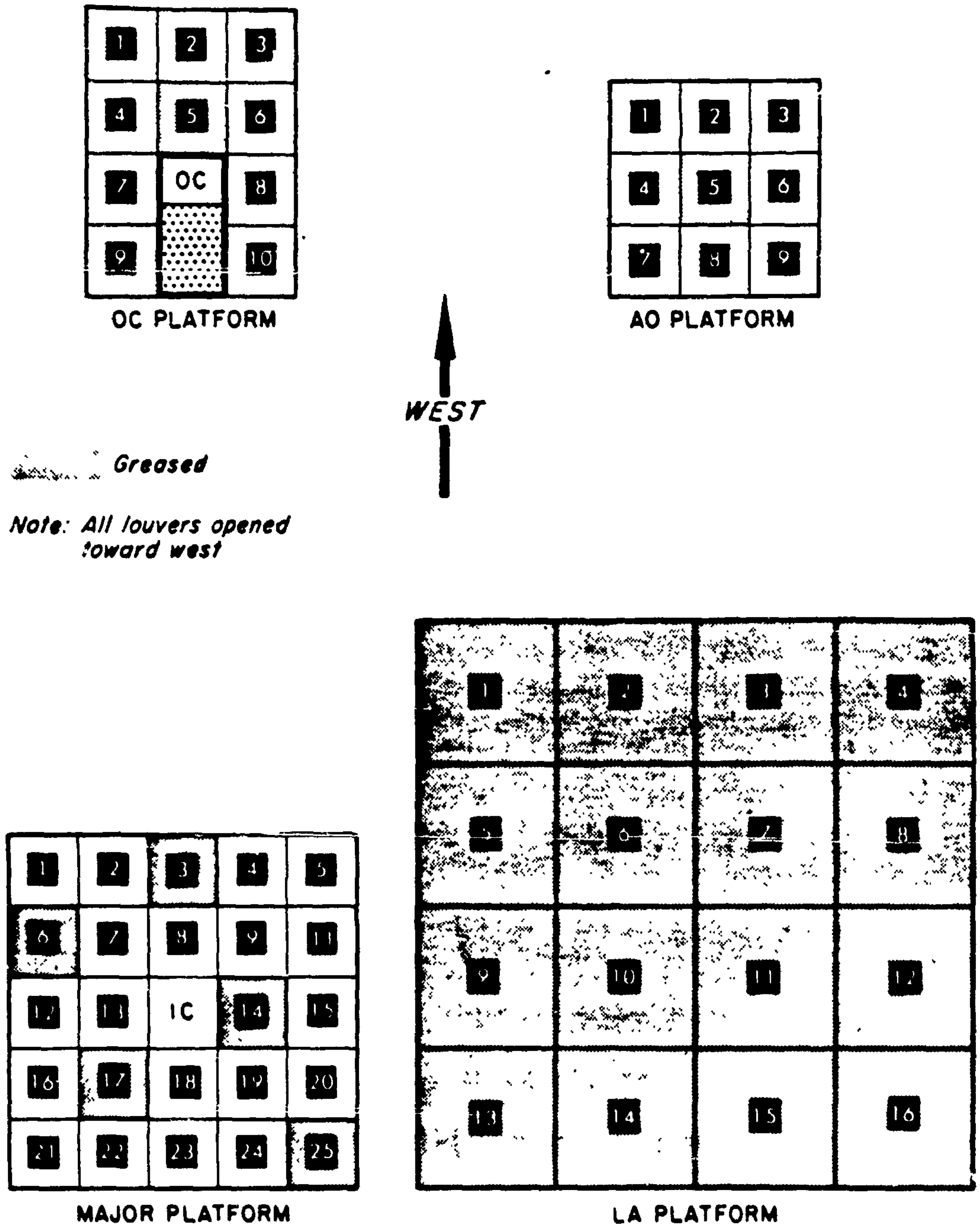


Figure 2.4a Placement of collectors on platforms and location of greased collectors.

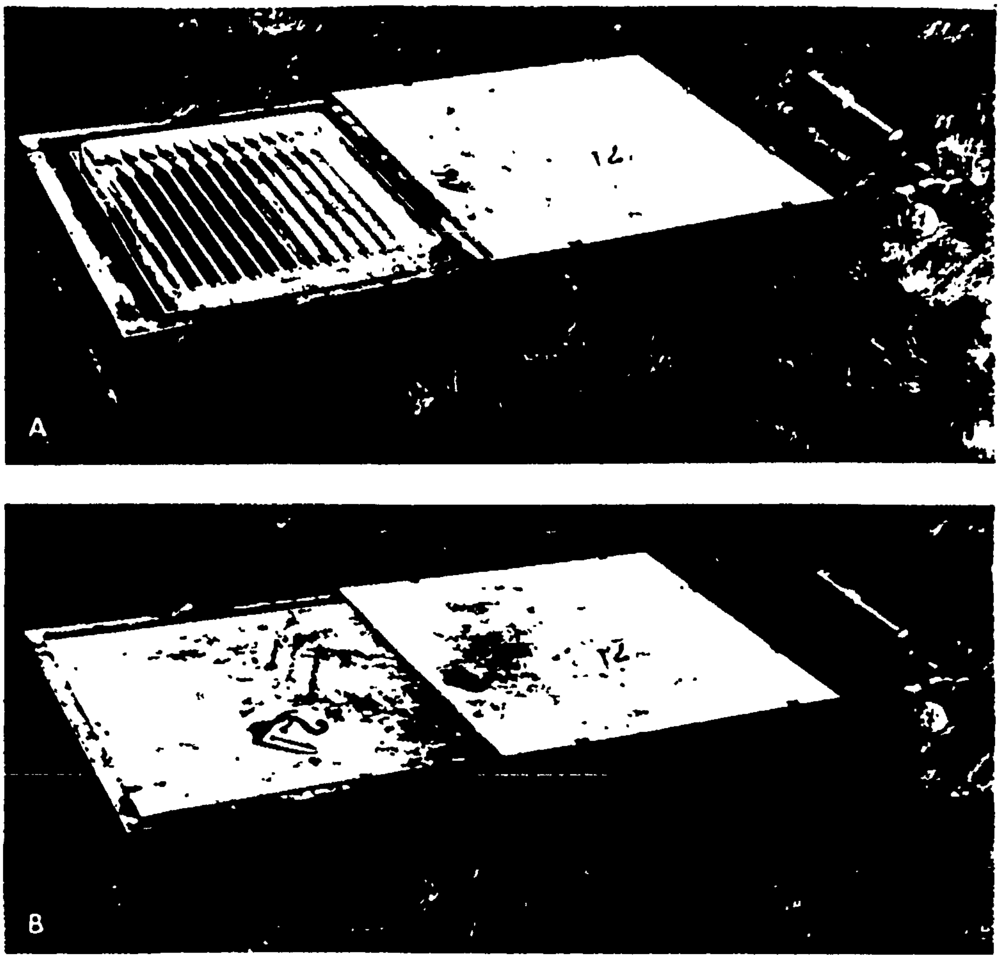


Figure 2.5 A: OC in open position with tray up. B: OC in closed position. (NRDL-MSS-1153(L)-5-63)

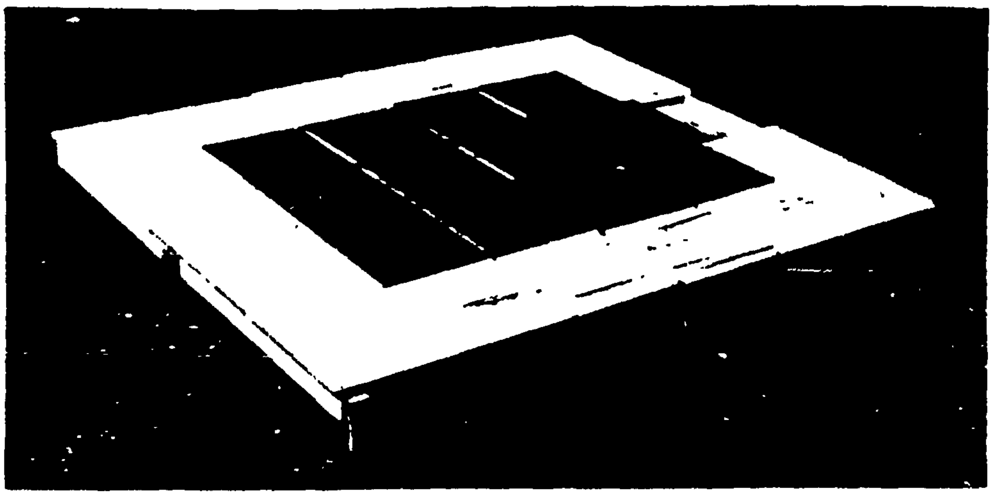


Figure 2.6 OC station. (NRDL-MSS-1152(L)-5-63)

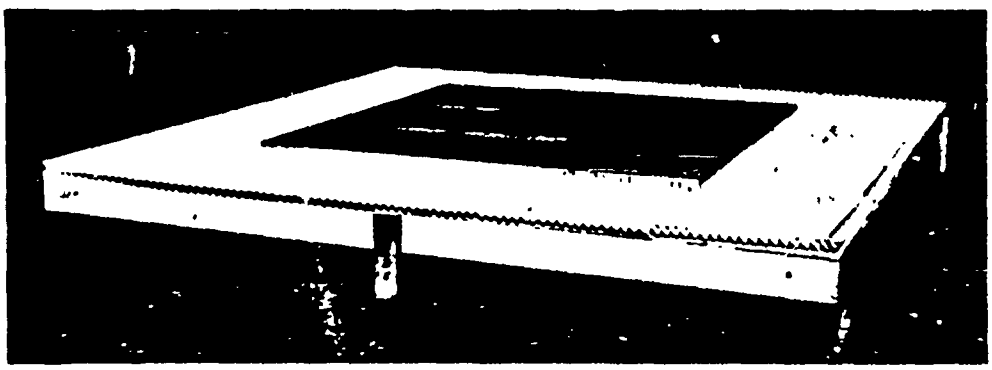


Figure 2.7 AO station. (NRDL-MSS-1152(L)-5-63)

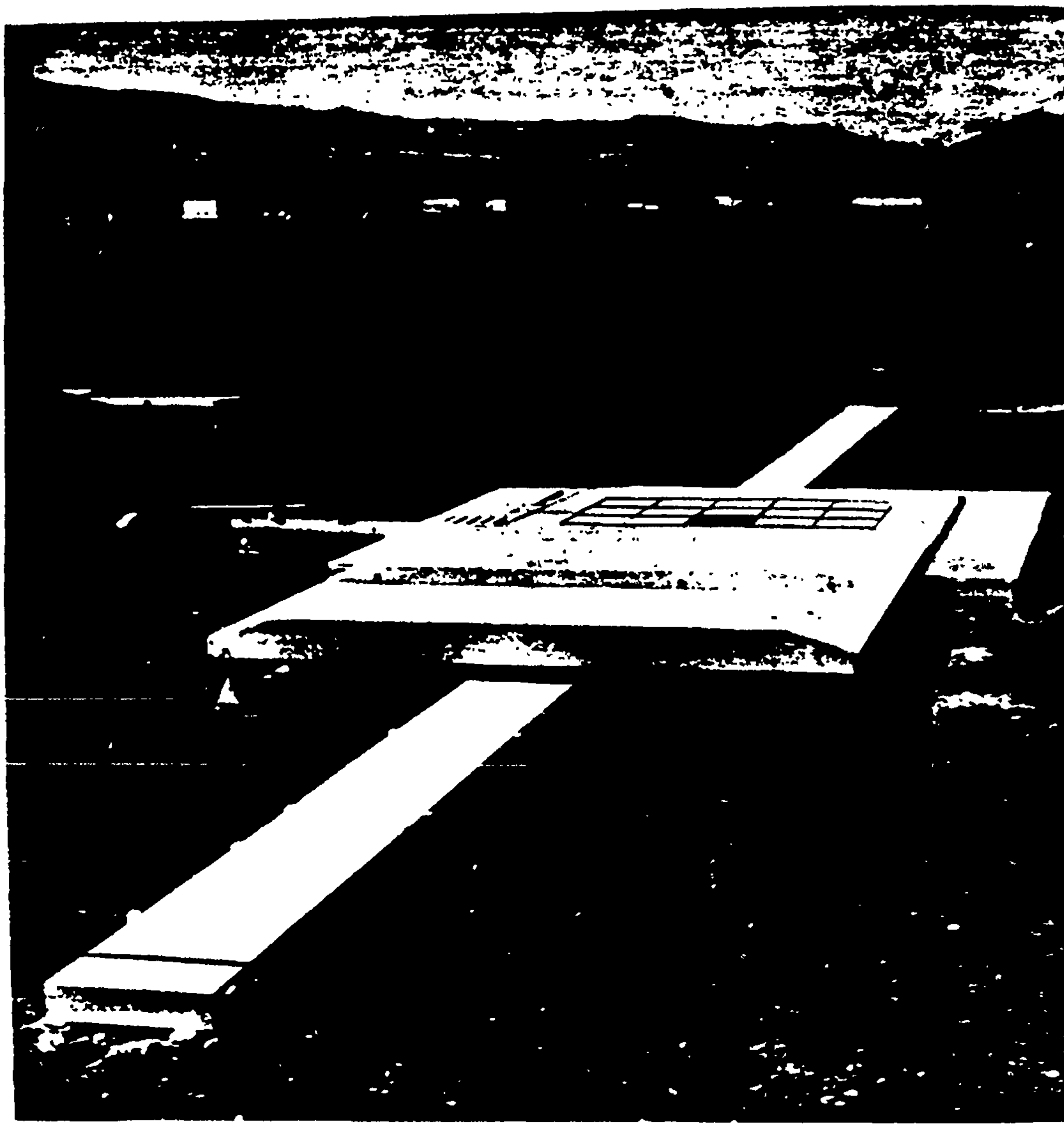


Figure 2.8 Major platform with cover open and IC tray in down position. (NRDL-MSS-1151(L)-5-63)

Figure 2.9 Major platform collector array with IC tray in sampling position. (NRDL-MSS-1150(L)-5-63)

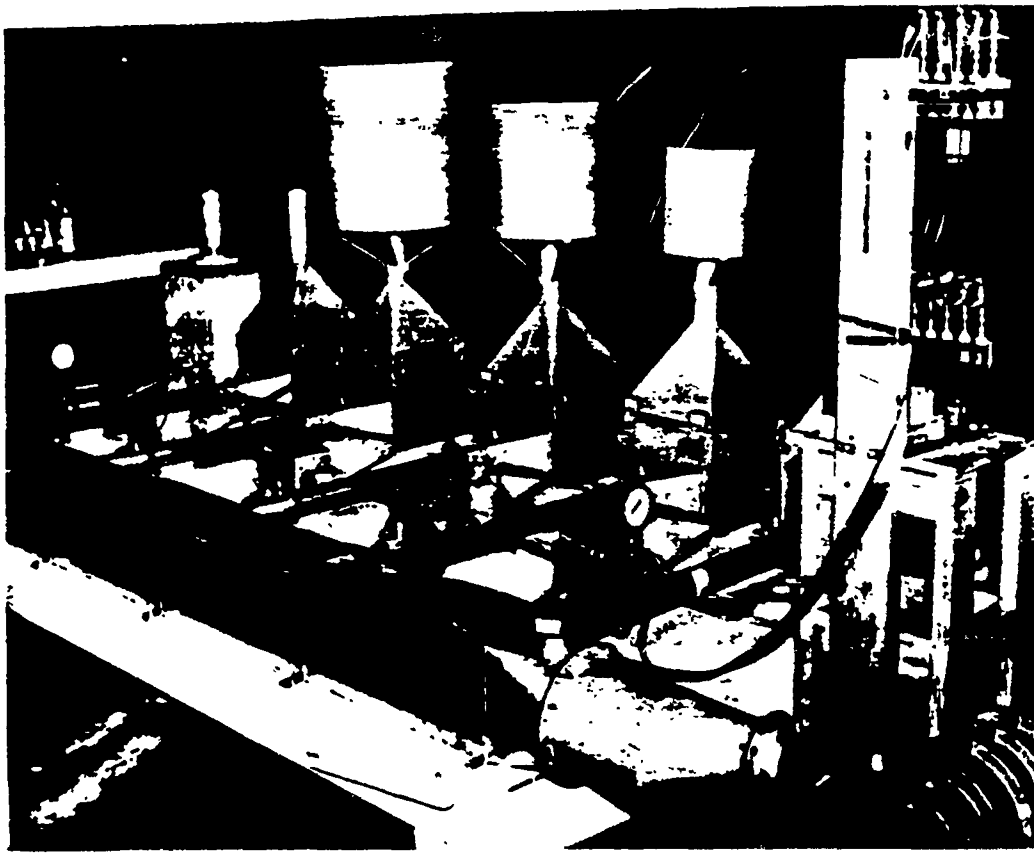


Figure 2.10 VI unit. (NRDL-MSS-1149(L)-5-63)

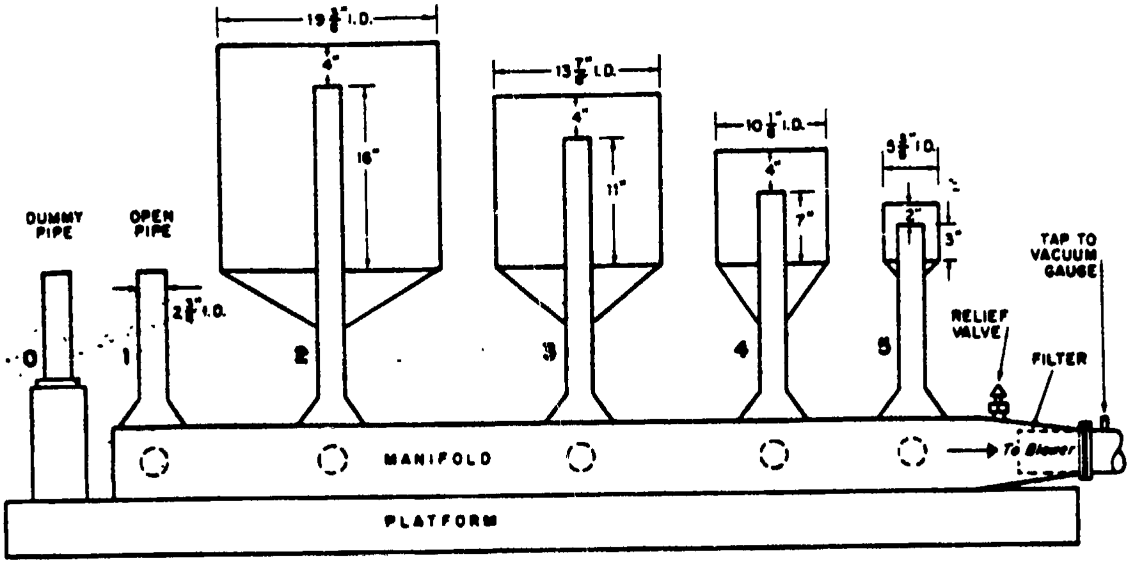


Figure 2.11 VI hood dimensions.

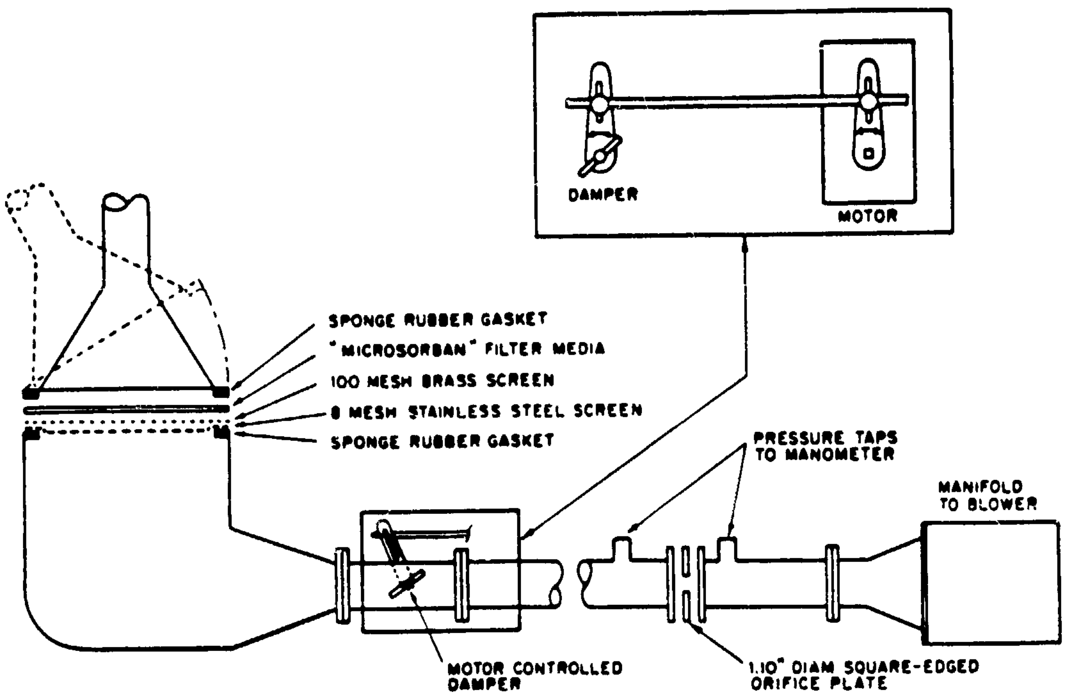


Figure 2.12 Schematic diagram of VI assembly.

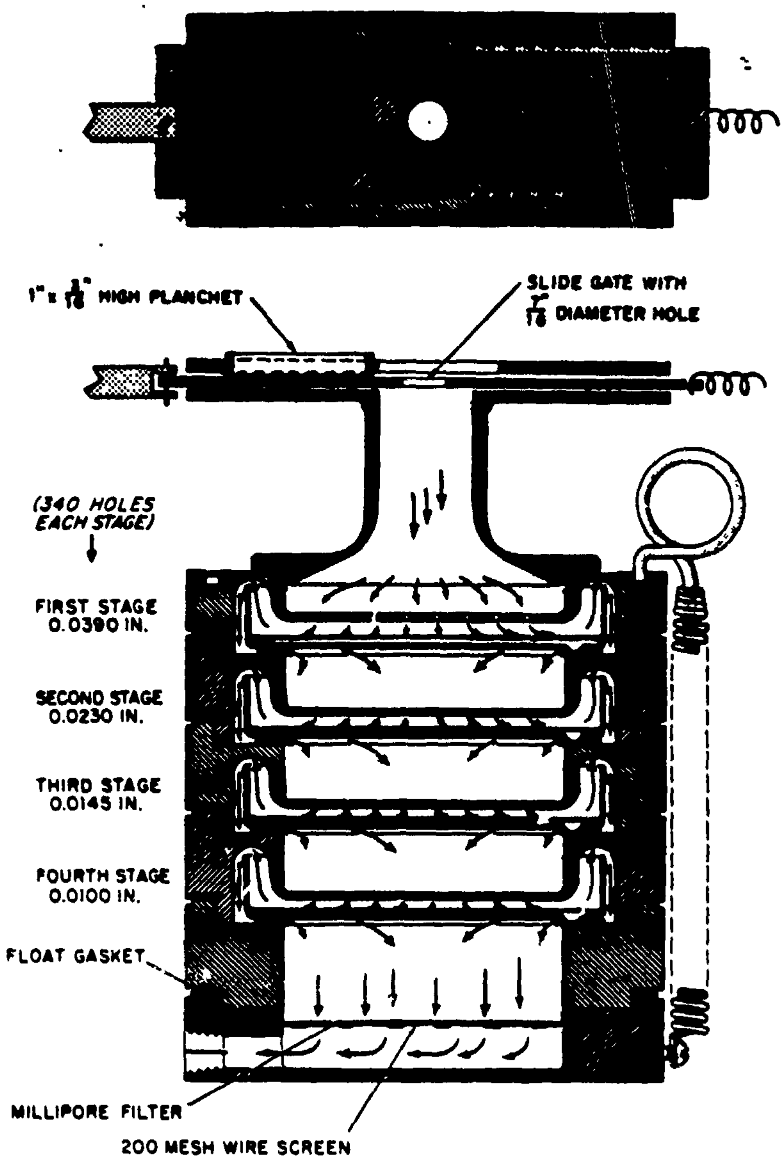


Figure 2.13 Schematic drawing of Anderson sampling head.

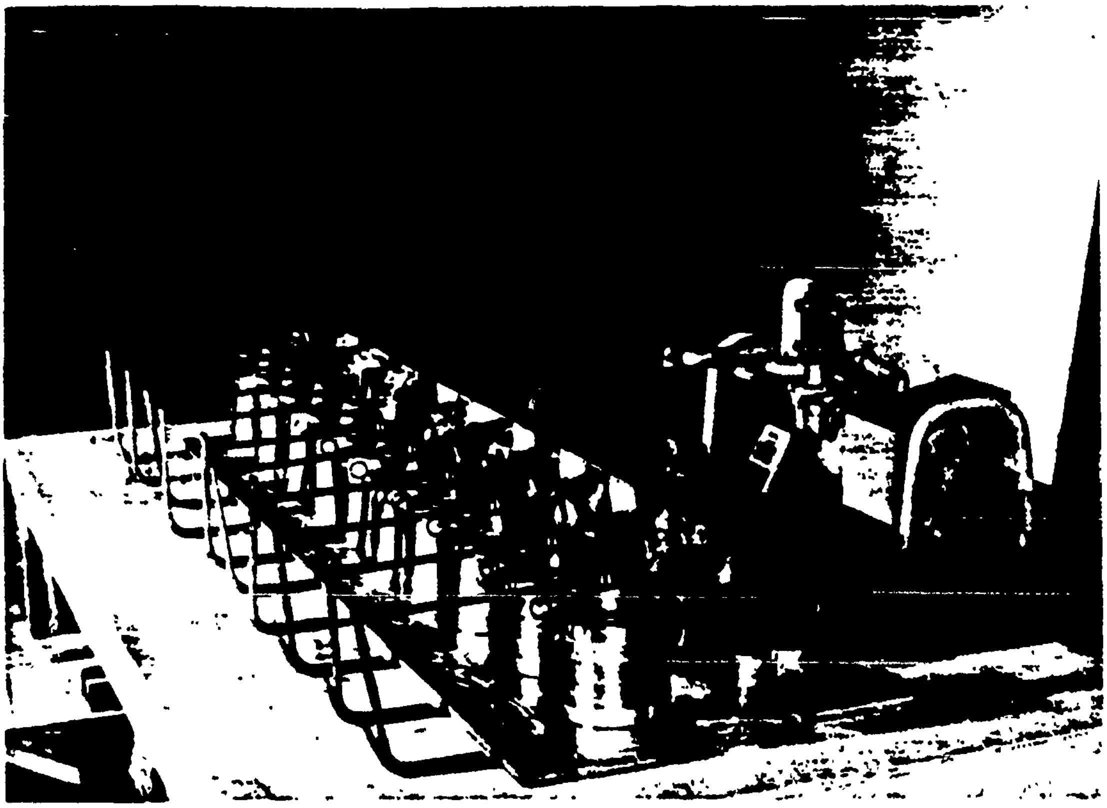


Figure 2.14 SA sampler. (NRDL-MSS-1145(L)-5-63)

Figure 2.15 VI sampling installation at manned station S1N. (NRDL-MSS-1144(L)-5-63)

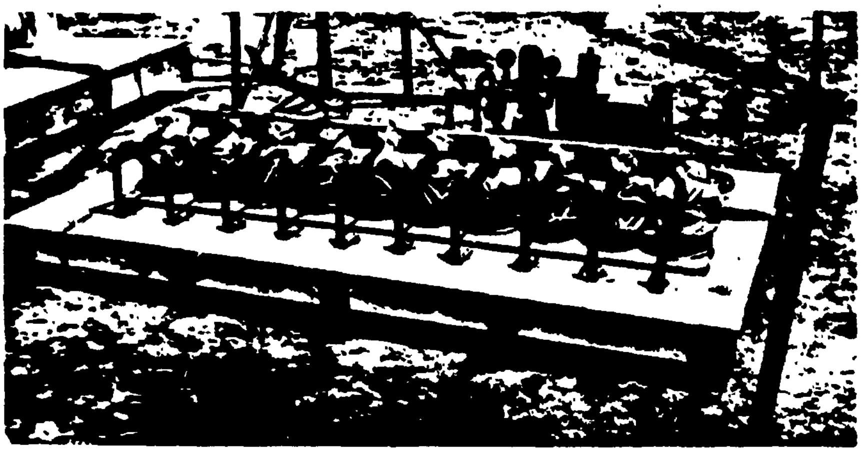


Figure 2.16 SA sampling installation at manned station S1N. (NRDL-MSS-1144(L)-5-63)

Figure 2.17 Visibility targets at manned station S1N. The closest target is 10 feet from the camera (which is alongside the periscope objective), the farthest is 200 feet. (NRDL-MSS-1143(L)-5-63)

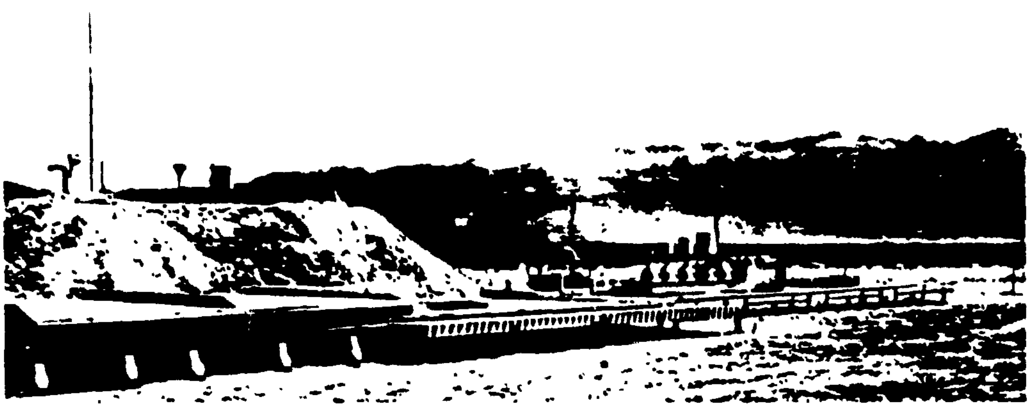


Figure 2.18 Manned station S1N. (NRDL-MSS-1143(L)-5-63)

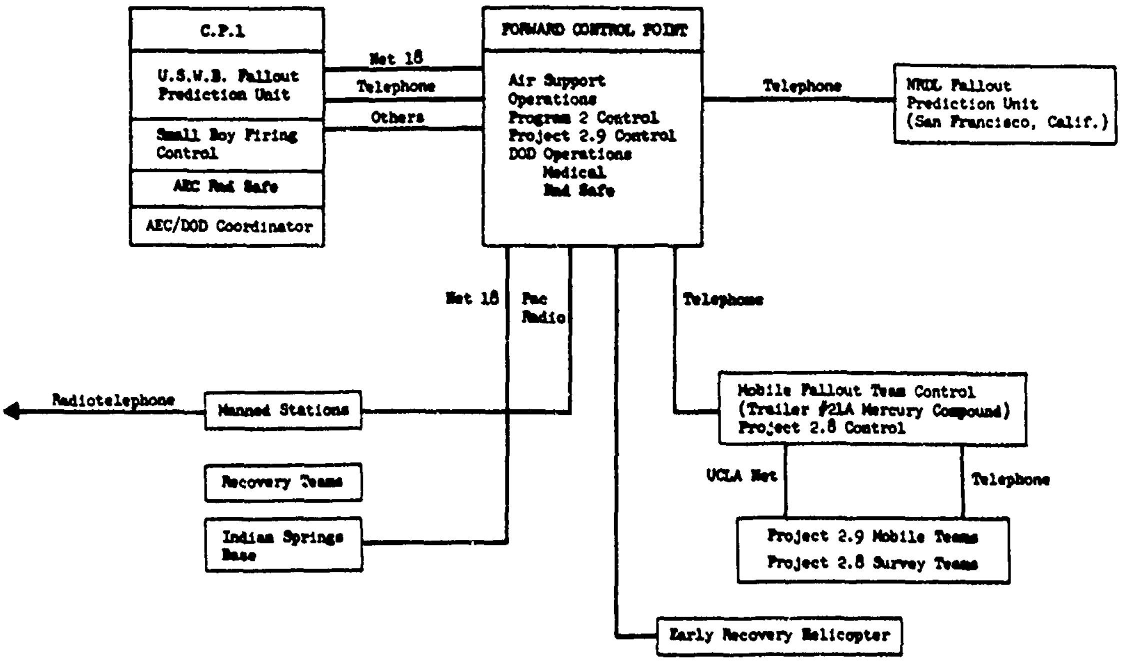


Figure 2.19 Project 2.9 operation flow chart.

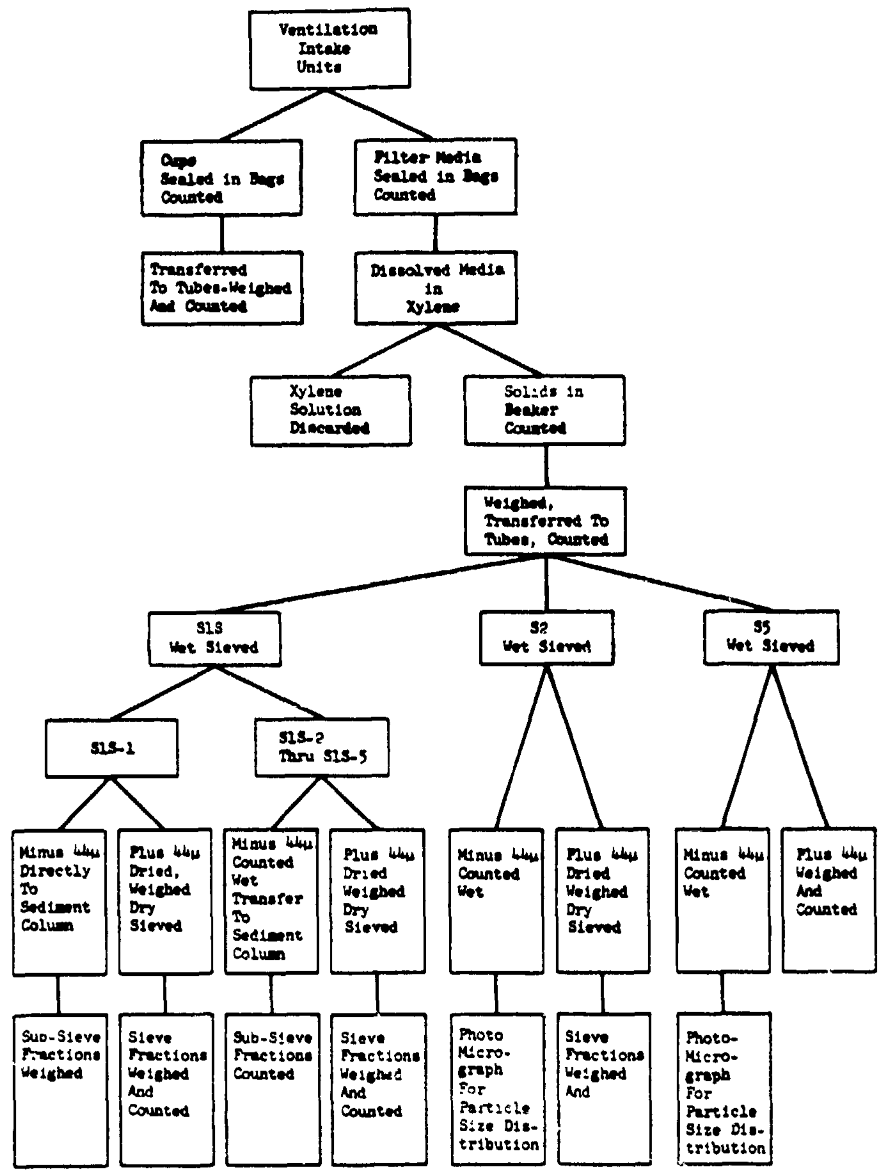


Figure 2.20 Block diagram of VI sample analysis.

CHAPTER 3

RESULTS AND DISCUSSION

The reduced and ordered results of the many measurements made are presented in this chapter. General device and crater data are given first, accompanied by wind information and predictions.

An overall look at the stations hit by fallout is made in Section 3.2. The dynamics of the fallout event, such as arrival time and activity deposition rates, are described in Section 3.3. Gross physical properties of the fallout, into which the largest part of the analytical effort went, are presented in Section 3.4. The remaining sections include leaching and exchange studies, ventilation intake studies, and correlations and other measurements.

Usually analytical procedures are not discussed unless there are significant differences from the general descriptions given in Section 2.4; necessary details, however, are frequently presented as subheadings or footnotes to the tables.

Extensive use is made of the direct printout of the NRDL IBM 704 computer for tabular material. Although some entries and data groupings may appear awkward, requiring additional explanation, the great savings in investigator and typist time far outweigh any such slight disadvantages.

3.1 SHOT CONDITIONS AND METEOROLOGY

3.1.1 Device Information. The Small Boy shot was fired 14 July 1962 at 1130:123 PDT in Frenchman Flat, NTS, at Nevada State Coordinates N747, 907.43, E717, 118.39, ground elevation 3,078 feet above MSL. The

employed for this event was mounted on a wooden tower with the device center of gravity 10 feet above the surface of the ground. The yield was These data, atmospheric conditions, and some burst height scaling factors may be found in Reference 19.

3.1.2 Crater Dimensions. A detailed examination and comparison of the pre- and postshot aerial photography of the Small Boy event area was made at the Nevada Test Site.* As may be seen from the stereo-pair aerial photographs presented in Figure 3.1, the crater was merely a shallow irregular depression in the playa without the characteristic lip of a true surface burst. The 10-foot height-of-burst and the excavations in the vicinity of the device are presumed responsible respectively for these results. The lack of visible debris downwind is believed due to the test burst height which minimized the excavation effect and the unique playa soil conditions which lessened the low color contrast between the excavated and undisturbed soil.

A photogrammetric analysis was prepared by the Naval Photographic Interpretation Center. The results of this analysis giving the crater contours and profiles are shown in Figure 3.2 and confirm the examination made in the field.

3.1.3 Meteorology and Predictions. Small Boy firing was delayed until 1130 after holds for wind at 0800, 1000, and 1100. During this period the wind direction up to 8000 feet above Frenchman Flat gradually swung around from north to west and then more quickly to the south, so that the direction of the fallout hot line was ~075°T, inclining more to the north with increasing distance.

*Lt Col. F.L. Vuillemot, USMC, NRDL, memo of 19 June 1963 (Confidential FRD).

The 0800 forecast and the winds measured by the weather bureau are shown in Table 3.1; project measured winds at the manned stations are shown in Figure 3.3. The light and variable character of the winds is apparent from these records. It is therefore quite remarkable that the fallout actually came down within the safe sector (a 60° sector centered on 085°T) and, incidentally, over the project array.

The predicted fallout pattern obtained shortly before shot time by telephone from NRDL was useless because of the rapidly-changing winds. It would appear, too, that the time and spatial variations in velocity were too rapid for the balloon measurements to be interpretable, since a sounding to 20,000 feet required 20 to 30 minutes. Future fallout pattern predictions for Small Boy using measured winds will also probably suffer from these inaccuracies, in addition to those which may be generated by attempts to use a steady-state wind structure.

3.2 SUMMARY OF FIELD MEASUREMENTS

3.2.1 Radiation Contours. The Frenchman Flat station array was hit almost perfectly, three out of the six manned stations receiving heavy fallout deposits. Farther out, the fallout pattern bisected the Indian Springs Valley line of stations, providing excellent coverage to the northern and southern limits of the deposit. After moving 35 miles from GZ on an azimuth of ~075° T, the pattern then veered to ~050° T, with the axis or hotline passing about 15 miles south of Pioche, Nevada.

Figure 3.4 shows the fallout path through Frenchman Flat and Indian Springs Valley. The radiation contour values indicated are for the completed fallout deposit, corrected for decay to H+1 hr. The measurements were made at 3 feet above the ground with NRDL gamma-intensity versus time recorders by Project 2.11 (Reference 10).

3.2.2 Stations Hit and Instrument Performance. Most of the stations were well placed in the fallout pattern. Collector and instrument performance, with few exceptions, was very good. No damage was sustained at any of the manned stations, and 3 out of the 6 were hit moderately heavily (up to ~35 r/hr at 1 hour). Of the other 73 Frenchman Flat stations, 40 were within the 10 mr/hr at 1-hour line, and in the Indian Springs Valley, measurable amounts of fallout were deposited at 15 of the 24 stations.

Table 3.2 lists in detail the stations in the fallout field for which activity, mass, and size data were obtained. Missing data are also noted, as are opening and closing times for the manned station platform covers and OC collectors. It may be seen that useful amounts of fallout were deposited at 42 stations, and that data were recovered from almost all of the collectors exposed, as summarized:

	No. of Collectors in Pattern		
	Exposed	Analyzed	Data Recovered
			pct
Manned Stations	145	139	96
Other Frenchman Flat Stations	233	227	97
Indian Springs Valley	240	218	91

3.3 FALLOUT DEPOSITION DYNAMICS

The purpose of the measurements reported in this section was to document the time-dependent characteristics of the fallout field as it built-up: fallout arrival time, activity and mass deposition rate, and particle size variation with time. Most of the results stem from the incremental collector operated by personnel in the manned stations.

3.3.1 Time of Arrival. Table 3.3 lists the times of fallout arrival estimated from gamma intensity recorders types GS and GR (Reference 10), the incremental collectors, and the first appearance of particles in a test tube at the delivery end of the SD samplers. The GS and GR arrival times were obtained by extrapolating the fallout buildup curve down to 1 to 10 mr/hr, depending upon the instrument sensitivity. Usually the slope was so steep that little error was introduced by this procedure. The arrival time by IC is of course uncertain within the period the collector was exposed. At Station S5 the trays were inadvertently not cycled until the predicted arrival time, so that the arrival time was not well defined.

The arrival time by gamma field build-up tended to be earlier than particulate arrival, possibly because the recorders responded to any source in the vicinity. The only inconsistent result obtained was for the SD at Station 203. The late indicated arrival there could be due either to failure of the operator to observe the first particles delivered, or to particle hang-up in the funnel and delivery tube. The SD measurement at shelter S1S was missed altogether by failure of the operator to open the sampling valve before fallout.

3.3.2 Incremental Collections. Successful collections were made with the 20-collector IC instruments at the three manned stations in the fallout field. The noteworthy features of this collector were (1) manual timing and positioning, so that there was no question of which tray was exposed at a given time; (2) large area ($4\ ft^2$), so that collections of reliable size could be made; (3) collector design identical to total collectors on the major platforms; and (4) sampling position, i.e., directly in the center of the platform array. These provisions were intended to obviate difficulties experienced in the past with incremental collectors (Reference 8).

The results are shown in Table 3.4. The gamma scintillation counts made on the covered trays were corrected to a common (and arbitrary) counting time of H+100 hours. The 4π ionization chamber measurement and mass determinations were made on the recovered debris. It is evident from the lack of proportionality between activity and mass that inert background dirt is present to a variable degree in the collectors, a point which will be discussed more fully in Section 3.4. In this case, most of the background must have come from within the IC trunk itself, which could not be kept clean during construction. The summations of the IC counts, converted to $c/m/ft^2$, also appear in Table 3.5, where they are compared with the activity average of the surrounding total collectors.

The activity arrival rates, counts/min at 100 hours per minute of collector sampling time, are plotted in Figure 3.5. Examination of the figure and the counting data show that > 97 percent of the fallout is down at Station 100 by 20 minutes, Station 203 by 25 minutes, and Station 507 by slightly over 1 hour.

3.3.3 Visibility versus Time. Verbal and photographic evidence from previous operations indicated that a great deal of dust (both fallout and shock-induced inert material) might be expected following the burst. It was especially expected in Frenchman Flat, where great dust clouds due to normal winds (i.e. to 50 mph) frequently interrupted work. The visibility targets were therefore included in the manned station instrumentation to allow some quantitative estimate of dust concentration versus time to be made.

Surprisingly, all shelters reported all targets (10 to 200 feet) in view from the earliest observations onward. At S1S, observations were not possible until a few minutes after burst, so that if any obscuration did exist previously, it was short-lived. It was possible, for 30 minutes or more after burst, to see the still-airborne fallout as a tenuous dust cloud moving eastward.

3.4 GROSS PHYSICAL PROPERTIES

The measurements reported in this section include gamma activity, mass, and size distributions of the collected debris. The entire gross analysis of the NRDL portion of Project 2.9 was done at the CP-1 analytical center. Almost every active collector was processed to some extent. Certain collectors, however, were separated out, as listed in Table 3.6, and turned over intact to Project 2.10 for radiochemical analysis.

3.4.1 Gamma Decay Rates. The decays measured by the scintillation counter, the 4π ionization chamber, and the TLB shelter decay unit are presented in this section.

Scintillation Counter. All counting data reported for the low-geometry scintillation counter (described hereafter as the scintillation counter) are for a single geometry, namely, the covered collector on the floor of the counter, 41 inches below the crystal. At this distance there was little sensitivity ($\pm$ 8 percent) to sample position in the collector. At least one collector was reserved for these decay measurements from every station receiving a sufficient amount of fallout. The results are presented in Table 3.7. A sample number in the 800 series is from the Indian Springs Valley; for example, 808 stands for IS-8 and 824 for IS-24.

The LA collectors were counted in pairs, i.e. 32 ft^2 at a time. The sample notation LA 214 means 2 LA's were counted together, one of which was #14. The total recovered weight for an LA station, where available, is the first entry for the station in the weight recovered column.

The observed counts are corrected for background, standard, and coincidence. The last column is the computed activity at 100 hours, obtained by applying the decay correction factor from the single, representative scintillation decay curve shown in Figure 3.6. This curve was used to correct all collector scintillation activities to the common time of 100 hours. The constancy of the numbers in the last column of Table 3.7 for each sample is a measure of the goodness-of-fit of the representative curve to actual decay.

The coincidence correction curve for the scintillation counter is shown in the inset in Figure 3.6. It was obtained from comparisons of decay curves from hot fallout samples with others not in the coincidence region ($<10^6$ c/m).

4π Ionization Chamber. The decay curves measured in the 4π ionization chamber are listed in Table 3.8. Again, the last column is the computed 100-hour value based on the representative 4π decay curve also shown in Figure 3.6. A number of differences are introduced in this table over Table 3.7 because measurements were made on both total and sized fractions from the collectors. A T appearing under sample number thus indicates a total sample: sized fractions appear in the size column as Tyler Sieve Numbers, which are related to diameter as follows:

Tyler No.	Size Retained (μ)
12	1410
24	710
42	350
80	177
170	88
325	44
500	pan; < 44

The 500 is a fiction for the computer, identifying the sub-sieve fraction caught in the pan. A W appearing after the sieve number indicates the sample was wet-sieved.

Shelter Decays-T1B Detector. Preliminary interpretation of the T1B shelter decay measurements made in the Project 2.9 Project Officers Interim Report indicated the presence of a sizable amount of a 13-minute half-period induced activity. This curve shape was not observed in any of the Project 2.11 GITR measurements however, and its use in resolving transit doses from the GITR curves led to an absurdity, namely, negative values for the transit dose.

To solve these difficulties, a 1-mg foil of plutonium was subsequently irradiated with thermal neutrons for 75 seconds in the GETR at Vallecitos, California. The same T1B-lead shield arrangement was used again, with measurements starting at about 50 minutes after sample withdrawal. The decay points obtained are plotted in Figure 3.7, after normalization with the SD results which are shown as the solid line. The SD points, which are listed in Table 3.9, were omitted from the plot to avoid confusion.

It can be seen from the figure that the points fall on the line, from which it is concluded that, within the experimental error, the field results were simply those to be expected from the decay of plutonium fission products using this detector-geometry combination. No 13-minute induced activity is indicated, and in fact any short-lived induced activities possibly present are not resolvable from those measurements.

The error made in the field interpretation was the assumption that the 4π ion chamber response to the thermal fission products of U^{235} made a good base line to subtract from the observed curve. It is now known that the device yield was due to Pu fission, not U^{235}, and that the T1B in the lead shield does not yield the same decay curve as the 4π chamber for Pu fission products.

3.4.2 Activity and Mass. The results of all the gross scintillation counter activity and mass measurements are assembled in Table 3.10. The sample numbering system is the same as given in previous tables. The activity at 100 hours was computed from observed net count rates in the scintillation counter, using the decay curve shown in Figure 3.6. Where there was more than one activity available, the preferred value was the one taken when the platform as a whole was counted. The empty collector activity designated as E in the table is shown for future use in determining the mass of fallout not recovered from the collectors.

The recovered weight is tabulated next. A -0. in the empty collector column indicates the weight recovered is available but no empty collector activity. A -0. in the weight recovered column indicates the empty collector activity is available, but no weight. A 0. in both columns means the debris was not removed from the collector.

The activity and mass concentrations per unit area and the specific activity tabulations are straightforward. The final column, a rough estimate of fissions/ft^2, was obtained by multiplying the activity concentration by the constant 4.76×10^8 fission/c/m at 100 hours. The relation is derived in Reference 16 for the unfractionated thermal fission products of U^{235}.

Caution must be exercised in the use of any of the values shown involving mass. These are gross masses, that is everything removable from the collectors, uncorrected for any extraneous material which may have entered the collectors before or after the event. It is clear in some cases that this extraneous or background debris far outweighs the fallout deposit. The samplers which could be opened and closed should yield the best results, i.e. the OC, PC, and IC collectors, although the latter suffered from dust which was unavoidably built into the trunk. To help resolve the question of background masses, Table 3.11 summarizes the weight measurements which were made on collections too low in activity to be listed in Table 3.10. Thus, between the two tables cited, all available mass measurements made by the project are reported.

The gross size and activity distributions obtained on the collections are listed in Table 3.12. The notation used is the same as in previous tables, with the exception that size is reported uniformly in microns for both the sieve and the column fractions. The weight and 4π gamma activity for each total sample precede the corresponding entries for each size fraction.

No discussion of these detailed data are possible at this time. It is evident however that a great deal of information is contained in these tables which can serve as basic input for many future studies. The raw data from which these tables were computed, i.e. the direct card printout with no computations, are reproduced in Appendix E as Tables E.1 and E.2. Table E.1, for the two (identical) NRDL scintillation counters, is a record of the observed duplicate counts, background, standard, and counting times; Table E.2 is a similar record for the 4π ionization chamber. The letter E in Table E.1 indicates the count on the empty tray.

It is reiterated that the counting results obtained with scintillation counter CH-1 (reported in Part 2) must be multiplied by 0.578 for compatibility with NRDL scintillation counter results (see Section 2.2.4).

<u>3.4.3 Gamma Ray Spectra</u>. Figures 3.8 through 3.22 are plots of the pulse height distributions obtained on a variety of samples, filtrates, and residues with the Penco 100-channel analyzer. Both channel number and approximate energy scales are shown versus count rate, on semi-log paper. In many cases traces are arbitrarily positioned with respect to activity, so that shapes may be readily compared.

No attempt has been made to unfold these pulse distributions, although a computer program is available at NRDL, should absolute photon frequencies be required. Details of the measurements and other pertinent information may be found in Reference 13.

3.5 LEACHING AND EXCHANGE STUDIES

Variables in the leaching study were: leaching solutions, size of fallout particles, age of fallout at start of test, and time of contact. Variables in the exchange study were similar, except that the fallout was in contact with clay or loam instead of the solutions used for leaching. In both cases, the debris originated from many locations in the fallout pattern, as evidenced by the sample numbers; however, sample selection followed no plan and was dictated principally by availability.

3.5.1 Leaching Studies. The results of these measurements are presented in Table 3.13. Hydrochloric acid at pH 1.0 leached a much larger fraction of the radionuclides from fallout than did water or sodium hydroxide at pH 10.0. This difference was also noted in the pulse height spectra, Figures 3.15 through 3.22. Fallout particles larger than 24 mesh (710 micron) leached a larger fraction of their radionuclides than did those of plus 42 mesh (350 micron) and plus 80 mesh (177 micron). The particles retained on the 170 mesh (88 micron) and all smaller sizes showed an increased fraction leached compared to the 42 mesh and 80 mesh material. Table 3.13 shows a significant increase in leaching for tests started on 1-day-old fallout compared to those started at 6 days. Times of contact of 1 day, 3 days, 6 days, and 10 days show little or no increase in leaching. Xylene showed no appreciable leaching.

The samples noted by asterisk in Table 3.13 were tested on the gamma analyzer and pulse height distributions obtained. Perhaps analysis of gamma energies involved will allow a determination of those radionuclides which leached into solutions.

3.5.2 Exchange Studies. The findings from these investigations are presented in Table 3.14. Exchange values for clay and adobe show little difference and, in the absence of direct comparisons (i.e. all other variables duplicated), the differences are probably not significant. All tests were started with 9-day-old debris. Contact times of 1, 3, and 8 days produced little difference in exchange results. With the exception of the two tests in which 325 mesh (44 micron) particles were used, the exchange results also were about the same for all other particle sizes. In these two cases it is possible that some of the 325 mesh debris passed through the screen during the separation process and contributed to what appears to be abnormally high exchange results.

3.6 VENTILATION INTAKE STUDIES AND RESULTS

Data will be presented only for the VI samples. The SA units at S1S and S5 did not operate properly due to mechanical and electrical malfunctions. At S2 eight of the ten SA samplers appeared to have operated properly; however, activity above background was collected only in the first stage and on the first stage orifice plates of four of these samplers. These activity collections were so high compared to VI open intake, AO or IC collections at the same location that they could only have resulted from the introduction of extraneous activity. The first stage orifice plates of several samplers through which there was no indicated air flow were similarly highly contaminated. No logical explanation has been found for these results.

VI Results. The total weight, activity corrected for decay to 100 hours, and the specific activity for each sample are given in Table 3.15. All activity measurements are 4π ionization measurements or equivalent, corrected for decay. VI sample decay rates were obtained for a limited time only but showed the same decay rates as the other project samples from the same locations.

VI sample weights include inactive material that collected on the filters during the period when the shot was delayed due to drift-in and operational checks of blowers. No blank samples are available from which to determine corrections to sample weights. In addition, the treatment given to each sampler varied. Open pipes (VI-1) were covered until several hours prior to shot and taped closed at the beginning of recovery operations. At S1S all covers were latched closed until shot time. Least affected were the cup samples as the cups were uncovered several hours before shot time and recovered at the beginning of recovery operations. These samples consisted of small amounts of dirt particles with the addition of a few black flakes in the S1S and S5 samples and a few sandy spheres in the S2 sample.

In Table 3.16 sample weights and activities of the PC's, cup, and open intake per square foot of face area at each location are given for comparison. The open intake sample weights are very high, attributable primarily to preshot collections as discussed previously. Other factors contributing to differences among samples at the same location are the disparity in collection area and efficiencies of collection. There is no consistent relation from location to location or at each location among the three types of samplers; however, except for the S2 open intake, open intake and cup sample activities do fall within the range of PC activities at each location but are less than the comparable PC average activities.

Table 3.17 gives the activity penetration of covered intakes in percent of open pipe activity at the same location. As a general statement for all locations penetration of covered intakes was on the order of 25 percent or less of open intake penetration. Minimum penetration was achieved at S1S, the close-in location.

Graphs of VI total sample activities and weights versus intake velocity are given in Figures 3.23 and 3.24, respectively. The region of primary interest is between 500 and 25 feet per minute although the open intake data, which combined both air intake (at approximately 1,000 feet per minute) and settling, are also shown. Weight data are subject to errors mentioned previously due to preshot collections of inactive material. Activity data shows no consistent trend of reduced penetration with reduced intake face velocity, as the S2 activity penetration was approximately the same for each covered intake. However, both the S1S and S5 graphs show a reduction in penetration with decreasing velocity except for the 25-foot-per-minute intake.

Particle size analyses by weight and activity are presented in Table 3.18 and in Figures 3.25, 3.26, 3.27, and 3.28. These data are fragmentary for reasons noted in the table and due to limited processing of the smaller samples. Note that 51 to 87 percent of the activity penetrating covered intakes at S2 was associated with sub-sieve size particles (<44 microns), whereas 78 percent of the activity penetrating the open intake was associated with a few milligrams of particles greater than 300 microns in size. It appears that exclusion of the larger particle size fraction by the covered intakes was the principal difference between covered and open pipe penetration at S2. It seems probable that this observation also applies at S1S. At S5, the most distant location, 78 to 94 percent of the activity penetrating covered intakes was associated with sub-sieve particles.

Sieve fraction data are shown graphically as activity or weight versus air inlet velocity in Figures 3.29 through 3.33. The particle size ranges shown are the result of using the available sieve sizes closest to the predicted maximum particle size penetration for each covered intake. The larger size fractions have been combined into one fraction of +105 microns. Thus it would be expected that penetration of the 25-feet-per-minute intake would be limited to −44 micron particles, the 50-feet-per-minute intake to −63 micron particles, and the 100-feet-per-minute intake to −105 micron particles or that each fraction would decrease at velocities below the anticipated cut-off velocity. No such trend is evident throughout these graphs although the S2 weight graph and the S5 activity graph show evidence of this trend between 500- and 50-feet-per-minute intake velocities. In these latter graphs the increase in particle intake from 50 to 25 feet per minute might be due to poor proportioning of the intake resulting in higher than design velocities over part of the face area. Also the interaction of wind with the cover edge and nearby obstructions may have tended to increase face velocities or produce eddies tending to deflect particles into the intake opening.

However, neither S1S nor S2 activity data show significant differences in activity penetration among covered intakes, and thus there is no consistent effect or explanation of particle exclusion as a function of face velocity. Further experimentation under controlled conditions is needed to determine optimum intake designs including investigation of the effect of wind on face velocities and particle penetration.

3.7 CORRELATIONS AND OTHER MEASUREMENTS

The measurements reported in this section include collector correlations, radioiodine release data, neutron flux as a function of depth in soil, and thermal radiation received at two locations.

<u>3.7.1 Collector Correlations</u>. At some locations (see Section 2.2.2) collectors were intermixed in order to obtain direct experimental correlations of the fallout catch among the several types of collectors. Table 3.5 lists the results of collector correlations at the manned stations and the other stations receiving fallout. The mean gamma activity per unit area at 100 hours and the standard deviation where more than one of each type of collector was used is given.

The correlations between the 5 types of collectors exposed at the manned stations indicate comparable fallout catches. It is noted however that the BC collectors received the highest fallout catch at the two stations where they were utilized. Considerable uncertainty should be attached to these readings however, because of uncertainty in the decay curve at the early counting time ($\sim$1 day) and the necessity to correct for coincidence losses. These collectors were not re-counted at later times.

Correlations between AO and OC collectors at other Frenchman Flat stations also indicate comparable fallout catches except for Station 101. However, as in the case of the BC collectors, the reported readings for this station had to be corrected for coincidence losses.

At Station 707 in Frenchman Flat, and at selected stations in Indian Springs Valley, the correlation among AO, LA, and GC collectors was generally excellent. At Station 707, the low mean value for the LA may be explained by the physical location of the LA platform relative to the AO platform. The LA platform was located near the foot of a range of hills between Station 707 and ground zero, whereas the AO platform was located some 200 yards to the east in a relatively open area. This was the only station where collectors were so separated.

The GC collector results, except for Station 707, are taken from Part 2 of this report. The mean values reported in Table 3.5 have been corrected by a factor of 0.578 (see Section 2.2.2) to allow direct comparison with the AO and LA collectors. It is seen that there is excellent agreement between the NRDL AO and LA collectors and the UCLA GC collector.

To determine the susceptibility of the bare aluminum trays to wind losses, one AO collector on each AO or OC platform and five PC collectors on each major platform were coated in the same manner as the LA collector with a thin film of white petrolatum. The location of these greased collectors on each platform is noted in Figure 2.4a. The results of this comparison are listed in Table 3.19. The mean gamma activity and standard deviation at 100 hours is given for all collectors, bare collectors, and the greased collectors at each station. It is seen that in all cases except at Stations 101, 200, and 303, the mean value for the greased collector was comparable to the bare collectors. Generally however, the mean gamma activity value for the greased collectors was slightly higher.

3.7.2 Radioiodine Study. Iodine loss by air exposure is reported in Table 3.20. The progressive decrease in the observed iodine/total fraction with time indicates a loss of iodine during the period of air exposure.

Reference 20 shows that at 13 days the radioisotopes of iodine contribute 20.3 percent of the gamma radiation (by 4π ionization chamber) from normal U^{235} thermal fission products. Dividing the observed iodine/total fractions by the expected fraction yields the percentage of the theoretical iodine actually recovered. The most apparent reason for the low initial percentage was the inability of the analytical procedure to remove iodine which might have been trapped within insoluble particles. In addition, the iodine may have been depleted from the outset due to fractionation during the fallout formation process.

It is emphasized that these results were obtained by an analytical procedure which was developed in the field. Although duplicates were consistent, the iodine recovery is not known for this method, nor was the purity of the iodine product, since no spectra or decays were obtained; however, spectra from a Project Sedan sample which was processed in a similar manner showed a very high radioiodine purity.

3.7.3 Neutron Flux versus Depth in Soil. Sulfur and gold neutron detectors were buried in the backfill of Station 100 (S1S) facing ground zero. The derived fluxes for thermal and fast neutrons as functions of depth are shown in Figure 3.34. A complete report of these measurements and results can be found in Reference 13.

3.7.4 Thermal Measurements. Measurements of the total thermal radiation emitted by the Small Boy event were made at the manned station locations S1S and S1N, 4,500 feet and 7,200 feet from ground zero respectively. The total thermal radiation measured at 4,500 feet was and at 7,200 feet, . Assuming an atmospheric transmissivity of 95 percent per mile, these values represent a thermal efficiency of respectively, where the thermal efficiency = $\frac{\text{thermal yield}}{\text{total yield}}$. Measurements prior to 1958 gave an average thermal efficiency of The details of the experiment and a thorough discussion of results are given in Reference 12.

TABLE 3.1 WIND VELOCITY FROM OBSERVATIONS OF U.S. WEATHER BUREAU, FRENCHMAN FLAT AREA STATION

Time of Observ. PDT	Altitude Above Frenchman Flat feet: Surface	4000	5000	6000	7000	8000	9000	10000	12000	14000	16000	18000	20000
	degrees/knots												
0720	Calm	020/07	020/07	030/07	060/05		270/04	290/06	300/08	290/08	280/14	280/14	280/23
0750	Calm	350/05	030/07	060/06	070/06		280/08	300/08	290/10	280/08	240/10	280/12	290/26
0800*	050/05	310/05	240/05	240/05	240/05	250/10	260/10	260/10	270/15	280/15	290/15	290/15	300/20
0830	Calm	360/04	020/06	060/06	060/04		280/06	270/08	290/08	270/08	250/07	290/23	-
0900	115/01	340/04	030/05	090/03	100/02	270/04							
0940	-	040/02	070/04	100/04	140/02	190/01	290/04	300/07	280/11	290/10	250/11	240/09	
0950	Calm	050/03	090/02	100/02		280/03	270/03	270/08	260/06	250/07	250/07	250/07	280/10
1030	Calm	130/01	125/02	030/02	330/02	275/03	270/06	236/12	250/08	250/08	240/16	270/11	290/21
1045	Calm	Calm		203/03	270/02	262/05	234/06	233/11	250/08	250/09	240/06	270/08	290/16
1100		300/01	310/01	330/02	280/02	250/06	240/12	240/16	240/08	240/08	240/08	280/14	280/25
1145		145/04	167/05	176/06	168/06	185/03	233/05	243/11	235/09	229/08	228/07	260/13	285/23
1405		200/08	190/10	-	200/14	200/14	200/14	200/13	220/11	250/08	250/09	270/14	
1432	220/05	240/06	230/07	230/08	230/07	210/10	220/12	230/12	250/10	240/08	250/10	260/13	270/18

*Forecast from 0200 soundings.

TABLE 3.2 STATIONS IN FALLOUT FIELD AND SUMMARY OF COLLECTORS ANALYZED

NRDL Station No.	No. of Collectors Yielding Data					Platform Open (H+min)	Cover Close (H+min)	Remarks
Manned Stations								
	PC	IC	PO	GC	BC			
100 (S1S)	24	20	2	2	2	3	78	
203 (S2)	18	20	2	2	2	2	145	PC #14,15,17, 18,20,23 missing
507 (S5)	24	20	1	-	-	5	352	PO #1 missing
Other Frenchman Flat Stations								
	AO	OC						
101	10	1				5	55	
200	10	1				5	55	
201	10	1				5	55	OC #201 missing
300	9	-						
301	10	1				10	136	
303	9	-						
305	10	1				10	-	Did not close
307	10	1				10	136	
400	9	-						
401	10	1				14	194	
403	10	1				14	194	
405	10	1				14	194	
407	10	1				14	194	
501	9	-						
503	10	1				32	332	
505	9	-						
509	9	-						
601	9	-						
603	9	-						
605	9	-						
607	9	-						
703	6	-						AO #2,3,6 missing
705	9	-						
707	7	-						AO #2,8 missing

NRDL Station No.	No. of Collectors Yielding Data		Platform Open (H+min)	Cover Close (H+min)	Remarks
Indian Springs Valley Stations					
	LA	AO			
IS-10	16	-			
IS-11	14	-			LA #3,4 missing
IS-12	16	-			
IS-13	16	-			
IS-14	16	5			
IS-15	14	-			LA #1,2 missing
IS-16	16	5			
IS-17	16	-			
IS-18	16	5			
IS-19	16	-			
IS-20	14	5			LA #9,10 missing
IS-21	16	-			
IS-22	16	5			
IS-23	16	-			Not processed
IS-24	16	-			

TABLE 3.3 TIME OF FALLOUT ARRIVAL

Station No.	Time of Arrival GS	IC	SD	Station No.	Time of Arrival GR
	(hours)				(hours)
100(S1S)	.05	.05-.083	-	703	.82
101	.04			705	.80
200	.08			707	.84
201	.08			810	1.84
203(S2)	.10	.05-.15	.20	811	1.86
301	.10			812	1.29
303	.10			813	1.09
305	.10			814	1.42
307	.11			816	1.50
400	.30			817	1.32
401	.28			819	1.35
403	.28			820	1.37
405	.30			821	1.50
407	.36				
501	.45				
503	.45				
505	.45				
507(S5)	.45	.08-.53	.50		

TABLE 3.4 INCREMENTAL FALLOUT COLLECTIONS

Collector No.	Activity By Gamma Scintillation Counter	Activity by 4 π ion Chamber	Mass Recovered	Exposure Start	Exposure Duration	Activity Arrival Rate
	(c/m at 100 hr)	(ma at 100 hr)	(g)	(min)	(min)	(c/m at 100 hr/min of Exp.)
100 IC-1	62	841×10^{-12}	2.5033	3	2	31
100 IC-2	80	105×10^{-11}	2.5135	5	1	80
100 IC-3	315	842×10^{-12}	.1598	6	1	315
100 IC-4	19181	258×10^{-9}	.2549	7	2	15306
100 IC-5	552219	596×10^{-8}	1.0883	9	2	27610
100 IC-6	197120	213×10^{-8}	1.8340	11	2	98560
100 IC-7	54676	473×10^{-9}	.4163	13	2	27338
100 IC-8	1232	125×10^{-10}	.2039	15	2	616
100 IC-9	45083	455×10^{-9}	.5786	17	2	22541
100 IC-10	7079	770×10^{-10}	1.1051	19	2	3539
100 IC-11	Bkgd	982×10^{-12}	.6974	21	4	Bkgd
100 IC-12	386	452×10^{-11}	.3327	25	5	77
100 IC-13	80	153×10^{-11}	.2803	30	5	Bkgd
100 IC-14	250	179×10^{-11}	.2274	35	5	50
100 IC-15	319	977×10^{-12}	.2740	40	5	60
100 IC-16	39	195×10^{-11}	.1657	45	5	8
100 IC-17	37	140×10^{-11}	.1150	50	5	7
100 IC-18	339	698×10^{-12}	.2058	55	5	67
100 IC-19	Bkgd	489×10^{-12}	.2462	60	5	Bkgd
100 IC-20	9378	Sample lost	No weight	65	13	721

Total c/m 887795

TABLE 3.4 CONTINUED

Collector No.	Activity By Gamma Scintillation Counter (c/m at 100 hr)	Activity by 4 π ion Chamber (ma at 100 hr)	Mass Recovered (g)	Exposure Start (min)	Exposure Duration (min)	Activity Arrival Rate (c/m at 100 hr/ min of Exp.)
203 IC-1	8714	898×10^{-10}	1.9672	2	7	1244
203 IC-2	178287	181×10^{-8}	1.3734	9	4	44573
203 IC-3	260061	280×10^{-8}	.7210	13	4	65015
203 IC-4	536536	492×10^{-8}	.4474	17	4	134134
203 IC-5	27389	285×10^{-9}	.1505	21	4	6847
203 IC-6	234	370×10^{-11}	.2992	25	4	58
203 IC-7	165	262×10^{-11}	15.8632	29	4	41
203 IC-8	120	164×10^{-11}	.2784	33	4	30
203 IC-9	1355	361×10^{-11}	.4432	37	4	339
203 IC-10	107	252×10^{-11}	1.8607	41	4	27
203 IC-11	117	183×10^{-11}	.6416	45	10	12
203 IC-12	73	134×10^{-11}	.1208	55	10	8
203 IC-13	1446	548×10^{-11}	.6238	65	10	150
203 IC-14	3969	382×10^{-10}	1.6960	75	10	40
203 IC-15	110	134×10^{-11}	.5161	85	10	11
203 IC-16	393	946×10^{-12}	.6273	95	10	40
203 IC-17	148	213×10^{-11}	.9667	105	10	15
203 IC-18	292	233×10^{-11}	1.2260	115	10	30
203 IC-19	855	154×10^{-11}	1.0808	125	10	86
203 IC-20	226	114×10^{-11}	1.5843	135	10	23
Total	1020597					

TABLE 3.4 CONTINUED

Collector No.	Activity By Gamma Scintillation Counter (c/m at 100 hr)	Activity by 4 π ion Chamber (ma at 100 hr)	Mass Recoverd (g)	Exposure Start (min)	Exposure Duration (min)	Activity Arrival Rate (c/m at 100 hr/min of Exp.)
507 IC-1	310	317×10^{-11}	.2676	5	27	11
507 IC-2	425256	436×10^{-8}	.3725	32	10	42525
507 IC-3	97831	110×10^{-8}	.0844	42	12	8153
507 IC-4	1149	575×10^{-11}	.0710	54	10	115
507 IC-5	917	500×10^{-11}	.0203	64	11	84
507 IC-6	1389	113×10^{-10}	.0342	75	10	139
507 IC-7	4284	289×10^{-10}	.0950	85	11	389
507 IC-8	172	397×10^{-12}	.0395	96	11	16
507 IC-9	282	397×10^{-12}	.0392	107	11	26
507 IC-10	408	535×10^{-11}	.0475	118	21	20
507 IC-11	441	238×10^{-11}	.0594	139	21	22
507 IC-12	255	188×10^{-11}	.0388	160	21	11
507 IC-13	458	129×10^{-11}	.0810	181	22	21
507 IC-14	268	109×10^{-11}	.0772	203	21	13
507 IC-15	506	793×10^{-12}	.0520	224	22	23
507 IC-16	571	793×10^{-12}	.0449	246	21	26
507 IC-17	164	119×10^{-11}	.0340	267	21	8
507 IC-18	86	129×10^{-11}	2.0178	288	22	4
507 IC-19	415	149×10^{-11}	.0666	310	21	20
507 IC-20	2963	319×10^{-10}	.1746	331	21	141
Total	538135					

TABLE 3.5 COLLECTOR CORRELATIONS

Values in parentheses are the number of collectors entering into the mean.

NRDL Station No. — Mean Gamma Activity Per Unit Area and Standard Deviation at 100 hrs.

Manned Stations

NRDL Station No.	PC ($c/m/ft^2$)	IC* ($c/m/ft^2$)	PO ($c/m/ft^2$)	BC ($c/m/ft^2$)	GC ($c/m/ft^2$)
100 (SIS)	186,210± 35,712 (24)	221,950 (1)	230,489±17,800 (2)	270,830±16,370 (2)	178,321± 34,708 (4)
203 (S2)	251,493± 35,560 (18)	255,150 (1)	214,289±22,400 (2)	284,855±28,125 (2)	207,549± 52,503 (4)
507 (S5)	129,806± 21,630 (24)	134,530 (1)	147,423 (1)		

Other Stations

NRDL Station No.	AO ($c/m/ft^2$)	OC ($c/m/ft^2$)	LA ($c/m/ft^2$)	GC ($c/m/ft^2$)
101	1,682,250±560,250 (10)	2,493,732 (1)		
200	10,605± 2,500 (10)	8,317 (1)		
301	708,500±134,250 (10)	810,670 (1)		
307	2,098± 517 (10)	1,311 (1)		
401	446,000± 52,000 (10)	492,611 (1)		
403	689,500±159,825 (10)	760,184 (1)		
405	159,825± 39,250 (10)	216,579 (1)		
407	1,591± 317 (10)	2,333 (1)		
503	180,375± 21,550 (10)	172,247 (1)		
707	73,700± 8,800 (7)		48,703±13,131 (8)	72,612± 6,900 (2)
814	8,799± 2,276 (5)		9,214± [illegible] (8)	11,144 (1)
816	7,503± 1,608 (5)		9,073± 532 (8)	9,600 (1)
818	6,950± 1,686 (5)		6,663± 1,200 (8)	9,090 (1)
820	2,108± 345 (5)		2,169± 68 (8)	2,190 (1)
822	586± 195 (5)		553± 38 (8)	647 (1)

*Summation of 20 IC trays (equivalent to one total collector).

TABLE 3.6 COLLECTORS SUPPLIED TO PROJECT 2.10

NRDL Station No.	Type Collector	Collector No.	NRDL Station No.	Type Collector	Collector No.	NRDL Station No.	Type Collector	Collector No.	NRDL Station No.	Type Collector	Collector No.	NRDL Station No.	Type Collector	Collector No.
100	PC	1 2 4 25	202	AO	8 9	403	AO	1 2 3 4	601	AO	8 9	707	LA	1 5
105	PC	1 2 25	204	AO	8 9	405	AO	6 7 8 9	603	AO	1 2 3 4	812	LA	15 16
203	PC	16 21 22 24	207	AO	8 9	407	AO	8 9	605	AO	8 9	813	LA	1 2 3 4 5 6 7 8 9 10 15 16
309	PC	15 16 25	209	AO	8 9	409	AO	8 9	607	AO	8 9	814	LA	15 16
507	PC	2 4 5 25	300	AO	8 9	413	AO	8 9	700	AO	8 9	815	LA	15 16
101	AO	1 2 3 4 6	302	AO	8 9	501	AO	8 9	701	AO	8 9	816	LA	15 16
103	AO	8 9	303	AO	8 9	502	AO	8 9	703	AO	1 4 7 8 9			
200	AO	8 9	305	AO	1 2 3 4 6 8 9	503	AO	8 9	704	AO	8 9			
201	AO	7 8 9 10	311	AO	8 9	505	AO	1 2 3 4 6	705	AO	8			
			400	AO	8 9	509	AO	8 9	707	AO	1 3 4 6 7 9			
			401	AO	8 9	513	AO	8 9						

TABLE 3.7 GAMMA DECAY RATES BY SCINTILLATION COUNTER

SAMPLE NUMBER	AGE (DAYS)	CORRECTED ACTIVITY (C/M)	ACTIVITY AT 100 HR (C/M)
101 AO 5	2.9130	13183063.	8628808.
101 AO 5	4.9390	7378653.	8578069.
101 AO 5	6.9080	5320389.	9391236.
101 AO 5	8.8700	3609774.	8446792.
101 AO 5	9.8940	2984562.	7901480.
101 AO 5	10.8790	2685697.	7797832.
101 AO 5	11.8970	2553492.	8131160.
101 AO 5	43.9150	542314.	9307912.
200 AO 5	2.0970	150198.	64226.
200 AO 5	2.9990	106249.	72735.
200 AO 5	3.9000	74910.	68697.
200 AO 5	4.9430	58601.	68179.
200 AO 5	5.8750	47914.	70524.
200 AO 5	6.9130	37956.	67054.
200 AO 5	8.8730	27080.	63392.
200 AO 5	9.9130	23889.	63387.
200 AO 5	10.8830	19969.	58001.
200 AO 5	11.9020	18667.	59468.
200 AO 5	12.9350	16339.	57165.
200 AO 5	43.9160	4094.	70270.
201 AO 5	2.0100	7366558.	3010200.
201 AO 5	2.9060	5705344.	3720748.
201 AO 5	3.9030	4136042.	3796687.
201 AO 5	4.9460	3083609.	3589756.
201 AO 5	5.8770	2576662.	3794502.
201 AO 5	6.9160	2010602.	3553679.
201 AO 5	8.8750	1315874.	3081172.
201 AO 5	9.9170	1212695.	3219326.
201 AO 5	10.8860	954911.	2774312.
201 AO 5	11.9040	869383.	2770159.
201 AO 5	12.9370	790609.	2766606.
201 AO 5	43.9170	208575.	3580072.
300 AO 5	2.1660	26875.	11913.
300 AO 5	2.9800	18932.	12832.
300 AO 5	3.9090	14044.	12916.
300 AO 5	4.9530	10609.	12367.
300 AO 5	5.8840	8604.	12694.
300 AO 5	6.9210	6819.	12063.
300 AO 5	8.6780	5239.	12272.
300 AO 5	9.9230	4219.	11209.
300 AO 5	10.8890	3793.	11023.
300 AO 5	11.9080	3314.	10562.
300 AO 5	12.9400	3341.	11693.
300 AO 5	43.9180	762.	13072.

TABLE 3.7 CONTINUED

SAMPLE NUMBER	AGE (DAYS)	CORRECTED ACTIVITY (C/M)	ACTIVITY AT 100 HR (C/M)
301 AO 5	2.1680	6080443.	2698149.
301 AO 5	2.9760	4800230.	3246917.
301 AO 5	3.9110	3639836.	3349873.
301 AO 5	5.8870	2286282.	3375508.
301 AO 5	6.9230	1816512.	3214338.
301 AO 5	8.8790	1279205.	2996910.
301 AO 5	9.9250	978789.	2600847.
301 AO 5	10.8920	869736.	2528229.
301 AO 5	11.9100	787175.	2509583.
301 AO 5	12.9430	713519.	2498203.
301 AO 5	43.9190	179403.	3079543.
303 AO 5	2.1040	6236837.	2676664.
303 AO 5	2.1120	6183852.	2665024.
303 AO 5	2.9570	4831090.	3235558.
303 AO 5	3.9330	3557071.	3297141.
303 AO 5	5.8940	2214066.	3274750.
303 AO 5	6.9330	1778372.	3152041.
303 AO 5	8.8830	1267247.	2970482.
303 AO 5	9.9310	1223393.	3253125.
303 AO 5	10.8960	854875.	2485933.
303 AO 5	11.9150	789555.	2518312.
303 AO 5	12.9640	691151.	2424502.
303 AO 5	43.9200	174640.	2997888.
305 AO 5	2.9930	2780090.	1897230.
305 AO 5	6.9390	901279.	1599036.
305 AO 5	8.8860	607995.	1425737.
305 AO 5	9.9360	585506.	1557843.
305 AO 5	10.9010	514101.	1495657.
305 AO 5	11.9190	463501.	1478887.
305 AO 5	12.9520	415654.	1456495.
305 AO 5	43.9220	106562.	1829375.
307 AO 5	2.1430	15006.	6572.
307 AO 5	2.9970	10461.	7154.
307 AO 5	3.9440	7409.	6892.
307 AO 5	4.9690	5830.	6817.
307 AO 5	5.9020	4577.	6783.
307 AO 5	6.9430	3619.	6426.
307 AO 5	8.8900	2641.	6197.
307 AO 5	9.9460	2358.	6281.
307 AO 5	11.9210	1739.	5551.
307 AO 5	43.9230	433.	7434.
400 AO 5	1.0860	86681.	15995.

TABLE 3.7 CONTINUED

SAMPLE NUMBER	AGE (DAYS)	CORRECTED ACTIVITY (C/M)	ACTIVITY AT 100 HR (C/M)
400 AO 5	2.0890	47267.	20127.
400 AO 5	2.9510	33977.	22685.
400 AO 5	3.9470	22807.	21236.
400 AO 5	4.9720	17383.	20339.
400 AO 5	6.9460	11352.	20163.
400 AO 5	8.8910	7847.	18414.
400 AO 5	9.9490	7387.	19625.
400 AO 5	11.9230	5671.	18100.
400 AO 5	12.9530	5098.	17872.
400 AO 5	42.9240	1346.	23111.
401 AO 5	2.9090	3115548.	2034991.
401 AO 5	3.9510	2172581.	2025610.
401 AO 5	5.0700	1625345.	1946749.
401 AO 5	5.9110	1366619.	2030137.
401 AO 5	6.9600	962547.	1713658.
401 AO 5	8.8970	711331.	1670511.
401 AO 5	9.9510	630371.	1680205.
401 AO 5	10.9230	546302.	1592512.
401 AO 5	11.9250	494965.	1580139.
401 AO 5	12.9690	445881.	1564824.
401 AO 5	43.8980	122828.	2107003.
403 AO 5	2.1540	5627579.	2479021.
403 AO 5	2.9870	4334796.	2948969.
403 AO 5	3.9630	3128566.	2928298.
403 AO 5	5.0740	2365333.	2835971.
403 AO 5	5.9160	1978683.	2943135.
403 AO 5	6.9640	1597973.	2846807.
403 AO 5	8.9000	980876.	2304442.
403 AO 5	9.9570	878223.	2342502.
403 AO 5	10.9270	765894.	2233451.
403 AO 5	11.9280	691937.	2209558.
403 AO 5	12.9720	628997.	2208072.
403 AO 5	43.8900	174310.	2990212.
405 AO 5	2.1720	1772747.	787397.
405 AO 5	2.9820	1280851.	869095.
405 AO 5	3.9730	820587.	770553.
405 AO 5	3.0790	635871.	763368.
405 AO 5	5.9200	534571.	795947.
405 AO 5	6.9680	431056.	768437.
405 AO 5	8.9030	314393.	738922.
405 AO 5	9.9610	274813.	733362.
405 AO 5	10.9330	235792.	687974.
405 AO 5	11.9340	214713.	686017.
405 AO 5	12.9750	191167.	671266.

TABLE 3.7 CONTINUED

SAMPLE NUMBER	AGE (DAYS)	CORRECTED ACTIVITY (C/M)	ACTIVITY AT 100 HR (C/M)
405 AO 5	43.9000	51295.	879971.
407 AO 5	1.0950	29756.	5540.
407 AO 5	2.0910	16433.	7005.
407 AO 5	2.9440	11242.	7478.
407 AO 5	3.9790	7905.	7438.
407 AO 5	5.0840	6040.	7260.
407 AO 5	5.9250	5233.	7801.
407 AO 5	6.9720	3820.	6815.
407 AO 5	9.9640	2504.	6685.
407 AO 5	10.9370	2311.	6746.
407 AO 5	11.9370	1843.	5890.
407 AO 5	12.9790	1682.	5907.
407 AO 5	43.9020	523.	9058.
503 AO 5	2.0000	1885690.	766541.
503 AO 5	2.8950	1248124.	809308.
503 AO 5	3.9820	779630.	734233.
503 AO 5	5.0870	609124.	732758.
503 AO 5	5.9280	508905.	759285.
503 AO 5	6.9750	422485.	754033.
503 AO 5	8.9100	299848.	705395.
503 AO 5	9.9660	261582.	698469.
503 AO 5	10.9400	226219.	680462.
503 AO 5	11.9400	204790.	654666.
503 AO 5	12.9810	183340.	644134.
503 AO 5	43.9030	47793.	819978.
505 AO 5	1.9930	3534316.	1429075.
505 AO 5	2.9020	2400627.	1562308.
505 AO 5	3.9890	1651356.	1558735.
505 AO 5	5.0930	1238020.	1491591.
505 AO 5	5.9310	924421.	1380293.
505 AO 5	6.9770	771181.	1376814.
505 AO 5	8.9130	551045.	1296859.
505 AO 5	9.9680	485306.	1296156.
505 AO 5	10.9420	418448.	1221913.
505 AO 5	11.9440	380577.	1217059.
505 AO 5	12.9840	341664.	1200705.
505 AO 5	43.9040	85704.	1470448.
509 AO 5	2.1620	255634.	113081.
509 AO 5	2.9910	181916.	124016.
509 AO 5	3.9980	130249.	123303.
509 AO 5	5.1210	96292.	116849.
509 AO 5	5.9390	81058.	121279.

TABLE 3.7 CONTINUED

SAMPLE NUMBER	AGE (DAYS)	CORRECTED ACTIVITY (C/M)	ACTIVITY AT 100 HR (C/M)
509 AO 5	6.9810	65696.	117366.
509 AO 5	8.9200	45847.	108000.
509 AO 5	9.9770	40537.	108383.
509 AO 5	10.9470	35000.	102249.
509 AO 5	11.9500	31272.	100059.
509 AO 5	12.9940	28293.	99519.
509 AO 5	43.9060	7137.	122451.
601 AO 5	2.1210	96392.	41737.
601 AO 5	2.9610	67383.	45223.
601 AO 5	4.0040	48091.	45615.
601 AO 5	5.1230	35148.	42674.
601 AO 5	5.9430	29058.	43521.
601 AO 5	6.9820	23592.	42154.
601 AO 5	8.9220	17093.	40275.
601 AO 5	9.9790	14553.	38918.
601 AO 5	10.9500	12742.	37235.
601 AO 5	11.9520	11275.	36083.
601 AO 5	12.9980	10306.	36264.
601 AO 5	43.9080	2628.	45102.
603 AO 5	2.1160	1797671.	776352.
603 AO 5	2.9370	1293719.	857457.
603 AO 5	4.0700	791463.	766955.
603 AO 5	5.1260	611919.	743507.
603 AO 5	5.9450	519485.	778451.
603 AO 5	6.9860	425470.	760734.
603 AO 5	8.9240	305450.	719919.
603 AO 5	9.9820	265989.	711585.
603 AO 5	10.9520	233315.	681922.
603 AO 5	11.9540	210760.	674607.
603 AO 5	13.0020	187891.	661347.
603 AO 5	3.9090	44489.	763442.
605 AO 5	2.1300	1613298.	701835.
605 AO 5	2.9530	1142731.	763734.
605 AO 5	4.0860	717280.	698684.
605 AO 5	5.1350	537533.	654632.
605 AO 5	5.9580	468937.	705048.
605 AO 5	6.9930	382764.	685167.
605 AO 5	8.9360	278367.	657139.
605 AO 5	10.1160	240355.	651199.
605 AO 5	10.9610	211391.	618350.
605 AO 5	12.0450	186409.	601609.
607 AO 5	2.1100	107154.	46136.

TABLE 3.7 CONTINUED

SAMPLE NUMBER	AGE (DAYS)	CORRECTED ACTIVITY (C/M)	ACTIVITY AT 100 HR (C/M)
607 AO 5	2.9410	76082.	50531.
607 AO 5	4.0920	50680.	49462.
607 AO 5	5.1400	38668.	47152.
607 AO 5	5.9620	31371.	47215.
607 AO 5	6.9960	26271.	47049.
607 AO 5	8.9380	19049.	44980.
607 AO 5	10.1190	15533.	42097.
607 AO 5	10.9640	13287.	38877.
607 AO 5	12.0470	12521.	40418.
700 AO 5	1.9370	1375.	533.
700 AO 5	2.8790	988.	635.
700 AO 5	4.0940	659.	644.
700 AO 5	5.1430	505.	616.
701 AO 5	1.9320	2742.	1058.
701 AO 5	2.8810	1909.	1229.
701 AO 5	4.0960	1164.	1137.
701 AO 5	5.9670	924.	1392.
703 AO 5	1.9850	189726.	76248.
703 AO 5	2.8860	128114.	82682.
703 AO 5	4.1000	82828.	81047.
703 AO 5	5.1550	63577.	77824.
703 AO 5	5.9720	53044.	80039.
703 AO 5	7.0030	42390.	76001.
703 AO 5	8.9500	31064.	73469.
703 AO 5	10.1310	26433.	71713.
703 AO 5	10.9770	23253.	68117.
703 AO 5	12.0550	20629.	66639.
705 AO 5	1.9780	425058.	169917.
705 AO 5	2.9890	293236.	189546.
705 AO 5	4.1190	189529.	186602.
705 AO 5	5.1580	146697.	179464.
705 AO 5	5.9770	124693.	188088.
705 AO 5	7.0040	98728.	177039.
705 AO 5	8.9520	72260.	170949.
705 AO 5	10.1340	61506.	166912.
705 AO 5	10.9810	54320.	159181.
705 AO 5	12.0560	48087.	155350.
705 AO 5	43.9050	29078.	498921.
707 AO 5	1.9890	784560.	316026.
707 AO 5	2.8910	552393.	357436.

TABLE 3.7 CONTINUED

SAMPLE NUMBER	AGE (DAYS)	CORRECTED ACTIVITY (C/M)	ACTIVITY AT 100 HR (C/M)
707 AO 5	5.1610	284143.	348353.
707 AO 5	5.9790	237412.	358875.
707 AO 5	7.0070	192218.	344839.
707 AO 5	8.9550	139084.	329168.
707 AO 5	10.1380	119958.	325654.
707 AO 5	10.9830	107336.	314600.
707 AO 5	12.0600	93361.	301721.
100 IC 4	2.4310	63260.	32200.
100 IC 4	3.3580	39795.	30612.
100 IC 4	6.2220	12168.	19181.
100 IC 5	2.4280	979366.	497671.
100 IC 5	3.3330	703422.	536736.
100 IC 5	6.2300	349042.	552219.
100 IC 6	2.4510	341316.	175554.
100 IC 6	3.3660	234342.	181121.
100 IC 6	6.2900	123651.	197120.
100 IC 7	2.4140	108612.	54796.
100 IC 7	3.3440	100616.	77048.
100 IC 7	6.2280	34550.	54676.
100 IC 8	2.4120	2345.	1182.
100 IC 8	6.2250	781.	1232.
100 IC 9	2.4100	85910.	43252.
100 IC 9	3.3490	84398.	64887.
100 IC 9	6.2230	28394.	45083.
100 IC 10	2.4060	14156.	7112.
100 IC 10	3.4000	8822.	6879.
100 IC 10	6.2750	4451.	7079.
100 IC 12	2.4550	780.	402.
100 IC 12	3.3890	568.	441.
100 IC 20	2.4690	15704.	8154.
100 IC 20	3.3270	11789.	8978.
100 IC 20	6.2370	5934.	9378.
203 IC 1	1.1690	33669.	6744.
203 IC 1	3.1170	11715.	8335.
203 IC 1	3.4580	9527.	7570.
203 IC 1	5.4950	6525.	8714.
203 IC 2	1.1720	616719.	123891.
203 IC 2	3.1150	275806.	196086.
203 IC 2	3.1190	269586.	191984.
203 IC 2	3.4550	233297.	185753.
203 IC 2	5.4890	133710.	179287.
203 IC 3	1.1650	973343.	194225.
203 IC 3	3.1210	384463.	273869.
203 IC 3	3.4660	348446.	277595.
203 IC 3	5.5080	194092.	260061.
203 IC 4	1.1610	2127071.	422683.

TABLE 3.7 CONTINUED

SAMPLE NUMBER	AGE (DAYS)	CORRECTED ACTIVITY (C/M)	ACTIVITY AT 100 HR (C/M)
203 IC 4	3.1420	741894.	532093.
203 IC 4	3.4500	656258.	520112.
203 IC 4	5.4830	403006.	536536.
203 IC 5	1.1830	108531.	22041.
203 IC 5	3.1280	43565.	31103.
203 IC 5	3.4600	37857.	30100.
203 IC 5	5.5020	20473.	27389.
203 IC 9	1.1810	4857.	984.
203 IC 9	3.1400	1895.	1358.
203 IC 9	3.4530	1624.	1288.
203 IC 9	5.4850	1017.	1355.
203 IC 13	1.2010	5079.	1050.
203 IC 13	3.1710	1784.	1292.
203 IC 13	3.5810	1707.	1411.
203 IC 13	5.4450	1097.	1446.
203 IC 14	1.1900	15889.	3249.
203 IC 14	3.1320	6303.	4506.
203 IC 14	3.4460	4857.	3845.
203 IC 14	5.4720	2990.	3969.
203 IC 19	1.1860	4463.	909.
203 IC 19	3.1120	1754.	1246.
203 IC 19	3.4440	1235.	977.
507 IC 2	3.2000	559868.	409168.
507 IC 2	4.8870	365934.	421124.
507 IC 2	5.3800	327956.	425256.
507 IC 3	3.2030	156948.	114813.
507 IC 3	4.8890	98979.	113951.
507 IC 3	5.3980	75100.	97831.
507 IC 4	3.2060	959.	702.
507 IC 4	5.4150	878.	1149.
507 IC 5	3.2080	635.	465.
507 IC 5	5.4170	700.	917.
507 IC 6	4.8960	842.	971.
507 IC 6	5.4190	1060.	1389.
507 IC 7	4.8980	2637.	3041.
507 IC 7	5.4210	3269.	4284.
507 IC 20	3.3130	3885.	2945.
507 IC 20	5.5000	2216.	2963.
707 LA 216	4.3130	1337399.	1370898.
707 LA 216	5.2040	926217.	1148093.
707 LA 216	6.1060	771445.	1193075.
707 LA 216	7.0250	659406.	1184389.
707 LA 216	8.9800	475051.	1128058.
707 LA 216	10.1720	409091.	1114003.
707 LA 216	11.0310	361805.	1065073.
707 LA 216	12.0840	321089.	1039944.

TABLE 3.7 CONTINUED

SAMPLE NUMBER	AGE (DAYS)	CORRECTED ACTIVITY (C/M)	ACTIVITY AT 100 HR (C/M)
707 LA 216	13.1030	295002.	1047973.
707 LA 216	43.9350	70209.	1205792.
812 LA 2 2	4.4850	17546.	18669.
812 LA 2 2	6.1180	12189.	18888.
812 LA 2 2	7.0290	10275.	18495.
812 LA 2 2	8.9710	7201.	17080.
812 LA 2 2	10.1700	6415.	17467.
812 LA 2 2	11.0090	5425.	15940.
812 LA 2 2	12.0740	4939.	15961.
812 LA 2 2	13.1060	6286.	22336.
812 LA 2 2	43.9360	1016.	17457.
813 LA 212	4.4340	339986.	357112.
813 LA 212	5.1950	289635.	358191.
813 LA 212	6.0840	240211.	370152.
813 LA 212	7.0170	200937.	361025.
813 LA 212	8.9740	149888.	353266.
813 LA 212	10.1680	123613.	336490.
813 LA 212	11.0290	107977.	317803.
813 LA 212	12.0820	98466.	318855.
813 LA 212	13.1120	87315.	310434.
813 LA 212	43.9380	15711.	321374.
814 LA 2 2	4.1300	287314.	283888.
814 LA 2 2	4.9290	225433.	261566.
814 LA 2 2	5.1780	224531.	276471.
814 LA 2 2	5.9900	189737.	287617.
814 LA 2 2	7.0140	153776.	276165.
814 LA 2 2	8.9620	107982.	255800.
814 LA 2 2	10.1450	95470.	259339.
814 LA 2 2	10.9910	84134.	246775.
814 LA 2 2	12.0700	74411.	240696.
815 LA 2 2	3.3160	337145.	255839.
815 LA 2 2	4.1450	265534.	263647.
815 LA 2 2	4.2920	252458.	258691.
815 LA 2 2	5.2000	206970.	256287.
815 LA 2 2	6.0930	171612.	264838.
815 LA 2 2	7.0210	144192.	259228.
815 LA 2 2	8.9770	102724.	243830.
815 LA 2 2	10.1620	89030.	242219.
815 LA 2 2	11.0260	76945.	226407.
815 LA 2 2	12.0800	69195.	224027.
815 LA 2 2	13.1140	61688.	219361.
815 LA 2 2	43.9390	13076.	224595.

TABLE 3.7 CONTINUED

SAMPLE NUMBER	AGE (DAYS)	CORRECTED ACTIVITY (C/M)	ACTIVITY AT 100 HR (C/M)
816 LA 2 2	3.5350	330764.	269470.
816 LA 2 2	4.1350	280865.	277966.
816 LA 2 2	4.2910	266247.	272766.
816 LA 2 2	5.2[illegible]	219267.	271723.
816 LA 2 2	6.10[illegible]	175865.	276395.
816 LA 2 2	7.0230	151751.	272899.
816 LA 2 2	8.9790	112396.	266860.
816 LA 2 2	10.1630	93161.	253482.
816 LA 2 2	11.0140	81464.	239441.
816 LA 2 2	12.0780	73481.	237862.
816 LA 2 2	43.9410	13993.	240372.
817 LA 2 8	4.1330	343045.	339283.
817 LA 2 8	6.1150	221325.	342798.
817 LA 2 8	7.0260	187392.	337145.
817 LA 2 8	8.9820	138425.	328791.
817 LA 2 8	10.1740	115729.	315200.
817 LA 2 8	11.0340	102040.	300464.
817 LA 2 8	12.0860	90206.	292211.
817 LA 2 8	43.9420	16229.	278776.
818 LA 210	5.1980	202991.	251231.
818 LA 210	6.0870	169969.	262043.
818 LA 210	8.9750	99459.	236017.
818 LA 210	10.1660	82024.	223239.
818 LA 210	11.0110	76380.	224438.
818 LA 210	12.0760	68054.	220253.
818 LA 210	43.9430	12427.	213478.
820 LA 210	10.0930	27328.	73887.
820 LA 210	11.0060	23481.	68966.
820 LA 210	12.0720	20832.	67396.
820 LA 210	43.9440	3785.	65015.
100 PC 6	2.9690	1622496.	1093469.
100 PC 6	4.1230	977744.	963892.
100 PC 6	5.1630	770038.	944534.
100 PC 6	5.9810	664994.	1005724.
100 PC 6	7.0100	546043.	980047.
100 PC 6	8.9610	393741.	932609.
100 PC 6	10.1390	340083.	923318.
100 PC 6	10.9860	299041.	876724.
100 PC 6	12.0620	255949.	859638.
203 PC 3	1.2000	4251415.	878014.

TABLE 3.7 CONTINUED

SAMPLE NUMBER	AGE (DAYS)	CORRECTED ACTIVITY (C/M)	ACTIVITY AT 100 HR (C/M)
203 PC 3	1.9860	2780203.	1118178.
203 PC 3	10.4850	321256.	900012.
203 PC 25	2.9650	1728379.	1162400.
203 PC 25	4.1270	1167796.	1152746.
203 PC 25	5.1720	820618.	1008898.
203 PC 25	5.9860	696904.	1055335.
203 PC 25	7.0120	560094.	1005568.
203 PC 25	8.9610	411837.	975470.
203 PC 25	10.1430	358550.	973810.
203 PC 25	10.9890	312716.	917066.
203 PC 25	12.0680	283250.	916060.
507 PC 7	2.9320	803857.	531396.
507 PC 7	3.9940	533384.	504285.
507 PC 7	5.0980	419057.	505535.
507 PC 7	5.9360	370484.	553894.
507 PC 7	8.9180	217383.	511943.
507 PC 7	9.9750	188455.	503744.
507 PC 7	10.9450	159001.	464427.
507 PC 7	11.9470	141715.	453319.
507 PC 7	12.9880	123517.	434230.

TABLE 3.8 GAMMA DECAY RATES BY 4 PI IONIZATION CHAMBER

SAMPLE NUMBER	SIZE	AGE (DAYS)	CORRECTED ACTIVITY (MA)	ACTIVITY AT 100 HR (MA)
100 IC 1 T		6.4570	0.5015E-09	0.8245E-09
100 IC 1 T		9.3770	0.2340E-09	0.5669E-09
100 IC 1 T		15.9660	0.4211E-09	0.1735E-08
100 IC 1 T		159.9210	0.	0.
100 IC 2 T		6.4580	0.6269E-09	0.1031E-08
100 IC 2 T		9.3780	0.2340E-09	0.5669E-09
100 IC 2 T		15.9660	0.3368E-09	0.1388E-08
100 IC 2 T		159.9270	0.	0.
100 IC 3 T		6.4580	0.5015E-09	0.8247E-09
100 IC 3 T		9.3780	0.1922E-09	0.4657E-09
100 IC 3 T		15.9670	0.2105E-09	0.8675E-09
100 IC 3 T		159.9310	0.	0.
100 IC 4 T		6.4590	0.1538E-06	0.2529E-06
100 IC 4 T		9.3790	0.1083E-06	0.2624E-06
100 IC 4 T		15.9670	0.6282E-07	0.2589E-06
100 IC 4 T		19.9620	0.4990E-07	0.2648E-06
100 IC 4 T		23.8970	0.4100E-07	0.2606E-06
100 IC 4 T		27.0720	0.3646E-07	0.2680E-06
100 IC 4 T		31.0300	0.3133E-07	0.2725E-06
100 IC 4 T		34.0330	0.2828E-07	0.2722E-06
100 IC 4 T		37.9650	0.2483E-07	0.2728E-06
100 IC 4 T		40.9560	0.2308E-07	0.2781E-06
100 IC 4 T		53.9240	0.1676E-07	0.2788E-06
100 IC 4 T		159.9330	0.4716E-08	0.2703E-06
100 IC 5 T		6.4590	0.3551E-05	0.5841E-05
100 IC 5 T		9.3790	0.2507E-05	0.6074E-05
100 IC 5 T		15.9680	0.1431E-05	0.5898E-05
100 IC 5 T		19.9630	0.1227E-05	0.6510E-05
100 IC 5 T		23.8970	0.9596E-06	0.6100E-05
100 IC 5 T		27.0720	0.8989E-06	0.6607E-05
100 IC 5 T		31.0310	0.7707E-06	0.6705E-05
100 IC 5 T		34.0330	0.6926E-06	0.6666E-05
100 IC 5 T		37.9650	0.6165E-06	0.6773E-05
100 IC 5 T		40.9570	0.5662E-06	0.6422E-05
100 IC 5 T		53.9240	0.4081E-06	0.6789E-05
100 IC 5 T		159.9340	0.1092E-06	0.6261E-05
100 IC 6 T		6.4600	0.1270E-05	0.2088E-05
100 IC 6 T		9.3790	0.9023E-06	0.2186E-05
100 IC 6 T		15.9690	0.5049E-06	0.2081E-05
100 IC 6 T		19.9630	0.4175E-06	0.2216E-05
100 IC 6 T		23.8970	0.3436E-06	0.2184E-05

TABLE 3.8 CONTINUED

SAMPLE NUMBER	SIZE	AGE (DAYS)	CORRECTED ACTIVITY (MA)	ACTIVITY AT 100 HR (MA)
100 IC 6 T		27.0830	0.3038E-06	0.2234E-05
100 IC 6 T		31.0310	0.2594E-06	0.2257E-05
100 IC 6 T		34.0340	0.2374E-06	0.2285E-05
100 IC 6 T		37.9650	0.2066E-06	0.2270E-05
100 IC 6 T		40.9570	0.1912E-06	0.2304E-05
100 IC 6 T		53.9250	0.1361E-06	0.2264E-05
100 IC 6 T		159.9350	0.3638E-07	0.2085E-05
100 IC 7 T		6.4610	0.2816E-06	0.4633E-06
100 IC 7 T		9.3790	0.1919E-06	0.4649E-06
100 IC 7 T		19.9630	0.914[illegible]E-07	0.4855E-06
100 IC 7 T		23.8970	0.7396E-07	0.4702E-06
100 IC 7 T		27.0830	0.6524E-07	0.4798E-06
100 IC 7 T		31.0320	0.5568E-07	0.4844E-06
100 IC 7 T		34.0350	0.5044E-07	0.4855E-06
100 IC 7 T		37.9660	0.4448E-07	0.4886E-06
100 IC 7 T		40.9570	0.4083E-07	0.4920E-06
100 IC 7 T		53.9250	0.2931E-07	0.4875E-06
100 IC 7 T		159.9370	0.5895E-09	0.3379E-07
100 IC 8 T		6.4610	0.7439E-08	0.1224E-07
100 IC 8 T		9.3800	0.4580E-08	0.1110E-07
100 IC 8 T		15.9700	0.2189E-08	0.9024E-08
100 IC 8 T		19.9640	0.1803E-08	0.9567E-08
100 IC 8 T		23.8980	0.1560E-08	0.9917E-08
100 IC 8 T		27.0840	0.1472E-08	0.1082E-07
100 IC 8 T		31.0340	0.1339E-08	0.1165E-07
100 IC 8 T		34.0380	0.1209E-08	0.1163E-07
100 IC 8 T		37.9690	0.1055E-08	0.1159E-07
100 IC 8 T		40.9590	1.0000E-09	0.1205E-07
100 IC 8 T		53.9260	0.6737E-09	0.1121E-07
100 IC 8 T		159.9400	0.2105E-09	0.1207E-07
100 IC 9 T		6.4620	0.2707E-06	0.4454E-06
100 IC 9 T		9.3810	0.1877E-06	0.4548E-06
100 IC 9 T		15.9710	0.1091E-06	0.4498E-06
100 IC 9 T		19.9640	0.9225E-07	0.4896E-06
100 IC 9 T		23.8990	0.7436E-07	0.4727E-06
100 IC 9 T		27.0840	0.6589E-07	0.4846E-06
100 IC 9 T		31.0360	0.5730E-07	0.4986E-06
100 IC 9 T		34.0390	0.5165E-07	0.4972E-06
100 IC 9 T		37.9690	0.4610E-07	0.5065E-06
100 IC 9 T		40.9600	0.4275E-07	0.5151E-06
100 IC 9 T		53.9270	0.3124E-07	0.5198E-06
100 IC 9 T		159.9410	0.6737E-09	0.3862E-07
100 IC 10 T		6.4620	0.4589E-07	0.7550E-07

TABLE 3.8 CONTINUED

SAMPLE NUMBER	SIZE	AGE (DAYS)	CORRECTED ACTIVITY (MA)	ACTIVITY AT 100 HR (MA)
100 IC 10 T		9.3820	0.3124E-07	0.7571E-07
100 IC 10 T		15.9710	0.1651E-07	0.6803E-07
100 IC 10 T		19.9650	0.1477E-07	0.7837E-07
100 IC 10 T		23.9000	0.1196E-07	0.7604E-07
100 IC 10 T		27.0850	0.1095E-07	0.8057E-07
100 IC 10 T		31.0370	0.9414E-08	0.8192E-07
100 IC 10 T		34.0410	0.8541E-08	0.8223E-07
100 IC 10 T		37.9710	0.7613E-08	0.8365E-07
100 IC 10 T		40.9610	0.7000E-08	0.8435E-07
100 IC 10 T		53.9280	0.4968E-08	0.8266E-07
100 IC 10 T		159.9430	0.1389E-08	0.7965E-07
100 IC 11 T		6.4620	0.5851E-09	0.9627E-09
100 IC 11 T		9.3820	0.7773E-09	0.1884E-08
100 IC 11 T		15.9720	0.5895E-09	0.2430E-08
100 IC 11 T		159.9450	0.	0.
100 IC 12 T		6.4620	0.2691E-08	0.4428E-08
100 IC 12 T		9.3840	0.1739E-08	0.4213E-08
100 IC 12 T		15.9720	0.1053E-08	0.4339E-08
100 IC 12 T		19.9650	0.5753E-09	0.3054E-08
100 IC 12 T		23.9010	0.5200E-09	0.3306E-08
100 IC 12 T		159.9470	0.8421E-10	0.4828E-08
100 IC 13 T		6.4210	0.9194E-09	0.1503E-08
100 IC 13 T		9.3840	0.7773E-09	0.1884E-08
100 IC 13 T		15.9760	0.2526E-09	0.1042E-08
100 IC 13 T		19.9570	0.1918E-09	0.1017E-08
100 IC 13 T		160.1650	0.	0.
100 IC 14 T		6.4220	0.1070E-08	0.1750E-08
100 IC 14 T		9.3950	0.6510E-09	0.1590E-08
100 IC 14 T		15.9770	0.3799E-09	0.1562E-08
100 IC 14 T		19.9580	0.7068E-09	0.1628E-08
100 IC 14 T		23.9020	0.2800E-09	0.1780E-08
100 IC 14 T		163.1660	0.9421E-10	0.4963E-08
100 IC 15 T		6.4230	0.5851E-09	0.9570E-09
100 IC 15 T		9.3950	0.3176E-09	0.7698E-09
100 IC 15 T		15.9770	0.3368E-09	0.1389E-08
100 IC 15 T		19.9590	0.1151E-09	0.6105E-09
100 IC 15 T		23.9020	0.8000E-10	0.5087E-09
100 IC 15 T		163.1670	0.	0.
100 IC 16 T		6.4240	0.1170E-08	0.1914E-08

TABLE 3.8 CONTINUED

SAMPLE NUMBER	SIZE	AGE (DAYS)	CORRECTED ACTIVITY (MA)	ACTIVITY AT 100 HR (MA)
100 IC 16 T		9.3860	0.6519E-09	0.1580E-08
100 IC 16 T		15.9780	0.3368E-09	0.1389E-08
100 IC 16 T		23.9030	0.1360E-09	0.8648E-09
100 IC 16 T		160.1680	0.	0.
100 IC 17 T		6.4250	0.8358E-09	0.1368E-08
100 IC 17 T		9.3860	0.1504E-09	0.3647E-09
100 IC 17 T		23.9030	0.1200E-09	0.7630E-09
100 IC 17 T		160.1690	0.	0.
100 IC 18 T		6.4250	0.4179E-09	0.6838E-09
100 IC 18 T		9.3870	0.1922E-09	0.4660E-09
100 IC 18 T		23.9040	0.4000E-10	0.2544E-09
100 IC 18 T		165.0130	0.	0.
100 IC 19 T		6.4260	0.2925E-09	0.4787E-09
100 IC 19 T		9.3870	0.1672E-09	0.4052E-09
100 IC 19 T		15.9790	0.1263E-09	0.5209E-09
100 IC 19 T		23.9050	0.2400E-10	0.1526E-09
100 IC 19 T		160.1700	0.	0.
100 PO 1	12	1.1540	0.1479E-04	0.3243E-05
100 PO 1	12	1.9000	0.8943E-05	0.3072E-05
100 PO 1	12	2.4300	0.6644E-05	0.3149E-05
100 PO 1	12	2.8980	0.5391E-05	0.3476E-05
100 PO 1	12	4.8790	0.3009E-05	0.3641E-05
100 PO 1	12	5.9810	0.1978E-05	0.3022E-05
100 PO 1	12	7.0680	0.2105E-05	0.3796E-05
100 PO 1	12	8.3020	0.1822E-05	0.3906E-05
100 PO 1	12	8.8810	0.1696E-05	0.3921E-05
100 PO 1	12	9.8680	0.1532E-05	0.3866E-05
100 PO 1	12	10.8950	0.1414E-05	0.3888E-05
100 PO 1	12	11.8950	0.1305E-05	0.3901E-05
100 PO 1	12	13.1150	0.1111E-05	0.3678E-05
100 PO 1	12	14.9030	0.9919E-06	0.3813E-05
100 PO 1	12	16.9460	0.9859E-06	0.4322E-05
100 PO 1	12	23.1430	0.6470E-06	0.3974E-05
100 PO 1	12	27.0600	0.5433E-06	0.3991E-05
100 PO 1	12	31.0140	0.4663E-06	0.4055E-05
100 PO 1	12	33.9870	0.4217E-06	0.4052E-05
100 PO 1	12	37.9390	0.3663E-06	0.4021E-05
100 PO 1	12	40.9250	0.3412E-06	0.4108E-05
100 PO 1	12	47.3480	0.2781E-06	0.3928E-05
100 PO 1	12	54.0960	0.2355E-06	0.3931E-05
100 PO 1	12	67.9520	0.1814E-06	0.3886E-05

TABLE 3.8 CONTINUED

SAMPLE NUMBER	SIZE	AGE (DAYS)	CORRECTED ACTIVITY (MA)	ACTIVITY AT 100 HR (MA)
100 PO 1	12	75.9040	0.1585E-06	0.3832E-05
100 PO 1	12	98.5730	0.1209E-06	0.3844E-05
100 PO 1	12	143.1000	0.7507E-07	0.3700E-05
100 PO 1	12	218.9600	0.3489E-07	0.3455E-05
100 PO 1	24	1.1540	0.2006E-04	0.4397E-05
100 PO 1	24	1.9000	0.1229E-04	0.4221E-05
100 PO 1	24	2.4300	0.9194E-05	0.4357E-05
100 PO 1	24	2.8980	0.7204E-05	0.4646E-05
100 PO 1	24	4.8800	0.3970E-05	0.4805E-05
100 PO 1	24	5.9820	0.3275E-05	0.5004E-05
100 PO 1	24	7.0680	0.2779E-05	0.5011E-05
100 PO 1	24	8.3030	0.2407E-05	0.5161E-05
100 PO 1	24	8.8810	0.2256E-05	0.5216E-05
100 PO 1	24	9.8690	0.2063E-05	0.5205E-05
100 PO 1	24	10.8950	0.1894E-05	0.5208E-05
100 PO 1	24	11.8950	0.1755E-05	0.5246E-05
100 PO 1	24	13.1150	0.1539E-05	0.5093E-05
100 PO 1	24	14.9020	0.1387E-05	0.5332E-05
100 PO 1	24	16.9460	0.1253E-05	0.5495E-05
100 PO 1	24	23.1430	0.9060E-06	0.5564E-05
100 PO 1	24	27.0600	0.8090E-06	0.5943E-05
100 PO 1	24	31.0150	0.6814E-06	0.5925E-05
100 PO 1	24	33.9880	0.6165E-06	0.5925E-05
100 PO 1	24	37.9390	0.5395E-06	0.5922E-05
100 PO 1	24	40.9260	0.4996E-06	0.6014E-05
100 PO 1	24	47.3490	0.4152E-06	0.5864E-05
100 PO 1	24	54.0960	0.3576E-06	0.5970E-05
100 PO 1	24	67.9520	0.2739E-06	0.5868E-05
100 PO 1	24	75.9040	0.2462E-06	0.5954E-05
100 PO 1	24	98.5730	0.1882E-06	0.5892E-05
100 PO 1	24	143.1000	0.1218E-06	0.6003E-05
100 PO 1	24	218.9160	0.5585E-07	0.5528E-05
100 PO 1	42	1.1540	0.1563E-04	0.3426E-05
100 PO 1	42	1.9010	0.9779E-05	0.3361E-05
100 PO 1	42	2.4300	0.6853E-05	0.3248E-05
100 PO 1	42	2.3980	0.5533E-05	0.3568E-05
100 PO 1	42	4.9800	0.2992E-05	0.3622E-05
100 PO 1	42	5.9830	0.2441E-05	0.3731E-05
100 PO 1	42	7.0680	0.2105E-05	0.3796E-05
100 PO 1	42	8.3040	0.1822E-05	0.3907E-05
100 PO 1	42	8.8820	0.1713E-05	0.3960E-05
100 PO 1	42	9.8690	0.1558E-05	0.3930E-05
100 PO 1	42	10.8960	0.1431E-05	0.3935E-05
100 PO 1	42	11.8960	0.1337E-05	0.3997E-05
100 PO 1	42	13.1150	0.1180E-05	0.3905E-05
100 PO 1	42	14.9020	0.1025E-05	0.3942E-05
100 PO 1	42	16.9470	0.9358E-06	0.4103E-05

TABLE 3.8 CONTINUED

SAMPLE NUMBER	SIZE	AGE (DAYS)	CORRECTED ACTIVITY (MA)	ACTIVITY AT 100 HR (MA)
100 PO 1	42	23.1440	0.6972E-06	0.4282E-05
100 PO 1	42	27.0610	0.5965E-06	0.4382E-05
100 PO 1	42	31.0150	0.5126E-06	0.4457E-05
100 PO 1	42	33.9880	0.4663E-06	0.4482E-05
100 PO 1	42	37.9400	0.4066E-06	0.4463E-05
100 PO 1	42	40.9260	0.3729E-06	0.4490E-05
100 PO 1	42	47.3500	0.3157E-06	0.4459E-05
100 PO 1	42	54.0970	0.2692E-06	0.4494E-05
100 PO 1	42	67.9530	0.2103E-06	0.4505E-05
100 PO 1	42	75.9050	0.1877E-06	0.4540E-05
100 PO 1	42	98.5730	0.1418E-06	0.4509E-05
100 PO 1	42	143.1000	0.9234E-07	0.4551E-05
100 PO 1	42	218.9600	0.4286E-07	0.4243E-05
100 PO 1	80	0.5750	0.6920E-05	0.7707E-06
100 PO 1	80	1.1540	0.3677E-05	0.8060E-06
100 PO 1	80	1.9020	0.2173E-05	0.7470E-06
100 PO 1	80	2.4300	0.1646E-05	0.7802E-06
100 PO 1	80	2.8990	0.1295E-05	0.8358E-06
100 PO 1	80	4.8800	0.6834E-06	0.8272E-06
100 PO 1	80	5.9880	0.5462E-06	0.8357E-06
100 PO 1	80	7.0690	0.4628E-06	0.8347E-06
100 PO 1	80	8.3040	0.3965E-06	0.8503E-06
100 PO 1	80	8.8820	0.3741E-06	0.8649E-06
100 PO 1	80	9.8700	0.3365E-06	0.8492E-06
100 PO 1	80	10.9960	0.3069E-06	0.8440E-06
100 PO 1	80	11.8970	0.2797E-06	0.8361E-06
100 PO 1	80	13.1160	0.2519E-06	0.8339E-06
100 PO 1	80	14.9010	0.2225E-06	0.8553E-06
100 PO 1	80	16.9470	0.1986E-06	0.8707E-06
100 PO 1	80	23.1440	0.1453E-06	0.8924E-06
100 PO 1	80	27.0610	0.1264E-06	0.9285E-06
100 PO 1	80	31.0150	0.1133E-06	0.9852E-06
100 PO 1	80	33.9880	0.9707E-07	0.9328E-06
100 PO 1	80	37.9400	0.8670E-07	0.9517E-06
100 PO 1	80	40.9210	0.7892E-07	0.9500E-06
100 PO 1	80	47.3500	0.6578E-07	0.9291E-06
100 PO 1	80	54.0980	0.5677E-07	0.9479E-06
100 PO 1	80	67.9530	0.4345E-07	0.9308E-06
100 PO 1	80	75.9060	0.3895E-07	0.9419E-06
100 PO 1	80	99.5730	0.2934E-07	0.9332E-06
100 PO 1	80	143.1000	0.1865E-07	0.9192E-06
100 PO 1	80	219.9620	0.8903E-08	0.8815E-06
100 PO 1	170	0.5740	0.1053E-05	0.1171E-06
100 PO 1	170	1.1540	0.5346E-06	0.1172E-06
100 PO 1	170	1.9020	0.3131E-06	0.1076E-06
100 PO 1	170	2.4300	0.2320E-06	0.1100E-06
100 PO 1	170	2.8980	0.1877E-06	0.1211E-06

TABLE 3.8 CONTINUED

SAMPLE NUMBER	SIZE	AGE (DAYS)	CORRECTED ACTIVITY (MA)	ACTIVITY AT 100 HR (MA)
100 PO 1	170	4.8820	0.9829E-07	0.1190E-06
100 PO 1	170	5.9890	0.7966E-07	0.1219E-06
100 PO 1	170	7.0690	0.6703E-07	0.1209E-06
100 PO 1	170	8.3040	0.5629E-07	0.1207E-06
100 PO 1	170	8.8830	0.5299E-07	0.1225E-06
100 PO 1	170	9.8700	0.4707E-07	0.1188E-06
100 PO 1	170	10.8970	0.4211E-07	0.1158E-06
100 PO 1	170	11.8970	0.3811E-07	0.1140E-06
100 PO 1	170	13.1160	0.3360E-07	0.1112E-06
100 PO 1	170	14.9010	0.2902E-07	0.1115E-06
100 PO 1	170	16.9480	0.2515E-07	0.1103E-06
100 PO 1	170	23.1450	0.1744E-07	0.1071E-06
100 PO 1	170	27.0620	0.1480E-07	0.1087E-06
100 PO 1	170	31.0170	0.1299E-07	0.1129E-06
100 PO 1	170	33.9900	0.1169E-07	0.1123E-06
100 PO 1	170	37.9410	0.9991E-08	0.1097E-06
100 PO 1	170	40.9270	0.9167E-08	0.1104E-06
100 PO 1	170	47.3520	0.7748E-08	0.1094E-06
100 PO 1	170	54.1000	0.6400E-08	0.1069E-06
100 PO 1	170	67.9540	0.4749E-08	0.1018E-06
100 PO 1	170	75.9070	0.4095E-08	0.9904E-07
100 PO 1	170	98.5730	0.3093E-08	0.9837E-07
100 PO 1	170	143.1000	0.1895E-08	0.9338E-07
100 PO 1	170	218.9620	0.8551E-09	0.8467E-07
100 PO 1	325	0.5740	0.5513E-06	0.6131E-07
100 PO 1	325	1.1540	0.2822E-06	0.6185E-07
100 PO 1	325	1.9030	0.1710E-06	0.5882E-07
100 PO 1	325	2.4300	0.1334E-06	0.6322E-07
100 PO 1	325	2.8980	0.1108E-06	0.7147E-07
100 PO 1	325	4.8820	0.6110E-07	0.7400E-07
100 PO 1	325	5.9890	0.4842E-07	0.7410E-07
100 PO 1	325	7.0700	0.4008E-07	0.7230E-07
100 PO 1	325	8.3050	0.3356E-07	0.7198E-07
100 PO 1	325	8.8830	0.3143E-07	0.7266E-07
100 PO 1	325	9.8710	0.2703E-07	0.6822E-07
100 PO 1	325	10.8970	0.2442E-07	0.6715E-07
100 PO 1	325	11.8970	0.2181E-07	0.6522E-07
100 PO 1	325	13.1170	0.1901E-07	0.6293E-07
100 PO 1	325	14.9000	0.1582E-07	0.6079E-07
100 PO 1	325	16.9480	0.1371E-07	0.6010E-07
100 PO 1	325	23.1450	0.9185E-08	0.5641E-07
100 PO 1	325	27.0620	0.7685E-08	0.5646E-07
100 PO 1	325	31.0190	0.6320E-08	0.5505E-07
100 PO 1	325	33.9940	0.5600E-08	0.5383E-07
100 PO 1	325	37.9440	0.4754E-08	0.5219E-07
100 PO 1	325	40.9290	0.4292E-08	0.5167E-07
100 PO 1	325	47.3550	0.3510E-08	0.4959E-07
100 PO 1	325	54.1010	0.2964E-08	0.4949E-07
100 PO 1	325	67.9550	0.2147E-08	0.4601E-07

TABLE 3.8 CONTINUED

SAMPLE NUMBER	SIZE	AGE (DAYS)	CORRECTED ACTIVITY (MA)	ACTIVITY AT 100 HR (MA)
100 PO 1	325	75.9090	0.1817E-08	0.4394E-07
100 PO 1	325	98.5730	0.1337E-08	0.4254E-07
100 PO 1	325	143.1000	0.8000E-09	0.3943E-07
100 PO 1	325	218.9620	0.4778E-09	0.4731E-07
100 PO 1	500	0.5730	0.2689E-06	0.9649E-07
100 PO 1	500	1.1540	0.4510E-06	0.9886E-07
100 PO 1	500	1.9040	0.2822E-06	0.9709E-07
100 PO 1	500	2.4300	0.2237E-06	0.1060E-06
100 PO 1	500	2.8980	0.1877E-06	0.1211E-06
100 PO 1	500	4.8820	0.1067E-06	0.1292E-06
100 PO 1	500	5.9790	0.9095E-07	0.1389E-06
100 PO 1	500	7.0700	0.7124E-07	0.1285E-06
100 PO 1	500	8.3060	0.5880E-07	0.1261E-06
100 PO 1	500	8.8840	0.5483E-07	0.1268E-06
100 PO 1	500	9.8710	0.4724E-07	0.1192E-06
100 PO 1	500	10.8980	0.4168E-07	0.1146E-06
100 PO 1	500	11.8970	0.3728E-07	0.1115E-06
100 PO 1	500	13.1180	0.3148E-07	0.1042E-06
100 PO 1	500	14.8990	0.2649E-07	0.1018E-06
100 PO 1	500	16.9490	0.2207E-07	0.9676E-07
100 PO 1	500	23.1460	0.1404E-07	0.8624E-07
100 PO 1	500	27.0620	0.1112E-07	0.8168E-07
100 PO 1	500	31.0200	0.9577E-08	0.8329E-07
100 PO 1	500	33.9960	0.8603E-08	0.8270E-07
100 PO 1	500	37.9470	0.7131E-08	0.7829E-07
100 PO 1	500	40.9310	0.6417E-08	0.7726E-07
100 PO 1	500	47.3560	0.5040E-08	0.7120E-07
100 PO 1	500	54.1020	0.3992E-08	0.6665E-07
100 PO 1	500	67.9560	0.2602E-08	0.5574E-07
100 PO 1	500	75.9100	0.2147E-08	0.5193E-07
100 PO 1	500	98.5780	0.1588E-08	0.5052E-07
100 PO 1	500	143.1000	0.8000E-09	0.3943E-07
100 PO 1	500	218.9640	0.3940E-09	0.3901E-07
100 SD 1		0.3580	0.2549E-05	0.1834E-06
100 SD 1		0.4890	0.1855E-05	0.1808E-06
100 SD 1		0.5790	0.1563E-05	0.1750E-06
100 SD 1		0.9340	0.9859E-06	0.1761E-06
100 SD 1		1.1460	0.8229E-06	0.1792E-06
100 SD 1		1.8740	0.4619E-06	0.1571E-06
100 SD 1		2.4370	0.3340E-06	0.1590E-06
100 SD 1		2.8790	0.2604E-06	0.1659E-06
100 SD 1		3.8640	0.1793E-06	0.1628E-06
100 SD 1		4.8740	0.1334E-03	0.1612E-06
100 SD 1		5.9750	0.1086E-06	0.1658E-06
100 SD 1		7.0850	0.9229E-07	0.1664E-06
100 SD 1		8.3200	0.7886E-07	0.1695E-06
100 SD 1		8.8740	0.7359E-07	0.1700E-06

TABLE 3.8 CONTINUED

SAMPLE NUMBER	SIZE	AGE (DAYS)	CORRECTED ACTIVITY (MA)	ACTIVITY AT 100 HR (MA)
100 SD 1		9.8630	0.6661E-07	0.1680E-06
100 SD 1		10.9230	0.5895E-07	0.1624E-06
100 SD 1		11.9050	0.5483E-07	0.1640E-06
100 SD 1		13.1710	0.5040E-07	0.1676E-06
100 SD 1		14.9140	0.4458E-07	0.1716E-06
100 SD 1		16.9600	0.3895E-07	0.1709E-06
100 SD 1		23.1640	0.2932E-07	0.1741E-06
100 SD 1		26.9400	0.2466E-07	0.1801E-06
100 SD 1		31.0080	0.2078E-07	0.1806E-06
100 SD 1		33.9990	0.1902E-07	0.1828E-06
100 SD 1		37.9330	0.1700E-07	0.1866E-06
100 SD 1		40.9200	0.1558E-07	0.1876E-06
100 SD 1		47.3740	0.1296E-07	0.1831E-06
100 SD 1		54.0750	0.1137E-07	0.1897E-06
100 SD 1		67.9680	0.8379E-08	0.1796E-06
100 SD 1		75.9260	0.7857E-08	0.1900E-06
100 SD 1		98.5070	0.6018E-08	0.1913E-06
100 SD 1		143.1000	0.3663E-08	0.1805E-06
100 SD 1		218.9150	0.1685E-08	0.1668E-06
100 SD 2		0.3580	0.6703E-05	0.4822E-06
100 SD 2		0.4880	0.4973E-05	0.4834E-06
100 SD 2		0.5780	0.4204E-05	0.4702E-06
100 SD 2		0.9340	0.2674E-05	0.4778E-06
100 SD 2		1.1460	0.2173E-05	0.4730E-06
100 SD 2		1.8740	0.1253E-05	0.4263E-06
100 SD 2		2.4380	0.9609E-06	0.4578E-06
100 SD 2		2.8790	0.7603E-06	0.4842E-06
100 SD 2		3.8630	0.5220E-06	0.4738E-06
100 SD 2		4.8730	0.3925E-06	0.4742E-06
100 SD 2		5.9750	0.3107E-06	0.4782E-06
100 SD 2		7.0650	0.2691E-06	0.4851E-06
100 SD 2		8.3210	0.2320E-06	0.4986E-06
100 SD 2		8.8750	0.2128E-06	0.4914E-06
100 SD 2		9.8630	0.1933E-06	0.4876E-06
100 SD 2		10.9240	0.1722E-06	0.4746E-06
100 SD 2		11.9050	0.1627E-06	0.4866E-06
100 SD 2		13.1720	0.1437E-06	0.4781E-06
100 SD 2		14.9150	0.1273E-06	0.4898E-06
100 SD 2		16.9600	0.1125E-06	0.4937E-06
100 SD 2		23.1630	0.8052E-07	0.4950E-06
100 SD 2		26.9400	0.6864E-07	0.5015E-06
100 SD 2		31.0080	0.5811E-07	0.5052E-06
100 SD 2		33.9990	0.5271E-07	0.5020E-06
100 SD 2		37.9330	0.4641E-07	0.5093E-06
100 SD 2		40.9200	0.4225E-07	0.5086E-06
100 SD 2		47.3740	0.3485E-07	0.4925E-06
100 SD 2		54.0750	0.2989E-07	0.4989E-06
100 SD 2		67.9690	0.2273E-07	0.4872E-06
100 SD 2		75.9280	0.2014E-07	0.4873E-06

TABLE 3.8 CONTINUED

SAMPLE NUMBER	SIZE	AGE (DAYS)	CORRECTED ACTIVITY (MA)	ACTIVITY AT 100 HR (MA)
100 SD 2		98.5070	0.1555E-07	0.4942E-06
100 SD 2		143.1000	0.9811E-08	0.4835E-06
100 SD 2		218.9170	0.4535E-08	0.4489E-06
201 AOC	7W	5.9470	0.	0.
201 AOC	12W	5.9470	0.5079E-05	0.7705E-05
201 AOC	12W	7.1140	0.4285E-05	0.7777E-05
201 AOC	12W	8.3330	0.3666E-05	0.7893E-05
201 AOC	12W	9.0340	0.3419E-05	0.8049E-05
201 AOC	12W	9.8940	0.3141E-05	0.7942E-05
201 AOC	12W	10.9120	0.2863E-05	0.7882E-05
201 AOC	12W	11.8590	0.2607E-05	0.7771E-05
201 AOC	12W	13.1740	0.2375E-05	0.7902E-05
201 AOC	12W	14.8870	0.2060E-05	0.7908E-05
201 AOC	12W	16.9240	0.1838E-05	0.8049E-05
201 AOC	12W	19.9790	0.1649E-05	0.8758E-05
201 AOC	12W	23.1090	0.1379E-05	0.8458E-05
201 AOC	12W	27.0530	0.1136E-05	0.8342E-05
201 AOC	12W	31.0390	0.9736E-06	0.8472E-05
201 AOC	12W	34.0440	0.8924E-06	0.8593E-05
201 AOC	12W	37.9480	0.7788E-06	0.8551E-05
201 AOC	12W	40.9410	0.6715E-06	0.8087E-05
201 AOC	12W	47.3590	0.5915E-06	0.8357E-05
201 AOC	12W	54.0860	0.5091E-06	0.8497E-05
201 AOC	12W	67.9590	0.3837E-06	0.8222E-05
201 AOC	12W	75.9120	0.3424E-06	0.8279E-05
201 AOC	12W	98.5720	0.2504E-06	0.7965E-05
201 AOC	12W	143.1190	0.1632E-06	0.8042E-05
201 AOC	12W	218.9660	0.7471E-07	0.7398E-05
201 AOC 1	42W	5.9470	0.5398E-05	0.8189E-05
201 AOC 1	42W	7.1140	0.4624E-05	0.8394E-05
201 AOC 1	42W	8.3340	0.4000E-05	0.8612E-05
201 AOC 1	42W	9.0340	0.3733E-05	0.8788E-05
201 AOC 1	42W	9.8950	0.3452E-05	0.8730E-05
201 AOC 1	42W	10.9130	0.3132E-05	0.8625E-05
201 AOC 1	42W	11.8600	0.2908E-05	0.8668E-05
201 AOC 1	42W	13.1740	0.2630E-05	0.8749E-05
201 AOC 1	42W	14.8880	0.2329E-05	0.8942E-05
201 AOC 1	42W	16.9250	0.2089E-05	0.9147E-05
201 AOC 1	42W	19.9790	0.1879E-05	0.9981E-05
201 AOC 1	42W	23.1090	0.1542E-05	0.9453E-05
201 AOC 1	42W	27.0540	0.1339E-05	0.9832E-05
201 AOC 1	42W	31.0390	0.1176E-05	0.1024E-04
201 AOC 1	42W	34.0440	0.9698E-06	0.9530E-05

TABLE 3.8 CONTINUED

SAMPLE NUMBER	SIZE	AGE (DAYS)	CORRECTED ACTIVITY (MA)	ACTIVITY AT 100 HR (MA)
201 AOC 1	42W	37.9490	0.9168E-06	0.1007E-04
201 AOC 1	42W	40.9410	0.8291E-06	0.9986E-05
201 AOC 1	42W	47.3600	0.7169E-06	0.1013E-04
201 AOC 1	42W	54.0860	0.6227E-06	0.1040E-04
201 AOC 1	42W	67.9590	0.4787E-06	0.1026E-04
201 AOC 1	42W	75.9120	0.4259E-06	0.1030E-04
201 AOC 1	42W	98.5720	0.3215E-06	0.1023E-04
201 AOC 1	42W	143.1100	0.2060E-06	0.1015E-04
201 AOC 1	42W	218.9670	0.9609E-07	0.9515E-05
201 AOC	325W	5.9470	0.6793E-06	0.1031E-05
201 AOC	325W	7.1130	0.5682E-06	0.1031E-05
201 AOC	325W	8.3340	0.4747E-06	0.1022E-05
201 AOC	325W	9.0340	0.4341E-06	0.1022E-05
201 AOC	325W	9.8960	0.3912E-06	0.9895E-06
201 AOC	325W	10.9130	0.3491E-06	0.9611E-06
201 AOC	325W	11.8670	0.3173E-06	0.9457E-06
201 AOC	325W	13.1740	0.2795E-06	0.9298E-06
201 AOC	325W	14.8880	0.2362E-05	0.9071E-05
201 AOC	325W	16.9250	0.2044E-06	0.8951E-06
201 AOC	325W	19.9790	0.1721E-06	0.9140E-06
201 AOC	325W	23.1100	0.1376E-06	0.8436E-06
201 AOC	325W	27.0540	0.1174E-06	0.8619E-06
201 AOC	325W	31.0400	0.9869E-07	0.8889E-06
201 AOC	325W	34.0450	0.8895E-07	0.8565E-06
201 AOC	325W	37.9490	0.7475E-07	0.8207E-06
201 AOC	325W	40.9420	0.6753E-07	0.8133E-06
201 AOC	325W	47.3610	0.5475E-07	0.7735E-06
201 AOC	325W	54.0870	0.4589E-07	0.7661E-06
201 AOC	325W	67.9600	0.3337E-07	0.7150E-06
201 AOC	325W	75.9130	0.2892E-07	0.6994E-06
201 AOC	325W	98.5720	0.2098E-07	0.6673E-06
201 AOC	325W	143.1100	0.1318E-07	0.6495E-06
201 AOC	325W	218.9680	0.6137E-08	0.6076E-06
203 DS 1		0.1210	0.2047E-05	0.1473E-06
203 DS 1		0.1420	0.1855E-05	0.1335E-06
203 DS 1		0.1630	0.1521E-05	0.1094E-06
203 DS 1		0.1800	0.1421E-05	0.1022E-06
203 DS 1		0.2010	0.1187E-05	0.8536E-07
203 DS 1		0.2220	0.1170E-05	0.8416E-07
203 DS 1		0.3270	0.7285E-06	0.5241E-07
203 DS 1		0.3580	0.5915E-06	0.4255E-07
203 DS 1		0.3850	0.5639E-06	0.4302E-07
203 DS 1		0.4860	0.4678E-06	0.4526E-07
203 DS 1		0.5770	0.3858E-06	0.4309E-07
203 DS 1		0.9240	0.2487E-06	0.4393E-07
203 DS 1		1.1460	0.1961E-06	0.4269E-07
203 DS 1		1.8720	0.1084E-06	0.3682E-07

TABLE 3.8 CONTINUED

SAMPLE NUMBER	SIZE	AGE (DAYS)	CORRECTED ACTIVITY (MA)	ACTIVITY AT 100 HR (MA)
203 DS 1		2.4400	0.8325E-07	0.3972E-07
203 DS 1		2.8770	0.6219E-07	0.3955E-07
203 DS 1		3.8610	0.4012E-07	0.3640E-07
203 DS 1		4.8710	0.2959E-07	0.3573E-07
203 DS 1		5.9770	0.1095E-07	0.1671E-07
203 DS 1		7.0670	0.8926E-08	0.1609E-07
203 DS 1		8.3190	0.7982E-08	0.1715E-07
203 DS 1		8.8730	0.7643E-08	0.1766E-07
203 DS 1		9.8600	0.6989E-08	0.1762E-07
203 DS 1		10.9220	0.6147E-08	0.1694E-07
203 DS 1		11.9040	0.6018E-08	0.1800E-07
203 DS 1		13.1700	0.5176E-08	0.1721E-07
203 DS 1		14.9110	0.4811E-08	0.1851E-07
203 DS 1		16.9580	0.4179E-08	0.1834E-07
203 DS 1		23.1650	0.3075E-08	0.1890E-07
203 DS 1		26.9440	0.2824E-08	0.2064E-07
203 DS 1		31.0120	0.2354E-08	0.2046E-07
203 DS 1		34.0030	0.2135E-08	0.2053E-07
203 DS 1		37.9370	0.1934E-08	0.2123E-07
203 DS 1		40.9230	0.1792E-08	0.2157E-07
203 DS 1		47.3760	0.1588E-08	0.2245E-07
203 DS 1		54.0770	0.1179E-08	0.1968E-07
203 DS 1		67.9710	0.9956E-09	0.2134E-07
203 DS 1		75.9310	0.1003E-08	0.2426E-07
203 DS 1		98.5070	0.9194E-09	0.2923E-07
203 DS 1		143.1000	0.4632E-09	0.2283E-07
203 DS 1		218.9210	0.1760E-09	0.1742E-07
203 IC 1 T		9.3610	0.3810E-07	0.9215E-07
203 IC 1 T		15.9350	0.2118E-07	0.8709E-07
203 IC 1 T		19.8550	0.1788E-07	0.9426E-07
203 IC 1 T		23.1510	0.1416E-07	0.8701E-07
203 IC 1 T		27.0670	0.1194E-07	0.8771E-07
203 IC 1 T		31.0230	0.1104E-07	0.9600E-07
203 IC 1 T		33.9810	0.9820E-08	0.9435E-07
203 IC 1 T		37.9720	0.8441E-08	0.9275E-07
203 IC 1 T		40.9630	0.7917E-08	0.9540E-07
203 IC 1 T		53.9040	0.5600E-08	0.9311E-07
203 IC 1 T		157.9100	0.1482E-08	0.8351E-07
203 IC 2 T		9.3620	0.7686E-06	0.1859E-05
203 IC 2 T		15.9360	0.4460E-06	0.1934E-05
203 IC 2 T		19.8560	0.3687E-06	0.1943E-05
203 IC 2 T		23.1510	0.3136E-06	0.1927E-05
203 IC 2 T		27.0670	0.2654E-06	0.1950E-05
203 IC 2 T		31.0230	0.2310E-06	0.2009E-05
3 9C T		33.9820	0.1019E-06	0.9794E-06
203 IC 2 T		37.9720	0.1823E-06	0.2003E-05
203 IC 2 T		40.9640	0.1662E-06	0.2003E-05

TABLE 3.8 CONTINUED

SAMPLE NUMBER	SIZE	AGE (DAYS)	CORRECTED ACTIVITY (MA)	ACTIVITY AT 100 HR (MA)
203 IC 2 T		53.9050	0.1191E-06	0.1980E-05
203 IC 2 T		157.9100	0.3344E-07	0.1884E-05
203 IC 3 T		9.3620	0.1187E-05	0.2870E-05
203 IC 3 T		15.9360	0.7239E-06	0.2977E-05
203 IC 3 T		19.8570	0.5956E-06	0.3139E-05
203 IC 3 T		23.1510	0.5054E-06	0.3105E-05
203 IC 3 T		27.0680	0.4289E-06	0.3152E-05
203 IC 3 T		31.0230	0.3730E-06	0.3244E-05
203 IC 3 T		33.9820	0.3405E-06	0.3272E-05
203 IC 3 T		37.9730	0.3000E-06	0.3296E-05
203 IC 3 T		40.9640	0.2746E-06	0.3309E-05
203 IC 3 T		53.9070	0.1932E-06	0.3213E-05
203 IC 3 T		157.9110	0.5444E-07	0.3067E-05
203 IC 4 T		9.3620	0.2089E-05	0.5054E-05
203 IC 4 T		15.9370	0.1389E-05	0.5713E-05
203 IC 4 T		19.8580	0.1061E-05	0.5593E-05
203 IC 4 T		23.1520	0.8898E-06	0.5467E-05
203 IC 4 T		27.0680	0.7681E-06	0.5645E-05
203 IC 4 T		31.0240	0.6611E-06	0.5750E-05
203 IC 4 T		33.9820	0.6003E-06	0.5767E-05
203 IC 4 T		37.9730	0.5272E-06	0.5794E-05
203 IC 4 T		40.9640	0.4829E-06	0.5819E-05
203 IC 4 T		53.9070	0.3456E-06	0.5746E-05
203 IC 4 T		157.9120	0.9849E-07	0.5549E-05
203 IC 5 T		9.3630	0.1208E-06	0.2924E-06
203 IC 5 T		15.9370	0.6707E-07	0.2759E-06
203 IC 5 T		19.8590	0.5712E-07	0.3011E-06
203 IC 5 T		23.1520	0.4936E-07	0.3033E-06
203 IC 5 T		27.0680	0.4218E-07	0.3100E-06
203 IC 5 T		31.0250	0.3701E-07	0.3219E-06
203 IC 5 T		33.9830	0.3336E-07	0.3205E-06
203 IC 5 T		37.9730	0.2930E-07	0.3220E-06
203 IC 5 T		40.9650	0.2708E-07	0.3264E-06
203 IC 5 T		53.9080	0.1944E-07	0.3232E-06
203 IC 5 T		157.9130	0.5806E-08	0.3271E-06
203 IC 6 T		9.3630	0.1571E-08	0.3802E-08
203 IC 6 T		15.9380	0.5474E-09	0.2251E-08
203 IC 6 T		19.8650	0.5154E-09	0.2718E-08
203 IC 6 T		23.1530	0.6474E-09	0.3978E-08
203 IC 6 T		53.9090	0.2059E-09	0.3424E-08
203 IC 7 T		9.3640	0.1112E-08	0.2690E-08

TABLE 3.8 CONTINUED

SAMPLE NUMBER	SIZE	AGE (DAYS)	CORRECTED ACTIVITY (MA)	ACTIVITY AT 100 HR (MA)
203 IC 7 T		15.9380	0.5474E-09	0.2251E-08
203 IC 7 T		23.1540	0.4046E-09	0.2486E-08
203 IC 7 T		53.9110	0.1235E-09	0.2054E-08
203 IC 8 T		9.3640	0.6937E-09	0.1679E-08
203 IC 8 T		15.9390	0.1263E-09	0.5196E-09
203 IC 8 T		19.8670	0.1154E-09	0.6086E-09
203 IC 8 T		23.1540	0.2023E-09	0.1243E-08
203 IC 8 T		53.9110	0.8235E-10	0.1370E-08
203 IC 9 T		9.3650	0.1530E-08	0.3701E-08
203 IC 9 T		15.9390	0.5474E-09	0.2252E-08
203 IC 9 T		19.8680	0.6538E-09	0.3449E-08
203 IC 9 T		23.1550	0.8497E-09	0.5221E-08
203 IC 10 T		9.3660	0.1070E-08	0.2589E-08
203 IC 10 T		15.9400	0.5474E-09	0.2252E-08
203 IC 10 T		19.8680	0.3846E-09	0.2029E-08
203 IC 10 T		23.1550	0.5503E-09	0.3381E-08
203 IC 11 T		9.3670	0.7773E-09	0.1881E-08
203 IC 11 T		15.9400	0.1263E-09	0.5196E-09
203 IC 11 T		19.8680	1.0000E-10	0.5275E-09
203 IC 11 T		23.1560	0.2428E-09	0.1492E-08
203 IC 12 T		9.3660	0.5684E-09	0.1376E-08
203 IC 12 T		15.9410	0.2105E-09	0.8661E-09
203 IC 12 T		23.1560	0.	0.
203 IC 13 T		9.3690	0.2324E-08	0.5624E-08
203 IC 13 T		15.9470	0.1305E-08	0.5372E-08
203 IC 13 T		19.9040	0.7748E-09	0.4096E-08
203 IC 13 T		23.1570	0.8497E-09	0.5222E-08
203 IC 14 T		9.3690	0.1553E-07	0.3759E-07
203 IC 14 T		15.9470	0.9305E-08	0.3830E-07
203 IC 14 T		19.9050	0.7326E-08	0.3873E-07
203 IC 14 T		23.1580	0.6353E-08	0.3904E-07
203 IC 14 T		27.0690	0.5396E-08	0.3965E-07
203 IC 14 T		31.0280	0.4748E-08	0.4130E-07
203 IC 14 T		33.9860	0.4301E-08	0.4133E-07
203 IC 14 T		37.9760	0.3733E-08	0.4103E-07
203 IC 14 T		40.9670	0.3458E-08	0.4168E-07
203 IC 14 T		53.9150	0.2322E-08	0.3862E-07

TABLE 3.8 CONTINUED

SAMPLE NUMBER	SIZE	AGE (DAYS)	CORRECTED ACTIVITY (MA)	ACTIVITY AT 100 HR (MA)
203 IC 14 T		159.0660	0.5353E-09	0.3046E-07
203 IC 15 T		9.3700	0.5684E-09	0.1376E-08
203 IC 15 T		15.9480	0.4211E-10	0.1733E-09
203 IC 15 T		23.1580	0.4046E-10	0.2487E-09
203 IC 16 T		9.3700	0.4012E-09	0.9712E-09
203 IC 16 T		15.9480	0.4632E-09	0.1906E-08
203 IC 16 T		23.1580	0.8092E-10	0.4973E-09
203 IC 17 T		9.3700	0.9027E-09	0.2185E-08
203 IC 17 T		15.9480	0.4632E-09	0.1906E-08
203 IC 17 T		23.1580	0.1618E-09	0.9947E-09
203 IC 18 T		9.3710	0.9863E-09	0.2388E-08
203 IC 18 T		15.9490	0.4632E-09	0.1906E-08
203 IC 18 T		23.1590	0.3075E-09	0.1890E-08
203 IC 19 T		9.3710	0.6519E-09	0.1578E-08
203 IC 19 T		15.9490	0.4211E-10	0.1733E-09
203 IC 19 T		23.1600	0.2023E-09	0.1243E-08
203 IC 20 T		9.3720	0.4848E-09	0.1174E-08
203 IC 20 T		15.9490	0.4632E-09	0.1906E-08
203 IC 20 T		23.1590	0.1618E-09	0.9948E-09
203 SD 1		0.3580	0.1880E-05	0.1353E-06
203 SD 1		0.4870	0.1379E-05	0.1337E-06
203 SD 1		0.5780	0.1161E-05	0.1299E-06
203 SD 1		0.9340	0.7451E-05	0.1331E-06
203 SD 1		1.1460	0.6015E-06	0.1309E-06
203 SD 1		1.8730	0.3365E-06	0.1144E-06
203 SD 1		2.4380	0.2437E-06	0.1161E-06
203 SD 1		2.8780	0.1902E-06	0.1211E-06
203 SD 1		3.8620	0.1291E-06	0.1172E-06
203 SD 1		4.8730	0.9579E-07	0.1157E-06
203 SD 1		5.9760	0.7874E-07	0.1202E-06
203 SD 1		7.0660	0.6535E-07	0.1178E-06
203 SD 1		8.3190	0.5562E-07	0.1195E-06
203 SD 1		8.8730	0.5228E-07	0.1207E-06
203 SD 1		9.8610	0.4766E-07	0.1202E-06
203 SD 1		10.9220	0.4211E-07	0.1167E-06
203 SD 1		11.9050	0.3979E-07	0.1190E-06
203 SD 1		13.1700	0.3598E-07	0.1196E-06

TABLE 3.8 CONTINUED

SAMPLE NUMBER	SIZE	AGE (DAYS)	CORRECTED ACTIVITY (MA)	ACTIVITY AT 100 HR (MA)
203 SD 1		14.9130	0.3157E-07	0.1215E-06
203 SD 1		16.9590	0.2767E-07	0.1214E-06
203 SD 1		23.1640	0.1999E-07	0.1229E-06
203 SD 1		26.9410	0.1735E-07	0.1268E-06
203 SD 1		31.0090	0.1510E-07	0.1312E-06
203 SD 1		34.0000	0.1378E-07	0.1325E-06
203 SD 1		37.9340	0.1257E-07	0.1379E-06
203 SD 1		40.9210	0.1125E-07	0.1354E-06
203 SD 1		47.3730	0.9194E-08	0.1299E-06
203 SD 1		54.0770	0.1179E-08	0.1968E-07
203 SD 1		67.9670	0.6264E-08	0.1342E-06
203 SD 1		75.9240	0.5475E-08	0.1324E-06
203 SD 1		98.5070	0.4137E-08	0.1315E-06
203 SD 1		143.1000	0.2484E-08	0.1224E-06
203 SD 1		218.9130	0.1140E-08	0.1128E-06
203 SD 2		0.9240	0.1337E-04	0.2363E-05
203 SD 2		1.1460	0.1087E-04	0.2365E-05
203 SD 2		1.8730	0.6377E-05	0.2168E-05
203 SD 2		2.4390	0.4764E-05	0.2271E-05
203 SD 2		2.8770	0.3844E-05	0.2445E-05
203 SD 2		3.8620	0.2716E-05	0.2465E-05
203 SD 2		4.8720	0.2089E-05	0.2523E-05
203 SD 2		5.9770	0.1683E-05	0.2570E-05
203 SD 2		7.0660	0.1431E-05	0.2580E-05
203 SD 2		8.3200	0.1253E-05	0.2694E-05
203 SD 2		8.8740	0.1170E-05	0.2701E-05
203 SD 2		9.8620	0.9681E-06	0.2441E-05
203 SD 2		10.9230	0.9259E-06	0.2552E-05
203 SD 2		11.9050	0.8606E-06	0.2575E-05
203 SD 2		13.1710	0.8098E-06	0.2693E-05
203 SD 2		14.9140	0.7049E-06	0.2713E-05
203 SD 2		16.9590	0.6140E-06	0.2694E-05
203 SD 2		23.1640	0.4447E-06	0.2734E-05
203 SD 2		26.9410	0.3771E-06	0.2755E-05
203 SD 2		31.0090	0.3243E-05	0.2819E-05
203 SD 2		34.0000	0.2897E-06	0.2786E-05
203 SD 2		37.9340	0.2591E-06	0.2844E-05
203 SD 2		40.9210	0.2346E-06	0.2824E-05
203 SD 2		47.3720	0.1920E-06	0.2713E-05
203 SD 2		54.0740	0.1680E-06	0.2804E-05
203 SD 2		67.9680	0.1283E-06	0.2749E-05
203 SD 2		75.9260	0.1167E-06	0.2822E-05
203 SD 2		98.5070	0.8743E-07	0.2779E-05
203 SD 2		143.1000	0.5402E-07	0.2662E-05
203 SD 2		218.9140	0.2520E-07	0.2494E-05
301 OC 1	12W	7.0670	0.7496E-06	0.1386E-05
301 OC 1	12W	8.0410	0.3702E-06	0.7673E-06

TABLE 3.8 CONTINUED

SAMPLE NUMBER	SIZE	AGE (DAYS)	CORRECTED ACTIVITY (MA)	ACTIVITY AT 100 HR (MA)
301 OC 1	24W	7.0670	0.3861E-05	0.6962E-05
301 OC 1	24W	8.0410	0.3368E-05	0.6982E-05
301 OC 1	42W	7.0670	0.4555E-05	0.8212E-05
301 OC 1	42W	8.0410	0.3974E-05	0.8238E-05
301 OC 1	80W	7.0670	0.7310E-06	0.1318E-05
301 OC 1	80W	8.0420	0.6413E-06	0.1330E-05
301 OC 1	170W	7.0770	0.8325E-07	0.1503E-06
301 OC 1	170W	8.0430	0.7335E-07	0.1521E-06
301 OC 1	325W	7.0770	0.3711E-07	0.6701E-07
301 OC 1	325W	8.0430	0.3124E-07	0.6478E-07
301 OC 1	500W	8.0440	0.5356E-07	0.1111E-06
303 AOC	12W	5.9470	0.1094E-05	0.1660E-05
303 AOC	12W	7.1130	0.9330E-06	0.1693E-05
303 AOC	12W	8.3350	0.7497E-06	0.1614E-05
303 AOC	12W	9.0350	0.6869E-06	0.1617E-05
303 AOC	12W	9.8960	0.7576E-06	0.1916E-05
303 AOC	12W	10.9140	0.5975E-06	0.1645E-05
303 AOC	12W	11.8630	0.5513E-06	0.1644E-05
303 AOC	12W	13.1750	0.4959E-06	0.1650E-05
303 AOC	12W	14.8900	0.4260E-06	0.1636E-05
303 AOC	12W	16.9260	0.3716E-06	0.1627E-05
303 AOC	12W	19.9800	0.3201E-06	0.1701E-05
303 AOC	12W	23.1100	0.2658E-06	0.1630E-05
303 AOC	12W	27.0550	0.2245E-06	0.1649E-05
303 AOC	12W	31.0400	0.1929E-06	0.1678E-05
303 AOC	12W	34.0450	0.1742E-06	0.1677E-05
303 AOC	12W	37.9500	0.1514E-06	0.1663E-05
303 AOC	12W	40.9420	0.1364E-06	0.1643E-05
303 AOC	12W	47.3620	0.1143E-06	0.1614E-05
303 AOC	12W	54.0880	0.1005E-06	0.1680E-05
303 AOC	12W	67.9600	0.7301E-07	0.1564E-05
303 AOC	12W	75.9130	0.6503E-07	0.1573E-05
303 AOC	12W	98.5720	0.4773E-07	0.1518E-05
303 AOC	12W	143.1100	0.2960E-07	0.1459E-05
303 AOC	12W	218.9710	0.5298E-08	0.5246E-06
303 AOC 1	42W	5.9480	0.3957E-05	0.6005E-05

TABLE 3.8 CONTINUED

SAMPLE NUMBER	SIZE	AGE (DAYS)	CORRECTED ACTIVITY (MA)	ACTIVITY AT 100 HR (MA)
303 AOC 1	42W	7.1120	0.3391E-05	0.6081E-05
303 AOC 1	42W	8.3350	0.2900E-05	0.6244E-05
303 AOC 1	42W	9.0350	0.2698E-05	0.6351E-05
303 AOC 1	42W	9.8970	0.2509E-05	0.6346E-05
303 AOC 1	42W	10.9140	0.2273E-05	0.6260E-05
303 AOC 1	42W	11.8630	0.2089E-05	0.6229E-05
303 AOC 1	42W	13.1750	0.1909E-05	0.6350E-05
303 AOC 1	42W	14.8910	0.1690E-05	0.6490E-05
303 AOC 1	42W	16.9260	0.1504E-05	0.6586E-05
303 AOC 1	42W	19.9800	0.1396E-05	0.7414E-05
303 AOC 1	42W	23.1110	0.1136E-05	0.6965E-05
303 AOC 1	42W	27.0550	0.9807E-06	0.7203E-05
303 AOC 1	42W	31.0410	0.8518E-06	0.7414E-05
303 AOC 1	42W	34.0450	0.7707E-06	0.7421E-05
303 AOC 1	42W	34.0450	0.7707E-06	0.7421E-05
303 AOC 1	42W	37.9500	0.6814E-06	0.7482E-05
303 AOC 1	42W	40.9450	0.6234E-06	0.7508E-05
303 AOC 1	42W	47.3620	0.5238E-06	0.7401E-05
303 AOC 1	42W	54.0880	0.4543E-06	0.7584E-05
303 AOC 1	42W	67.9610	0.3466E-06	0.7426E-05
303 AOC 1	42W	75.9140	0.3131E-06	0.7572E-05
303 AOC 1	42W	98.5720	0.2337E-06	0.7434E-05
303 AOC 1	42W	143.1100	0.1513E-06	0.7456E-05
303 AOC 1	42W	218.9720	0.7178E-07	0.7108E-05
303 AOC	325W	5.9480	0.1262E-05	0.1916E-05
303 AOC	325W	7.1110	0.1018E-05	0.1847E-05
303 AOC	325W	8.3360	0.8747E-06	0.1884E-05
303 AOC	325W	9.0360	0.8227E-06	0.1937E-05
303 AOC	325W	9.8970	0.7407E-06	0.1873E-05
303 AOC	325W	10.9140	0.6589E-06	0.1815E-05
303 AOC	325W	11.8630	0.6015E-06	0.1793E-05
303 AOC	325W	13.1760	0.5383E-06	0.1791E-05
303 AOC	325W	14.8910	0.4621E-06	0.1775E-05
303 AOC	325W	16.9270	0.3925E-06	0.1719E-05
303 AOC	325W	19.9800	0.3355E-06	0.1782E-05
303 AOC	325W	23.1110	0.2739E-06	0.1680E-05
303 AOC	325W	27.0560	0.2296E-06	0.1679E-05
303 AOC	325W	31.0420	0.1928E-06	0.1678E-05
303 AOC	325W	34.0460	0.1742E-06	0.1677E-05
303 AOC	325W	37.9500	0.1498E-06	0.1645E-05
303 AOC	325W	40.9430	0.1322E-06	0.1593E-05
303 AOC	325W	47.3630	0.1109E-06	0.1567E-05
303 AOC	325W	54.0880	0.9221E-07	0.1539E-05
303 AOC	325W	67.9610	0.6864E-07	0.1471E-05
303 AOC	325W	75.9150	0.5984E-07	0.1447E-05
303 AOC	325W	98.5720	0.4330E-07	0.1377E-05
303 AOC	325W	143.1100	0.2665E-07	0.1314E-05
303 AOC	325W	219.9720	0.1251E-07	0.1239E-05
308 OC 1	12W	7.2220	0.4527E-06	0.8346E-06

TABLE 3.8 CONTINUED

SAMPLE NUMBER	SIZE	AGE (DAYS)	CORRECTED ACTIVITY (MA)	ACTIVITY AT 100 HR (MA)
305 OC 1	12W	7.9700	0.4079E-06	0.8374E-06
305 OC 1	24W	7.2220	0.2298E-05	0.4237E-05
305 OC 1	24W	7.9700	0.2147E-05	0.4407E-05
305 OC 1	42W	7.2230	0.3694E-05	0.6811E-05
305 OC 1	42W	7.9700	0.3385E-05	0.6949E-05
305 OC 1	80W	7.2230	0.1518E-06	0.2799E-06
305 OC 1	80W	7.9710	0.1342E-06	0.2756E-06
305 OC 1	170W	7.2240	0.4747E-07	0.8755E-07
305 OC 1	170W	7.9720	0.4261E-07	0.8750E-07
305 OC 1	325W	7.2250	0.2265E-07	0.4178E-07
305 OC 1	325W	7.9720	0.2013E-07	0.4133E-07
305 OC 1	500W	7.9730	0.5297E-07	0.1088E-06
401 OC 1	24W	7.1270	0.3155E-06	0.5737E-06
401 OC 1	24W	8.0090	0.2733E-06	0.5643E-06
401 OC 1	42W	7.1280	0.3469E-05	0.6310E-05
401 OC 1	42W	8.0090	0.3048E-05	0.6292E-05
401 OC 1	80W	7.1290	0.1835E-05	0.3339E-05
401 OC 1	80W	8.0090	0.1617E-05	0.3337E-05
401 OC 1	170W	7.1290	0.7840E-07	0.1426E-06
401 OC 1	170W	8.0100	0.6829E-07	0.1410E-06
401 OC 1	325W	7.1300	0.2198E-07	0.3999E-07
401 OC 1	325W	8.0110	0.1903E-07	0.3930E-07
401 OC 1	500W	8.0120	0.2787E-07	0.5756E-07
403 AOC	12W	4.2140	0.2850E-07	0.2886E-07
403 AOC	12W	5.9480	0.1187E-07	0.1802E-07
403 AOC	12W	7.1070	0.9885E-08	0.1793E-07
403 AOC	12W	9.3360	0.8000E-08	0.1723E-07
403 AOC	12W	9.0310	0.7848E-08	0.1947E-07
403 AOC	12W	9.8910	0.7200E-08	0.1820E-07

TABLE 3.8 CONTINUED

SAMPLE NUMBER	SIZE	AGE (DAYS)	CORRECTED ACTIVITY (MA)	ACTIVITY AT 100 HP (MA)
403 AOC	12W	10.9150	0.8000E-08	0.2203E-07
403 AOC	12W	11.8600	0.7188E-08	0.2142E-07
403 AOC	12W	13.1780	0.6024E-08	0.2005E-07
403 AOC	12W	14.8920	0.4616E-08	0.1773E-07
403 AOC	12W	16.9270	0.3928E-08	0.1720E-07
403 AOC	12W	19.9830	0.3222E-08	0.1712E-07
403 AOC	12W	23.1120	0.2759E-08	0.1692E-07
403 AOC	12W	27.0570	0.1962E-08	0.1441E-07
403 AOC	12W	31.0460	0.2029E-08	0.1766E-07
403 AOC	12W	34.0490	0.1926E-08	0.1758E-07
403 AOC	12W	37.9500	0.1583E-08	0.1738E-07
403 AOC	12W	40.9400	0.1344E-08	0.1619E-07
403 AOC	12W	47.3640	0.1270E-08	0.1795E-07
403 AOC	12W	54.0890	0.8000E-09	0.1335E-07
403 AOC	12W	67.9620	0.6442E-09	0.1380E-07
403 AOC 1	42W	5.9480	0.4210E-05	0.6388E-05
403 AOC 1	42W	7.1080	0.3563E-05	0.6463E-05
403 AOC 1	42W	8.3370	0.3066E-05	0.6605E-05
403 AOC 1	42W	9.0320	0.2817E-05	0.6629E-05
403 AOC 1	42W	9.8920	0.2593E-05	0.6557E-05
403 AOC 1	42W	10.9150	0.2400E-05	0.6608E-05
403 AOC 1	42W	11.8610	0.2198E-05	0.6551E-05
403 AOC 1	42W	13.1780	0.1951E-05	0.6493E-05
403 AOC 1	42W	14.8930	0.1396E-08	0.5362E-08
403 AOC 1	42W	16.9290	0.1546E-05	0.6770E-05
403 AOC 1	42W	19.9830	0.1396E-05	0.7416E-05
403 AOC 1	42W	23.1120	0.1136E-05	0.6966E-05
403 AOC 1	42W	27.0570	0.9807E-06	0.7203E-05
403 AOC 1	42W	31.0460	0.8518E-06	0.7415E-05
403 AOC 1	42W	34.0500	0.7626E-06	0.7344E-05
403 AOC 1	42W	37.9530	0.6692E-06	0.7349E-05
403 AOC 1	42W	40.9400	0.6134E-06	0.7389E-05
403 AOC 1	42W	47.3660	0.5096E-06	0.7201E-05
403 AOC 1	42W	54.0900	0.4375E-06	0.7303E-05
403 AOC 1	42W	67.9620	0.3342E-06	0.7161E-05
403 AOC 1	42W	75.9160	0.2922E-06	0.7067E-05
403 AOC 1	42W	93.5720	0.2187E-06	0.6955E-05
403 AOC 1	42W	143.1100	0.1425E-06	0.7041E-05
403 AOC 1	42W	218.9780	0.6591E-07	0.6527E-05
403 AOC	325W	4.2170	0.9355E-06	0.8468E-06
403 AOC	325W	5.9490	0.5870E-06	0.8923E-06
403 AOC	325W	7.1090	0.4833E-06	0.8767E-06
403 AOC	325W	8.3370	0.3647E-06	0.7855E-06
403 AOC	325W	9.0320	0.3730E-06	0.8779E-06
403 AOC	325W	9.8920	0.3365E-06	0.8508E-06
403 AOC	325W	10.9150	0.2943E-06	0.8105E-06
403 AOC	325W	11.8620	0.2713E-06	0.8088E-06

TABLE 3.8 CONTINUED

SAMPLE NUMBER	SIZE	AGE (DAYS)	CORRECTED ACTIVITY (MA)	ACTIVITY AT 100 HR (MA)
403 AOC	325W	13.1780	0.2396E-06	0.7974E-06
403 AOC	325W	14.8940	0.2023E-06	0.7772E-06
403 AOC	325W	16.9280	0.1752E-06	0.7672E-06
403 AOC	325W	19.9840	0.1529E-06	0.8124E-06
403 AOC	325W	23.1130	0.1213E-06	0.7441E-06
403 AOC	325W	27.0570	0.1019E-06	0.7482E-06
403 AOC	325W	31.0470	0.8893E-07	0.7743E-06
403 AOC	325W	34.0510	0.7475E-07	0.7199E-06
403 AOC	325W	37.9540	0.6477E-07	0.7113E-06
403 AOC	325W	40.9410	0.5841E-07	0.7034E-06
403 AOC	325W	47.3660	0.4739E-07	0.6697E-06
403 AOC	325W	54.0900	0.4000E-07	0.6678E-06
403 AOC	325W	67.9630	0.2899E-07	0.6212E-06
403 AOC	325W	75.9160	0.2559E-07	0.6186E-06
403 AOC	325W	98.5720	0.1805E-07	0.5743E-06
403 AOC	325W	143.1100	0.1107E-07	0.5458E-06
403 AOC	325W	218.9790	0.5299E-08	0.5247E-06
503 AOC 1	12W	5.9490	0.1440E-07	0.2186E-07
503 AOC 1	12W	7.1090	0.1158E-07	0.2101E-07
503 AOC 1	12W	8.3380	0.9500E-08	0.2047E-07
503 AOC 1	12W	9.0320	0.8824E-08	0.2077E-07
503 AOC 1	12W	9.0320	0.8824E-08	0.2077E-07
503 AOC 1	12W	9.8920	0.8084E-08	0.2044E-07
503 AOC 1	12W	10.9160	0.8253E-08	0.2273E-07
503 AOC 1	12W	11.8580	0.7188E-08	0.2142E-07
503 AOC 1	12W	13.1800	0.6788E-08	0.2259E-07
503 AOC 1	12W	14.8950	0.5264E-08	0.2022E-07
503 AOC 1	12W	16.9290	0.4555E-08	0.1995E-07
503 AOC 1	12W	23.1130	0.3246E-08	0.1991E-07
503 AOC 1	12W	27.0580	0.2575E-08	0.1892E-07
503 AOC 1	12W	31.0490	0.2272E-08	0.1978E-07
503 AOC 1	12W	34.0520	0.2110E-08	0.2032E-07
503 AOC 1	12W	37.9560	0.1826E-08	0.2006E-07
503 AOC 1	12W	40.9370	0.1618E-08	0.1948E-07
503 AOC 1	12W	47.3670	0.1463E-08	0.2067E-07
503 AOC 1	12W	54.0910	0.9684E-09	0.1617E-07
503 AOC 1	12W	67.9640	0.9912E-09	0.2124E-07
503 AOC 1	12W	75.9170	0.7522E-09	0.1819E-07
503 OC 1	12W	98.5720	0.6018E-09	0.1914E-07
503 AOC 1	12W	218.9730	0.1425E-09	0.1411E-07
503 AOC 1	42W	5.9490	0.3073E-05	0.4664E-05
503 AOC 1	42W	7.1100	0.2592E-05	0.4694E-05
503 AOC 1	42W	8.3380	0.2183E-05	0.4703E-05
503 AOC 1	42W	9.0330	0.2036E-05	0.4793E-05
503 AOC 1	42W	9.8930	0.1804E-05	0.4790E-05
503 AOC 1	42W	10.9180	0.1667E-05	0.4592E-05
503 AOC 1	42W	11.8580	0.1588E-05	0.4731E-05

TABLE 3.8 CONTINUED

SAMPLE NUMBER	SIZE	AGE (DAYS)	CORRECTED ACTIVITY (MA)	ACTIVITY AT 100 HR (MA)
503 AOC 1	42W	13.1800	0.9752E-06	0.3246E-05
503 AOC 1	42W	14.8960	0.1219E-05	0.4683E-05
503 AOC 1	42W	16.9300	0.1086E-05	0.4757E-05
503 AOC 1	42W	23.1140	0.8031E-06	0.4925E-05
503 AOC 1	42W	27.0590	0.6864E-06	0.5042E-05
503 AOC 1	42W	31.0490	0.5840E-06	0.5084E-05
503 AOC 1	42W	34.0540	0.5272E-06	0.5078E-05
503 AOC 1	42W	37.9570	0.4639E-06	0.5095E-05
503 AOC 1	42W	40.9380	0.4226E-06	0.5089E-05
503 AOC 1	42W	47.3700	0.3525E-06	0.4981E-05
503 AOC 1	42W	54.0920	0.3027E-06	0.5054E-05
503 AOC 1	42W	67.9640	0.2268E-06	0.4860E-05
503 AOC 1	42W	75.9190	0.2003E-06	0.4844E-05
503 AOC 1	42W	98.5720	0.1501E-06	0.4775E-05
503 AOC 1	42W	143.1100	0.9655E-07	0.4758E-05
503 AOC 1	42W	218.9740	0.4479E-07	0.4435E-05
503 AOC 1	325W	5.9530	0.3361E-06	0.5105E-06
503 AOC 1	325W	7.1110	0.2755E-06	0.4998E-06
503 AOC 1	325W	8.3390	0.2313E-06	0.4984E-06
503 AOC 1	325W	9.0330	0.2118E-06	0.4985E-06
503 AOC 1	325W	9.8940	0.1933E-06	0.4889E-06
503 AOC 1	325W	10.9180	0.1680E-06	0.4628E-06
503 AOC 1	325W	11.8570	0.1568E-06	0.4672E-06
503 AOC 1	325W	13.1800	0.1352E-06	0.4502E-06
503 AOC 1	325W	14.8960	0.1157E-06	0.4446E-06
503 AOC 1	325W	16.9330	0.9996E-07	0.4379E-06
503 AOC 1	325W	23.1140	0.6358E-07	0.4206E-06
503 AOC 1	325W	27.0600	0.5608E-07	0.4120E-06
503 AOC 1	325W	31.0500	0.4675E-07	0.4070E-06
503 AOC 1	325W	34.0550	0.4188E-07	0.4034E-06
503 AOC 1	325W	37.9570	0.3560E-07	0.4020E-06
503 AOC 1	325W	40.9380	0.3269E-07	0.3936E-06
503 AOC 1	325W	47.3700	0.2650E-07	0.3744E-06
503 AOC 1	325W	54.0930	0.2232E-07	0.3726E-06
503 AOC 1	325W	67.9650	0.1619E-07	0.3469E-06
503 AOC 1	325W	75.9200	0.1429E-07	0.3457E-06
503 AOC 1	325W	98.5720	0.1036E-07	0.3297E-06
503 AOC 1	325W	143.1100	0.6442E-08	0.3175E-06
503 AOC 1	325W	218.9740	0.2741E-08	0.2715E-06
507 IC 1 T		9.3470	0.1347E-08	0.3255E-08
507 IC 1 T		15.9060	0.9684E-09	0.3375E-09
507 IC 1 T		23.1240	0.7304E-09	0.4482E-09
507 IC 1 T		53.9360	0.8421E-10	0.1401E-03
507 IC 1 T		164.9240	0.	0.
507 IC 2 T		9.3470	0.1869E-05	0.4516E-05

TABLE 3.8 CONTINUED

SAMPLE NUMBER	SIZE	AGE (DAYS)	CORRECTED ACTIVITY (MA)	ACTIVITY AT 100 HR (MA)
507 IC 2 T		15.9060	0.1137E-05	0.4665E-05
507 IC 2 T		23.1250	0.8112E-06	0.4978E-05
507 IC 2 T		26.9460	0.6879E-06	0.5027E-05
507 IC 2 T		30.9730	0.5921E-06	0.5142E-05
507 IC 2 T		33.9700	0.5338E-06	0.5127E-05
507 IC 2 T		37.9580	0.4785E-06	0.5256E-05
507 IC 2 T		40.9430	0.4375E-06	0.5270E-05
507 IC 2 T		53.9370	0.2818E-06	0.4689E-05
507 IC 2 T		164.9150	0.8821E-07	0.5277E-05
507 IC 3 T		9.3480	0.4670E-06	0.1129E-05
507 IC 3 T		15.9070	0.2523E-06	0.1036E-05
507 IC 3 T		23.1250	0.1903E-06	0.1168E-05
507 IC 3 T		26.9460	0.1636E-06	0.1196E-05
507 IC 3 T		30.9730	0.1458E-06	0.1260E-05
507 IC 3 T		33.9700	0.1292E-06	0.1240E-05
507 IC 3 T		37.9580	0.1149E-06	0.1262E-05
507 IC 3 T		40.9510	0.1032E-06	0.1243E-05
507 IC 3 T		53.9370	0.7597E-07	0.1281E-05
507 IC 3 T		164.9260	0.2042E-07	0.1222E-05
507 IC 4 T		9.3480	0.2442E-08	0.5901E-08
507 IC 4 T		15.9070	0.1389E-08	0.5704E-08
507 IC 4 T		23.1260	0.1096E-08	0.6724E-08
507 IC 4 T		53.9390	0.2947E-09	0.4905E-08
507 IC 4 T		164.9280	0.1263E-09	0.7558E-08
507 IC 5 T		9.3490	0.2021E-08	0.4884E-08
507 IC 5 T		15.9080	0.1221E-08	0.5013E-08
507 IC 5 T		23.1270	0.8116E-09	0.4981E-08
507 IC 5 T		53.9380	0.2747E-09	0.4905E-08
507 IC 5 T		164.9300	0.	0.
507 IC 6 T		9.3510	0.4800E-08	0.1160E-07
507 IC 6 T		15.9080	0.1811E-08	0.7433E-09
507 IC 6 T		23.1280	0.1745E-08	0.1071E-07
507 IC 6 T		26.9520	0.1201E-08	0.8780E-08
507 IC 6 T		53.9400	0.5474E-09	0.9109E-08
507 IC 6 T		164.9320	0.1684E-09	0.1008E-07
507 IC 7 T		9.3510	0.1229E-07	0.2972E-07
507 IC 7 T		15.9090	0.7284E-08	0.2991E-07
507 IC 7 T		23.1330	0.5113E-08	0.3139E-07
507 IC 7 T		26.9560	0.4082E-08	0.2984E-07
507 IC 7 T		30.9760	0.3733E-08	0.3242E-07
507 IC 7 T		33.9730	0.3318E-08	0.3187E-07

TABLE 3.8 CONTINUED

SAMPLE NUMBER	SIZE	AGE (DAYS)	CORRECTED ACTIVITY (MA)	ACTIVITY AT 100 HR (MA)
507 IC 7 T		37.9610	0.2938E-08	0.3227E-07
507 IC 7 T		40.9480	0.2655E-08	0.3198E-07
507 IC 7 T		53.9410	0.1937E-08	0.3223E-07
507 IC 7 T		164.9340	0.5474E-09	0.3275E-07
507 IC 8 T		9.3520	0.1684E-09	0.4071E-09
507 IC 8 T		15.9090	0.9684E-09	0.3976E-08
507 IC 8 T		23.1330	0.1217E-09	0.7473E-09
507 IC 8 T		164.9360	0.	0.
507 IC 9 T		9.3530	0.1694E-09	0.4071E-09
507 IC 9 T		15.9100	0.5474E-09	0.2247E-08
507 IC 9 T		23.1330	0.8116E-10	0.4982E-09
507 IC 9 T		165.0150	0.	0.
507 IC 10 T		9.3540	0.2274E-08	0.5497E-08
507 IC 10 T		15.9100	0.1389E-08	0.5705E-08
507 IC 10 T		23.1340	0.9901E-09	0.6078E-08
507 IC 10 T		53.9450	0.3537E-09	0.5887E-08
507 IC 10 T		165.0160	0.1011E-09	0.6051E-08
507 IC 11 T		9.3540	0.1011E-08	0.2443E-08
507 IC 11 T		15.9110	0.5474E-09	0.2248E-08
507 IC 11 T		23.1340	0.6493E-09	0.3986E-08
507 IC 11 T		53.9450	0.1853E-09	0.3083E-08
507 IC 11 T		165.0160	0.	0.
507 IC 12 T		9.3540	0.8000E-09	0.1934E-08
507 IC 12 T		15.9110	0.5474E-09	0.2248E-08
507 IC 12 T		23.1350	0.4870E-09	0.2989E-08
507 IC 12 T		165.0170	0.	0.
507 IC 13 T		9.3550	0.5474E-09	0.1323E-08
507 IC 13 T		15.9200	0.5053E-09	0.2076E-08
507 IC 13 T		23.1350	0.2841E-09	0.1744E-08
507 IC 13 T		165.0180	0.	0.
507 IC 14 T		9.3530	0.4632E-09	0.1120E-08
507 IC 14 T		15.9200	0.5053E-09	0.2076E-08
507 IC 14 T		23.1360	0.2029E-09	0.1246E-08
507 IC 14 T		165.0180	0.	0.
507 IC 15 T		9.3560	0.3368E-09	0.8145E-09

TABLE 3.8 CONTINUED

SAMPLE NUMBER	SIZE	AGE (DAYS)	CORRECTED ACTIVITY (MA)	ACTIVITY AT 100 HP (MA)
507 IC 15 T		15.9210	0.5053E-09	0.2076E-08
507 IC 15 T		23.1360	0.1623E-09	0.9965E-09
507 IC 15 T		165.0190	0.	0.
507 IC 16 T		9.3560	0.3368E-09	0.8145E-09
507 IC 16 T		15.9210	0.5053E-09	0.2076E-08
507 IC 16 T		23.1370	0.1786E-09	0.1096E-08
507 IC 16 T		165.1270	0.	0.
507 IC 17 T		9.3570	0.5053E-09	0.1222E-08
507 IC 17 T		15.9210	0.5053E-09	0.2076E-08
507 IC 17 T		23.1370	0.2029E-09	0.1246E-08
507 IC 17 T		165.1280	0.	0.
507 IC 18 T		9.3570	0.5474E-09	0.1324E-08
507 IC 18 T		15.9220	0.6737E-09	0.2768E-08
507 IC 18 T		23.1380	0.2832E-09	0.1739E-08
507 IC 18 T		165.1290	0.	0.
507 IC 19 T		9.3590	0.6316E-09	0.1527E-08
507 IC 19 T		15.9220	0.9263E-09	0.3806E-08
507 IC 19 T		23.1380	0.2832E-09	0.1739E-08
507 IC 19 T		165.1300	0.	0.
507 IC 20 T		9.3580	0.1356E-07	0.3279E-07
507 IC 20 T		15.9230	0.8505E-08	0.3495E-07
507 IC 20 T		23.1390	0.5948E-08	0.3652E-07
507 IC 20 T		26.9550	0.4853E-08	0.3548E-07
507 IC 20 T		30.9780	0.4318E-08	0.3750E-07
507 IC 20 T		33.9770	0.3944E-08	0.3693E-07
507 IC 20 T		37.9630	0.3425E-08	0.3762E-07
507 IC 20 T		40.9450	0.3070E-08	0.3697E-07
507 IC 20 T		53.9500	0.2316E-08	0.3955E-07
507 IC 20 T		165.1320	0.5995E-09	0.3533E-07
507 SD 1		0.9380	0.2507E-08	0.4503E-09
507 SD 1		1.1460	0.2740E-08	0.5095E-09
507 SD 1		1.8770	0.1479E-08	0.5037E-09
507 SD 1		2.4410	0.1070E-08	0.5107E-09
507 SD 1		2.8750	0.1003E-08	0.6371E-09
507 SD 1		3.8670	0.6269E-09	0.5605E-09
507 SD 1		4.8750	0.5851E-09	0.7074E-09
507 SD 1		5.9740	0.1684E-10	0.2569E-10
507 SD 1		8.3220	0.2090E-09	0.4492E-09
507 SD 1		6.8770	0.3761E-09	0.3689E-09
507 SD 1				

TABLE 3.8 CONTINUED

SAMPLE NUMBER	SIZE	AGE (DAYS)	CORRECTED ACTIVITY (MA)	ACTIVITY AT 100 HR (MA)
507 SD 1		9.8650	0.2105E-09	0.5311E-09
507 SD 1		10.9250	0.3368E-09	0.9284E-09
507 SD 1		11.9080	0.5015E-09	0.1501E-08
507 SD 1		13.1730	0.	0.
507 SD 1		14.9170	0.1259E-09	0.4843E-09
507 SD 1		16.9610	0.	0.
507 SD 1		23.1620	0.1214E-09	0.7461E-09
507 SD 4		0.5300	0.1772E-05	0.1850E-06
507 SD 4		0.5770	0.1604E-05	0.1792E-06
507 SD 4		0.9340	0.1003E-05	0.1791E-06
507 SD 4		1.1460	0.8355E-06	0.1819E-06
507 SD 4		1.8770	0.4903E-06	0.1635E-06
507 SD 4		2.4400	0.3490E-06	0.1665E-06
507 SD 4		2.8760	0.2772E-06	0.1762E-06
507 SD 4		3.8650	0.1893E-06	0.1720E-06
507 SD 4		4.8760	0.1418E-06	0.1714E-06
507 SD 4		5.9730	0.1171E-06	0.1785E-06
507 SD 4		7.0650	0.9651E-07	0.1739E-06
507 SD 4		8.3230	0.8153E-07	0.1753E-06
507 SD 4		8.8750	0.7652E-07	0.1767E-06
507 SD 4		9.8630	0.6872E-07	0.1733E-06
507 SD 4		10.9240	0.6063E-07	0.1671E-06
507 SD 4		11.9070	0.5650E-07	0.1691E-06
507 SD 4		13.1720	0.5125E-07	0.1705E-06
507 SD 4		14.9170	0.4492E-07	0.1729E-06
507 SD 4		16.9640	0.3912E-07	0.1717E-06
507 SD 4		23.1620	0.2857E-07	0.1756E-06
507 SD 4		26.9390	0.2401E-07	0.1754E-06
507 SD 4		31.0070	0.2078E-07	0.1806E-06
507 SD 4		33.9980	0.1861E-07	0.1789E-06
507 SD 4		37.9320	0.1700E-07	0.1866E-06
507 SD 4		40.9190	0.1542E-07	0.1856E-06
507 SD 4		47.3750	0.1270E-07	0.1796E-06
507 SD 4		54.0760	0.1137E-07	0.1897E-06
507 SD 4		67.9700	0.8379E-08	0.1796E-06
507 SD 4		75.9290	0.8024E-08	0.1941E-06
507 SD 4		98.5070	0.5934E-08	0.1886E-06
507 SD 4		143.1000	0.3663E-08	0.1805E-06
507 SD 4		218.9190	0.1685E-08	0.1668E-06
601 AOC	12W	4.2370	0.1543E-06	0.1572E-06
601 AOC	12W	5.9660	0.1086E-06	0.1655E-06
601 AOC	12W	7.0970	0.8884E-07	0.1609E-06
601 AOC	12W	8.3470	0.7656E-07	0.1651E-06
601 AOC	12W	9.0410	0.7025E-07	0.1655E-06
601 AOC	12W	9.8820	0.6451E-07	0.1629E-06
601 AOC	12W	10.9050	0.5811E-07	0.1599E-06
601 AOC	12W	11.8640	0.5316E-07	0.1585E-06

TABLE 3.8 CONTINUED

SAMPLE NUMBER	SIZE	AGE (DAYS)	CORRECTED ACTIVITY (MA)	ACTIVITY AT 100 HR (MA)
601 AOC	12W	13.1920	0.4785E-07	0.1593E-06
601 AOC	12W	14.8770	0.4149E-07	0.1592E-06
601 AOC	12W	16.9340	0.3644E-07	0.1596E-06
601 AOC	12W	23.1160	0.2646E-07	0.1623E-06
601 AOC	12W	26.9570	0.2159E-07	0.1578E-06
601 AOC	12W	30.9580	0.1875E-07	0.1627E-06
601 AOC	12W	33.9530	0.1708E-07	0.1639E-06
601 AOC	12W	37.9780	0.1469E-07	0.1615E-06
601 AOC	12W	40.9710	0.1352E-07	0.1630E-06
601 AOC	12W	47.3170	0.1112E-07	0.1569E-06
601 AOC	12W	54.1090	0.9768E-08	0.1631E-06
601 AOC	12W	67.0440	0.7268E-08	0.1557E-06
601 AOC	12W	75.8880	0.6471E-08	0.1564E-06
601 AOC	12W	98.5820	0.4639E-08	0.1476E-06
601 AOC	12W	143.1230	0.2821E-08	0.1391E-06
601 AOC	12W	218.9480	0.1190E-08	0.1179E-06
601 AOC	24W	4.2380	0.6402E-07	0.6525E-07
601 AOC	24W	9.8820	0.2282E-07	0.5765E-07
601 AOC	42W	4.2780	0.5525E-07	0.5631E-07
601 AOC	42W	5.9670	0.3872E-07	0.5837E-07
601 AOC	42W	7.0980	0.3241E-07	0.5970E-07
601 AOC	42W	8.3470	0.2725E-07	0.5077E-07
601 AOC	42W	9.0410	0.2512E-07	0.5916E-07
601 AOC	42W	10.9060	0.2088E-07	0.5747E-07
601 AOC	42W	11.8640	0.1899E-07	0.5632E-07
601 AOC	42W	13.1820	0.1646E-07	0.5480E-07
601 AOC	42W	14.9790	0.1443E-07	0.5612E-07
601 AOC	42W	16.9350	0.1304E-07	0.5712E-07
601 AOC	42W	23.1160	0.9549E-08	0.3957E-07
601 AOC	42W	26.9570	0.7791E-08	0.5697E-07
601 AOC	42W	30.9610	0.6817E-08	0.5917E-07
601 AOC	42W	33.9560	0.6110E-08	0.5865E-07
601 AOC	42W	37.9910	.5397E-08	0.5933E-07
601 AOC	42W	40.9740	0.4895E-08	0.5900E-07
601 AOC	42W	47.3190	0.3999E-09	0.5644E-07
601 AOC	42W	54.1100	0.3242E-08	0.5414E-07
601 AOC	42W	67.9460	0.2478E-08	0.5308E-07
601 AOC	42W	75.8920	0.2074E-08	0.5015E-07
601 AOC	42W	98.5820	0.1770E-08	0.5531E-07
601 AOC	42W	143.1220	0.9484E-09	0.4774E-07
601 AOC	42W	218.9500	0.6036E-09	0.5976E-07
601 AOC	325W	4.2400	0.1033E-06	0.1053E-06
601 AOC	325W	5.9580	0.7159E-07	0.1091E-06
601 AOC	325W	7.0990	0.6041E-07	0.1094E-06
601 AOC	325W	8.3480	0.5023E-07	0.1094E-06

TABLE 3.8 CONTINUED

SAMPLE NUMBER	SIZE	AGE (DAYS)	CORRECTED ACTIVITY (MA)	ACTIVITY AT 100 HR (MA)
601 AOC	325W	9.0420	0.4590E-07	0.1081E-06
601 AOC	325W	9.8830	0.4177E-07	0.1055E-06
601 AOC	325W	10.9060	0.3747E-07	0.1031E-06
601 AOC	325W	11.8640	0.3410E-07	0.1017E-06
601 AOC	325W	13.1830	0.3004E-07	0.1000E-06
601 AOC	325W	14.8790	0.2546E-07	0.9767E-07
601 AOC	325W	16.9360	0.2223E-07	0.9741E-07
601 AOC	325W	23.1170	0.1578E-07	0.9680E-07
601 AOC	325W	26.9580	0.1307E-07	0.9554E-07
601 AOC	325W	30.9620	0.1104E-07	0.9591E-07
601 AOC	325W	33.9570	0.1020E-07	0.9789E-07
601 AOC	325W	37.9010	0.8603E-08	0.9431E-07
601 AOC	325W	40.9740	0.7881E-08	0.9500E-07
601 AOC	325W	47.3320	0.6488E-08	0.9160E-07
601 AOC	325W	54.1130	0.5179E-08	0.8649E-07
601 AOC	325W	67.9470	0.4047E-08	0.8670E-07
601 AOC	325W	75.8930	0.3401E-03	0.8224E-07
601 AOC	325W	98.5820	0.2591E-08	0.8243E-07
601 AOC	325W	143.1230	0.1558E-08	0.7679E-07
601 AOC	325W	218.9510	0.6455E-09	0.6391E-07
705 AOC	42W	4.1860	0.1016E-06	0.1021E-06
705 AOC	42W	5.9680	0.6905E-07	0.1052E-06
705 AOC	42W	7.1000	0.5829E-07	0.1056E-06
705 AOC	42W	9.3480	0.4981E-07	0.1075E-06
705 AOC	42W	9.0420	0.4590E-07	0.1081E-06
705 AOC	42W	10.9070	0.3789E-07	0.1043E-06
705 AOC	42W	11.8670	0.3519E-07	0.1049E-06
705 AOC	42W	13.1830	0.3173E-07	0.1057E-06
705 AOC	42W	14.8800	0.2739E-07	0.1051E-06
705 AOC	42W	16.9360	0.2407E-07	0.1055E-06
705 AOC	42W	23.1170	0.1805E-07	0.1107E-06
705 AOC	42W	26.9580	0.1526E-07	0.1116E-06
705 AOC	42W	30.9630	0.1371E-07	0.1155E-06
705 AOC	42W	33.9590	0.1222E-07	0.1173E-06
705 AOC	42W	37.9820	0.1039E-07	0.1142E-06
705 AOC	42W	40.9750	0.9541E-08	0.1150E-06
705 AOC	42W	47.3330	0.8047E-08	0.1136E-06
705 AOC	42W	54.1150	0.6863E-08	0.1146E-06
705 AOC	42W	67.9480	0.5162E-08	0.1106E-06
705 AOC	42W	75.8940	0.4563E-08	0.1103E-06
705 AOC	42W	98.5820	0.3494E-08	0.1111E-06
705 AOC	42W	143.1230	0.2232E-08	0.1100E-06
705 AOC	42W	218.9520	0.9908E-09	0.9711E-07
705 AOC	80W	4.1870	0.1404E-05	0.1411E-05
705 AOC	80W	5.9690	0.9423E-06	0.1436E-05
705 AOC	80W	7.1010	0.8058E-06	0.1460E-05
705 AOC	80W	9.3490	0.7143E-06	0.1541E-05

TABLE 3.8 CONTINUED

SAMPLE NUMBER	SIZE	AGE (DAYS)	CORRECTED ACTIVITY (MA)	ACTIVITY AT 100 HR (MA)
705 AOC	80W	9.0420	0.6615E-06	0.1558E-05
705 AOC	80W	9.8840	0.6060E-06	0.1531E-05
705 AOC	80W	10.9070	0.5469E-06	0.1505E-05
705 AOC	80W	11.8680	0.5095E-06	0.1520E-05
705 AOC	80W	13.1850	0.4348E-06	0.1447E-05
705 AOC	80W	14.8800	0.4027E-06	0.1545E-05
705 AOC	80W	16.9370	0.3591E-06	0.1573E-05
705 AOC	80W	23.1180	0.2666E-06	0.1636E-05
705 AOC	80W	26.9580	0.2253E-06	0.1647E-05
705 AOC	80W	30.9640	0.1985E-06	0.1723E-05
705 AOC	80W	33.9590	0.1818E-06	0.1745E-05
705 AOC	80W	37.9820	0.1579E-06	0.1736E-05
705 AOC	80W	40.9750	0.1417E-06	0.1708E-05
705 AOC	80W	47.3340	0.1184E-06	0.1672E-05
705 AOC	80W	54.1160	0.1007E-06	0.1682E-05
705 AOC	80W	67.9490	0.8227E-07	0.1762E-05
705 AOC	80W	75.8960	0.7185E-07	0.1737E-05
705 AOC	80W	98.5820	0.5466E-07	0.1739E-05
705 AOC	80W	143.1230	0.3423E-07	0.1687E-05
705 AOC	80W	219.9520	0.1645E-07	0.1628E-05
705 AOC	170W	4.1870	0.5265E-05	0.5294E-05
705 AOC	325W	4.1870	0.2503E-06	0.2517E-06
705 AOC	325W	5.9700	0.1760E-06	0.2683E-06
705 AOC	325W	7.1020	0.1440E-06	0.2609E-06
705 AOC	325W	8.3500	0.1209E-06	0.2608E-06
705 AOC	325W	9.0430	0.1125E-06	0.2651E-06
705 AOC	325W	9.8850	0.1007E-06	0.2545E-06
705 AOC	325W	10.9070	0.9221E-07	0.2538E-06
705 AOC	325W	11.8680	0.8224E-07	0.2453E-06
705 AOC	325W	13.1840	0.7187E-07	0.2393E-06
705 AOC	325W	14.8810	0.6181E-07	0.2372E-06
705 AOC	325W	16.9380	0.5257E-07	0.2304E-06
705 AOC	325W	23.1180	0.3601E-07	0.2209E-06
705 AOC	325W	26.9590	0.2954E-07	0.2160E-06
705 AOC	325W	30.9640	0.2483E-07	0.2156E-06
705 AOC	325W	33.9600	0.2234E-07	0.2144E-06
705 AOC	325W	37.9830	0.1915E-07	0.2106E-06
705 AOC	325W	40.9760	0.1742E-07	0.2100E-06
705 AOC	325W	47.3340	0.1385E-07	0.1956E-06
705 AOC	325W	54.1170	0.1145E-07	0.1913E-06
705 AOC	325W	67.9490	0.8755E-08	0.1876E-06
705 AOC	325W	75.8970	0.7301E-08	0.1765E-06
705 AOC	325W	98.5920	0.5516E-08	0.1755E-06
705 AOC	325W	143.1230	0.3368E-08	0.1660E-06
705 AOC	325W	218.9530	0.1610E-08	0.1594E-06
813 LAC		2.9880	0.2404E-06	0.1540E-06

TABLE 3.8 CONTINUED

SAMPLE NUMBER	SIZE	AGE (DAYS)	CORRECTED ACTIVITY (MA)	ACTIVITY AT 100 HR (MA)
813 LAC		4.8890	0.1401E-06	0.1700E-06
813 LAC		8.8720	0.7050E-07	0.1628E-06
813 LAC		9.8660	0.6156E-07	0.1553E-06
813 LAC		10.9250	0.5280E-07	0.1455E-06
813 LAC		11.9080	0.4814E-07	0.1441E-06
813 LAC		13.1730	0.4107E-07	0.1366E-06
813 LAC		14.9100	0.3409E-07	0.1311E-06
813 LAC		16.9570	0.2808E-07	0.1232E-06
813 LAC		23.1650	0.1780E-07	0.1094E-06
813 LAC		26.9440	0.1467E-07	0.1072E-06
813 LAC		31.0130	0.1201E-07	0.1044E-06
813 LAC		34.0050	0.1056E-07	0.1015E-06
813 LAC		37.9380	0.8702E-08	0.9552E-07
813 LAC		40.9240	0.7917E-08	0.9530E-07
813 LAC		47.3840	0.6210E-08	0.8779E-07
813 LAC		54.0780	0.4968E-08	0.8292E-07
813 LAC		67.9720	0.3236E-08	0.6934E-07
813 LAC		75.9330	0.2675E-08	0.6470E-07
813 LAC		98.5190	0.1881E-08	0.5979E-07
813 LAC		143.1000	0.1221E-08	0.6018E-07
813 LAC		218.9220	0.3856E-09	0.3817E-07
815 LAC	12W	6.1140	0.2123E-07	0.3313E-07
815 LAC	12W	8.3430	0.1538E-07	0.3315E-07
815 LAC	12W	9.0440	0.1366E-07	0.3218E-07
815 LAC	12W	9.8800	0.1229E-07	0.3105E-07
815 LAC	12W	10.9080	0.1095E-07	0.3013E-07
815 LAC	12W	11.8690	0.1036E-07	0.3091E-07
815 LAC	12W	13.1940	0.8230E-08	0.2740E-07
815 LAC	12W	14.8810	0.7061E-08	0.2710E-07
815 LAC	12W	16.9390	0.5809E-08	0.2546E-07
815 LAC	12W	23.1190	0.3739E-08	0.2294E-07
815 LAC	12W	26.9610	0.3003E-08	0.2196E-07
815 LAC	12W	30.9660	0.2394E-08	0.2078E-07
815 LAC	12W	33.9630	0.2104E-08	0.2020E-07
815 LAC	12W	37.9850	0.1786E-08	0.1963E-07
815 LAC	12W	40.9780	0.1593E-08	0.1920E-07
815 LAC	12W	47.3350	0.1337E-08	0.1888E-07
815 LAC	12W	54.1050	0.9634E-09	0.1617E-07
815 LAC	12W	67.9390	0.6442E-09	0.1380E-07
815 LAC	24W	6.1150	0.2683E-07	0.4188E-07
815 LAC	24W	9.3430	0.1889E-07	0.4072E-07
815 LAC	24W	9.0440	0.1748E-07	0.4118E-07
815 LAC	24W	9.8800	0.1566E-07	0.3956E-07
815 LAC	24W	10.9080	0.1389E-07	0.3924E-07
815 LAC	24W	11.8690	0.1220E-07	0.3640E-07

TABLE 3.8 CONTINUED

SAMPLE NUMBER	SIZE	AGE (DAYS)	CORRECTED ACTIVITY (MA)	ACTIVITY AT 100 HR (MA)
815 LAC	24W	13.1940	0.1052E-07	0.3503E-07
815 LAC	24W	14.8820	0.8329E-08	0.3196E-07
815 LAC	24W	16.9400	0.7522E-08	0.3297E-07
815 LAC	24W	23.1190	0.4020E-08	0.3018E-07
815 LAC	24W	26.9620	0.3936E-08	0.2879E-07
815 LAC	24W	30.9680	0.3246E-08	0.2818E-07
815 LAC	24W	33.9650	0.2832E-08	0.2720E-07
815 LAC	24W	37.9570	0.2394E-08	0.2633E-07
815 LAC	24W	40.9000	0.2157E-08	0.2600E-07
815 LAC	24W	47.3370	0.1780E-08	0.2514E-07
815 LAC	24W	54.1060	0.1170E-08	0.1969E-07
815 LAC	24W	67.9400	0.9673E-09	0.1858E-07
815 LAC	42W	6.1150	0.5333E-07	0.8323E-07
815 LAC	42W	8.3440	0.3828E-07	0.8253E-07
815 LAC	42W	9.0440	0.3487E-07	0.8216E-07
815 LAC	42W	9.8810	0.3124E-07	0.7891E-07
815 LAC	42W	10.9080	0.2821E-07	0.7765E-07
815 LAC	42W	11.8700	0.2558E-07	0.7629E-07
815 LAC	42W	13.1950	0.2240E-07	0.7459E-07
815 LAC	42W	14.8840	0.1891E-07	0.7258E-07
815 LAC	42W	16.9410	0.1680E-07	0.7363E-07
815 LAC	42W	23.1210	0.1157E-07	0.7100E-07
815 LAC	42W	26.9670	0.9577E-08	0.7004E-07
815 LAC	42W	30.9700	0.7791E-08	0.6765E-07
815 LAC	42W	33.9670	0.7162E-08	0.6878E-07
815 LAC	42W	37.9900	0.6249E-08	0.6871E-07
815 LAC	42W	40.9820	0.5641E-08	0.6801E-07
815 LAC	42W	47.3430	0.3970E-08	0.5607E-07
815 LAC	42W	54.1070	0.3621E-08	0.6047E-07
815 LAC	42W	67.9410	0.2684E-08	0.5750E-07
815 LAC	42W	75.8080	0.2240E-08	0.5416E-07
815 LAC	42W	99.5830	0.1830E-08	0.5850E-07
815 LAC	42W	143.1230	0.1005E-08	0.5396E-07
815 LAC	42W	218.0540	0.6036E-09	0.5976E-07
815 LAC	80W	6.1150	0.2504E-06	0.3908E-06
815 LAC	80W	8.7450	0.1835E-06	0.3958E-06
815 LAC	80W	9.0450	0.1719E-06	0.4050E-06
815 LAC	80W	9.8810	0.1524E-07	0.3850E-07
815 LAC	80W	10.9090	0.1427E-06	0.3929E-06
815 LAC	80W	11.8700	0.1292E-06	0.3859E-06
815 LAC	80W	13.1850	0.1166E-06	0.3882E-06
815 LAC	80W	14.8850	0.9875E-07	0.3791E-06
815 LAC	80W	16.9410	0.8743E-07	0.3832E-06
815 LAC	80W	23.1220	0.6329E-07	0.3883E-06
815 LAC	80W	26.9630	0.5259E-07	0.3846E-06
815 LAC	80W	30.9710	0.4553E-07	0.3953E-06
815 LAC	80W	33.9680	0.4095E-07	0.3933E-06

TABLE 3.8 CONTINUED

SAMPLE NUMBER	SIZE	AGE (DAYS)	CORRECTED ACTIVITY (MA)	ACTIVITY AT 100 HR (MA)
815 LAC	80W	37.9910	0.3620E-07	0.3980E-06
815 LAC	80W	40.9830	0.3277E-07	0.3951E-06
815 LAC	80W	47.3460	0.2708E-07	0.3825E-06
815 LAC	80W	54.1090	0.2324E-07	0.3881E-06
815 LAC	80W	67.9420	0.1784E-07	0.3822E-06
815 LAC	80W	75.8990	0.1543E-07	0.3731E-06
815 LAC	80W	98.5820	0.1179E-07	0.3749E-06
815 LAC	80W	143.1230	0.7789E-08	0.3840E-06
815 LAC	80W	218.9550	0.3412E-08	0.3378E-06
815 LAC	170W	6.1160	0.2549E-05	0.3979E-05
815 LAC	170W	8.3450	0.1922E-05	0.4144E-05
815 LAC	170W	9.0450	0.1798E-05	0.4238E-05
815 LAC	170W	9.8820	0.1684E-05	0.4254E-05
815 LAC	170W	10.9090	0.1515E-05	0.4171E-05
815 LAC	170W	11.8700	0.1404E-05	0.4188E-05
815 LAC	170W	13.1850	0.1272E-05	0.4236E-05
815 LAC	170W	14.8860	0.1093E-05	0.4195E-05
815 LAC	170W	16.9420	0.9859E-06	0.4321E-05
815 LAC	170W	23.1220	0.7320E-06	0.4491E-05
815 LAC	170W	26.9640	0.6165E-06	0.4509E-05
815 LAC	170W	30.9710	0.5353E-06	0.4648E-05
815 LAC	170W	33.9690	0.4812E-06	0.4621E-05
815 LAC	170W	37.9910	0.4298E-06	0.4726E-05
815 LAC	170W	40.9840	0.3805E-06	0.4696E-05
815 LAC	170W	47.3460	0.3257E-06	0.4600E-05
815 LAC	170W	54.1080	0.2776E-06	0.4635E-05
815 LAC	170W	67.9430	0.2161E-06	0.4628E-05
815 LAC	170W	75.9000	0.1905E-06	0.4606E-05
815 LAC	170W	98.5820	0.1434E-06	0.4563E-05
815 LAC	170W	143.1230	0.8813E-07	0.4344E-05
815 LAC	170W	218.9550	0.4369E-07	0.4326E-05
815 LAC	325W	6.1160	0.2148E-05	0.3353E-05
815 LAC	325W	8.3460	0.1588E-05	0.3424E-05
815 LAC	325W	9.0450	0.1510E-05	0.3558E-05
815 LAC	325W	9.8820	0.1389E-05	0.3509E-05
815 LAC	325W	10.9070	0.1263E-05	0.3475E-05
815 LAC	325W	11.8700	0.1128E-05	0.3365E-05
815 LAC	325W	13.1860	0.1010E-05	0.3364E-05
815 LAC	325W	14.8860	0.8573E-06	0.3291E-05
815 LAC	325W	16.9430	0.7853E-06	0.3442E-05
815 LAC	325W	23.1230	0.5564E-06	0.3414E-05
815 LAC	325W	26.9640	0.4623E-06	0.3391E-05
815 LAC	325W	30.9720	0.3957E-06	0.3436E-05
815 LAC	325W	33.9690	0.3517E-06	0.3378E-05
815 LAC	325W	37.9910	0.3031E-06	0.3388E-05
815 LAC	325W	40.9840	0.2734E-06	0.3296E-05
815 LAC	325W	47.3470	0.2254E-06	0.3184E-05

TABLE 3.8 CONTINUED

SAMPLE NUMBER	SIZE	AGE (DAYS)	CORRECTED ACTIVITY (MA)	ACTIVITY AT 100 HR (MA)
815 LAC	325W	54.1090	0.1917E-06	0.3201E-05
815 LAC	325W	67.9430	0.1442E-06	0.3089E-05
815 LAC	325W	75.9000	0.1241E-06	0.3001E-05
815 LAC	325W	98.5820	0.9161E-07	0.2914E-05
815 LAC	325W	143.1230	0.5697E-07	0.2808E-05
815 LAC	325W	218.9560	0.2634E-07	0.2608E-05
815 LAC	40W	7.0800	0.9696E-08	0.1751E-07
815 LAC	30W	7.0800	0.8860E-08	0.1600E-07
815 LAC	20W	7.0800	0.7857E-08	0.1419E-07
815 LAC	10W	7.0810	0.6352E-08	0.1148E-07
815 LAC	5W	7.0820	0.4472E-08	0.8080E-08
815 LAC	3W	7.0840	0.3218E-08	0.5816E-08
815 LAC	1W	7.0850	0.1881E-08	0.3400E-08
820 LAC	7W	13.0590	0.5557E-09	0.1831E-08
820 LAC	7W	15.0460	0.2090E-09	0.8123E-09
820 LAC	12W	13.0610	0.3477E-07	0.1146E-06
820 LAC	12W	15.0460	0.3017E-07	0.1173E-06
820 LAC	24W	13.0610	0.1590E-07	0.5241E-07
820 LAC	24W	15.0470	0.1346E-07	0.5231E-07
820 LAC	42W	13.0620	0.9918E-08	0.3269E-07
820 LAC	42W	15.0470	0.8024E-08	0.3119E-07
820 LAC	80W	13.0620	0.2274E-07	0.7495E-07
820 LAC	80W	15.0470	0.1931E-07	0.7506E-07
820 LAC	170W	13.0630	0.3288E-06	0.1084E-05
820 LAC	170W	15.0470	0.2838E-06	0.1103E-05

TABLE 3.8 CONTINUED

SAMPLE NUMBER	SIZE	AGE (DAYS)	CORRECTED ACTIVITY (MA)	ACTIVITY AT 100 HR (MA)
820 LAC	325W	13.0640	0.4767E-06	0.1571E-05
820 LAC	325W	15.0480	0.4092E-06	0.1591E-05
821 LAC	12W	13.0770	0.2137E-09	0.7053E-09
821 LAC	12W	15.0330	0.2526E-09	0.9812E-09
821 LAC	24W	13.0780	0.1240E-08	0.4091E-08
821 LAC	24W	15.0350	0.1179E-08	0.4580E-08
821 LAC	42W	13.0780	0.2052E-08	0.6772E-08
821 LAC	42W	15.0360	0.1684E-08	0.6543E-08
821 LAC	80W	13.0790	0.5985E-08	0.1975E-07
821 LAC	80W	15.0370	0.5305E-08	0.2061E-07
821 LAC	170W	13.0800	0.9541E-07	0.3149E-06
821 LAC	170W	15.0370	0.8387E-07	0.3259E-06
821 LAC	325W	13.0810	0.2305E-06	0.7609E-06
821 LAC	325W	15.0370	0.1976E-06	0.7675E-06

TABLE 3.9 SHELTER DECAYS

Age (days)	T1B Reading (mr/hr)	Normalized Reading
100 (S1S) SD-1		
0.013	42000	423
0.014	40000	390
0.014	39000	378
0.015	33000	355
0.016	34000	324
0.017	32000	300
0.017	30000	276
0.018	28500	262
0.020	26000	230
0.021	23000	203
0.026	19000	166
0.027	17000	149
0.028	16000	140
0.030	14000	121
0.031	13500	116
0.033	11500	99
0.034	10500	90
0.036	10000	86
0.038	9000	70
0.040	9000	70
0.041	8000	63
0.044	7000	55
0.047	6000	47
0.049	5500	43
0.050	5000	39
0.054	4450	35
0.055	4150	32
0.058	3900	30
0.069	3750	21
0.074	2350	18
0.079	2150	17
0.084	1950	15
0.090	1700	13
0.096	1500	12
0.106	1300	10
0.115	1150	9.0
0.123	1050	8.2
0.131	1000	7.8
0.135	995	7.8
0.145	900	7.0
0.148	920	7.2
0.151	800	6.3
0.163	800	6.3
0.183	800	6.3
0.200	620	4.8
0.202	600	4.7
0.222	550	4.3
203 (S2) SD-1		
0.009	12000	398
0.015	9000	299
0.016	8500	282
0.017	6000	199
0.032	2800	93
0.046	1600	53
0.066	550	18
0.102	335	11.1
0.146	205	6.8
0.212	130	4.3
507 (S5) SD-3		
0.028	8000	114
0.029	7000	100
0.033	6500	92.8
0.033	6000	85.5
0.043	4000	57.1
0.045	3600	51.4
0.051	2900	41.4
0.054	2700	38.6
0.056	2500	35.7
0.057	2400	34.3
0.058	2300	32.9
0.059	2200	31.4
0.114	650	9.28
0.121	600	8.57
0.126	550	7.86
0.146	460	6.57
0.208	310	4.43
0.250	260	3.71
507 (S5) SD-4		
0.061	1500	35.8
0.062	1200	28.6
0.067	1050	25.1
0.087	550	13.1
0.100	470	11.2
0.113	400	9.55
0.146	280	6.68
0.208	190	4.53
0.250	150	3.58

TABLE 3.10 GAMMA ACTIVITY AND GROSS MASS OF DEBRIS COLLECTED

SAMPLE NUMBER	ACTIVITY AT 100 HR (C/M)	EMPTY COLLECTOR ACTIVITY AT 100 HR (C/M)	WEIGHT RECOVERED (GRAMS)	ACTIVITY CONCENTRATION (C/M/SQ.FT)	MASS CONCENTRATION (GRAMS/SQ.FT)	SPECIFIC ACTIVITY (C/M/GRAMS)	ESTIMATED FISSION CONCENTRATION (FISSIONS/SQ.FT)
101 AO 1	5132911.	34063.	10.2060	1295728.	2.5500	0.5081E 06	0.6168E 15
101 AO 2	5063728.	29673.	9.5800	1265932.	2.3950	0.5286E 06	0.6026E 15
101 AO 3	4787065.	18425.	8.2060	1196766.	2.0500	0.5838E 06	0.5697E 15
101 AO 4	5066970.	12811.	12.9500	1266743.	3.2375	0.3913E 06	0.6030E 15
101 AO 5	10392117.	0.	0.	2598029.	0.	0.	0.1237E 16
101 AO 6	5169527.	18602.	11.9700	1292381.	2.9925	0.4319E 06	0.6152E 15
101 AO 7	8825337.	1621[illegible]	11.9653	2206334.	2.9913	0.7376E 06	0.1050E 16
101 AO 8	4913965.	22585.	9.5356	1228491.	2.3839	0.5153E 06	0.5848E 15
101 AO 9	8687457.	10008.	13.4828	2171864.	3.3707	0.6443E 06	0.1034E 16
101 AO 10	9206410.	24546.	12.4493	2301602.	3.1123	0.7395E 06	0.1096E 16
200 AO 1	50739.	4502.	1.0068	12685.	0.2502	0.5070E 05	0.6038E 13
200 AO 2	34321.	-0.	0.6974	8580.	0.1743	0.4921E 05	0.4084E 13
200 AO 3	30912.	2389.	0.6560	7728.	0.1640	0.4712E 05	0.3679E 13
200 AO 4	31137.	3655.	0.3708	7784.	0.0927	0.8397E 05	0.3705E 13
200 AO 5	63387.	0.	0.	15847.	0.	0.	0.7543E 13
200 AO 6	46573.	3140.	0.4247	11643.	0.1062	0.1097E 06	0.5542E 13
200 AO 7	43079.	3807.	0.5192	10770.	0.1298	0.8297E 05	0.5126E 13
200 AO 8	41214.	-0.	0.3560	10303.	0.0890	0.1158E 06	0.4904E 13
200 AO 9	46451.	0.	0.	11613.	0.	0.	0.5528E 13
200 AO 10	36356.	2301.	2.2528	9091.	0.5632	0.1614E 05	0.4328E 13
201 AO 1	4098364.	61230.	2.7500	1024591.	0.6875	0.1490E 07	0.4877E 15
201 AO 2	3951947.	54147.	3.0000	987987.	0.7500	0.1317E 07	0.4703E 15
201 AO 3	4130317.	55714.	3.1000	1032579.	0.7750	0.1332E 07	0.4915E 15
201 AO 4	2934211.	38099.	3.1800	733553.	0.7950	0.9227E 06	0.3492E 15
201 AO 5	3622967.	0.	0.	905742.	0.	0.	0.4311E 15
201 AO 6	3713907.	43541.	2.7000	928477.	0.6750	0.1376E 07	0.4420E 15
201 AO 7	3178359.	39827.	4.0000	794590.	1.0000	0.7946E 06	0.3782E 15
201 AO 8	3207702.	35483.	3.6500	801925.	0.9125	0.8788E 06	0.3817E 15
201 AO 9	2850231.	39747.	4.3200	712558.	1.0800	0.6598E 06	0.3392E 15
201 AO 10	3167374.	-0.	5.3500	791844.	1.3375	0.5920E 06	0.3769E 15
300 AO 1	8212.	0.	0.	2053.	0.	0.	0.9772E 12
300 AO 2	8256.	0.	0.	2064.	0.	0.	0.9827E 12
300 AO 3	10132.	0.	0.	2533.	0.	0.	0.1206E 13
300 AO 4	7423.	0.	0.	1856.	0.	0.	0.8833E 12
300 AO 5	11209.	0.	0.	2802.	0.	0.	0.1334E 13
300 AO 6	9403.	0.	0.	2351.	0.	0.	0.1119E 13
300 AO 7	11417.	1649.	0.3008	2854.	0.0752	0.3796E 05	0.1359E 13
300 AO 8	13390.	0.	0.	3347.	0.	0.	0.1593E 13
300 AO 9	10104.	-0.	0.2700	2526.	0.0675	0.3742E 05	0.1202E 13
301 AO 1	2913921.	112028.	2.0990	728480.	0.5247	0.1338E 07	0.3468E 15
301 AO 2	2371579.	122725.	2.1013	592895.	0.5253	0.1129E 07	0.2822E 15
301 AO 3	2250156.	156757.	2.1261	562539.	0.5315	0.1058E 07	0.2678E 15

TABLE 3.10 CONTINUED

SAMPLE NUMBER	ACTIVITY AT 100 HR (C/M)	EMPTY COLLECTOR ACTIVITY AT 100 HR (C/M)	WEIGHT RECOVERED (GRAMS)	ACTIVITY CONCENTRATION (C/M/SQ.FT)	MASS CONCENTRATION (GRAMS/SQ.FT)	SPECIFIC ACTIVITY (C/M/GRAMS)	ESTIMATED FISSION CONCENTRATION (FISSIONS/SQ.FT)
301 AO 4	2130970.	99757.	1.9004	532742.	0.4751	0.1121E 07	0.2536E 15
301 AO 5	3112570.	0.	0.	778142.	0.	0.	0.3704E 15
301 AO 6	3106085.	10024.	2.0681	776521.	0.5170	0.1502E 07	0.3696E 15
301 AO 7	3382237.	92452.	2.2010	845559.	0.5502	0.1537E 07	0.4025E 15
301 AO 8	2249130.	99250.	2.2057	562283.	0.5514	0.1020E 07	0.2676E 15
301 AO 9	3211106.	92921.	2.3968	802777.	0.5992	0.1340E 07	0.3821E 15
301 AO 10	3612659.	90890.	3.0986	903165.	0.7746	0.1166E 07	0.4299E 15
303 AO 1	1567119.	83445.	2.2500	391780.	0.5625	0.6965E 06	0.1865E 15
303 AO 2	3322064.	70898.	2.2500	830516.	0.5625	0.1476E 07	0.3953E 15
303 AO 3	3269080.	56966.	2.2500	817270.	0.5625	0.1453E 07	0.3890E 15
303 AO 4	3358519.	60345.	2.3000	839630.	0.5750	0.1460E 07	0.3997E 15
303 AO 5	2082532.	0.	0.	520633.	0.	0.	0.2478E 15
303 AO 6	3547850.	56782.	2.4500	886963.	0.6125	0.1448E 07	0.4222E 15
303 AO 7	3485433.	59707.	2.6000	871358.	0.6500	0.1341E 07	0.4148E 15
303 AO 8	3217664.	0.	0.	804416.	0.	0.	0.3829E 15
303 AO 9	3335896.	-0.	2.4600	833974.	0.6150	0.1356E 07	0.3970E 15
305 AO 1	1146328.	32081.	1.3000	286582.	0.3250	0.8818E 06	0.1364E 15
305 AO 2	1335637.	33133.	1.8800	333909.	0.4700	0.7104E 06	0.1589E 15
305 AO 3	2138194.	34216.	1.4000	534549.	0.3500	0.1527E 07	0.2544E 15
305 AO 4	1372231.	41904.	1.5500	343058.	0.3875	0.8853E 06	0.1633E 15
305 AO 5	2075931.	0.	0.	518983.	0.	0.	0.2470E 15
305 AO 6	1377347.	36761.	1.3500	344337.	0.3375	0.1020E 07	0.1639E 15
305 AO 7	1677333.	75854.	1.4565	419333.	0.3641	0.1152E 07	0.1996E 15
305 AO 8	2312545.	-0.	1.2561	578136.	0.3140	0.1841E 07	0.2752E 15
305 AO 9	2123895.	0.	1.6200	530974.	0.4050	0.1311E 07	0.2527E 15
305 AO 10	1991321.	36777.	2.2189	497830.	0.5547	0.8974E 06	0.2370E 15
307 AO 1	9089.	0.	0.	2272.	0.	0.	0.1082E 13
307 AO 2	8325.	0.	0.	2081.	0.	0.	0.9907E 12
307 AO 3	7291.	0.	0.	1823.	0.	0.	0.8677E 12
307 AO 4	10037.	0.	0.	2509.	0.	0.	0.1194E 13
307 AO 5	10222.	0.	0.	2556.	0.	0.	0.1218E 13
307 AO 6	5363.	0.	0.	1341.	0.	0.	0.6382E 12
307 AO 7	11944.	0.	0.	2986.	0.	0.	0.1421E 13
307 AO 8	8603.	0.	0.	2151.	0.	0.	0.1024E 13
307 AO 9	7589.	0.	0.	1897.	0.	0.	0.9031E 12
307 AO 10	5492.	0.	0.	1373.	0.	0.	0.6535E 12
400 AO 1	20266.	6403.	0.1043	5066.	0.0261	0.1943E 06	0.2412E 13
400 AO 2	12267.	0.	0.	3067.	0.	0.	0.1460E 13
400 AO 3	16159.	0.	0.	4040.	0.	0.	0.1923E 13
400 AO 4	10244.	0.	0.	2561.	0.	0.	0.1219E 13
400 AO 5	15995.	0.	0.	3999.	0.	0.	0.1903E 13
400 AO 6	13316.	0.	0.	3329.	0.	0.	0.1584E 13

TABLE 3.10 CONTINUED

SAMPLE NUMBER	ACTIVITY AT 100 HR (C/M)	EMPTY COLLECTOR ACTIVITY AT 100 HR (C/M)	WEIGHT RECOVERED (GRAMS)	ACTIVITY CONCENTRATION (C/M/SQ.FT)	MASS CONCENTRATION (GRAMS/SQ.FT)	SPECIFIC ACTIVITY (C/M/GRAMS)	ESTIMATED FISSION CONCENTRATION (FISSIONS/SQ.FT)
400 AO 7	15834.	0.	0.	3958.	0.	0.	0.1884E 13
400 AO 8	12374.	0.	0.	3093.	0.	0.	0.1472E 13
400 AO 9	13638.	-0.	0.1800	3410.	0.0450	0.7577E 05	0.1623E 13
401 AO 1	1697405.	51604.	1.9130	424351.	0.4782	0.8873E 06	0.2020E 15
401 AO 2	1712289.	58007.	1.8433	428072.	0.4608	0.9289E 06	0.2038E 15
401 AO 3	1677303.	64406.	1.6883	419326.	0.4221	0.9935E 06	0.1996E 15
401 AO 4	1493615.	51472.	1.8287	373404.	0.4572	0.8168E 06	0.1777E 15
401 AO 5	1680205.	0.	0.	420051.	0.	0.	0.1999E 15
401 AO 6	1740663.	50012.	1.8308	435166.	0.4577	0.9508E 06	0.2071E 15
401 AO 7	1746345.	71033.	1.9596	436586.	0.4899	0.8912E 06	0.2078E 15
401 AO 8	2100559.	0.	0.	525140.	0.	0.	0.2500E 15
401 AO 9	2193642.	0.	2.6800	548411.	0.6700	0.8185E 06	0.2610E 15
401 AO 10	1801184.	43590.	2.2973	450296.	0.5743	0.7840E 06	0.2143E 15
403 AO 1	2192199.	73658.	1.7500	548050.	0.4375	0.1253E 07	0.2609E 15
403 AO 2	1379214.	61058.	1.8500	344803.	0.4625	0.7455E 06	0.1641E 15
403 AO 3	2170108.	58659.	1.8800	542527.	0.4700	0.1154E 07	0.2582E 15
403 AO 4	2342736.	69321.	1.8398	585684.	0.4599	0.1273E 07	0.2788E 15
403 AO 5	3297214.	0.	0.	824304.	0.	0.	0.3924E 15
403 AO 6	3199383.	71289.	2.0000	799846.	0.5000	0.1600E 07	0.3807E 15
403 AO 7	3309286.	43196.	4.1500	827321.	1.0375	0.7974E 06	0.3938E 15
403 AO 8	3186891.	50738.	1.9500	796723.	0.4875	0.1634E 07	0.3792E 15
403 AO 9	3073291.	50073.	2.1000	768323.	0.5250	0.1463E 07	0.3657E 15
403 AO 10	3433892.	66023.	2.3000	858473.	0.5750	0.1493E 07	0.40[illegible]6E 15
405 AO 1	550968.	31459.	0.7631	137742.	0.1908	0.7220E 06	0.6557E 14
405 AO 2	569593.	34103.	0.7472	142398.	0.1868	0.7623E 06	0.6778E 14
405 AO 3	502482.	31400.	0.7740	125621.	0.1935	0.6492E 06	0.5980E 14
405 AO 4	491172.	30207.	0.7387	122793.	0.1847	0.6649E 06	0.5845E 14
405 AO 5	770553.	0.	0.	192638.	0.	0.	0.9170E 14
405 AO 6	666610.	0.	0.	166653.	0.	0.	0.7933E 14
405 AO 7	404113.	0.	0.8900	101028.	0.2225	0.4541E 06	0.4809E 14
405 AO 8	807329.	-0.	0.5963	201832.	0.1491	0.1354E 07	0.9607E 14
405 AO 9	757626.	0.	1.3800	189406.	0.3450	0.5490E 06	0.9016E 14
405 AO 10	872274.	26661.	2.3776	218068.	0.5944	0.3669E 06	0.1038E 15
407 AO 1	5860.	0.	0.	1465.	0.	0.	0.6973E 12
407 AO 2	6493.	0.	0.	1623.	0.	0.	0.7727E 12
407 AO 3	4789.	0.	0.	1197.	0.	0.	0.5699E 12
407 AC 4	5634.	0.	0.	1409.	0.	0.	0.6705E 12
407 AC 5	5540.	0.	0.	1385.	0.	0.	0.6592E 12
407 AO 6	8188.	0.	0.	2047.	0.	0.	0.9744E 12
407 AO 7	7034.	0.	0.	1758.	0.	0.	0.8370E 12
407 AC 8	6949.	0.	0.	1737.	0.	0.	0.8269E 12
407 AC 9	4799.	0.	0.9000	1200.	0.2250	0.5332E 04	0.5711E 12

TABLE 3.10 CONTINUED

SAMPLE NUMBER	ACTIVITY AT 100 HR (C/M)	EMPTY COLLECTOR ACTIVITY AT 100 HR (C/M)	WEIGHT RECOVERED (GRAMS)	ACTIVITY CONCENTRATION (C/M/SQ.FT)	MASS CONCENTRATION (GRAMS/SQ.FT)	SPECIFIC ACTIVITY (C/M/GRAMS)	ESTIMATED FISSION CONCENTRATION (FISSIONS/SQ.FT)
407 AO 10	8353.	0.	0.	2088.	0.	0.	0.9941E 12
501 AO 1	39565.	5543.	0.2034	9891.	0.0508	0.1945E 06	0.4708E 13
501 AO 2	34622.	4739.	0.1966	8655.	0.0491	0.1761E 06	0.4120E 13
501 AO 3	40706.	12035.	0.0863	10177.	0.0216	0.4717E 06	0.4844E 13
501 AO 4	35986.	4849.	0.1644	8997.	0.0411	0.2189E 06	0.4282E 13
501 AO 5	44909.	0.	0.	11227.	0.	0.	0.5344E 13
501 AO 6	29407.	0.	0.	7352.	0.	0.	0.3499E 13
501 AO 7	32188.	7589.	0.1872	8047.	0.0468	0.1719E 06	0.3830E 13
501 AO 8	67370.	0.	0.	16842.	0.	0.	0.8017E 13
501 AO 9	18817.	-0.	0.1200	4704.	0.0300	0.1568E 06	0.2239E 13
503 AO 1	697875.	15188.	0.6500	174469.	0.1625	0.1074E 07	0.8305E 14
503 AO 2	689187.	15794.	0.8500	172297.	0.2125	0.8108E 06	0.8201E 14
503 AO 3	709928.	11409.	0.6500	177482.	0.1625	0.1092E 07	0.8448E 14
503 AO 4	778519.	12097.	0.8000	194630.	0.2000	0.9731E 06	0.9264E 14
503 AO 5	734233.	0.	0.	183558.	0.	0.	0.8737E 14
503 AO 6	663023.	13850.	0.7000	165756.	0.1750	0.9472E 06	0.7890E 14
503 AO 7	622839.	9748.	1.0500	155710.	0.2625	0.5932E 06	0.7412E 14
503 AO 8	697444.	-0.	0.7903	174361.	0.1976	0.8825E 06	0.8300E 14
503 AO 9	684914.	0.	1.0800	171229.	0.2700	0.6342E 06	0.8150E 14
503 AO 10	937417.	9353.	1.8500	234354.	0.4625	0.5067E 06	0.1116E 15
505 AO 1	1195836.	9863.	1.5000	298959.	0.3750	0.7972E 06	0.1423E 15
505 AO 2	1316534.	12019.	1.7300	329133.	0.4325	0.7610E 06	0.1567E 15
505 AO 3	674227.	7033.	1.8000	168557.	0.4500	0.3746E 06	0.8023E 14
505 AO 4	1224578.	7204.	1.7000	306144.	0.4250	0.7203E 06	0.1457E 15
505 AO 5	1544653.	0.	0.	386163.	0.	0.	0.1838E 15
505 AO 6	1369226.	17170.	1.7500	342306.	0.4375	0.7824E 06	0.1629E 15
505 AO 7	1273940.	33547.	1.6546	318485.	0.4136	0.7699E 06	0.1516E 15
505 AO 8	1278065.	27830.	1.7600	319516.	0.4400	0.7262E 06	0.1521E 15
505 AO 9	1245431.	49582.	1.5789	311358.	0.3947	0.7888E 06	0.1482E 15
509 AO 1	107479.	6156.	0.7194	26870.	0.1798	0.1494E 06	0.1279E 14
509 AO 2	24884.	4501.	0.6585	6221.	0.1646	0.3779E 05	0.2961E 13
509 AO 3	83246.	-0.	0.7032	20811.	0.1758	0.1184E 06	0.9806E 13
509 AO 4	73634.	5114.	0.6196	18409.	0.1549	0.1188E 06	0.9762E 13
509 AO 5	108383.	0.	0.	27096.	0.	0.	0.1290E 14
509 AO 6	81476.	5741.	0.8252	20369.	0.2063	0.9874E 05	0.9696E 13
509 AO 7	85188.	5167.	0.8615	21297.	0.2154	0.9889E 05	0.1014E 14
509 AO 8	109911.	0.	0.	27478.	0.	0.	0.1308E 14
509 AO 9	119152.	-0.	0.8300	29788.	0.2075	0.1436E 06	0.1418E 14
601 AO 1	39061.	3418.	0.1000	9765.	0.0250	0.3906E 06	0.4648E 13
601 AO 2	39051.	2851.	0.2500	9763.	0.0625	0.1562E 06	0.4647E 13

TABLE 3.10 CONTINUED

SAMPLE NUMBER	ACTIVITY AT 100 HR (C/M)	EMPTY COLLECTOR ACTIVITY AT 100 HR (C/M)	WEIGHT RECOVERED (GRAMS)	ACTIVITY CONCENTRATION (C/M/SQ.FT)	MASS CONCENTRATION (GRAMS/SQ.FT)	SPECIFIC ACTIVITY (C/M/GRAMS)	ESTIMATED FISSION CONCENTRATION (FISSIONS/SQ.FT)
601 AO 3	38655.	3911.	0.0500	9514.	0.0125	0.7611E 06	0.4529E 13
601 AO 4	44222.	3624.	0.1000	11055.	0.0250	0.4422E 06	0.5262E 13
601 AO 5	45223.	0.	0.	11306.	0.	0.	0.5382E 13
601 AO 6	23705.	2662.	0.2000	5930.	0.0500	0.1188E 06	0.2827E 13
601 AO 7	42449.	3188.	0.2000	10612.	0.0500	0.2122E 06	0.5051E 13
601 AO 8	41712.	-0.	0.1766	10428.	0.0441	0.2362E 06	0.4964E 13
601 AO 9	42686.	-0.	0.0900	10671.	0.0225	0.4743E 06	0.5080E 13
603 AO 1	817546.	34999.	0.6000	204387.	0.1500	0.1363E 07	0.9729E 14
603 AO 2	773025.	36888.	0.5500	193256.	0.1375	0.1406E 07	0.9199E 14
603 AO 3	774798.	24954.	0.6500	193699.	0.1625	0.1192E 07	0.9220E 14
603 AO 4	805297.	30331.	0.6100	201324.	0.1525	0.1320E 07	0.9583E 14
603 AO 5	711585.	0.	0.	177896.	0.	0.	0.8468E 14
603 AO 6	724216.	42854.	0.6580	181054.	0.1645	0.1101E 07	0.8618E 14
603 AO 7	625444.	46868.	0.5933	156361.	0.1483	0.1054E 07	0.7443E 14
603 AO 8	570507.	47314.	0.7470	142627.	0.1867	0.7637E 06	0.6789E 14
603 AO 9	574415.	47500.	0.6428	143604.	0.1607	0.8936E 06	0.6836E 14
605 AO 1	765541.	44322.	0.4412	191385.	0.1103	0.1735E 07	0.9110E 14
605 AO 2	628488.	55712.	0.4397	157122.	0.1099	0.1429E 07	0.7479E 14
605 AO 3	634829.	49142.	0.4692	158707.	0.1173	0.1353E 07	0.7554E 14
605 AO 4	649009.	47930.	0.5240	162252.	0.1310	0.1239E 07	0.7723E 14
605 AO 5	651199.	0.	0.	162800.	0.	0.	0.7749E 14
605 AO 6	583221.	42574.	0.5101	145805.	0.1275	0.1143E 07	0.6940E 14
605 AO 7	577986.	50965.	0.5176	144497.	0.1294	0.1117E 07	0.6878E 14
605 AO 8	640197.	0.	0.	160049.	0.	0.	0.7618E 14
605 AO 9	654178.	-0.	0.4600	163544.	0.1150	0.1422E 07	0.7785E 14
607 AO 1	45793.	3949.	0.6565	11448.	0.1641	0.6975E 05	0.5449E 13
607 AO 2	46138.	3382.	0.2563	11535.	0.0641	0.1800E 06	0.5490E 13
607 AO 3	46028.	3476.	0.2489	11507.	0.0622	0.1849E 06	0.5477E 13
607 AO 4	44360.	3022.	0.5685	11090.	0.1421	0.7803E 05	0.5279E 13
607 AO 5	42097.	0.	0.	10524.	0.	0.	0.5010E 13
607 AO 6	38378.	3532.	0.3233	9595.	0.0808	0.1187E 06	0.4567E 13
607 AO 7	51739.	2660.	0.6257	12934.	0.1564	0.8268E 05	0.6156E 13
607 AO 8	48793.	0.	0.	12198.	0.	0.	0.5806E 13
607 AO 9	46218.	-0.	0.3000	11555.	0.0750	0.1541E 06	0.5500E 13
703 AO 1	601[illegible].	0.	0.	15037.	0.	0.	0.7158E 13
703 AO 4	69633.	.	0.	17408.	0.	0.	0.8286E 13
703 AO 5	7624[illegible].	.	0.	19062.	0.	0.	0.9074E 13
703 AO 7	42099.	0.	0.	10525.	0.	0.	0.5010E 13
703 AO 8	75653.	0.	0.	18913.	0.	0.	0.9003E 13
703 AO 9	69849.	-0.	0.2100	17462.	0.0525	0.3326E 06	0.8312E 13

TABLE 3.10 CONTINUED

SAMPLE NUMBER	ACTIVITY AT 100 HR (C/M)	EMPTY COLLECTOR ACTIVITY AT 100 HR (C/M)	WEIGHT RECOVERED (GRAMS)	ACTIVITY CONCENTRATION (C/M/SQ.FT)	MASS CONCENTRATION (GRAMS/SQ.FT)	SPECIFIC ACTIVITY (C/M/GRAMS)	ESTIMATED FISSION CONCENTRATION (FISSIONS/SQ.FT)
705 AO 1	145395.	13488.	0.5260	36349.	0.1315	0.2764E 06	0.1730E 14
705 AO 2	159719.	13518.	0.4910	39930.	0.1227	0.3253E 06	0.1901E 14
705 AO 3	151616.	14353.	0.4770	37904.	0.1192	0.3179E 06	0.1804E 14
705 AO 4	128425.	4818.	0.3220	32106.	0.0805	0.3988E 06	0.1528E 14
705 AO 5	169917.	0.	0.	42479.	0.	0.	0.2022E 14
705 AO 6	121155.	13197.	0.4490	30289.	0.1122	0.2698E 06	0.1442E 14
705 AO 7	155747.	9766.	0.6070	38937.	0.1517	0.2566E 06	0.1853E 14
705 AO 8	161967.	-0.	0.5259	40492.	0.1315	0.3080E 06	0.1927E 14
705 AO 9	168668.	12209.	0.6250	42167.	0.1562	0.2699E 06	0.2007E 14
707 AO 1	286767.	0.	0.	71692.	0.	0.	0.3413E 14
707 AO 3	249230.	11453.	0.3000	62308.	0.0750	0.8308E 06	0.2966E 14
707 AO 4	262521.	0.	0.	65630.	0.	0.	0.3124E 14
707 AO 5	316026.	0.	0.	79006.	0.	0.	0.3761E 14
707 AO 6	297487.	11485.	0.3800	74372.	0.0950	0.7829E 06	0.3540E 14
707 AO 7	356306.	0.	0.	89077.	0.	0.	0.4240E 14
707 AO 9	2953 3.	13153.	0.4000	73828.	0.1000	0.7383E 06	0.3514E 14
814 AO 1	22407.	0.	0.	5602.	0.	0.	0.2666E 13
814 AO 2	29031.	0.	0.	7258.	0.	0.	0.3455E 13
814 AO 3	42612.	6045.	0.7108	10653.	0.1777	0.5995E 05	0.5071E 13
814 AO 4	38928.	8454.	0.2746	9732.	0.0686	0.1418E 06	0.4632E 13
814 AO 5	43006.	0.	0.	10752.	0.	0.	0.5118E 13
816 AO 1	27914.	5796.	0.4880	6978.	0.1220	0.5720E 05	0.3322E 13
816 AO 2	27634.	7724.	0.4949	6908.	0.1237	0.5584E 05	0.3288E 13
816 AO 3	28083.	9604.	0.3334	7021.	0.0833	0.8423E 05	0.3342E 13
816 AO 4	25107.	13770.	0.3223	6277.	0.0806	0.7790E 05	0.2988E 13
816 AO 5	41314.	0.	0.	10329.	0.	0.	0.4916E 13
818 AO 1	23755.	4984.	0.5183	5939.	0.1296	0.4583E 05	0.2827E 13
818 AO 2	24372.	3528.	0.7303	6093.	0.1826	0.3337E 05	0.2900E 13
818 AO 3	23505.	3991.	0.5106	5876.	0.1276	0.4603E 05	0.2797E 13
818 AO 4	27931.	3390.	0.7783	6983.	0.1946	0.3589E 05	0.3324E 13
818 AO 5	39436.	0.	0.	9859.	0.	0.	0.4693E 13
820 AO 1	7914.	0.	0.	1978.	0.	0.	0.9417E 12
820 AO 2	8046.	0.	0.	2011.	0.	0.	0.9575E 12
820 AO 3	7938.	0.	0.	1985.	0.	0.	0.9447E 12
820 AO 4	7406.	0.	0.	1852.	0.	0.	0.8813E 12
820 AO 5	10862.	0.	0.	2716.	0.	0.	0.1293E 13
822 AO 1	2350.	0.	0.	580.	0.	0.	0.2797E 12
822 AO 2	1585.	0.	0.	396.	0.	0.	0.1886E 12

TABLE 3.10 CONTINUED

SAMPLE NUMBER	ACTIVITY AT 100 HR (C/M)	EMPTY COLLECTOR ACTIVITY AT 100 HR (C/M)	WEIGHT RECOVERED (GRAMS)	ACTIVITY CONCENTRATION (C/M/SQ.FT)	MASS CONCENTRATION (GRAMS/SQ.FT)	SPECIFIC ACTIVITY (C/M/GRAMS)	ESTIMATED FISSION CONCENTRATION (FISSIONS/SQ.FT)
822 AO 3	2217.	0.	0.	554.	0.	0.	0.2638E 12
822 AO 4	1936.	0.	0.	484.	0.	0.	0.2304E 12
822 AO 5	3641.	0.	0.	910.	0.	0.	0.4332E 12
100 IC 1	62.	593.	2.5033	15.	0.6258	0.2477E 02	0.7378E 10
100 IC 2	80.	353.	2.5135	20.	0.6284	0.3197E 02	0.9563E 10
100 IC 3	315.	282.	0.1598	79.	0.0399	0.1973E 04	0.3751E 11
100 IC 4	19181.	462.	0.2549	4795.	0.0637	0.7525E 05	0.2283E 13
100 IC 5	552219.	6276.	1.0883	138055.	0.2721	0.5074E 06	0.6571E 14
100 IC 6	197120.	5242.	1.8340	49280.	0.4585	0.1075E 06	0.2346E 14
100 IC 7	54676.	6148.	0.4163	13669.	0.1041	0.1313E 06	0.6506E 13
100 IC 8	1232.	187.	0.2039	308.	0.0510	0.6040E 04	0.1466E 12
100 IC 9	45083.	1551.	0.5786	11271.	0.1446	0.7792E 05	0.5365E 13
100 IC 10	7079.	334.	1.1051	1770.	0.2763	0.6405E 04	0.8424E 12
100 IC 11	0.	493.	0.6974	0.	0.1743	0.	0.
100 IC 12	386.	243.	0.3327	96.	0.0832	0.1160E 04	0.4592E 11
100 IC 13	80.	430.	0.2803	20.	0.0701	0.2861E 03	0.9543E 10
100 IC 14	250.	119.	0.2274	62.	0.0568	0.1099E 04	0.2974E 11
100 IC 15	319.	265.	0.2740	80.	0.0685	0.1163E 04	0.3791E 11
100 IC 16	39.	635.	0.1637	10.	0.0414	0.2343E 03	0.4620E 10
100 IC 17	37.	290.	0.1150	9.	0.0287	0.3242E 03	0.4437E 10
100 IC 18	339.	178.	0.2058	85.	0.0514	0.1647E 04	0.4034E 11
100 IC 19	0.	584.	0.2462	0.	0.0615	0.	0.
100 IC 20	9378.	766.	-0.	2345.	-0.	0.	0.1116E 13
203 IC 1	8714.	618.	1.9672	2178.	0.4918	0.4429E 04	0.1037E 13
203 IC 2	178287.	887.	1.3734	44572.	0.3433	0.1298E 06	0.2122E 14
203 IC 3	260061.	6478.	0.7210	65015.	0.1802	0.3607E 06	0.3095E 14
203 IC 4	536536.	13359.	0.4774	134134.	0.1193	0.1124E 07	0.6385E 14
203 IC 5	27389.	2049.	0.1505	6847.	0.0376	0.1820E 06	0.3259E 13
203 IC 6	234.	128.	0.2992	59.	0.0748	0.7826E 03	0.2787E 11
203 IC 7	165.	376.	15.8632	41.	3.9658	0.1042E 02	0.1960E 11
203 IC 8	120.	243.	0.2784	30.	0.0696	0.4311E 03	0.1428E 11
203 IC 9	1355.	430.	0.4432	339.	0.1108	0.3058E 04	0.1613E 12
203 IC 10	107.	278.	1.8607	27.	0.4652	0.5751E 02	0.1273E 11
203 IC 11	117.	212.	0.6416	29.	0.1604	0.1824E 03	0.1392E 11
203 IC 12	73.	304.	0.1208	18.	0.0302	0.6003E 03	0.8629E 10
203 IC 13	1446.	95.	0.6238	362.	0.1559	0.2318E 04	0.1721E 12
203 IC 14	3969.	807.	1.6960	992.	0.4240	0.2340E 04	0.4723E 12
203 IC 15	110.	71.	0.5161	27.	0.1290	0.2124E 03	0.1304E 11
203 IC 16	393.	200.	0.6273	98.	0.1568	0.6272E 03	0.4682E 11
203 IC 17	148.	224.	0.9667	37.	0.2417	0.1527E 03	0.1757E 11
203 IC 18	292.	166.	1.2260	73.	0.3065	0.2385E 03	0.3479E 11
203 IC 19	855.	-27.	1.0808	214.	0.2702	0.7908E 03	0.1017E 12
203 IC 20	226.	215.	1.5843	56.	0.3961	0.1426E 03	0.2688E 11
507 IC 1	310.	1218.	0.2676	77.	0.0669	0.1157E 04	0.3684E 11

TABLE 3.10 CONTINUED

SAMPLE NUMBER	ACTIVITY AT 100 HR (C/M)	EMPTY COLLECTOR ACTIVITY AT 100 HR (C/M)	WEIGHT RECOVERED (GRAMS)	ACTIVITY CONCENTRATION (C/M/SQ.FT)	MASS CONCENTRATION (GRAMS/SQ.FT)	SPECIFIC ACTIVITY (C/M/GRAMS)	ESTIMATED FISSION CONCENTRATION (FISSIONS/SQ.FT)
507 IC 2	425256.	18229.	0.3725	106314.	0.0931	0.1142E 07	0.5061E 14
507 IC 3	97831.	10437.	0.0844	24458.	0.0211	0.1159E 07	0.1164E 14
507 IC 4	1149.	2288.	0.0710	287.	0.0177	0.1619E 05	0.1368E 12
507 IC 5	917.	901.	0.0203	229.	0.0051	0.4517E 05	0.1091E 12
507 IC 6	1389.	847.	0.0342	347.	0.0085	0.4060E 05	0.1653E 12
507 IC 7	4284.	919.	0.0950	1071.	0.0237	0.4509E 05	0.5097E 12
507 IC 8	172.	600.	0.0395	43.	0.0099	0.4343E 04	0.2041E 11
507 IC 9	282.	718.	0.0392	71.	0.0098	0.7206E 04	0.3361E 11
507 IC 10	408.	2144.	0.0475	102.	0.0119	0.8580E 04	0.4850E 11
507 IC 11	441.	409.	0.0594	110.	0.0148	0.7416E 04	0.5242E 11
507 IC 12	255.	535.	0.0388	64.	0.0097	0.6572E 04	0.3034E 11
507 IC 13	458.	569.	0.0810	115.	0.0202	0.5660E 04	0.5455E 11
507 IC 14	268.	729.	0.0772	67.	0.0193	0.3468E 04	0.3186E 11
507 IC 15	506.	199.	0.0520	127.	0.0130	0.9738E 04	0.6026E 11
507 IC 16	571.	175.	0.0449	143.	0.0112	0.1273E 05	0.6800E 11
507 IC 17	164.	229.	0.0340	41.	0.0085	0.4818E 04	0.1949E 11
507 IC 18	86.	405.	2.0178	22.	0.5044	0.4277E 02	0.1027E 11
507 IC 19	415.	212.	0.0666	104.	0.0166	0.6232E 04	0.4939E 11
507 IC 20	2963.	484.	0.1746	741.	0.0436	0.1697E 05	0.3526E 12
100 PC 1	888321.	8361.	3.6000	222080.	0.9000	0.2468E 06	0.1057E 15
100 PC 2	949102.	27722.	-0.	237276.	-0.	0.	0.1129E 15
100 PC 3	813033.	0.	0.	203258.	0.	0.	0.9675E 14
100 PC 4	1004465.	23290.	-0.	251116.	-0.	0.	0.1195E 15
100 PC 5	722600.	7200.	1.2500	189650.	0.3125	0.5781E 06	0.8599E 14
100 PC 6	876724.	0.	0.	219181.	0.	0.	0.1043E 15
100 PC 7	762312.	15207.	2.1453	190578.	0.5363	0.3553E 06	0.9072E 14
100 PC 8	629806.	8149.	1.0756	157452.	0.2689	0.5855E 06	0.7495E 14
100 PC 9	790583.	22496.	0.8995	197646.	0.2249	0.8789E 06	0.9408E 14
100 PC 10	650630.	11745.	0.7466	162657.	0.1866	0.8715E 06	0.7742E 14
100 PC 11	723307.	18004.	3.4546	182077.	0.8636	0.2108E 06	0.8667E 14
100 PC 12	634574.	11486.	2.3380	158644.	0.5845	0.2714E 06	0.7551E 14
100 PC 14	692854.	0.	0.	173214.	0.	0.	0.8245E 14
100 PC 15	593891.	10401.	0.9796	148473.	0.2449	0.6063E 06	0.7067E 14
100 PC 16	774907.	26719.	4.7130	193727.	1.1782	0.1644E 06	0.9221E 14
100 PC 17	850196.	0.	0.	212549.	0.	0.	0.1012E 15
100 PC 18	872232.	14115.	2.3486	218058.	0.5871	0.3714E 06	0.1038E 15
100 PC 19	616341.	12369.	0.9966	154085.	0.2491	0.6184E 06	0.7334E 14
100 PC 20	737442.	13927.	1.4181	184361.	0.3545	0.5200E 06	0.8776E 14
100 PC 21	658452.	12722.	3.8433	164613.	0.9608	0.1713E 06	0.7836E 14
100 PC 22	632617.	7660.	4.1325	158154.	1.0331	0.1531E 06	0.7528E 14
100 PC 23	681381.	19264.	2.9603	170345.	0.7401	0.2302E 06	0.8108E 14
100 PC 24	365641.	20853.	1.5980	91410.	0.3995	0.2288E 06	0.4351E 14
100 PC 25	949751.	0.	0.	237438.	0.	0.	0.1130E 15
203 PC 1	853716.	27292.	1.3501	213429.	0.3375	0.6323E 06	0.1016E 15
203 PC 2	909748.	38608.	1.3131	227437.	0.3283	0.6928E 06	0.1083E 15
203 PC 3	900012.	0.	0.	225003.	0.	0.	0.1071E 15

TABLE 3.10 CONTINUED

SAMPLE NUMBER	ACTIVITY AT 100 HR (C/M)	EMPTY COLLECTOR ACTIVITY AT 100 HR (C/M)	WEIGHT RECOVERED (GRAMS)	ACTIVITY CONCENTRATION (C/M/SQ.FT)	MASS CONCENTRATION (GRAMS/SQ.FT)	SPECIFIC ACTIVITY (C/M/GRAMS)	ESTIMATED FISSION CONCENTRATION (FISSIONS/SQ.FT)
2.3 PC 4	326464.	33309.	0.9769	206616.	0.2447	0.8443E 06	0.9835E 14
2.3 PC 5	345131.	37857.	1.0309	211283.	0.2577	0.8199E 06	0.1006E 15
2.3 PC 6	1022773.	0.	0.	255693.	0.	0.	0.1217E 15
2.3 PC 7	991304.	19154.	1.2812	247826.	0.3203	0.7737E 06	0.1180E 15
2.3 PC 8	1002061.	11706.	-0.	250515.	-0.	0.	0.1192E 15
2.3 PC 9	1047620.	17602.	1.1149	261905.	0.2787	0.9397E 06	0.1247E 15
2.3 PC 10	898535.	15843.	1.1505	224634.	0.2876	0.7810E 06	0.1069E 15
2.3 PC 11	1101407.	12703.	-0.	275352.	-0.	0.	0.1311E 15
2.3 PC 12	1049331.	26173.	1.1641	262333.	0.2910	0.9014E 06	0.1249E 15
2.3 PC 16	1059660.	9544.	1.6000	264915.	0.4000	0.6623E 06	0.1261E 15
2.3 PC 19	944263.	17800.	-0.	236066.	-0.	0.	0.1124E 15
2.3 PC 21	1137120.	15741.	-0.	296780.	-0.	0.	0.1413E 15
2.3 PC 22	1164832.	11912.	-0.	291208.	-0.	0.	0.1386E 15
2.3 PC 24	1336468.	0.	0.	346617.	0.	0.	0.1650E 15
2.3 PC 25	917066.	0.	0.	229266.	0.	0.	0.1091E 15
5.7 PC 1	629242.	19194.	-0.	157311.	-0.	0.	0.7488E 14
5.7 PC 2	602558.	19819.	0.4080	150640.	0.1020	0.1477E 07	0.7170E 14
5.7 PC 3	623497.	0.	0.	155874.	0.	0.	0.7420E 14
5.7 PC 4	610931.	17140.	0.5000	152745.	0.1250	0.1222E 07	0.7271E 14
5.7 PC 5	612829.	13419.	0.5500	153207.	0.1375	0.1114E 07	0.7293E 14
5.7 PC 6	520898.	0.	0.	130224.	0.	0.	0.6199E 14
5.7 PC 7	504285.	0.	0.	126071.	0.	0.	0.6001E 14
5.7 PC 8	532634.	14858.	0.	133171.	-0.	0.	0.6339E 14
5.7 PC 9	499729.	32335.	0.3602	124757.	0.0900	0.1385E 07	0.5938E 14
5.7 PC 10	491195.	48168.	0.3670	120296.	0.0917	0.1311E 07	0.5726E 14
5.7 PC 11	199432.	8908.	-0.	47358.	-0.	0.	0.2254E 14
5.7 PC 12	507754.	40626.	0.3394	126938.	0.0848	0.1496E 07	0.6042E 14
5.7 PC 14	520097.	0.	0.	130024.	0.	0.	0.6189E 14
5.7 PC 15	522264.	49205.	0.1231	130591.	0.0308	0.4243E 07	0.6216E 14
5.7 PC 16	454862.	32796.	0.3699	113715.	0.0925	0.1230E 07	0.5413E 14
5.7 PC 17	504741.	0.	0.	126185.	0.	0.	0.6006E 14
5.7 PC 18	528476.	31813.	0.4916	132119.	0.1229	0.1075E 07	0.6289E 14
5.7 PC 19	552238.	18035.	-0.	138060.	0.	0.	0.6572E 14
5.7 PC 20	479864.	24690.	0.3650	119966.	0.0912	0.1315E 07	0.5710E 14
5.7 PC 21	514191.	35857.	0.3541	128522.	0.0885	0.1452E 07	0.6118E 14
5.7 PC 22	484617.	27737.	0.4971	121129.	0.1243	0.9747E 06	0.5766E 14
5.7 PC 23	468705.	30733.	0.3951	122176.	0.0988	0.1237E 07	0.5816E 14
5.7 PC 24	510150.	74669.	0.3296	127738.	0.0824	0.1550E 07	0.6080E 14
5.7 PC 25	587119.	0.	0.	146780.	0.	0.	0.6987E 14
1.1 OC 1	6403962.	16297.	4.9000	2493832.	1.8846	0.1323E 07	0.1187E 16
2.0 OC 1	21625.	1063.	0.2230	8317.	0.0858	0.9697E 05	0.3959E 13
3.1 OC 1	2107825.	0.	1.1900	810702.	0.4577	0.1771E 07	0.3859E 15
3.7 OC 1	3409.	[illegible]	0.	1311.	0.	0.	0.6241E 12
4.1 OC 1	1280941.	[illegible]	0.7750	492631.	0.2981	0.1653E 07	0.2345E 15
4.3 OC 1	1976357.	74680.	1.1575	760214.	0.4452	0.1708E 07	0.3619E 15
4.5 OC 1	563129.	17954.	0.5200	216588.	0.2000	0.1083E 07	0.1031E 15

TABLE 3.10 CONTINUED

SAMPLE NUMBER	ACTIVITY AT 100 HR (C/M)	EMPTY COLLECTOR ACTIVITY AT 100 HR (C/M)	WEIGHT RECOVERED (GRAMS)	ACTIVITY CONCENTRATION (C/M/SQ.FT)	MASS CONCENTRATION (GRAMS/SQ.FT)	SPECIFIC ACTIVITY (C/M/GRAMS)	ESTIMATED FISSION CONCENTRATION (FISSIONS/SQ.FT)
407 OC 1	6066.	697.	0.1778	2333.	0.0684	0.3412E 05	0.1111E 13
503 OC 1	447860.	23051.	0.3674	172254.	0.1413	0.1219E 07	0.8199E 14
100 PO 1	993065.	7358.	1.8800	248266.	0.4700	0.5282E 06	0.1182E 15
100 PO 2	850845.	0.	0.	212711.	0.	0.	0.1013E 15
203 PO 1	767560.	0.	0.	191890.	0.	0.	0.9134E 14
203 PO 2	946758.	7718.	1.2500	236689.	0.3125	0.7574E 06	0.1127E 15
507 PO 2	589695.	42263.	-0.	147424.	-0.	0.	0.7017E 14
707 LA 2 5	1314218.	0.	10.6640	41069.	0.0476	0.2401E 02	0.1955E 14
707 LA 2 6	1528335.	71379.	-0.	47760.	0.	0.	0.2273E 14
707 LA 2 7	1764340.	67756.	-0.	55136.	0.	0.	0.2624E 14
707 LA 2 8	994997.	72294.	0.	31094.	0.	0.	0.1480E 14
707 LA 213	1474424.	51864.	-0.	46076.	0.	0.	0.2193E 14
707 LA 214	2022807.	113784.	-0.	63213.	0.	0.	0.3009E 14
707 LA 215	2214102.	97471.	-0.	69191.	0.	0.	0.3293E 14
707 LA 216	1154818.	0.	0.	36088.	0.	0.	0.1718E 14
810 LA 2 2	6499.	2900.	-0.	203.	0.	0.	0.9667E 11
810 LA 2 4	6970.	2935.	-0.	218.	0.	0.	0.1037E 12
810 LA 2 6	5088.	2686.	-0.	159.	0.	0.	0.7568E 11
810 LA 2 8	5650.	2546.	0.	177.		0.	0.8404E 11
810 LA 210	6979.	2822.	-0.	218.	0.	0.	0.1038E 12
810 LA 212	4610.	2768.	-0.	144.	0.	0.	0.6857E 11
810 LA 214	4795.	1785.	-0.	150.	0.	0.	0.7132E 11
810 LA 216	5879.	2459.	-0.	184.	0.	0.	0.8745E 11
811 LA 2 2	8264.	9737.	120.8000	258.	0.5393	0.9100E 03	0.1229E 12
811 LA 2 6	16662.	8514.	-0.	521.	0.	0.	0.2478E 12
811 LA 2 8	43281.	-0.	-0.	1353.	0.	0.	0.6438E 12
811 LA 212	12390.	1604.	-0.	387.	0.	0.	0.1843E 12
811 LA 213	10347.	2240.	-0.	323.	0.	0.	0.1539E 12
811 LA 214	8541.	2308.	0.	267.	0.	0.	0.1271E 12
811 LA 216	10443.	1943.	-0.	326.	0.	0.	0.1553E 12
812 LA 2 2	19275.	0.	38.7500	602.	0.1514	0.5249E 04	0.2867E 12
812 LA 2 4	22913.	4574.	0.	716.	0.	0.	0.3408E 12
812 LA 2 6	26837.	5001.	-0.	839.	0.	0.	0.3992E 12
812 LA 2 8	20065.	3604.	-0.	627.	0.	0.	0.2985E 12
812 LA 210	26628.	3805.	-0.	832.	0.	0.	0.3961E 12
812 LA 212	30509.	2955.	0.	953.	0.	0.	0.4538E 12
812 LA 214	24088.	9054.	-0.	753.	0.	0.	0.3583E 12
812 LA 216	33274.	0.	0.	1040.	0.	0.	0.4950E 12

TABLE 3.10 CONTINUED

SAMPLE NUMBER	ACTIVITY AT 100 HR (C/M)	EMPTY COLLECTOR ACTIVITY AT 100 HR (C/M)	WEIGHT RECOVERED (GRAMS)	ACTIVITY CONCENTRATION (C/M/SQ.FT)	MASS CONCENTRATION (GRAMS/SQ.FT)	SPECIFIC ACTIVITY (C/M/GRAMS)	ESTIMATED FISSION CONCENTRATION (FISSIONS/SQ.FT)
813 LA 2 2	295556.	28761.	18.5300	9236.	0.0723	0.1393E 06	0.4396E 13
813 LA 2 4	273156.	23329.	-0.	8536.	0.	0.	0.4063E 13
813 LA 2 6	322473.	25406.	0.	10109.	0.	0.	0.4812E 13
813 LA 2 8	312041.	28151.	-0.	9751.	0.	0.	0.4642E 13
813 LA 210	332707.	14351.	-0.	10397.	0.	0.	0.4949E 13
813 LA 212	368711.	0.	0.	11522.	0.	0.	0.5485E 13
813 LA 214	345736.	33216.	-0.	10804.	0.	0.	0.5143E 13
813 LA 216	325465.	0.	0.	10171.	0.	0.	0.4841E 13
814 LA 2 2	266461.	0.	33.3600	8327.	0.1303	0.7071E 05	0.3964E 13
814 LA 2 4	252291.	15485.	-0.	7884.	0.	0.	0.3753E 13
814 LA 2 6	304900.	25902.	-0.	9528.	0.	0.	0.4535E 13
814 LA 2 8	295693.	33515.	-0.	9240.	0.	0.	0.4398E 13
814 LA 210	282160.	28476.	0.	8818.	0.	0.	0.4197E 13
814 LA 212	294247.	16277.	-0.	9195.	0.	0.	0.4377E 13
814 LA 214	319433.	17340.	-0.	9982.	0.	0.	0.4752E 13
814 LA 216	343695.	0.	0.	10740.	0.	0.	0.5112E 13
815 LA 2 4	233668.	19053.	38.2300	7302.	0.1493	0.4811E 05	0.3476E 13
815 LA 2 6	261668.	0.	0.	8177.	0.	0.	0.3892E 13
815 LA 2 8	255003.	15416.	-0.	7969.	0.	0.	0.3793E 13
815 LA 210	283588.	15585.	-0.	8862.	0.	0.	0.4218E 13
815 LA 212	247512.	19969.	-0.	7735.	0.	0.	0.3682E 13
815 LA 214	266789.	459.	0.	8337.	0.	0.	0.3968E 13
815 LA 216	290198.	13495.	-0.	9069.	0.	0.	0.4317E 13
816 LA 2 2	282831.	0.	43.0000	8838.	0.1680	0.5402E 05	0.4207E 13
816 LA 2 4	269429.	16754.	-0.	8420.	0.	0.	0.4008E 13
816 LA 2 6	311439.	36359.	-0.	9732.	0.	0.	0.4633E 13
816 LA 2 8	315965.	28666.	-0.	9874.	0.	0.	0.4700E 13
816 LA 210	298156.	14492.	0.	9317.	0.	0.	0.4435E 13
816 LA 212	291492.	40642.	-0.	9109.	0.	0.	0.4336E 13
816 LA 214	276669.	37643.	-0.	8646.	0.	0.	0.4115E 13
816 LA 216	276746.	0.	0.	8648.	0.	0.	0.4117E 13
817 LA 2 2	277243.	23442.	64.3500	8664.	0.2514	0.3921E 05	0.4124E 13
817 LA 2 4	298249.	26188.	-0.	9320.	0.	0.	0.4436E 13
817 LA 2 6	330931.	30419.	-0.	10342.	0.	0.	0.4923E 13
817 LA 2 8	345213.	0.	0.	10788.	0.	0.	0.5135E 13
817 LA 210	347159.	38809.	-0.	10849.	0.	0.	0.5164E 13
817 LA 212	320137.	19135.	0.	10004.	0.	0.	0.4762E 13
817 LA 214	299314.	12502.	-0.	9354.	0.	0.	0.4452E 13
817 LA 216	304695.	22818.	-0.	9522.	0.	0.	0.4532E 13
[illegible] LA 2 2	[illegible]	7841.	48.4900	5853.	0.1894	0.3518E 05	0.2784E 13

TABLE 3.10 CONTINUED

SAMPLE NUMBER	ACTIVITY AT 100 HR (C/M)	EMPTY COLLECTOR ACTIVITY AT 100 HR (C/M)	WEIGHT RECOVERED (GRAMS)	ACTIVITY CONCENTRATION (C/M/SQ.FT)	MASS CONCENTRATION (GRAMS/SQ.FT)	SPECIFIC ACTIVITY (C/M/GRAMS)	ESTIMATED FISSION CONCENTRATION (FISSIONS/SQ.FT)
A18 LA 2 3	188910.	32033.	-0.	5903.	0.	0.	0.2810E 13
A18 LA 2 6	226923.	7360.	-0.	7091.	0.	0.	0.3375E 13
A18 LA 2 7	226421.	22956.	-0.	7078.	0.	0.	0.3369E 13
A18 LA 210	254197.	0.	0.	7944.	0.	0.	0.3781E 13
A18 LA 214	22699 .	12857.	-0.	7094.	0.	0.	0.3377E 13
A18 LA 215	141245.	10348.	-0.	4414.	0.	0.	0.2101E 13
A18 LA 216	2537 6.	0.	0.	7930.	0.	0.	0.3775E 13
A19 LA 2 2	98701.	57269.	29.2600	3084.	0.1143	0.3102E 05	0.1468E 13
A19 LA 2 4	90007.	13058.	-0.	2813.	0.	0.	0.1339E 13
A19 LA 2 6	113905.	28295.	-0.	3560.	0.	0.	0.1694E 13
A19 LA 2 8	112174.	14516.	-0.	3506.	0.	0.	0.1669E 13
A19 LA 210	101353.	23029.	-0.	3167.	0.	0.	0.1508E 13
A19 LA 212	128748.	10577.	0.	4023.	0.	0.	0.1915E 13
A19 LA 214	1344 8.	39698.	-0.	4202.	0.	0.	0.2000E 13
A19 LA 216	128317.	21817.	-0.	4011.	0.	0.	0.1909E 13
A20 LA 2 2	66754.	7867.	41.2000	2086.	0.1839	0.1179E 05	0.9929E 12
A20 LA 2 4	70805.	8924.	-0.	2213.	0.	0.	0.1053E 13
A20 LA 2 6	73245.	5295.	-0.	2289.	0.	0.	0.1090E 13
A20 LA 2 8	68256.	9776.	-0.	2133.	0.	0.	0.1015E 13
A20 LA 212	68922.	9171.	-0.	2154.	0.	0.	0.1025E 13
A20 LA 214	67733.	9917.	0.	2117.	0.	0.	0.1008E 13
A20 LA 216	70174.	6791.	-0.	2193.	0.	0.	0.1044E 13
A21 LA 2 2	30784.	3464.	37.4000	962.	0.1461	0.7711E 04	0.4579E 12
A21 LA 2 4	3755 .	4721.	-0.	1173.	0.	0.	0.5586E 12
A21 LA 2 6	32317.	7869.	-0.	1010.	0.	0.	0.4807E 12
A21 LA 2 8	39664.	5908.	-0.	1239.	0.	0.	0.5900E 12
A21 LA 210	36699.	10857.	-0.	1147.	0.	0.	0.5459E 12
A21 LA 212	39976.	11 34.	-0.	1249.	0.	0.	0.5946E 12
A21 LA 214	35645.	9 52.	-0.	1114.	0.	0.	0.5302E 12
A21 LA 216	35752.	10836.	-0.	1117.	0.	0.	0.5318E 12
A22 LA 2 2	16581.	4791.	20.0000	518.	0.0781	0.7078E 04	0.2466E 12
A22 LA 2 4	18914.	3561.	0.	591.	0.	0.	0.2813E 12
A22 LA 2 6	16928.	4422.	-0.	529.	0.	0.	0.2518E 12
A22 LA 2 8	17910.	4012.	-0.	560.	0.	0.	0.2664E 12
A22 LA 210	17045.	4937.	0.	533.	0.	0.	0.2535E 12
A22 LA 212	201 7.	5272.	-0.	629.	0.	0.	0.2994E 12
A22 LA 214	16995.	3014.	-0.	531.	0.	0.	0.2526E 12
A22 LA 216	17063.	3395.	-0.	533.	0.	0.	0.2538E 12
A24 LA 2 2	76 4.	919.	17.2000	240.	0.0672	0.3906E-02	0.1143E 12
A24 LA 2 4	8170.	2523.	-0.	255.	0.	0.	0.1215E 12

TABLE 3.10 CONTINUED

SAMPLE NUMBER	ACTIVITY AT 100 HR (C/M)	EMPTY COLLECTOR ACTIVITY AT 100 HR (C/M)	WEIGHT RECOVERED (GRAMS)	ACTIVITY CONCENTRATION (C/M/SQ.FT)	MASS CONCENTRATION (GRAMS/SQ.FT)	SPECIFIC ACTIVITY (C/M/GRAMS)	ESTIMATED FISSION CONCENTRATION (FISSIONS/SQ.FT)
B24 LA 206	8015.	1305.	-0.	250.	0.	0.	0.1192E 12
B24 LA 208	8644.	1963.	-0.	270.	0.	0.	0.1286E 12
B24 LA 210	8119.	1636.	-0.	254.	0.	0.	0.1208E 12
B24 LA 212	10010.	2166.	0.	313.	0.	0.	0.1489E 12
B24 LA 214	7771.	1[illegible]34.	-0.	241.	0.	0.	0.1148E 12
B24 LA 216	82[illegible].	15[illegible].	-0.	259.	0.	0.	0.1234E 12

TABLE 3.11 BACKGROUND WEIGHT MEASUREMENTS

(AO Collectors - 4 ft^2 - LAC - Collector 256 ft^2)

NRDL Sample No.	Weight Recovered Grams	Grams/ft^2
204 AO 9	0.63	.16
207 AO 9	2.95	.74
209 AO 9	5.17	1.29
302 AO 9	0.68	.17
311 AO 9	0.91	.23
409 AO 9	1.51	.38
413 AO 9	3.74	.94
502 AO 9	1.10	.28
513 AO 9	1.42	.36
700 AO 9	0.15	.04
701 AO 9	0.07	.02
704 AO 9	0.25	.06
801 LAC	76.4	.30

TABLE 3.12 MASS AND ACTIVITY DISTRIBUTIONS OF DEBRIS

SAMPLE NUMBER				SIZE (MICRONS)	MASS (GRAMS)	ACTIVITY AT 100 HR (MA)	SPECIFIC ACTIVITY AT 100 HR (MA/GRAMS)
100	IC	1	T		2.5033	0.2061E-08	0.8234E-09
100	IC	1		2830	0.0028	0.	0.
100	IC	1		1410	0.0051	0.	0.
100	IC	1		710	0.0098	0.	0.
100	IC	1		350	0.0201	0.	0.
100	IC	1		177	0.0749	0.	0.
100	IC	1		88	0.3625	0.	0.
100	IC	1		44	0.8472	0.	0.
100	IC	1		PAN	1.1195	0.	0.
100	IC	2	T		2.5135	0.2268E-08	0.9022E-09
100	IC	2		2830	0.	0.	0.
100	IC	2		1410	0.	0.	0.
100	IC	2		710	0.0091	0.	0.
100	IC	2		350	0.0107	0.	0.
100	IC	2		177	0.0514	0.	0.
100	IC	2		88	0.4640	0.	0.
100	IC	2		44	1.1726	0.	0.
100	IC	2		PAN	0.7423	0.	0.
100	IC	3	T		0.1598	0.2062E-08	0.1290E-07
100	IC	3		2830	0.	0.	0.
100	IC	3		1410	0.	0.	0.
100	IC	3		710	0.0025	0.	0.
100	IC	3		350	0.0069	0.	0.
100	IC	3		177	0.0064	0.	0.
100	IC	3		88	0.0131	0.	0.
100	IC	3		44	0.0684	0.	0.
100	IC	3		PAN	0.0289	0.	0.
100	IC	4	T		0.2549	0.2542E-06	0.9971E-06
100	IC	4		2830	0.	0.	0.
100	IC	4		1410	0.0094	0.2233E-06	0.2375E-04
100	IC	4		710	0.0080	0.2513E-07	0.3142E-05
100	IC	4		350	0.0071	0.8217E-08	0.1157E-05
100	IC	4		177	0.0071	0.5800E-08	-.8169E-06
100	IC	4		88	0.0402	0.5800E-08	0.1443E-06
100	IC	4		44	0.0959	0.	0.
100	IC	4		PAN	0.0662	0.	0.

TABLE 3.12 CONTINUED

SAMPLE NUMBER				SIZE (MICRONS)	MASS (GRAMS)	ACTIVITY AT 100 HR (MA)	SPECIFIC ACTIVITY AT 100 HR (MA/GRAMS)
100	IC	5	T		1.0883	0.5842E-05	0.5368E-05
100	IC	5		2830	0.0120	0.2562E-06	0.2135E-04
100	IC	5		1410	0.0507	0.3915E-06	0.7723E-05
100	IC	5		710	0.1802	0.3176E-05	0.1762E-04
100	IC	5		350	0.1041	0.1581E-05	0.1518E-04
100	IC	5		177	0.0498	0.6622E-06	0.1330E-04
100	IC	5		88	0.0708	0.1958E-06	0.2765E-05
100	IC	5		44	0.1049	0.8460E-07	0.8064E-06
100	IC	5		PAN	0.2659	0.7493E-07	0.2621E-06
100	IC	6	T		1.8340	0.2090E-05	0.1139E-05
100	IC	6		2830	0.	0.	0.
100	IC	6		1410	0.0037	0.9669E-08	0.2613E-05
100	IC	6		710	0.0237	0.2030E-06	0.8567E-05
100	IC	6		350	0.0977	0.1508E-05	0.1544E-04
100	IC	6		177	0.0244	0.1765E-06	0.7232E-05
100	IC	6		88	0.2117	0.6769E-07	0.3197E-06
100	IC	6		44	0.8646	0.3143E-07	0.3635E-07
100	IC	6		PAN	0.5490	0.2659E-07	0.4844E-07
100	IC	7	T		0.4163	0.4646E-06	0.1116E-05
100	IC	7		2830	0.	0.	0.
100	IC	7		1410	0.	0.	0.
100	IC	7		710	0.0016	0.	0.
100	IC	7		350	0.0079	0.7795E-07	0.9867E-05
100	IC	7		177	0.0283	0.3605E-06	0.1274E-04
100	IC	7		88	0.0722	0.5359E-07	0.7423E-06
100	IC	7		44	0.1798	0.9744E-08	0.5420E-07
100	IC	7		PAN	0.1149	0.7308E-08	0.6361E-07
100	IC	8	T		0.2019	0.4736E-06	0.2346E-05
100	IC	8		2830	0.	0.	0.
100	IC	8		1410	0.	0.	0.
100	IC	8		710	0.0012	0.	0.
100	IC	8		350	0.0016	0.	0.
100	IC	8		177	0.0044	0.	0.
100	IC	8		88	0.0411	0.	0.
100	IC	8		44	0.0932	0.	0.
100	IC	8		PAN	0.0491	0.	0.

TABLE 3.12 CONTINUED

SAMPLE NUMBER		SIZE (MICRONS)	MASS (GRAMS)	ACTIVITY AT 100 HR (MA)	SPECIFIC ACTIVITY AT 100 HR (MA/GRAM)
100 IC 9	T		0.5786	0.4468E-06	0.7722E-06
100 IC 9		2830	0.	0.	0.
100 IC 9		1410	0.	0.	0.
100 IC 9		710	0.0006	0.	0.
100 IC 9		350	0.0168	0.2997E-06	0.1784E-04
100 IC 9		177	0.0181	0.1852E-06	0.1023E-04
100 IC 9		88	0.0803	0.3411E-07	0.4248E-06
100 IC 9		44	0.2478	0.1462E-07	0.5900E-07
100 IC 9		PAN	0.1980	0.9746E-08	0.4922E-07
100 IC 10	T		1.1051	0.7644E-07	0.6917E-07
100 IC 10		2830	0.	0.	0.
100 IC 10		1410	0.0032	0.	0.
100 IC 10		710	0.0015	0.	0.
100 IC 10		350	0.0061	0.1209E-07	0.1982E-05
100 IC 10		177	0.0153	0.4837E-07	0.3162E-05
100 IC 10		88	0.1405	0.9674E-08	0.6885E-07
100 IC 10		44	0.4572	0.4837E-08	0.1058E-07
100 IC 10		PAN	0.4417	0.3870E-08	0.8761E-08
100 IC 11	T		0.7025	0.2106E-08	0.2998E-08
100 IC 11		2830	0.	0.	0.
100 IC 11		1410	0.	0.	0.
100 IC 11		710	0.0033	0.	0.
100 IC 11		350	0.0098	0.	0.
100 IC 11		177	0.0179	0.	0.
100 IC 11		88	0.1351	0.	0.
100 IC 11		44	0.3384	0.	0.
100 IC 11		PAN	0.1775	0.	0.
100 IC 12	T		0.3327	0.5364E-08	0.1612E-07
100 IC 12		2830	0.	0.	0.
100 IC 12		1410	0.	0.	0.
100 IC 12		710	0.0014	0.	0.
100 IC 12		350	0.0030	0.	0.
100 IC 12		177	0.0041	0.	0.
100 IC 12		88	0.0429	0.	0.
100 IC 12		44	0.1518	0.	0.
100 IC 12		PAN	0.1120	0.	0.

TABLE 3.12 CONTINUED

SAMPLE NUMBER		SIZE (MICRONS)	MASS (GRAMS)	ACTIVITY AT 100 HR (MA)	SPECIFIC ACTIVITY AT 100 HR (MA/GRAMS)
100 IC 13	T		0.2803	0.2733E-08	0.9752E-08
100 IC 13		2830	0.	0.	0.
100 IC 13		1410	0.	0.	0.
100 IC 13		710	0.0007	0.	0.
100 IC 13		350	0.0032	0.	0.
100 IC 13		177	0.0048	0.	0.
100 IC 13		88	0.0348	0.	0.
100 IC 13		44	0.1076	0.	0.
100 IC 13		PAN	0.1057	0.	0.
100 IC 14	T		0.2274	0.2980E-08	0.1310E-07
100 IC 14		2830	0.	0.	0.
100 IC 14		1410	0.0012	0.	0.
100 IC 14		710	0.0020	0.	0.
100 IC 14		350	0.0031	0.	0.
100 IC 14		177	0.0021	0.	0.
100 IC 14		88	0.0173	0.	0.
100 IC 14		44	0.1070	0.	0.
100 IC 14		PAN	0.0740	0.	0.
100 IC 15	T		0.2740	0.2187E-08	0.7983E-08
100 IC 15		2830	0.	0.	0.
100 IC 15		1410	0.	0.	0.
100 IC 15		710	0.0017	0.	0.
100 IC 15		350	0.0023	0.	0.
100 IC 15		177	0.0096	0.	0.
100 IC 15		88	0.0277	0.	0.
100 IC 15		44	0.1109	0.	0.
100 IC 15		PAN	0.0977	0.	0.
100 IC 16	T		0.1657	0.3145E-08	0.1898E-07
100 IC 16		2830	0.	0.	0.
100 IC 16		1410	0.	0.	0.
100 IC 16		710	0.0022	0.	0.
100 IC 16		350	0.0018	0.	0.
100 IC 16		177	0.0020	0.	0.
100 IC 16		88	0.0247	0.	0.
100 IC 16		44	0.0688	0.	0.
100 IC 16		PAN	0.0438	0.	0.

TABLE 3.12 CONTINUED

SAMPLE NUMBER		SIZE (MICRONS)	MASS (GRAMS)	ACTIVITY AT 100 HR (MA)	SPECIFIC ACTIVITY AT 100 HR (MA/GRAMS)
100 IC 17	T		0.1150	0.2598E-08	0.2259E-07
100 IC 17		2830	0.	0.	0.
100 IC 17		1410	0.	0.	0.
100 IC 17		710	0.0012	0.	0.
100 IC 17		350	0.0011	0.	0.
100 IC 17		177	0.0026	0.	0.
100 IC 17		88	0.0136	0.	0.
100 IC 17		44	0.0926	0.	0.
100 IC 17		PAN	0.0276	0.	0.
100 IC 18	T		0.2058	0.1915E-08	0.9303E-08
100 IC 18		2830	0.	0.	0.
100 IC 18		1410	0.0010	0.	0.
100 IC 18		710	0.0030	0.	0.
100 IC 18		350	0.0037	0.	0.
100 IC 18		177	0.0068	0.	0.
100 IC 18		88	0.0195	0.	0.
100 IC 18		44	0.0673	0.	0.
100 IC 18		PAN	0.0803	0.	0.
100 IC 19	T		0.2462	0.1710E-08	0.6944E-08
100 IC 19		2830	0.	0.	0.
100 IC 19		1410	0.	0.	0.
100 IC 19		710	0.0027	0.	0.
100 IC 19		350	0.0014	0.	0.
100 IC 19		177	0.0046	0.	0.
100 IC 19		88	0.0193	0.	0.
100 IC 19		44	0.0890	0.	0.
100 IC 19		PAN	0.1044	0.	0.
100 IC 20	T		-0.	0.4422E-05	0.
100 PC 1	T		3.6000	-0.	0.
100 PC 1		2830	0.	0.	0.
100 PC 1		1410	0.0320	0.2543E-06	0.8259E-05
100 PC 1		710	0.2086	0.2529E-05	0.1213E-04
100 PC 1		350	0.2140	0.2812E-05	0.1314E-04
100 PC 1		177	0.1335	0.1241E-05	0.9296E-05
100 PC 1		85	0.5142	0.1933E-06	0.3758E-06
100 PC 1		44	1.3705	0.1492E-06	0.1089E-06
100 PC 1		PAN	1.0804	0.2752E-06	0.2547E-06

TABLE 3.12 CONTINUED

SAMPLE NUMBER	SIZE (MICRONS)	MASS (GRAMS)	ACTIVITY AT 100 HR (MA)	SPECIFIC ACTIVITY AT 100 HR (MA/GRAMS)
100 PC 5 T		1.2500	0.4604E-05	0.3683E-05
100 PC 5	2830	0.	0.	0.
100 PC 5	1410	0.0528	0.6759E-06	0.1280E-04
100 PC 5	710	0.2016	0.1034E-05	0.5127E-05
100 PC 5	350	0.2051	0.1206E-05	0.5882E-05
100 PC 5	177	0.0674	0.1108E-05	0.1644E-04
100 PC 5	88	0.0630	0.2266E-06	0.3596E-05
100 PC 5	44	0.2356	0.1293E-06	0.5488E-06
100 PC 5	PAN	0.3880	0.2304E-06	0.5939E-06
100 PC 7 T		2.1453	0.9389E-05	0.4377E-05
100 PC 8 T		1.9756	0.9099E-05	0.4606E-05
100 PC 9 T		0.8995	0.8613E-05	0.9575E-05
100 PC 10 T		0.7466	0.8978E-05	0.1203E-04
100 PC 11 T		3.4546	0.9463E-05	0.2739E-05
100 PC 12 T		2.3390	0.9222E-05	0.3944E-05
100 PC 15 T		0.9796	0.8008E-05	0.8175E-05
100 PC 16 T		4.7130	0.9219E-05	0.1956E-05
100 PC 18 T		2.3486	0.1007E-04	0.4288E-05
100 PC 19 T		0.9966	0.8007E-05	0.8035E-05

TABLE 3.12 CONTINUED

SAMPLE NUMBER		SIZE (MICRONS)	MASS (GRAMS)	ACTIVITY AT 100 HR (MA)	SPECIFIC ACTIVITY AT 100 HR (MA/GRAMS)
100 PC 20	T		1.4181	0.1019E-04	0.7186E-05
100 PC 21	T		3.8433	0.8735E-05	0.2273E-05
100 PC 22	T		4.1325	0.9099E-05	0.2202E-05
100 PC 23	T		2.9603	0.8370E-05	0.2827E-05
100 PC 24	T		1.5980	0.9099E-05	0.5694E-05
100 PCC		2830W	0.1395	0.1711E-05	0.1227E-04
100 PCC		1410W	0.6530	0.5568E-06	0.8527E-06
100 PCC		710W	2.9130	0.9599E-05	0.3295E-05
100 PCC		350W	3.1705	0.3684E-04	0.1162E-04
100 PCC		177W	1.4023	0.4308E-04	0.3072E-04
100 PCC		88W	2.4150	0.1894E-04	0.7844E-05
100 PCC		44W	8.0200	0.2373E-05	0.2959E-06
100 PCC		40W	9.8200	0.3009E-05	0.3063E-06
100 PCC		30W	8.0400	0.2616E-05	0.3253E-06
100 PCC		20W	6.0000	0.2129E-05	0.3548E-06
100 PCC		10W	4.0200	0.1688E-05	0.4198E-06
100 PCC		5W	2.4600	0.1402E-05	0.5700E-06
100 PCC		3W	1.6800	0.1143E-05	0.6802E-06
100 PCC		1W	1.0400	0.7712E-06	0.7415E-06
100 PO 1	T		1.8800	-0.	0.
100 PO 1		2830	0.	0.	0.
100 PO 1		1410	0.2670	0.3308E-05	0.1239E-04
100 PO 1		710	0.3450	0.4460E-05	0.1293E-04
100 PO 1		350	0.2250	0.3496E-05	0.1554E-04
100 PO 1		177	0.0667	0.8189E-06	0.1228E-04
100 PO 1		89	0.1774	0.1190E-06	0.6710E-06
100 PO 1		44	0.4050	0.6288E-07	0.1552E-06
100 PO 1		PAN	0.3280	0.1005E-06	0.2974E-06

TABLE 3.12 CONTINUED

SAMPLE NUMBER				SIZE (MICRONS)	MASS (GRAMS)	ACTIVITY AT 100 HR (MA)	SPECIFIC ACTIVITY AT 100 HR (MA/GRAMS)
101	AO	1	T		10.2000	-0.	0.
101	AO	2	T		9.5800	-0.	0.
101	AO	2		2830	0.3265	0.3667E-05	0.1123E-04
101	AO	2		1410	1.5677	-0.	0.
101	AO	2		710	3.0104	-0.	0.
101	AO	2		350	1.2761	-0.	0.
101	AO	2		177	0.3033	0.1687E-05	0.5563E-05
101	AO	2		88	0.4320	0.8229E-06	0.1905E-05
101	AO	2		44	0.8790	0.5102E-06	0.5804E-06
101	AO	2		PAN	1.7710	0.3815E-06	0.2154E-06
101	AO	3	T		8.2000	-0.	0.
101	AO	3		2830	0.3265	0.4464E-05	0.1367E-04
101	AO	3		1410	1.2315	-0.	0.
101	AO	3		710	1.0330	-0.	0.
101	AO	3		350	0.9916	0.1227E-04	0.1238E-04
101	AO	3		177	0.1920	0.1444E-05	0.7521E-05
101	AO	3		88	0.3265	0.7843E-06	0.2402E-05
101	AO	3		44	0.7640	0.4860E-06	0.6362E-06
101	AO	3		PAN	1.4300	0.7389E-06	0.5167E-06
101	AO	4	T		12.9500	-0.	0.
101	AO	6	T		11.9700	-0.	0.
101	AO	6		2830	0.3090	0.3199E-05	0.1035E-04
101	AO	6		1410	1.5690	-0.	0.
101	AO	6		710	3.2922	-0.	0.
101	AO	6		350	1.2601	-0.	0.
101	AO	6		177	0.2730	0.2086E-05	0.7642E-05
101	AO	6		88	0.4100	0.1060E-05	0.2586E-05
101	AO	6		44	1.3914	0.6369E-06	0.4577E-06
101	AO	6		PAN	3.2903	0.9863E-06	0.2997E-06

TABLE 3.12 CONTINUED

SAMPLE NUMBER				SIZE (MICRONS)	MASS (GRAMS)	ACTIVITY AT 100 HR (MA)	SPECIFIC ACTIVITY AT 100 HR (MA/GRAMS)
101	AOC	1		2830W	-0.	0.8532E-05	0.
101	AOC	1		1410W	-0.	0.6658E-04	0.
101	AOC	1		710W	-0.	-0.	0.
101	AOC	1		350W	-0.	0.6562E-04	0.
101	AOC	1		177W	-0.	0.1034E-04	0.
101	AOC	1		88W	-0.	0.4687E-05	0.
101	AOC	1		44W	-0.	0.2884E-05	0.
101	AOC	1		40W	13.7000	0.5021E-05	0.3665E-06
101	AOC	1		30W	12.7200	0.4619E-05	0.3631E-06
101	AOC	1		20W	10.0400	0.3942E-05	0.3926E-06
101	AOC	1		10W	6.1200	0.3036E-05	0.4961E-06
101	AOC	1		5W	3.4400	0.2270E-05	0.6599E-06
101	AOC	1		3W	2.1200	0.1784E-05	0.8414E-06
101	AOC	1		1W	0.2600	0.7269E-06	0.2796E-05
101	OC	1	T		4.9000	0.1508E-03	0.3077E-04
101	OC	1		2830	0.3440	0.2387E-05	0.6940E-05
101	OC	1		1410	1.3420	0.1662E-04	0.1238E-04
101	OC	1		710	2.2280	0.2683E-04	0.1204E-04
101	OC	1		350	0.6930	0.9818E-04	0.1417E-03
101	OC	1		177	0.0610	0.7984E-05	0.1309E-03
101	OC	1		88	0.0520	0.3580E-06	0.6885E-05
101	OC	1		44	0.0820	0.2332E-06	0.2844E-05
101	OC	1		PAN	0.0750	0.2712E-06	0.3616E-05
101	OC	1		2830W	0.2631	0.2078E-05	0.7897E-05
101	OC	1		1410W	1.2503	0.1755E-04	0.1404E-04
101	OC	1		710W	2.2403	0.3034E-04	0.1354E-04
101	OC	1		350W	0.7220	0.1075E-04	0.1489E-04
101	OC	1		177W	0.0726	0.1001E-05	0.1378E-04
101	OC	1		88W	0.0491	0.4692E-06	0.9555E-05
101	OC	1		44W	0.0551	0.2335E-06	0.4238E-05
200	AO	1	T		1.0008	0.6203E-06	0.6198E-06

TABLE 3.12 CONTINUED

SAMPLE NUMBER	SIZE (MICRONS)	MASS (GRAMS)	ACTIVITY AT 100 HR (MA)	SPECIFIC ACTIVITY AT 100 HR (MA/GRAMS)
200 AO 2 T		0.6974	0.4126E-06	0.5917E-06
200 AO 2	2830	0.	0.	0.
200 AO 2	1410	0.0030	0.3740E-08	0.1247E-05
200 AO 2	710	0.0099	0.1311E-06	0.1325E-04
200 AO 2	350	0.0108	0.5742E-07	0.5317E-05
200 AO 2	177	0.0238	0.1608E-06	0.6757E-05
200 AO 2	88	0.1990	0.3292E-06	0.1654E-05
200 AO 2	44	0.4338	0.1058E-06	0.2440E-06
200 AO 2	PAN	0.0572	0.1850E-06	0.3235E-05
200 AO 3 T		0.6560	0.3685E-06	0.5618E-06
200 AO 4 T		0.3708	0.3481E-06	0.9387E-06
200 AO 6 T		0.4247	0.6000E-06	0.1413E-05
200 AO 7 T		0.5192	0.5066E-06	0.9758E-06
200 AO 10 T		2.2528	0.4711E-06	0.2091E-06
200 OC 1 T		0.2230	0.4354E-06	0.1952E-05
200 OC 1	2830	0.	0.	0.
200 OC 1	1410	0.0470	0.1196E-06	0.2545E-05
200 OC 1	710	0.0340	0.2895E-07	0.8515E-06
200 OC 1	350	0.0140	0.5956E-07	0.4254E-05
200 OC 1	177	0.0180	0.1022E-06	0.5677E-05
200 OC 1	88	0.0641	0.8361E-07	0.1304E-05
200 OC 1	44	0.0800	0.1474E-07	0.1843E-06
200 OC 1	PAN	0.0270	0.2294E-07	0.8496E-06
200 OC 1	2830W	0.	0.	0.
200 OC 1	1410W	0.0107	0.3551E-08	0.3319E-06
200 OC 1	710W	0.0146	0.3150E-07	0.2157E-05
200 OC 1	350W	0.0067	0.5219E-07	0.7789E-05
200 OC 1	177W	0.0132	0.8123E-07	0.6154E-05
200 OC 1	88W	0.0431	0.6193E-07	0.1437E-05
200 OC 1	44W	0.0532	0.1028E-07	0.1932E-06

TABLE 3.12 CONTINUED

SAMPLE NUMBER		SIZE (MICRONS)	MASS (GRAMS)	ACTIVITY AT 100 HR (MA)	SPECIFIC ACTIVITY AT 100 HR (MA/GRAMS)
201 AO 4	T		3.1800	0.3144E-04	0.9887E-05
201 AO 4		2830	0.0631	0.7692E-06	0.1219E-04
201 AO 4		1410	0.2313	0.2592E-05	0.1121E-04
201 AO 4		710	0.8008	0.8921E-05	0.1114E-04
201 AO 4		350	1.1462	0.1513E-04	0.1320E-04
201 AO 4		177	0.2062	0.2981E-05	0.1446E-04
201 AO 4		88	0.2263	0.5504E-06	0.2432E-05
201 AO 4		44	0.3568	0.2352E-06	0.6591E-06
201 AO 4		PAN	0.1692	0.2655E-06	0.1569E-05
201 AO 9	T		4.3200	-0.	0.
201 AO 9		2830	0.2121	0.1241E-05	0.5851E-05
201 AO 9		1410	0.2612	0.2750E-05	0.1053E-04
201 AO 9		710	0.9323	0.9381E-05	0.1006E-04
201 AO 9		350	1.1868	-0.	0.
201 AO 9		177	0.2014	0.2600E-05	0.1291E-04
201 AO 9		88	0.3777	0.4156E-06	0.1100E-05
201 AO 9		44	0.6862	0.2223E-06	0.3240E-06
201 AO 9		PAN	0.3813	0.3104E-06	0.8141E-06
201 AO 10	T		5.3500	-0.	0.
201 AO 10		2830	0.0322	0.3095E-06	0.9613E-05
201 AO 10		1410	0.3092	0.3234E-05	0.1046E-04
201 AO 10		710	1.0120	0.1026E-04	0.1013E-04
201 AO 10		350	1.3357	-0.	0.
201 AO 10		177	0.2835	0.3139E-05	0.1107E-04
201 AO 10		88	0.6114	0.5003E-06	0.8183E-06
201 AO 10		44	1.1510	0.2761E-06	0.2399E-06
201 AO 10		PAN	0.5360	0.3680E-06	0.6866E-06
201 AOC	T		11.5600	-0.	0.
201 AOC		2830	0.0497	0.4477E-06	0.9008E-05
201 AOC		1410	0.6453	0.7350E-05	0.1139E-04
201 AOC		710	3.0443	-0.	0.
201 AOC		350	4.5979	-0.	0.
201 AOC		177	0.8178	0.1301E-04	0.1591E-04
201 AOC		88	0.6110	0.2332E-05	0.3817E-05
201 AOC		44	1.1000	0.1300E-05	0.1182E-05
201 AOC		PAN	0.6910	0.1166E-05	0.1688E-05

TABLE 3.12 CONTINUED

SAMPLE NUMBER	SIZE (MICRONS)	MASS (GRAMS)	ACTIVITY AT 100 HR (MA)	SPECIFIC ACTIVITY AT 100 HR (MA/GRAMS)
201 AOC	2830W	0.0480	0.4433E-06	0.9236E-05
201 AOC	1410W	0.6130	0.7291E-05	0.1189E-04
201 AOC	710W	2.8766	-0.	0.
201 AOC	350W	4.5758	-0.	0.
201 AOC	177W	0.8101	0.1258E-04	0.1553E-04
201 AOC	88W	0.5507	0.2279E-05	0.4139E-05
201 AOC	44W	0.3451	0.1003E-05	0.1187E-05
201 AOC	40W	1.4200	0.3005E-05	0.2116E-05
201 AOC	30W	1.3000	0.3006E-05	0.2312E-05
201 AOC	20W	1.1800	0.2453E-05	0.2079E-05
201 AOC	10W	0.9800	0.2166E-05	0.2210E-05
201 AOC	5W	1.0400	0.2122E-05	0.2040E-05
201 AOC	3W	1.0400	0.1150E-06	0.1105E-06
201 AOC	1W	0.9400	0.1062E-05	0.1129E-05
203 IC 1 T		1.9672	0.9215E-07	0.4685E-07
203 IC 1	2830	0.0112	0.	0.
203 IC 1	1410	0.0149	0.	0.
203 IC 1	710	0.0025	0.	0.
203 IC 1	350	0.0153	0.4652E-07	0.3040E-05
203 IC 1	177	0.0383	0.2279E-07	0.5949E-06
203 IC 1	88	0.6372	0.9494E-08	0.1490E-07
203 IC 1	44	0.9587	0.3798E-08	0.3961E-08
203 IC 1	PAN	0.1902	0.	0.
203 IC 2 T		1.3734	0.1859E-05	0.1354E-05
203 IC 2	2830	0.0058	0.	0.
203 IC 2	1410	0.0713	0.6960E-06	0.9762E-05
203 IC 2	710	0.0635	0.8860E-06	0.1395E-04
203 IC 2	350	0.0317	0.2779E-06	0.8768E-05
203 IC 2	177	0.0523	0.7602E-07	0.1453E-05
203 IC 2	88	0.4343	0.3326E-07	0.7658E-07
203 IC 2	44	0.6108	0.1093E-07	0.1789E-07
203 IC 2	PAN	0.1006	0.2376E-08	0.2362E-07

TABLE 3.12 CONTINUED

SAMPLE NUMBER				SIZE (MICRONS)	MASS (GRAMS)	ACTIVITY AT 100 HR (MA)	SPECIFIC ACTIVITY AT 100 HR (MA/GRAMS)
203	IC	3	T		0.7210	0.2870E-05	0.3981E-05
203	IC	3		2830	0.0022	0.	0.
203	IC	3		1410	0.	0.	0.
203	IC	3		710	0.0427	0.7676E-06	0.1798E-04
203	IC	3		350	0.0778	0.1386E-05	0.1781E-04
203	IC	3		177	0.0378	0.5537E-06	0.1465E-04
203	IC	3		88	0.0962	0.1545E-06	0.1606E-05
203	IC	3		44	0.1647	0.5466E-07	0.3319E-06
203	IC	3		PAN	0.1357	0.2139E-07	0.1576E-06
203	IC	4	T		0.4774	0.5054E-05	0.1059E-04
203	IC	4		2830	0.	0.	0.
203	IC	4		1410	0.	0.	0.
203	IC	4		710	0.0251	0.3471E-06	0.1383E-04
203	IC	4		350	0.1361	0.4500E-05	0.3306E-04
203	IC	4		177	0.0351	0.4588E-06	0.1307E-04
203	IC	4		88	0.0493	0.1926E-06	0.3906E-05
203	IC	4		44	0.1076	0.8321E-07	0.7733E-06
203	IC	4		PAN	0.0311	0.2140E-07	0.6880E-06
203	IC	5	T		0.1505	0.2924E-06	0.1943E-05
203	IC	5		2830	0.	0.	0.
203	IC	5		1410	0.	0.	0.
203	IC	5		71	0.0038	0.3804E-08	0.1001E-05
203	IC	5		350	0.0108	0.1743E-05	0.1614E-03
203	IC	5		177	0.0129	0.1736E-06	0.1346E-04
203	IC	5		88	0.0339	0.4280E-07	0.1263E-05
203	IC	5		44	0.0738	0.1427E-07	0.1933E-06
203	IC	5		PAN	0.0196	0.7134E-08	0.3640E-05
203	IC	6	T		0.2992	0.3802E-08	0.1271E-07
203	IC	6		2830	0.	0.	0.
203	IC	6		1410	0.	0.	0.
203	IC	6		710	0.0040	0.	0.
203	IC	6		350	0.0022	0.	0.
203	IC	6		177	0.0038	0.	0.
203	IC	6		88	0.0473	0.	0.
203	IC	6		44	0.1695	0.	0.
203	IC	6		PAN	0.0532	0.	0.

TABLE 3.12 CONTINUED

SAMPLE NUMBER		SIZE (MICRONS)	MASS (GRAMS)	ACTIVITY AT 100 HR (MA)	SPECIFIC ACTIVITY AT 100 HR (MA/GRAMS)
203 IC 7	T		15.8632	0.2690E-08	0.1696E-09
203 IC 7		2830	0.	0.	0.
203 IC 7		1410	0.0383	0.	0.
203 IC 7		710	0.0040	0.	0.
203 IC 7		350	0.0183	0.	0.
203 IC 7		177	0.1524	0.	0.
203 IC 7		88	3.4997	0.	0.
203 IC 7		44	10.3603	0.	0.
203 IC 7		PAN	1.7825	0.	0.
203 IC 8	T		0.2784	-0.	0.
203 IC 8		2830	0.	0.	0.
203 IC 8		1410	0.0060	0.	0.
203 IC 8		710	0.0024	0.	0.
203 IC 8		350	0.0037	0.	0.
203 IC 8		177	0.0043	0.	0.
203 IC 8		88	0.0280	0.	0.
203 IC 8		44	0.1589	0.	0.
203 IC 8		PAN	0.0934	0.	0.
203 IC 9	T		0.4432	0.3701E-08	0.8351E-08
203 IC 9		2830	0.	0.	0.
203 IC 9		1410	0.	0.	0.
203 IC 9		710	0.0052	0.	0.
203 IC 9		350	0.0059	0.	0.
203 IC 9		177	0.0085	0.	0.
203 IC 9		88	0.0662	0.	0.
203 IC 9		44	0.2725	0.	0.
203 IC 9		PAN	0.0932	0.	0.
203 IC 10	T		1.8607	0.2569E-08	0.1391E-08
203 IC 10		2830	0.	0.	0.
203 IC 10		1410	0.0049	0.	0.
203 IC 10		710	0.0112	0.	0.
203 IC 10		350	0.0095	0.	0.
203 IC 10		177	0.0172	0.	0.
203 IC 10		88	0.2440	0.	0.
203 IC 10		44	0.9770	0.	0.
203 IC 10		PAN	0.5905	0.	0.

TABLE 3.12 CONTINUED

SAMPLE NUMBER		SIZE (MICRONS)	MASS (GRAMS)	ACTIVITY AT 100 HR (MA)	SPECIFIC ACTIVITY AT 100 HR (MA/GRAMS)
203 IC 11	T		0.6416	0.1881E-08	0.2932E-08
203 IC 11		2830	0.	0.	0.
203 IC 11		1410	0.	0.	0.
203 IC 11		710	0.0080	0.	0.
203 IC 11		350	0.0014	0.	0.
203 IC 11		.77	0.0050	0.	0.
203 IC 11		88	0.1009	0.	0.
203 IC 11		44	0.3948	0.	0.
203 IC 11		PAN	0.1371	0.	0.
203 IC 12	T		0.1208	0.1376E-08	0.1139E-07
203 IC 12		2830	0.	0.	0.
203 IC 12		1410	0.	0.	0.
203 IC 12		710	0.0007	0.	0.
203 IC 12		350	0.0024	0.	0.
203 IC 12		177	0.0056	0.	0.
203 IC 12		88	0.0275	0.	0.
203 IC 12		44	0.0745	0.	0.
203 IC 12		PAN	0.0175	0.	0.
203 IC 13	T		0.6238	-0.	0.
203 IC 13		2830	0.	0.	0.
203 IC 13		1410	0.0015	0.	0.
203 IC 13		710	0.0017	0.	0.
203 IC 13		350	0.0018	0.	0.
203 IC 13		177	0.0119	0.	0.
203 IC 13		88	0.1933	0.	0.
203 IC 13		44	0.3543	0.	0.
203 IC 13		PAN	0.0594	0.	0.
203 IC 14	T		1.6960	-0.	0.
203 IC 14		2830	0.	0.	0.
203 IC 14		1410	0.0444	0.2409E-08	0.5426E-07
203 IC 14		710	0.0140	0.2409E-08	0.1721E-06
203 IC 14		350	0.0185	0.2650E-07	0.1432E-05
203 IC 14		177	0.0305	0.7227E-08	0.2370E-06
203 IC 14		88	0.4195	0.4818E-08	0.1149E-07
203 IC 14		44	0.9737	0.2409E-08	0.2474E-08
203 IC 14		PAN	0.1917	0.	0.

TABLE 3.12 CONTINUED

SAMPLE NUMBER		SIZE (MICRONS)	MASS (GRAMS)	ACTIVITY AT 100 HR (MA)	SPECIFIC ACTIVITY AT 100 HR (MA/GRAMS)
203 IC 15	T		0.5161	0.1376E-08	0.2666E-08
203 IC 15		2830	0.	0.	0.
203 IC 15		1410	0.	0.	0.
203 IC 15		710	0.0059	0.	0.
203 IC 15		350	0.0038	0.	0.
203 IC 15		177	0.0059	0.	0.
203 IC 15		88	0.1598	0.	0.
203 IC 15		44	0.2960	0.	0.
203 IC 15		PAN	0.0506	0.	0.
203 IC 16	T		0.6273	0.9712E-09	0.1548E-08
203 IC 16		2830	0.	0.	0.
203 IC 16		1410	0.	0.	0.
203 IC 16		710	0.0005	0.	0.
203 IC 16		350	0.0010	0.	0.
203 IC 16		177	0.0073	0.	0.
203 IC 16		88	0.1910	0.	0.
203 IC 16		44	0.3929	0.	0.
203 IC 16		PAN	0.0372	0.	0.
203 IC 17	T		0.9667	-0.	0.
203 IC 17		2830	0.	0.	0.
203 IC 17		1410	0.	0.	0.
203 IC 17		710	0.0041	0.	0.
203 IC 17		350	0.0033	0.	0.
203 IC 17		177	0.0162	0.	0.
203 IC 17		88	0.3214	0.	0.
203 IC 17		44	0.5572	0.	0.
203 IC 17		PAN	0.0626	0.	0.
203 IC 18	T		1.2260	0.2388E-08	0.1948E-08
203 IC 18		2830	0.	0.	0.
203 IC 18		1410	0.0008	0.	0.
203 IC 18		710	0.0027	0.	0.
203 IC 18		350	0.0036	0.	0.
203 IC 18		177	0.0222	0.	0.
203 IC 18		88	0.3978	0.	0.
203 IC 18		44	0.6868	0.	0.
203 IC 18		PAN	0.1057	0.	0.

TABLE 3.12 CONTINUED

SAMPLE NUMBER	SIZE (MICRONS)	MASS (GRAMS)	ACTIVITY AT 100 HR (MA)	SPECIFIC ACTIVITY AT 100 HR (MA/GRAMS)
203 IC 19 T		1.0808	0.1578E-08	0.1460E-08
203 IC 19	2830	0.	0.	0.
203 IC 19	1410	0.	0.	0.
203 IC 19	710	0.0040	0.	0.
203 IC 19	350	0.0014	0.	0.
203 IC 19	177	0.0291	0.	0.
203 IC 19	88	0.4312	0.	0.
203 IC 19	44	0.5401	0.	0.
203 IC 19	PAN	0.0413	0.	0.
203 IC 20 T		1.5843	0.1174E-08	0.7409E-09
203 IC 20	2830	0.	0.	0.
203 IC 20	1410	0.	0.	0.
203 IC 20	710	0.0005	0.	0.
203 IC 20	350	0.0123	0.	0.
203 IC 20	177	0.0574	0.	0.
203 IC 20	88	0.6549	0.	0.
203 IC 20	44	0.7785	0.	0.
203 IC 20	PAN	0.0791	0.	0.
203 PC 1 T		1.3501	0.9784E-05	0.7247E-05
203 PC 2 T		1.3131	0.1001E-04	0.7620E-05
203 PC 4 T		0.9789	0.9229E-05	0.9428E-05
203 PC 5 T		1.0308	0.9341E-05	0.9062E-05
203 PC 7 T		1.2812	0.1179E-04	0.9199E-05
203 PC 9 T		1.1148	0.1085E-04	0.9736E-05

TABLE 3.12 CONTINUED

SAMPLE NUMBER		SIZE (MICRONS)	MASS (GRAMS)	ACTIVITY AT 100 HR (MA)	SPECIFIC ACTIVITY AT 100 HR (MA/GRAMS)
203 PC 10	T		1.1505	0.1041E-04	0.9044E-05
203 PC 12	T		1.1641	0.1145E-04	0.9838E-05
203 PC 16	T		1.6000	0.5391E-05	0.3369E-05
203 PC 16		2830	0.	0.	0.
203 PC 16		1410	0.0399	0.5993E-06	0.1502E-04
203 PC 16		710	0.1893	0.2257E-05	0.1192E-04
203 PC 16		350	0.3960	0.1673E-05	0.4225E-05
203 PC 16		177	0.0545	0.5369E-06	0.9851E-05
203 PC 16		88	0.2498	0.1548E-06	0.6195E-06
203 PC 16		44	0.4341	0.9008E-07	0.2073E-06
203 PC 16		PAN	0.1261	0.7584E-07	0.6014E-06
203 PCC	T		9.3835	0.4009E-04	0.4272E-05
203 PCC		2830W	0.1075	0.1545E-05	0.1437E-04
203 PCC		1410W	0.5007	0.6288E-05	0.1256E-04
203 PCC		710W	1.3646	0.1742E-04	0.1277E-04
203 PCC		350W	2.9582	0.4375E-05	0.1479E-05
203 PCC		177W	0.5005	0.6812E-05	0.1361E-04
203 PCC		88W	0.7674	0.2318E-05	0.3021E-05
203 PCC		44W	1.9786	0.1226E-05	0.6194E-06
203 PCC		PANW	-0.	0.1113E-05	0.
203 PO 2	T		1.2500	0.1686E-04	0.1349E-0[illegible]
203 PO 2		2830	0.	0.	0.
203 PO 2		1410	0.2040	0.3050E-05	0.1495E-04
203 PO 2		710	0.3580	0.5410E-05	0.1511E-04
203 PO 2		350	0.4700	0.7709E-05	0.1640E[illegible]
203 PO 2		177	0.0345	0.5383E-06	0.1560E-0[illegible]
203 PO 2		88	0.0345	0.1029E-06	0.2984E-0[illegible]
203 PO 2		44	0.0966	0.4801E-07	0.4970E-06
203 PO 2		PAN	0.0498	0.2564E-07	0.5148E-06

TABLE 3.12 CONTINUED

SAMPLE NUMBER	SIZE (MICRONS)	MASS (GRAMS)	ACTIVITY AT 100 HR (MA)	SPECIFIC ACTIVITY AT 100 HR (MA/GRAMS)
300 AO 7 T		0.3008	0.1204E-06	0.4001E-06
301 AO 1 T		2.0990	0.2688E-04	0.1281E-04
301 AO 2 T		2.1013	0.2688E-04	0.1279E-04
301 AO 3 T		2.1261	0.3045E-04	0.1432E-04
301 AO 4 T		1.9004	0.2484E-04	0.1307E-04
301 AO 6 T		2.0681	0.2647E-04	0.1280E-04
301 AO 7 T		2.2010	0.3146E-04	0.1429E-04
301 AO 8 T		2.2057	0.3085E-04	0.1399E-04
301 AO 9 T		2.3968	0.3147E-04	0.1313E-04
301 AO 10 T		3.0986	0.3492E-04	0.1127E-04
301 AOC T		20.2400	-0.	0.
301 AOC	2830W	0.0710	0.1587E-07	0.2235E-06
301 AOC	1410W	0.2960	0.3126E-05	0.1056E-04
301 AOC	710W	4.8210	0.6181E-04	0.1282E-04
301 AOC	350W	10.0960	-0.	0.
301 AOC	177W	2.1520	0.3175E-04	0.1475E-04
301 AOC	88W	1.0050	0.9140E-05	0.9095E-05
301 AOC	44W	1.2600	0.4738E-05	0.3761E-05
301 AOC	40W	-0.	-0.	0.
301 AOC	30W	-0.	-0.	0.
301 AOC	20W	-0.	-0.	0.
301 AOC	10W	-0.	-0.	0.
301 AOC	5W	-0.	-0.	0.
301 AOC	3W	-0.	-0.	0.
301 AOC	1W	-0.	-0.	0.

TABLE 3.12 CONTINUED

SAMPLE NUMBER			SIZE (MICRONS)	MASS (GRAMS)	ACTIVITY AT 100 HR (MA)	SPECIFIC ACTIVITY AT 100 HR (MA/GRAMS)
301 OC	1	T		1.1900	-0.	0.
301 OC	1		2830	0.	0.	0.
301 OC	1		1410	0.1300	0.1652E-05	0.1271E-04
301 OC	1		710	0.4960	0.7058E-05	0.1423E-04
301 OC	1		350	0.4910	0.7804E-05	0.1589E-04
301 OC	1		177	0.0570	0.1171E-05	0.2054E-04
301 OC	1		88	0.0130	0.1220E-06	0.9388E-05
301 OC	1		44	0.0120	0.4783E-07	0.3986E-05
301 OC	1		PAN	0.0040	0.1467E-07	0.3667E-05
301 OC	1		2830W	0.	0.	0.
301 OC	1		1410W	0.1028	0.1386E-05	0.1348E-04
301 OC	1		710W	0.4747	0.6962E-05	0.1467E-04
301 OC	1		350W	0.5072	0.8212E-05	0.1619E-04
301 OC	1		177W	0.0632	0.1318E-05	0.2085E-04
301 OC	1		88W	0.0267	0.1503E-06	0.5630E-05
301 OC	1		44W	0.0200	0.6701E-07	0.3350E-05
301 OC	1		PANW	-0.	0.1102E-06	0.
303 AOC		T		14.1000	-0.	0.
303 AOC			2830	0.	0.	0.
303 AOC			1410	0.1943	0.1596E-05	0.8213E-05
303 AOC			710	2.1836	-0.	0.
303 AOC			350	7.1501	-0.	0.
303 AOC			177	1.7262	0.2015E-04	0.1167E-04
303 AOC			88	0.5668	0.4554E-05	0.8034E-05
303 AOC			44	1.1021	0.2131E-05	0.1933E-05
303 AOC			PAN	1.0376	0.2397E-05	0.2310E-05
303 AOC			2830W	0.	0.	0.
303 AOC			1410W	0.1823	0.1597E-05	0.8760E-05
303 AOC			710W	2.0500	-0.	0.
303 AOC			350W	7.0169	-0.	0.
303 AOC			177W	1.7073	0.2384E-04	0.1396E-04
303 AOC			88W	0.5666	0.3699E-05	0.6529E-05
303 AOC			44W	0.8733	0.1919E-05	0.2197E-05
303 AOC			40W	1.4800	0.5032E-05	0.3400E-05
303 AOC			30W	1.5000	0.4724E-05	0.3149E-05
303 AOC			20W	0.9600	0.4106E-05	0.4277E-05
303 AOC			10W	0.8400	0.3665E-05	0.4363E-05
303 AOC			5W	0.9400	0.3444E-05	0.3664E-05
303 AOC			3W	0.6800	0.3224E-05	0.4741E-05
303 AOC			1W	0.5200	0.1718E-05	0.3304E-05

TABLE 3.12 CONTINUED

SAMPLE NUMBER	SIZE (MICRONS)	MASS (GRAMS)	ACTIVITY AT 100 HR (MA)	SPECIFIC ACTIVITY AT 100 HR (MA/GRAMS)
305 AO 3 T		1.4000	-0.	0.
305 AO 3	2830	0.	0.	0.
305 AO 3	1410	0.0335	0.1251E-06	0.3734E-05
305 AO 3	710	0.2195	0.2850E-05	0.1299E-04
305 AO 3	350	0.7485	-0.	0.
305 AO 3	177	0.1385	0.1633E-05	0.1179E-04
305 AO 3	88	0.0888	0.6211E-06	0.6994E-05
305 AO 3	44	0.1025	0.3220E-06	0.3141E-05
305 AO 3	PAN	0.0528	0.1644E-06	0.3114E-05
305 AO 4 T		1.5500	-0.	0.
305 AO 4	2830	0.0245	0.2422E-06	0.9885E-05
305 AO 4	1410	0.0667	0.6966E-06	0.1044E-04
305 AO 4	710	0.3065	0.1350E-05	0.4404E-05
305 AO 4	350	0.7198	-0.	0.
305 AO 4	177	0.1363	0.1621E-05	0.1189E-04
305 AO 4	88	0.1329	0.7434E-06	0.5594E-05
305 AO 4	44	0.1391	0.5185E-06	0.3727E-05
305 AO 4	PAN	0.0809	0.4395E-06	0.5433E-05
305 AO 6 T		1.3500	-0.	0.
305 AO 6	2830	0.0140	0.1345E-07	0.9609E-06
305 AO 6	1410	0.0100	0.1602E-07	0.1602E-05
305 AO 6	710	0.2985	0.3666E-05	0.1228E-04
305 AO 6	350	0.7610	-0.	0.
305 AO 6	177	0.0895	0.1168E-05	0.1305E-04
305 AO 6	88	0.0794	0.4566E-06	0.5750E-05
305 AO 6	44	0.0060	0.2229E-06	0.3714E-04
305 AO 6	PAN	0.0435	0.8909E-07	0.2048E-05
305 AO 7 T		1.4565	0.1729E-04	0.1187E-04
305 AO 10 T		2.2189	0.2461E-04	0.1109E-04

TABLE 3.12 CONTINUED

SAMPLE NUMBER	SIZE (MICRONS)	MASS (GRAMS)	ACTIVITY AT 100 HR (MA)	SPECIFIC ACTIVITY AT 100 HR (MA/GRAMS)
305 AOC T		3.6750	0.3706E-04	0.1008E-04
305 AOC	2830	0.	0.	0.
305 AOC	1410	0.0780	0.5839E-06	0.7486E-05
305 AOC	710	0.6330	0.9110E-05	0.1439E-04
305 AOC	350	1.7100	0.2457E-04	0.1437E-04
305 AOC	177	0.2800	0.3333E-06	0.1190E-05
305 AOC	88	0.2450	0.1063E-05	0.4340E-05
305 AOC	44	0.3800	0.5284E-06	0.1390E-05
305 AOC	PAN	0.3490	0.7652E-06	0.2193E-05
305 OC 1 T		1.8560	0.1208E-04	0.6509E-05
305 OC 1	2830	0.	0.	0.
305 OC 1	1410	0.0576	0.9497E-06	0.1649E-04
305 OC 1	710	0.3378	0.4462E-05	0.1321E-04
305 OC 1	350	0.3091	0.6508E-05	0.2106E-04
305 OC 1	177	0.0216	0.2384E-07	0.1104E-05
305 OC 1	88	0.0231	0.5759E-07	0.2493E-05
305 OC 1	44	0.0394	0.4551E-07	0.1155E-05
305 OC 1	PAN	0.0129	0.3986E-07	0.3090E-05
305 OC 1	2830W	0.	0.	0.
305 OC 1	1410W	0.0426	0.8346E-06	0.1959E-04
305 OC 1	710W	0.3154	0.4237E-05	0.1343E-04
305 OC 1	350W	0.4160	0.6811E-05	0.1637E-04
305 OC 1	177W	0.0204	0.2799E-06	0.1372E-04
305 OC 1	88W	0.0225	0.8755E-07	0.3891E-05
305 OC 1	44W	0.0294	0.4178E-07	0.1421E-05
305 OC 1	PANW	1.0097	0.1088E-06	0.1077E-06
400 AO 1 T		0.1043	-0.	-0.
401 AO 1 T		1.9130	0.1739E-04	0.9091E-05

TABLE 3.12 CONTINUED

SAMPLE NUMBER				SIZE (MICRONS)	MASS (GRAMS)	ACTIVITY AT 100 HR (MA)	SPECIFIC ACTIVITY AT 100 HR (MA/GRAMS)
401	AO	2	T		1.8433	0.1729E-04	0.9380E-05
401	AO	3	T		1.6883	0.1698E-04	0.1006E-04
401	AO	4	T		1.8287	0.1760E-04	0.9625E-05
401	AO	6	T		1.8308	0.1801E-04	0.9839E-05
401	AO	7	T		1.9596	0.1781E-04	0.9088E-05
401	AO	10	T		2.2973	0.1832E-04	0.7976E-05
401	AOC		T		12.3600	-0.	0.
401	AOC			2830W	0.0983	0.3949E-07	0.4018E-06
401	AOC			1410W	0.2163	0.1906E-06	0.8811E-06
401	AOC			710W	0.2383	0.1022E-05	0.4289E-05
401	AOC			350W	4.8245	0.6353E-04	0.1317E-04
401	AOC			177W	2.3035	0.3617E-04	0.1570E-04
401	AOC			88W	0.8283	0.3330E-05	0.4021E-05
401	AOC			44W	1.6908	0.1534E-05	0.9072E-06
401	AOC			PANW	-0.	0.4758E-05	0.
401	OC	1	T		0.7750	0.1224E-04	0.1580E-04
401	OC	1		2830	0.	0.	0.
401	OC	1		1410	0.	0.	0.
401	OC	1		710	0.0410	0.6790E-06	0.1656E-04
401	OC	1		350	0.5042	0.8115E-05	0.1610E-04
401	OC	1		177	0.1569	0.3269E-05	0.2083E-04
401	OC	1		88	0.0270	0.1277E-06	0.4730E-05
401	OC	1		44	0.0235	0.3578E-07	0.1522E-05
401	OC	1		PAN	0.0028	0.1616E-07	0.5770E-05

TABLE 3.12 CONTINUED

SAMPLE NUMBER	SIZE (MICRONS)	MASS (GRAMS)	ACTIVITY AT 100 HR (MA)	SPECIFIC ACTIVITY AT 100 HR (MA/GRAMS)
401 OC 1	2830W	0.	0.	0.
401 OC 1	1410W	0.	0.	0.
401 OC 1	710W	0.0361	0.5737E-06	0.1589E-04
401 OC 1	350W	0.4904	0.6310E-05	0.1287E-04
401 OC 1	177W	0.1615	0.3339E-05	0.2067E-04
401 OC 1	88W	0.0298	0.1426E-06	0.4786E-05
401 OC 1	44W	0.0254	0.3999E-07	0.1574E-05
401 OC 1	PANW	0.0318	0.5756E-07	0.1810E-05
403 AO 3 T		1.8800	-0.	0.
403 AO 3	2830	0.	0.	0.
403 AO 3	1410	0.0033	0.2702E-08	0.8187E-06
403 AO 3	710	0.0374	0.1834E-06	0.4903E-05
403 AO 3	350	0.5946	0.6890E-05	0.1159E-04
403 AO 3	177	0.7897	-0.	0.
403 AO 3	88	0.1218	0.9800E-06	0.8046E-05
403 AO 3	44	0.1663	0.1936E-06	0.1164E-05
403 AO 3	PAN	0.1121	0.2831E-06	0.2526E-05
403 AO 4 T		1.8396	-0.	0.
403 AO 4	2830	0.0076	0.4214E-08	0.5545E-06
403 AO 4	1410	0.0120	0.1020E-07	0.8499E-06
403 AO 4	710	0.0220	0.1003E-06	0.4557E-05
403 AO 4	350	0.6231	0.7278E-05	0.1168E-04
403 AO 4	177	0.8232	-0.	0.
403 AO 4	88	0.1268	0.1035E-05	0.8159E-05
403 AO 4	44	0.1437	0.3001E-06	0.2088E-05
403 AO 4	PAN	0.0814	0.2312E-06	0.2840E-05
403 AOC T		12.5000	-0.	0.
403 AOC	2830	0.0250	0.2149E-07	0.8595E-06
403 AOC	1410	0.0716	0.3595E-07	0.5021E-06
403 AOC	710	0.3710	0.7724E-06	0.2082E-05
403 AOC	350	3.1503	-0.	0.
403 AOC	177	4.3325	-0.	0.
403 AOC	88	0.7117	0.5199E-05	0.7306E-05
403 AOC	44	0.9596	0.1862E-05	0.1940E-05
403 AOC	PAN	0.8306	0.3128E-05	0.3765E-05

TABLE 3.12 CONTINUED

SAMPLE NUMBER				SIZE (MICRONS)	MASS (GRAMS)	ACTIVITY AT 100 HR (MA)	SPECIFIC ACTIVITY AT 100 HR (MA/GRAMS)
403	AOC			2830W	0.0160	0.2014E-07	0.1259E-05
403	AOC			1410W	0.0490	0.2886E-07	0.5890E-06
403	AOC			710W	0.1290	0.5796E-06	0.4493E-05
403	AOC			350W	2.8300	-0.	0.
403	AOC			177W	4.0750	-0.	0.
403	AOC			88W	0.5550	0.4556E-05	0.8209E-05
403	AOC			44W	0.6090	0.8468E-06	0.1390E-05
403	AOC			40W	0.9200	0.1087E-04	0.1182E-04
403	AOC			30W	0.9800	0.1031E-04	0.1052E-04
403	AOC			20W	0.8000	0.1014E-04	0.1267E-04
403	AOC			10W	0.6000	0.9279E-05	0.1547E-04
403	AOC			5W	0.3400	0.7735E-05	0.2275E-04
403	AOC			3W	0.4000	0.6621E-05	0.1655E-04
403	AOC			1W	0.2400	0.3293E-05	0.1372E-04
403	OC	1	T		1.1575	0.2805E-05	0.2423E-05
403	OC	1		2830W	0.	0.	0.
403	OC	1		1410W	0.	0.	0.
403	OC	1		710W	0.0742	0.2870E-06	0.3868E-05
403	OC	1		350W	0.3184	0.1641E-05	0.5153E-05
403	OC	1		177W	0.4730	0.7467E-06	0.1579E-05
403	OC	1		88W	0.1926	0.1454E-07	0.7547E-07
403	OC	1		44W	0.1020	0.9841E-08	0.9648E-07
403	OC	1		PANW	0.0054	0.5738E-06	0.1063E-03
405	AO	1	T		0.7631	0.8079E-05	0.1059E-04
405	AO	2	T		0.7472	0.7856E-05	0.1051E-04
405	AO	3	T		0.7740	0.7744E-05	0.1001E-04
405	AO	4	T		0.7387	0.8081E-05	0.1094E-04

TABLE 3.12 CONTINUED

SAMPLE NUMBER	SIZE (MICRONS)	MASS (GRAMS)	ACTIVITY AT 100 HR (MA)	SPECIFIC ACTIVITY AT 100 HR (MA/GRAMS)
405 AO 10 T		2.3776	0.1006E-04	0.4229E-05
405 AOC T		5.4010	0.3758E-04	0.6959E-05
405 AOC	2830W	0.0040	0.1556E-08	0.3890E-06
405 AOC	1410W	0.0240	0.2298E-07	0.9576E-06
405 AOC	710W	0.0680	0.6607E-07	0.9717E-06
405 AOC	350W	0.8292	0.1173E-04	0.1415E-04
405 AOC	177W	1.5458	0.2155E-04	0.1394E-04
405 AOC	88W	0.8446	0.1962E-05	0.2323E-05
405 AOC	44W	1.0309	0.8011E-06	0.7771E-06
405 AOC	PANW	-0.	0.1807E-05	0.
405 OC 1 T		0.5200	0.5731E-05	0.1102E-04
405 OC 1	2830	0.	0.	0.
405 OC 1	1410	0.	0.	0.
405 OC 1	710	0.0100	0.1202E-06	0.1202E-04
405 OC 1	350	0.1730	0.2795E-05	0.1616E-04
405 OC 1	177	0.1800	0.2706E-05	0.1504E-04
405 OC 1	88	0.0210	0.4269E-07	0.2033E-05
405 OC 1	44	0.0600	0.3253E-07	0.3421E-06
405 OC 1	PAN	0.0140	0.3189E-07	0.2278E-05
405 OC 1	2830W	0.	0.	0.
405 OC 1	1410W	0.	0.	0.
405 OC 1	710W	0.0054	0.6148E-07	0.1139E-04
405 OC 1	350W	0.1562	0.2606E-05	0.1668E-04
405 OC 1	177W	0.1710	0.2637E-05	0.1542E-04
405 OC 1	88W	0.0642	0.5735E-07	0.8933E-06
405 OC 1	44W	0.0510	0.2883E-07	0.5653E-06
405 OC 1	PANW	0.0722	0.1150E-06	0.1593E-05
407 OC 1 T		0.1778	0.1520E-04	0.8552E-04
407 OC 1	2830W	0.	0.	0.
407 OC 1	1410W	0.	0.	0.
407 OC 1	710W	0.0223	0.1741E-06	0.7808E-05
407 OC 1	350W	0.0982	0.5367E-05	0.5465E-04
407 OC 1	177W	0.0410	0.9404E-05	0.2294E-03
407 OC 1	88W	0.0103	0.5789E-06	0.5621E-04
407 OC 1	44W	0.0118	0.6463E-07	0.5478E-05
407 OC 1	PANW	0.0010	0.7152E-07	0.7152E-04

TABLE 3.12 CONTINUED

SAMPLE NUMBER	SIZE (MICRONS)	MASS (GRAMS)	ACTIVITY AT 100 HR (MA)	SPECIFIC ACTIVITY AT 100 HR (MA/GRAMS)
501 AO 1 T		0.2034	0.5355E-06	0.2633E-05
501 AO 2 T		0.1966	0.4892E-06	0.2488E-05
501 AO 3 T		0.0863	0.7268E-07	0.8421E-06
501 AO 4 T		0.1644	0.3648E-06	0.2219E-05
501 AO 7 T		0.1872	0.3234E-06	0.1728E-05
501 AOC T		0.8380	0.1820E-05	0.2172E-05
501 AOC	2830W	0.0007	0.1629E-08	0.2327E-05
501 AOC	1410W	0.0106	0.1892E-08	0.1785E-06
501 AOC	710W	0.0199	0.3053E-07	0.1534E-05
501 AOC	350W	0.0266	0.6470E-07	0.2432E-05
501 AOC	177W	0.0827	0.1287E-05	0.1556E-04
501 AOC	88W	0.1084	0.1790E-06	0.1652E-05
501 AOC	44W	0.2291	0.1291E-06	0.5635E-06
501 AOC	PANW	-0.	0.1252E-06	0.
503 AOC T		6.3940	-0.	0.
503 AOC	2830	0.0811	0.1838E-07	0.2266E-06
503 AOC	1410	0.0495	0.1550E-07	0.3131E-06
503 AOC	710	0.1161	0.8905E-07	0.7670E-06
503 AOC	350	0.5298	0.5913E-05	0.1116E-04
503 AOC	177	2.6105	-0.	0.
503 AOC	88	1.0362	0.1651E-05	0.1593E-05
503 AOC	44	1.0338	0.8598E-06	0.8317E-06
503 AOC	PAN	0.9365	0.1032E-05	0.1102E-05
503 AOC	2830W	0.0100	0.1280E-07	0.1280E-05
503 AOC	1410W	0.0410	0.3187E-07	0.7773E-06
503 AOC	710W	0.1080	0.1743E-06	0.1614E-05
503 AOC	350W	0.5040	0.4679E-05	0.9284E-05
503 AOC	177W	2.5790	-0.	0.
503 AOC	88W	0.9020	0.1568E-05	0.1739E-05
503 AOC	44W	0.7470	0.4957E-06	0.6636E-06
503 AOC	40W	1.0000	0.4062E-05	0.4062E-05
503 AOC	30W	0.8800	0.4011E-05	0.4558E-05
503 AOC	20W	0.6200	0.3841E-05	0.6195E-05
503 AOC	10W	0.4200	0.3638E-05	0.8662E-05
503 AOC	5W	0.2200	0.2992E-05	0.1360E-04
503 AOC	3W	0.2600	0.2653E-05	0.1020E-04
503 AOC	1W	0.3200	0.1496E-05	0.4677E-05

TABLE 3.12 CONTINUED

SAMPLE NUMBER				SIZE (MICRONS)	MASS (GRAMS)	ACTIVITY AT 100 HR (MA)	SPECIFIC ACTIVITY AT 100 HR (MA/GRAMS)
503	OC	1	T		0.3674	0.4797E-05	0.1306E-04
503	OC	1		2830W	0.	0.	0.
503	OC	1		1410W	0.	0.	0.
503	OC	1		710W	0.0077	0.9226E-08	0.1198E-05
503	OC	1		350W	0.0544	0.7328E-06	0.1347E-04
503	OC	1		177W	0.1870	0.3861E-05	0.2065E-04
503	OC	1		88W	0.0313	0.9548E-07	0.3051E-05
503	OC	1		44W	0.0507	0.2725E-07	0.5375E-06
503	OC	1		PANW	0.0080	0.1148E-06	0.1435E-04
505	AO	2		2830	0.	0.	0.
505	AO	2		1410	0.0011	0.7547E-10	0.6861E-07
505	AO	2		710	0.0039	0.2690E-08	0.6898E-06
505	AO	2		350	0.0453	0.5443E-06	0.1202E-04
505	AO	2		177	0.5438	0.2633E-05	0.4842E-05
505	AO	2		88	0.1928	0.5749E-06	0.2982E-05
505	AO	2		44	0.5500	0.1210E-06	0.2200E-06
505	AO	2		PAN	0.3675	-0.	0.
505	AO	3	T		1.8000	-0.	0.
505	AO	3		2830	0.	0.	0.
505	AO	3		1410	0.	0.	0.
505	AO	3		710	0.0061	0.3110E-08	0.5098E-06
505	AO	3		350	0.0906	0.8020E-06	0.8852E-05
505	AO	3		177	0.5125	-0.	0.
505	AO	3		88	0.1730	0.1994E-05	0.1153E-04
505	AO	3		44	0.4105	0.3824E-06	0.9316E-06
505	AO	3		PAN	0.4920	0.5379E-06	0.1080E-05
505	AO	6	T		1.7500	0.1160E-04	0.6629E-05
505	AO	6		2830	0.0173	0.6977E-09	0.4033E-07
505	AO	6		1410	0.0059	0.4448E-09	0.7539E-07
505	AO	6		710	0.0056	0.1003E-08	0.1790E-06
505	AO	6		350	0.0897	0.7408E-06	0.8258E-05
505	AO	6		177	0.5565	0.8134E-05	0.1462E-04
505	AO	6		88	0.2098	0.1859E-05	0.8860E-05
505	AO	6		44	0.3406	0.2554E-06	0.7497E-06
505	AO	6		PAN	0.5001	0.6098E-06	0.1219E-05

TABLE 3.12 CONTINUED

SAMPLE NUMBER				SIZE (MICRONS)	MASS (GRAMS)	ACTIVITY AT 100 HR (MA)	SPECIFIC ACTIVITY AT 100 HR (MA/GRAMS)
505	AO	7	T		1.6546	0.1407E-04	0.8502E-05
505	AO	8	T		1.7600	0.1418E-04	0.8057E-05
505	AO	9	T		1.5789	0.1306E-04	0.8269E-05
505	AOC		T		3.2000	0.4357E-04	0.1362E-04
505	AOC			2830W	0.	0.	0.
505	AOC			1410W	0.0080	0.5245E-07	0.6556E-05
505	AOC			710W	0.0050	0.3899E-07	0.7798E-05
505	AOC			350W	0.1270	0.1651E-05	0.1300E-04
505	AOC			177W	1.5360	0.3114E-04	0.2027E-04
505	AOC			88W	0.4860	0.6451E-05	0.1327E-04
505	AOC			44W	0.7010	0.5566E-06	0.7940E-06
505	AOC			PANW	-0.	0.3141E-05	0.
507	IC	1	T		0.2675	0.3255E-08	0.1217E-07
507	IC	1		2830	0.	0.	0.
507	IC	1		1410	0.0033	0.	0.
507	IC	1		710	0.0018	0.	0.
507	IC	1		350	0.0028	0.	0.
507	IC	1		177	0.0158	0.	0.
507	IC	1		88	0.0893	0.	0.
507	IC	1		44	0.1049	0.	0.
507	IC	1		PAN	0.0418	0.	0.
507	IC	2	T		0.3725	0.4475E-05	0.1201E-04
507	IC	2		2830	0.	0.	0.
507	IC	2		1410	0.	0.	0.
507	IC	2		710	0.0009	0.	0.
507	IC	2		350	0.0054	0.4638E-07	0.8589E-05
507	IC	2		177	0.1826	0.4069E-05	0.2229E-04
507	IC	2		88	0.0786	0.1070E-05	0.1361E-04
507	IC	2		44	0.0444	0.4134E-07	0.9311E-06
507	IC	2		PAN	0.0163	0.1109E-07	0.6805E-06

TABLE 3.12 CONTINUED

SAMPLE NUMBER				SIZE (MICRONS)	MASS (GRAMS)	ACTIVITY AT 100 HR (MA)	SPECIFIC ACTIVITY AT 100 HR (MA/GRAMS)
507	IC	3	T		0.0844	0.1129E-05	0.1337E-04
507	IC	3		2830	0.	0.	0.
507	IC	3		1410	0.0022	0.	0.
507	IC	3		710	0.0019	0.	0.
507	IC	3		350	0.0021	0.	0.
507	IC	3		177	0.0298	0.6151E-06	0.2064E-04
507	IC	3		88	0.0316	0.5899E-06	0.1867E-04
507	IC	3		44	0.0129	0.2017E-07	0.1563E-05
507	IC	3		PAN	0.0058	0.	0.
507	IC	4	T		0.0710	0.5901E-08	0.8311E-07
507	IC	4		2830	0.	0.	0.
507	IC	4		1410	0.	0.	0.
507	IC	4		710	0.0013	0.	0.
507	IC	4		350	0.0015	0.	0.
507	IC	4		177	0.0029	0.	0.
507	IC	4		88	0.0159	0.	0.
507	IC	4		44	0.0329	0.	0.
507	IC	4		PAN	0.0123	0.	0.
507	IC	5	T		0.0203	0.4884E-08	0.2406E-06
507	IC	5		2830	0.	0.	0.
507	IC	5		1410	0.	0.	0.
507	IC	5		710	0.0009	0.	0.
507	IC	5		350	0.0009	0.	0.
507	IC	5		177	0.0026	0.	0.
507	IC	5		88	0.0076	0.	0.
507	IC	5		44	0.0067	0.	0.
507	IC	5		PAN	0.0003	0.	0.
507	IC	6	T		0.0342	0.1160E-07	0.3392E-06
507	IC	6		2830	0.	0.	0.
507	IC	6		1410	0.	0.	0.
507	IC	6		710	0.0005	0.	0.
507	IC	6		350	0.0012	0.	0.
507	IC	6		177	0.0032	0.	0.
507	IC	6		88	0.0117	0.	0.
507	IC	6		44	0.0127	0.	0.
507	IC	6		PAN	0.0017	0.	0.

TABLE 3.12 CONTINUED

SAMPLE NUMBER				SIZE (MICRONS)	MASS (GRAMS)	ACTIVITY AT 100 HR (MA)	SPECIFIC ACTIVITY AT 100 HR (MA/GRAMS)
507	IC	7	T		0.0950	0.2972E-07	0.3128E-06
507	IC	7		2830	0.	0.	0.
507	IC	7		1410	0.0009	0.	0.
507	IC	7		710	0.0005	0.	0.
507	IC	7		350	0.0020	0.	0.
507	IC	7		177	0.0180	0.1766E-07	0.9811E-06
507	IC	7		88	0.0569	0.1110E-07	0.1951E-06
507	IC	7		44	0.0156	0.	0.
507	IC	7		PAN	0.0010	0.	0.
507	IC	8	T		0.0395	0.4071E-09	0.1031E-07
507	IC	8		2830	0.	0.	0.
507	IC	8		1410	0.	0.	0.
507	IC	8		710	0.0011	0.	0.
507	IC	8		350	0.0007	0.	0.
507	IC	8		177	0.0076	0.	0.
507	IC	8		88	0.0170	0.	0.
507	IC	8		44	0.0111	0.	0.
507	IC	8		PAN	0.0010	0.	0.
507	IC	9	T		0.0392	0.4071E-09	0.1039E-07
507	IC	9		2830	0.	0.	0.
507	IC	9		1410	0.	0.	0.
507	IC	9		710	0.0011	0.	0.
507	IC	9		350	0.0015	0.	0.
507	IC	9		177	0.0100	0.	0.
507	IC	9		88	0.0226	0.	0.
507	IC	9		44	0.0069	0.	0.
507	IC	9		PAN	0.0011	0.	0.
507	IC	10	T		0.0475	0.5497E-08	0.1157E-06
507	IC	10		2830	0.	0.	0.
507	IC	10		1410	0.	0.	0.
507	IC	10		710	0.0009	0.	0.
507	IC	10		350	0.0010	0.	0.
507	IC	10		177	0.0024	0.	0.
507	IC	10		88	0.0198	0.	0.
507	IC	10		44	0.0229	0.	0.
507	IC	10		PAN	0.0048	0.	0.

TABLE 3.12 CONTINUED

SAMPLE NUMBER	SIZE (MICRONS)	MASS (GRAMS)	ACTIVITY AT 100 HR (MA)	SPECIFIC ACTIVITY AT 100 HR (MA/GRAMS)
507 IC 11 T		0.0594	0.2443E-08	0.4113E-07
507 IC 11	2830	0.	0.	0.
507 IC 11	1410	0.	0.	0.
507 IC 11	710	0.	0.	0.
507 IC 11	350	0.0007	0.	0.
507 IC 11	177	0.0099	0.	0.
507 IC 11	88	0.0234	0.	0.
507 IC 11	44	0.0190	0.	0.
507 IC 11	PAN	0.0025	0.	0.
507 IC 12 T		0.0388	0.1934E-08	0.4985E-07
507 IC 12	2830	0.	0.	0.
507 IC 12	1410	0.	0.	0.
507 IC 12	710	0.0005	0.	0.
507 IC 12	350	0.0022	0.	0.
507 IC 12	177	0.0079	0.	0.
507 IC 12	88	0.0186	0.	0.
507 IC 12	44	0.0101	0.	0.
507 IC 12	PAN	0.0009	0.	0.
507 IC 13 T		0.0810	0.1323E-08	0.1634E-07
507 IC 13	2830	0.	0.	0.
507 IC 13	1410	0.	0.	0.
507 IC 13	710	0.0002	0.	0.
507 IC 13	350	0.0022	0.	0.
507 IC 13	177	0.0140	0.	0.
507 IC 13	88	0.0431	0.	0.
507 IC 13	44	0.0213	0.	0.
507 IC 13	PAN	0.0013	0.	0.
507 IC 14 T		0.0772	0.1120E-08	0.1451E-07
507 IC 15 T		0.0520	0.8145E-09	0.1566E-07
507 IC 15	2830	0.	0.	0.
507 IC 15	1410	0.0005	0.	0.
507 IC 15	710	0.0009	0.	0.
507 IC 15	350	0.0015	0.	0.
507 IC 15	177	0.0052	0.	0.
507 IC 15	88	0.0215	0.	0.
507 IC 15	44	0.0155	0.	0.
507 IC 15	PAN	0.0074	0.	0.

TABLE 3.12 CONTINUED

SAMPLE NUMBER		SIZE (MICRONS)	MASS (GRAMS)	ACTIVITY AT 100 HR (MA)	SPECIFIC ACTIVITY AT 100 HR (MA/GRAMS)
507 IC 16	T		0.0449	0.8145E-09	0.1814E-07
507 IC 16		2830	0.	0.	0.
507 IC 16		1410	0.	0.	0.
507 IC 16		710	0.0024	0.	0.
507 IC 16		350	0.0042	0.	0.
507 IC 16		177	0.0054	0.	0.
507 IC 16		88	0.0139	0.	0.
507 IC 16		44	0.0134	0.	0.
507 IC 16		PAN	0.0032	0.	0.
507 IC 17			0.0340	0.1222E-08	0.3594E-07
507 IC 17		2830	0.	0.	0.
507 IC 17		1410	0.	0.	0.
507 IC 17		710	0.0008	0.	0.
507 IC 17		350	0.0015	0.	0.
507 IC 17		177	0.0035	0.	0.
507 IC 17		88	0.0120	0.	0.
507 IC 17		44	0.0106	0.	0.
507 IC 17		PAN	0.0028	0.	0.
507 IC 18	T		2.0178	0.1324E-08	0.6560E-09
507 IC 18		2830	0.	0.	0.
507 IC 18		1410	0.0002	0.	0.
507 IC 18		710	0.	0.	0.
507 IC 18		350	0.0007	0.	0.
507 IC 18		177	0.0023	0.	0.
507 IC 18		88	0.0055	0.	0.
507 IC 18		44	0.0056	0.	0.
507 IC 18		PAN	0.0014	0.	0.
507 IC 19	T		0.0666	0.1527E-08	0.2293E-07
507 IC 19		2830	0.	0.	0.
507 IC 19		1410	0.0325	0.	0.
507 IC 19		710	0.	0.	0.
507 IC 19		350	0.0010	0.	0.
507 IC 19		177	0.0061	0.	0.
507 IC 19		88	0.0130	0.	0.
507 IC 19		44	0.0113	0.	0.
507 IC 19		PAN	0.0021	0.	0.

TABLE 3.12 CONTINUED

SAMPLE NUMBER	SIZE (MICRONS)	MASS (GRAMS)	ACTIVITY AT 100 HR (MA)	SPECIFIC ACTIVITY AT 100 HR (MA/GRAMS)
507 IC 20 T		0.1746	0.3279E-07	0.1878E-06
507 IC 20	2830	0.	0.	0.
507 IC 20	1410	0.0007	0.	0.
507 IC 20	710	0.0064	0.	0.
507 IC 20	350	0.0044	0.	0.
507 IC 20	177	0.0401	0.2878E-07	0.7177E-06
507 IC 20	88	0.0713	0.8584E-08	0.1204E-06
507 IC 20	44	0.0341	0.	0.
507 IC 20	PAN	0.0102	0.	0.
507 PC 2 T		0.4080	0.	0.
507 PC 4 T		0.5000	0.5105E-05	0.1021E-04
507 PC 4	2830	0.	0.	0.
507 PC 4	1410	0.	0.	0.
507 PC 4	710	0.0016	0.4224E-09	0.2640E-06
507 PC 4	350	0.0106	0.1072E-06	0.1012E-04
507 PC 4	177	0.2050	0.3258E-05	0.1589E-04
507 PC 4	88	0.1271	0.1076E-05	0.8464E-05
507 PC 4	44	0.0749	0.7812E-07	0.1043E-05
507 PC 4	PAN	0.0268	0.5855E-07	0.2185E-05
507 PC 5 T		0.5500	0.5898E-06	0.1072E-05
507 PC 5	2830	0.	0.	0.
507 PC 5	1410	0.0034	0.7887E-09	0.2320E-06
507 PC 5	710	0.0026	0.1217E-08	0.4679E-06
507 PC 5	350	0.0140	0.1068E-06	0.7629E-05
507 PC 5	177	0.2410	0.1487E-05	0.6171E-05
507 PC 5	88	0.1405	0.8494E-06	0.6045E-05
507 PC 5	44	0.0919	0.6835E-07	0.7438E-06
507 PC 5	PAN	0.0500	0.2244E-07	0.4487E-06
507 PC 8 T		-0.	0.9714E-03	0.

TABLE 3.12 CONTINUED

SAMPLE NUMBER	SIZE (MICRONS)	MASS (GRAMS)	ACTIVITY AT 100 HR (MA)	SPECIFIC ACTIVITY AT 100 HR (MA/GRAMS)
507 PC 9 T		0.3602	0.5450E-05	0.1513E-04
507 PC 10 T		0.3670	0.5405E-05	0.1473E-04
507 PC 12 T		0.3394	0.4953E-05	0.1459E-04
507 PC 15 T		0.1231	0.1609E-05	0.1307E-04
507 PC 16 T		0.3699	0.5629E-05	0.1522E-04
507 PC 18 T		0.4916	0.5966E-05	0.1214E-04
507 PC 19 T		-0.	0.7352E-07	0.
507 PC 20 T		0.3650	0.5742E-05	0.1573E-04
507 PC 21 T		0.3541	0.3829E-05	0.1081E-04
507 PC 22 T		0.4971	0.5856E-05	0.1178E-04
507 PC 23 T		0.3951	0.5181E-05	0.1311E-04
507 PC 24 T		0.3296	0.4391E-05	0.1332E-04
507 PCC	2830W	0.	0.	0.
507 PCC	1410W	0.0090	0.1070E-07	0.1337E-05
507 PCC	710W	0.0160	0.3479E-07	0.2174E-05
507 PCC	350W	0.1060	0.1209E-05	0.1140E-04
507 PCC	177W	2.1570	0.3922E-04	0.1818E-04
507 PCC	98W	1.1880	0.1288E-04	0.1085E-04
507 PCC	44W	0.4730	0.7551E-06	0.1596E-05
507 PCC	PANW	-0.	0.1405E-05	0.

TABLE 3.12 CONTINUED

SAMPLE NUMBER	SIZE (MICRONS)	MASS (GRAMS)	ACTIVITY AT 100 HR (MA)	SPECIFIC ACTIVITY AT 100 HR (MA/GRAMS)
509 AO 1 T		0.7194	0.1071E-05	0.1489E-05
509 AO 2 T		0.6585	0.9821E-06	0.1491E-05
509 AO 3 T		0.7032	0.1228E-05	0.1747E-05
509 AO 4 T		0.6196	0.1005E-05	0.1621E-05
509 AO 6 T		0.8252	0.4244E-05	0.5143E-05
509 AO 7 T		0.5615	0.1071E-05	0.1243E-05
509 AOC T		4.3870	0.8752E-05	0.1995E-05
509 AOC	2830W	0.0920	0.9458E-08	0.1028E-06
509 AOC	1410W	0.0470	0.2396E-07	0.5098E-06
509 AOC	710W	0.0430	0.3405E-07	0.7920E-06
509 AOC	350W	0.0650	0.8955E-07	0.1378E-05
509 AOC	177W	1.2010	0.4792E-05	0.3990E-05
509 AOC	88W	1.8690	0.3279E-05	0.1754E-05
509 AOC	44W	0.6510	0.1186E-06	0.1822E-06
509 AOC	PANW	-0.	0.4025E-06	0.
601 AOC T		0.9500	-0.	0.
601 AOC	2830	0.0261	0.6631E-09	0.2541E-07
601 AOC	1410	0.0472	0.2221E-05	0.4706E-04
601 AOC	710	0.0320	0.4645E-08	0.1451E-06
601 AOC	350	0.0320	0.3333E-07	0.1042E-05
601 AOC	177	0.1444	0.1428E-05	0.9888E-05
601 AOC	88	0.2367	0.6507E-06	0.2749E-05
601 AOC	44	0.2612	0.1127E-06	0.4316E-06
601 AOC	PAN	0.1678	0.5913E-07	0.3524E-06

TABLE 3.12 CONTINUED

SAMPLE NUMBER	SIZE (MICRONS)	MASS (GRAMS)	ACTIVITY AT 100 HR (MA)	SPECIFIC ACTIVITY AT 100 HR (MA/GRAMS)
601 AOC	2830W	0.0170	0.6386E-09	0.3756E-07
601 AOC	1410W	0.0430	0.1572E-06	0.3656E-05
601 AOC	710W	0.0280	0.6525E-07	0.2330E-05
601 AOC	350W	0.0280	0.5631E-07	0.2011E-05
601 AOC	177W	0.1330	0.1406E-05	0.1057E-04
601 AOC	88W	0.2120	0.6732E-06	0.3175E-05
601 AOC	44W	0.2210	0.1053E-06	0.4767E-06
601 AOC	40W	-0.	0.2046E-06	0.
601 AOC	30W	-0.	0.1928E-06	0.
601 AOC	20W	-0.	0.1678E-06	0.
601 AOC	10W	-0.	0.1622E-06	0.
601 AOC	5W	-0.	0.1504E-06	0.
601 AOC	3W	-0.	0.1316E-06	0.
601 AOC	1W	-0.	0.1030E-06	0.
603 AO 1 T		0.6000	0.6081E-05	0.1013E-04
603 AO 1	2830	0.	0.	0.
603 AO 1	1410	0.0132	0.1348E-09	0.1021E-07
603 AO 1	710	0.0019	0.2832E-08	0.1491E-05
603 AO 1	350	0.0083	0.6738E-07	0.8119E-05
603 AO 1	177	0.1958	0.3209E-05	0.1639E-04
603 AO 1	88	0.1516	0.2500E-05	0.1649E-04
603 AO 1	44	0.1179	0.1789E-06	0.1517E-05
603 AO 1	PAN	0.1123	0.1309E-06	0.1166E-05
603 AO 2 T		0.5500	0.7511E-05	0.1366E-04
603 AO 2	2830	0.	0.	0.
603 AO 2	1410	0.	0.	0.
603 AO 2	710	0.0010	0.9327E-09	0.9327E-06
603 AO 2	350	0.0060	0.1601E-07	0.2668E-05
603 AO 2	177	0.1723	0.3009E-05	0.1747E-04
603 AO 2	88	0.1567	0.2492E-05	0.1590E-04
603 AO 2	44	0.1049	0.1591E-06	0.1517E-05
603 AO 2	PAN	0.0868	0.9505E-07	0.1095E-05

TABLE 3.12 CONTINUED

SAMPLE NUMBER				SIZE (MICRONS)	MASS (GRAMS)	ACTIVITY AT 100 HR (MA)	SPECIFIC ACTIVITY AT 100 HR (MA/GRAMS)
603	AO	6	T		0.6580	0.7296E-05	0.1109E-04
603	AO	7	T		0.5933	0.6286E-05	0.1060E-04
603	AO	8	T		0.7470	0.7073E-05	0.9468E-05
603	AO	9	T		0.6428	0.7185E-05	0.1118E-04
603	AOC		T		2.7410	0.2652E-04	0.9674E-05
603	AOC			2830W	0.1282	0.1566E-08	0.1222E-07
603	AOC			1410W	0.0484	0.1097E-07	0.2266E-06
603	AOC			710W	0.0158	0.3206E-07	0.2029E-05
603	AOC			350W	0.0383	0.3727E-06	0.9731E-05
603	AOC			177W	0.7246	0.1338E-04	0.1846E-04
603	AOC			88W	0.5846	0.1085E-04	0.1856E-04
603	AOC			44W	0.4026	0.4451E-06	0.1105E-05
603	AOC			PANW	-0.	0.1494E-05	0.
605	AO	1	T		0.4412	0.5743E-05	0.1302E-04
605	AO	1		2830	0.	0.	0.
605	AO	1		1410	0.	0.	0.
605	AO	1		710	0.	0.	0.
605	AO	1		350	0.	0.	0.
605	AO	1		177	0.1449	0.2590E-05	0.1788E-04
605	AO	1		88	0.1894	0.2891E-05	0.1526E-04
605	AO	1		44	0.0555	0.1710E-06	0.3081E-05
605	AO	1		PAN	0.0315	0.7413E-07	0.2353E-05
605	AO	2	T		0.4397	0.6251E-05	0.1422E-04
605	AO	3	T		0.4692	0.6252E-05	0.1332E-04

TABLE 3.12 CONTINUED

SAMPLE NUMBER	SIZE (MICRONS)	MASS (GRAMS)	ACTIVITY AT 100 HR (MA)	SPECIFIC ACTIVITY AT 100 HR (MA/GRAMS)
605 AO 4 T		0.5240	0.6586E-05	0.1257E-04
605 AO 6 T		0.5101	0.6476E-05	0.1269E-04
605 AO 7 T		0.5176	0.3238E-05	0.6255E-05
605 AOC T		2.4610	0.3284E-04	0.1334E-04
605 AOC	2830W	0.	0.	0.
605 AOC	1410W	0.0371	0.5981E-07	0.1612E-05
605 AOC	710W	0.0383	0.1619E-06	0.4228E-05
605 AOC	350W	0.0556	0.4612E-06	0.8295E-05
605 AOC	177W	0.7331	0.1143E-04	0.1559E-04
605 AOC	88W	0.9204	0.1289E-04	0.1401E-04
605 AOC	44W	0.2434	0.5586E-06	0.2295E-05
605 AOC	PANW	-0.	0.1264E-05	0.
607 AO 1 T		0.6565	0.4909E-06	0.7477E-06
607 AO 2 T		0.2563	0.5356E-06	0.2090E-05
607 AO 3 T		0.2489	0.4796E-06	0.1927E-05
607 AO 4 T		0.5685	0.5132E-06	0.9027E-06
607 AO 6 T		0.3233	0.4797E-06	0.1484E-05
607 AO 7 T		0.6257	0.5802E-06	0.92[illegible]E-06
705 AOC T		3.5280	0.1441E-04	0.4085E-0[illegible]
705 AOC	2830	0.0170	0.6628E-09	0.38[illegible]E-07
705 AOC	1410	0.0080	0.3434E-08	0.4293E-06
705 AOC	710	0.0220	0.3617E-09	0.1644E-05
705 AOC	350	0.0240	0.1791E-07	0.7461E-06
705 AOC	177	0.2850	0.1628E-05	0.5712E-05
705 AOC	88	0.9580	0.7534E-05	0.7869E-05
705 AOC	44	1.2020	0.4741E-05	0.3945E-05
705 AOC	PAN	1.0120	0.4510E-06	0.4456E-06

TABLE 3.12 CONTINUED

SAMPLE NUMBER				SIZE (MICRONS)	MASS (GRAMS)	ACTIVITY AT 100 HR (MA)	SPECIFIC ACTIVITY AT 100 HR (MA/GRAMS)
705	AOC			2830W	0.0110	0.7809E-09	0.7099E-07
705	AOC			1410W	0.0010	0.	0.
705	AOC			710W	0.0150	0.1176E-07	0.7839E-06
705	AOC			350W	0.0210	0.1021E-06	0.4860E-05
705	AOC			177W	0.2110	0.1411E-05	0.6689E-05
705	AOC			88W	0.6430	0.5294E-05	0.8233E-05
705	AOC			44W	0.5890	0.2517E-06	0.4273E-06
705	AOC			40W	-0.	0.1157E-05	0.
705	AOC			30W	-0.	0.1122E-05	0.
705	AOC			20W	-0.	0.1080E-05	0.
705	AOC			10W	-0.	0.9766E-06	0.
705	AOC			5W	-0.	0.8171E-06	0.
705	AOC			3W	-0.	0.6924E-06	0.
705	AOC			1W	-0.	0.5876E-06	0.
707	AO	3	T		0.3000	0.2909E-05	0.9696E-05
707	AO	3		2830	0.	0.	0.
707	AO	3		1410	0.	0.	0.
707	AO	3		710	0.0046	0.2285E-08	0.4967E-06
707	AO	3		350	0.0036	0.5503E-08	0.1529E-05
707	AO	3		177	0.0159	0.1464E-06	0.9208E-05
707	AO	3		88	0.1474	0.2551E-05	0.1731E-04
707	AO	3		44	0.0955	0.1204E-06	0.1261E-05
707	AO	3		PAN	0.0618	0.8636E-07	0.1397E-05
707	AO	9		2830	0.	0.	0.
707	AO	9		1410	0.	0.	0.
707	AO	9		710	0.	0.	0.
707	AO	9		350	0.0046	0.8776E-08	0.1908E-05
707	AO	9		177	0.0273	0.1611E-06	0.5901E-05
707	AO	9		88	0.1443	0.2453E-05	0.1700E-04
707	AO	9		44	0.0956	0.1191E-06	0.1246E-05
707	AO	9		PAN	0.1373	0.1823E-06	0.1328E-05

TABLE 3.12 CONTINUED

SAMPLE NUMBER		SIZE (MICRONS)	MASS (GRAMS)	ACTIVITY AT 100 HR (MA)	SPECIFIC ACTIVITY AT 100 HR (MA/GRAMS)
707 LAC	T		10.6640	-0.	0.
707 LAC		2830W	0.	0.	0.
707 LAC		1410W	0.0240	0.2653E-07	0.1106E-05
707 LAC		710W	0.0410	0.6015E-07	0.1467E-05
707 LAC		350W	0.1120	0.3591E-06	0.3207E-05
707 LAC		177W	0.6280	0.3842E-05	0.6117E-05
707 LAC		88W	4.1140	0.4732E-04	0.1150E-04
707 LAC		44W	5.3070	-0.	0.
707 LAC		40W	24.3200	0.1568E-04	0.6446E-06
707 LAC		30W	20.5200	0.1492E-04	0.7271E-06
707 LAC		20W	16.3800	0.1467E-04	0.8956E-06
707 LAC		10W	8.8400	0.1240E-04	0.1403E-05
707 LAC		5W	6.1800	0.1013E-04	0.1639E-05
707 LAC		3W	3.8000	0.6844E-05	0.1801E-05
707 LAC		1W	0.6000	0.2298E-05	0.3831E-05
801 LAC	T		76.4000	-0.	0.
801 LAC		2830W	0.	0.	0.
801 LAC		1410W	0.1211	0.9723E-09	0.8029E-08
801 LAC		710W	0.1763	0.8103E-09	0.4596E-08
801 LAC		350W	0.6075	0.2593E-08	0.4268E-08
801 LAC		177W	4.9704	0.6158E-08	0.1239E-08
801 LAC		88W	25.4018	0.2042E-07	0.8040E-09
801 LAC		44W	24.7778	0.2415E-07	0.9747E-09
801 LAC		PANW	-0.	0.3502E-07	0.
811 LAC	T		120.8000	-0.	0.
811 LAC		2830W	0.0043	0.6473E-09	0.1505E-06
811 LAC		1410W	0.0041	0.3236E-09	0.7894E-07
811 LAC		710W	0.0383	0.4046E-08	0.1056E-06
811 LAC		350W	0.1998	0.6150E-08	0.3078E-07
811 LAC		177W	7.4917	0.1978E-06	0.2640E-07
811 LAC		88W	36.3965	0.3547E-06	0.9746E-08
811 LAC		44W	37.7642	0.1395E-06	0.3695E-08
811 LAC		40W	22.7400	-0.	0.
811 LAC		30W	18.0000	-0.	0.
811 LAC		20W	7.3900	-0.	0.
811 LAC		10W	3.6000	-0.	0.
811 LAC		5W	2.3000	-0.	0.
811 LAC		3W	2.2800	-0.	0.
811 LAC		1W	0.6800	-0.	0.

TABLE 3.12 CONTINUED

SAMPLE NUMBER		SIZE (MICRONS)	MASS (GRAMS)	ACTIVITY AT 100 HR (MA)	SPECIFIC ACTIVITY AT 100 HR (MA/GRAMS)
812 LAC	T		38.7500	-0.	0.
812 LAC		2830W	0.	-0.	0.
812 LAC		1410W	0.0233	-0.	0.
812 LAC		710W	0.0449	-0.	0.
812 LAC		350W	0.1569	-0.	0.
812 LAC		177W	1.4346	-0.	0.
812 LAC		88W	7.5928	-0.	0.
812 LAC		44W	12.5352	-0.	0.
812 LAC		40W	8.4800	0.6628E-06	0.7816E-07
812 LAC		30W	7.1200	0.5998E-06	0.8410E-07
812 LAC		20W	4.3000	0.5475E-06	0.1273E-06
812 LAC		10W	2.0600	0.5006E-06	0.2430E-06
812 LAC		5W	1.0600	0.3766E-06	0.3552E-06
812 LAC		3W	0.6800	0.2953E-06	0.4343E-06
813 LAC	T		18.5000	-0.	0.
813 LAC		2830	0.	0.	0.
813 LAC		1410	0.0460	0.2655E-06	0.5771E-05
813 LAC		710	0.0841	0.1596E-06	0.1898E-05
813 LAC		350	0.1120	0.1327E-06	0.1184E-05
813 LAC		177	0.4965	0.1121E-05	0.2257E-05
813 LAC		88	3.5672	0.5562E-05	0.1559E-05
813 LAC		44	8.4350	0.4358E-05	0.5167E-06
813 LAC		PAN	5.6493	0.1405E-05	0.2486E-06
814 AO 3	T		0.7108	0.4500E-06	0.6332E-06
814 AO 4	T		0.2746	0.3525E-06	0.1284E-05
814 AOC	T		0.9854	0.7916E-06	0.8033E-06
814 AOC		2830W	0.	0.	0.
814 AOC		1410W	0.	0.	0.
814 AOC		710W	0.0170	0.1684E-06	0.9904E-05
814 AOC		350W	0.0090	0.2177E-07	0.2419E-05
814 AOC		177W	0.0265	0.5402E-07	0.2033E-05
814 AOC		88W	0.1985	0.4344E-06	0.2188E-05
814 AOC		44W	0.5914	0.3434E-06	0.5807E-06
814 AOC		PANW	-0.	0.1257E-06	0.

TABLE 3.12 CONTINUED

SAMPLE NUMBER		SIZE (MICRONS)	MASS (GRAMS)	ACTIVITY AT 100 HR (MA)	SPECIFIC ACTIVITY AT 100 HR (MA/GRAMS)
814 LAC	T		33.3634	-0.	0.
814 LAC		2830W	0.0385	0.9887E-08	0.2568E-06
814 LAC		1410W	0.0261	0.7874E-08	0.3017E-06
814 LAC		710W	0.0416	0.1666E-07	0.4006E-06
814 LAC		350W	0.1080	0.9449E-07	0.8749E-06
814 LAC		177W	0.4393	0.6310E-06	0.1436E-05
814 LAC		88W	2.6863	0.5218E-05	0.1943E-05
814 LAC		44W	8.7204	0.3938E-05	0.4516E-06
814 LAC		40W	4.1400	0.8051E-06	0.1945E-06
814 LAC		30W	2.2800	0.5920E-06	0.2596E-06
814 LAC		20W	0.6600	0.4229E-06	0.6407E-06
814 LAC		10W	0.1800	0.2538E-06	0.1410E-05
814 LAC		5W	0.0600	0.1466E-06	0.2444E-05
814 LAC		3W	0.0400	0.9587E-07	0.2397E-05
814 LAC		1W	0.0400	0.8459E-07	0.2115E-05
815 LAC	T		38.2288	-0.	0.
815 LAC		2830W	0.	0.	0.
815 LAC		1410W	0.0552	0.3313E-07	0.6002E-06
815 LAC		710W	0.0799	0.4188E-07	0.5241E-06
815 LAC		350W	0.1671	0.8323E-07	0.4981E-06
815 LAC		177W	0.9301	0.3908E-06	0.4202E-06
815 LAC		88W	5.7093	0.3979E-05	0.6969E-06
815 LAC		44W	10.9323	0.3353E-05	0.3067E-06
815 LAC		40W	7.7600	0.4104E-05	0.5288E-06
815 LAC		30W	6.0000	0.3815E-05	0.6358E-06
815 LAC		20W	3.4400	0.3447E-05	0.1002E-05
815 LAC		10W	1.4600	0.3000E-05	0.2055E-05
815 LAC		5W	1.4400	0.2395E-05	0.1663E-05
815 LAC		3W	0.4000	0.2000E-05	0.5000E-05
815 LAC		1W	0.0400	0.1211E-05	0.3027E-04
816 AO 1	T		0.4880	0.2392E-06	0.4902E-06
816 AO 2	T		0.4949	0.2392E-06	0.4834E-06

TABLE 3.12 CONTINUED

SAMPLE NUMBER		SIZE (MICRONS)	MASS (GRAMS)	ACTIVITY AT 100 HR (MA)	SPECIFIC ACTIVITY AT 100 HR (MA/GRAMS)
816 AO 3	T		0.3334	0.2176E-06	0.6527E-06
816 AO 4	T		0.3223	0.1787E-06	0.5545E-06
816 AOC	T		1.3163	0.6980E-06	0.5302E-06
816 AOC		2830W	0.	0.	0.
816 AOC		1410W	0.	0.	0.
816 AOC		710W	0.0067	0.3033E-08	0.4527E-06
816 AOC		350W	0.0145	0.1848E-07	0.1274E-05
816 AOC		177W	0.0773	0.2096E-07	0.2712E-06
816 AOC		88W	0.4307	0.3078E-06	0.7147E-06
816 AOC		44W	0.5615	0.2747E-06	0.4893E-06
816 AOC		PANW	-0.	0.8854E-07	0.
816 LAC	T		43.0000	-0.	0.
816 LAC		2830W	0.0054	0.1469E-08	0.2720E-06
816 LAC		1410W	0.1068	0.7805E-08	0.7308E-07
816 LAC		710W	0.1272	0.4417E-07	0.3473E-06
816 LAC		350W	0.1990	0.3499E-07	0.1758E-06
816 LAC		177W	1.3203	0.2104E-06	0.1594E-06
816 LAC		88W	0.7393	0.3214E-05	0.4348E-05
816 LAC		44W	11.5526	0.3673E-05	0.3180E-06
816 LAC		40W	10.4000	0.4929E-05	0.4739E-06
816 LAC		30W	9.0800	0.4462E-05	0.4914E-06
816 LAC		20W	6.0600	0.3910E-05	0.6452E-06
816 LAC		10W	3.4600	0.3253E-05	0.9400E-06
816 LAC		5W	1.5800	0.2127E-05	0.1346E-05
817 LAC	T		64.3500	-0.	0.
817 LAC		2830W	0.1313	-0.	0.
817 LAC		1410W	0.4011	-0.	0.
817 LAC		710W	0.6480	-0.	0.
817 LAC		350W	0.8352	-0.	0.
817 LAC		177W	5.9264	-0.	0.
817 LAC		88W	15.5161	-0.	0.
817 LAC		44W	16.4221	-0.	0.
817 LAC		40W	10.9800	0.5468E-05	0.4980E-06
817 LAC		30W	8.8200	0.4913E-05	0.5570E-06
817 LAC		20W	4.8200	0.4102E-05	0.8510E-06
817 LAC		10W	1.7600	0.3034E-05	0.1724E-05
817 LAC		5W	0.6600	0.1744E-05	0.2640E-05
817 LAC		3W	0.2200	0.1505E-05	0.6840E-05

TABLE 3.12 CONTINUED

SAMPLE NUMBER		SIZE (MICRONS)	MASS (GRAMS)	ACTIVITY AT 100 HR (MA)	SPECIFIC ACTIVITY AT 100 HR (MA/GRAMS)
818 AO 1	T		0.5183	0.2449E-06	0.4725E-06
818 AO 2	T		0.7303	0.2690E-06	0.3684E-06
818 AO 3	T		0.5106	0.2594E-06	0.5080E-06
818 AO 4	T		0.7783	0.3366E-06	0.4324E-06
818 AOC	T		2.5375	0.1113E-05	0.4385E-06
818 AOC		2830W	0.1509	0.2979E-08	0.1974E-07
818 AOC		1410W	0.0469	0.3108E-08	0.6627E-07
818 AOC		710W	0.0366	0.1062E-07	0.2902E-06
818 AOC		350W	0.0638	0.2616E-07	0.4101E-06
818 AOC		177W	0.2674	0.3989E-07	0.1492E-06
818 AOC		88W	0.5547	0.3486E-06	0.6285E-06
818 AOC		44W	0.7237	0.4265E-06	0.5893E-06
818 AOC		PANW	-0.	0.2581E-06	0.
818 LAC		2830W	0.	0.	0.
818 LAC		1410W	0.0270	0.2653E-07	0.9827E-06
818 LAC		710W	0.0850	0.1572E-07	0.1850E-06
818 LAC		350W	0.2330	0.2533E-07	0.1087E-06
818 LAC		177W	1.6700	0.1705E-06	0.1021E-06
818 LAC		88W	10.1280	0.2639E-05	0.2606E-06
818 LAC		44W	23.9440	0.4199E-05	0.1754E-06
818 LAC		40W	12.4800	0.2148E-05	0.1721E-06
818 LAC		30W	9.8800	0.1870E-05	0.1893E-06
818 LAC		20W	4.3600	0.1466E-05	0.3362E-06
818 LAC		10W	0.2800	0.1113E-05	0.3973E-05
818 LAC		5W	0.4800	0.8852E-06	0.1844E-05
818 LAC		3W	1.1400	0.8348E-06	0.7323E-06
818 LAC		1W	0.3200	0.6074E-06	0.1898E-05

TABLE 3.12 CONTINUED

SAMPLE NUMBER		SIZE (MICRONS)	MASS (GRAMS)	ACTIVITY AT 100 HR (MA)	SPECIFIC ACTIVITY AT 100 HR (MA/GRAMS)
819 LAC		2830W	0.0373	0.6171E-08	0.1654E-06
819 LAC		1410W	0.0301	0.5034E-08	0.[illegible]672E-06
819 LAC		710W	0.0595	0.1169E-07	0.1965E-06
819 LAC		350W	0.1418	0.2989E-07	0.2108E-06
819 LAC		177W	0.6965	0.9291E-07	0.1334E-06
819 LAC		88W	4.2560	0.1737E-05	0.4080E-06
819		44W	10.5492	0.2029E-05	0.1923E-06
LAC		40W	13.3600	0.1812E-05	0.1357E-06
819 LAC		30W	11.0200	0.1527E-05	0.1385E-06
819 LAC		20W	6.6200	-0.	0.
819 LAC		10W	3.4600	-0.	0.
819 LAC		5W	2.1200	-0.	0.
819 LAC		3W	0.	-0.	0.
819 LAC		1W	0.5000	-0.	0.
820 LAC	T		41.2000	-0.	0.
820 LAC		2830W	0.0134	0.1831E-08	0.1367E-06
820 LAC		1410W	0.0557	0.1172E-06	0.2104E-05
820 LAC		710W	0.1045	0.5241E-07	0.5015E-06
820 LAC		350W	0.1943	0.3269E-07	0.1682E-06
820 LAC		177W	1.0395	0.7496E-07	0.7211E-07
820 LAC		88W	5.2453	0.1084E-05	0.2066E-06
820 LAC		44W	12.2344	0.1571E-05	0.1284E-06
820 LAC		40W	13.5800	0.1558E-05	0.1148E-06
820 LAC		30W	10.7600	-0.	0.
820 LAC		20W	6.4800	-0.	0.
820 LAC		10W	3.4000	-0.	0.
820 LAC		5W	1.9600	-0.	0.
820 LAC		3W	1.3400	-0.	0.
820 LAC		1W	0.1000	-0.	0.
821 LAC	T		37.4000	-0.	0.
821 LAC		2830W	0.	0.	0.
821 LAC		1410W	0.0443	0.7053E-09	0.1592E-07
821 LAC		710W	0.0816	0.4091E-08	0.5014E-07
821 LAC		350W	0.1644	0.6772E-08	0.4119E-07
821 LAC		177W	0.5462	0.1975E-07	0.3616E-07
821 LAC		88W	2.7503	0.3149E-06	0.1133E-06
821 LAC		44W	8.2724	0.7609E-06	0.9198E-07
821 LAC		40W	-0.	0.3291E-06	0.
821 LAC		30W	-0.	0.6882E-06	0.
821 LAC		20W	-0.	0.5386E-06	0.
821 LAC		10W	-0.	0.4788E-06	0.
821 LAC		5W	-0.	0.3591E-06	0.
821 LAC		3W	-0.	0.2394E-06	0.
821 LAC		1W	-0.	0.[illegible]E-07	0.

TABLE 3.12 CONTINUED

SAMPLE NUMBER		SIZE (MICRONS)	MASS (GRAMS)	ACTIVITY AT 100 HR (MA)	SPECIFIC ACTIVITY AT 100 HR (MA/GRAMS)
822 LAC	T		20.0000	-0.	0.
822 LAC		2830W	0.5355	0.1622E-09	0.3029E-09
822 LAC		1410W	0.3189	0.6002E-08	0.1882E-07
822 LAC		710W	0.2429	0.4705E-08	0.1937E-07
822 LAC		350W	0.2628	0.1282E-07	0.4878E-07
822 LAC		177W	0.5072	0.2126E-07	0.4191E-07
822 LAC		88W	2.2888	0.2080E-06	0.9090E-07
822 LAC		44W	5.3182	0.4044E-06	0.7604E-07
822 LAC		PANW	-0.	0.4629E-06	0.
824 LAC	T		17.2000	-0.	0.
824 LAC		2830	0.	0.	0.
824 LAC		1410	0.0282	0.1297E-08	0.4600E-07
824 LAC		710	0.1261	0.9729E-09	0.7715E-08
824 LAC		350	0.3222	0.3081E-08	0.9562E-08
824 LAC		177	0.6758	0.1492E-07	0.2208E-07
824 LAC		88	2.1749	0.1074E-06	0.4936E-07
824 LAC		44	3.6552	0.1933E-06	0.5289E-07
824 LAC		PAN	0.	0.2329E-06	0.

TABLE 3.13 LEACHING OF FALLOUT RADIOACTIVITY IN SOLUTIONS OF pH 1, 6, AND 10

Solution	Sample No.	Size Fraction	Age at Start	Time of Contact	Activity on Fallout	Activity in Solution	% Leached
		Mesh No.	(d)	(d)	(ma)	(ma)	
Water pH 6.0	203 ER*	Gross	0.163	0.001	550×10^{-8}	292×10^{-10}	0.53
HCl pH 1.0	403 AO*	+24	5.9	1.0	716×10^{-10}	386×10^{-10}	35.03
Water pH 6.0	403 *	+24	5.9	1.0	1596×10^{-10}	210×10^{-11}	1.30
NaOH pH 10.0	403 *	+24	5.9	1.0	1496×10^{-10}	220×10^{-11}	1.45
HCl pH 1.0	403 *	+42	5.9	1.0	1050×10^{-8}	300×10^{-9}	2.77
Water pH 6.0	403 *	+42	5.9	1.0	870×10^{-8}	251×10^{-10}	0.29
NaOH pH 10.0	403	+42	5.9	1.0	680×10^{-8}	196×10^{-10}	0.29
HCl pH 1.0	403	+80	5.9	1.0	1560×10^{-8}	390×10^{-9}	2.44
Water pH 6.0	403	+80	5.9	1.0	1630×10^{-8}	436×10^{-10}	0.27
NaOH pH 10.0	403	+80	5.9	1.0	1730×10^{-8}	416×10^{-10}	0.24
HCl pH 1.0	403	+170	5.9	1.0	140×10^{-8}	190×10^{-9}	11.95
Water pH 6.0	403	+170	5.9	1.0	950×10^{-9}	116×10^{-10}	1.21
NaOH pH 10.0	403	+170	5.9	1.0	735×10^{-9}	920×10^{-11}	1.24
HCl pH 1.0	503 AO	+24	5.9	3.2	351×10^{-10}	196×10^{-10}	35.83
Water pH 6.0	503	+24	5.9	3.2	236×10^{-10}	80×10^{-11}	3.28
NaOH pH 10.0	503	+24	5.9	3.2	296×10^{-10}	45×10^{-11}	1.5
HCl pH 1.0	503	+42	5.9	3.2	406×10^{-10}	476×10^{-10}	53.97
Water pH 6.0	503	+42	5.9	3.2	626×10^{-10}	155×10^{-11}	2.42
NaOH pH 10.0	503	+42	5.9	3.2	586×10^{-10}	80×10^{-11}	1.35
HCl pH 1.0	503	+80	5.9	3.2	605×10^{-8}	350×10^{-9}	5.47
Water pH 6.0	503	+80	5.9	3.2	850×10^{-8}	216×10^{-10}	0.25
NaOH pH 10.0	503	+80	5.9	3.2	505×10^{-8}	96×10^{-10}	0.19
HCl pH 1.0	503	+170	5.9	3.2	180×10^{-9}	100×10^{-9}	35.71
Water Ph 6.0	503	+170	5.9	3.2	305×10^{-9}	565×10^{-11}	1.82
NaOH pH 10.0	503	+170	5.9	3.2	235×10^{-9}	300×10^{-11}	1.26
HCl pH 1.0	303 AO	+24	5.0	6.0	365×10^{-8}	310×10^{-9}	7.83
Water pH 6.0		+24			415×10^{-8}	121×10^{-10}	0.29
NaOH pH 10.0		+24			458×10^{-8}	590×10^{-11}	0.13

TABLE 3.13 CONTINUED

Solution	Sample No.	Size Fraction	Age at Start	Time of Contact	Activity on Fallout	Activity in Solution	% Leached
		Mesh No.	(d)	(d)	(ma)	(ma)	
HCl pH 1.0	303 AO	+42	5.0	6.0	1220×10^{-8}	400×10^{-9}	3.17
Water pH 6.0		+42			1620×10^{-8}	1515×10^{-11}	0.09
NaOH pH 10.0		+42			1550×10^{-8}	2335×10^{-11}	0.15
HCl pH 1.0		+80			470×10^{-8}	350×10^{-9}	6.93
Water pH 6.0		+80			400×10^{-8}	615×10^{-11}	0.15
NaOH pH 10.0		+80			470×10^{-8}	685×10^{-11}	0.14
HCl pH 1.0		+170			335×10^{-9}	165×10^{-9}	33.00
Water pH 6.0		+170			590×10^{-9}	620×10^{-11}	1.04
NaOH pH 10.0		+170			530×10^{-9}	290×10^{-11}	0.54
HCl pH 1.0	201 AO	+24	5.9	10.1	300×10^{-8}	278×10^{-9}	8.48
Water pH 6.0		+24			511×10^{-8}	287×10^{-11}	0.06
NaOH pH 10.0		+24			331×10^{-8}	127×10^{-11}	0.04
HCl pH 1.0		+42			632×10^{-8}	249×10^{-9}	3.79
Water pH 6.0		+42			478×10^{-8}	257×10^{-11}	0.05
NaOH pH 10.0		+42			649×10^{-8}	380×10^{-8}	36.93
HCl pH 1.0		+80			915×10^{-9}	215×10^{-9}	19.03
Water pH 6.0		+80			141×10^{-8}	153×10^{-11}	0.11
NaOH pH 10.0		+80			147×10^{-8}	134×10^{-11}	0.09
HCl pH 1.0		+170			132×10^{-9}	960×10^{-10}	42.10
Water pH 6.0		+170			110×10^{-9}	45×10^{-11}	0.41
NaOH pH 10.0		+170			318×10^{-9}	89×10^{-11}	0.28
HCl ph 1.0	203 PO2*	+12	1.1	8.0	870×10^{-9}	625×10^{-9}	41.81
		+24			200×10^{-8}	655×10^{-9}	24.67
		+42			305×10^{-8}	740×10^{-9}	19.52
		+80			110×10^{-9}	155×10^{-9}	58.49
		+170			216×10^{-10}	286×10^{-10}	56.97
		+325			116×10^{-10}	116×10^{-10}	50.00
		<325			690×10^{-11}	530×10^{-11}	43.44

TABLE 3.13 CONTINUED

Solution	Sample No.	Size Fraction	Age at Start	Time of Contact	Activity on Fallout	Activity in Solution	% Leached
		Mesh No.	(d)	(d)	(ma)	(ma)	
Xylene	405 OC	24	5.9	4.0	280×10^{-10}	Bkg	Nil
		42			130×10^{-8}		
		80			130×10^{-8}		
		170			260×10^{-10}		
Xylene	305 OC	12	5.9	10.1	222×10^{-9}	Bkg	Nil
		24			126×10^{-8}		
		42			210×10^{-8}		
		80			789×10^{-10}		
		170			222×10^{-10}		
		325			99×10^{-10}		

* Gamma pulse height spectra available.

TABLE 3.14 EXCHANGE OF FALLOUT RADIOACTIVITY WITH CLAY AND ADOBE

Exchange Media	Sample	Size	Age at Start	Time of Contact	Activity on Fallout	Activity on Media	% Exchange
		Mesh No.	(d)	(d)	(ma)	(ma)	
Adobe	301 AO	+12	9.4	1.1	685×10^{-9}	185×10^{-10}	2.63
Clay		+24			343×10^{-8}	133×10^{-9}	3.73
Adobe		+42			418×10^{-8}	833×10^{-10}	1.95
Clay		+80			603×10^{-9}	370×10^{-10}	5.81
Adobe		+170			715×10^{-10}	455×10^{-11}	5.98
Clay		+325			165×10^{-10}	140×10^{-10}	45.90
Adobe	200 AO	12	9.4	3.0	95×10^{-11}	Bkgd.	Nil
Clay		24			111×10^{-10}	60×10^{-11}	5.13
Adobe		42			226×10^{-10}	60×10^{-11}	2.59
Clay		80			306×10^{-10}	110×10^{-11}	3.47
Clay	401 AO	+24	9.5	7.9	130×10^{-9}	264×10^{-10}	16.88
Adobe		+42			190×10^{-8}	211×10^{-10}	1.10
Clay		+80			957×10^{-9}	832×10^{-10}	8.00
Adobe		+170			374×10^{-10}	437×10^{-11}	10.46
Clay		+325			480×10^{-11}	120×10^{-10}	71.43

TABLE 3.15 TOTAL WEIGHT AND ACTIVITY OF VI SAMPLES

Station	Intake Sample	Weight-gm	Activity-ma*	Specific Act. ma/gm
SIS	Cup	0.0038	7,432 x 10^{-11}	1,956,000 x 10^{-11}
	VI-1	1.0341	8,910 x 10^{-11}	8,617 x 10^{-11}
	VI-5	0.4861	162 x 10^{-11}	333 x 10^{-11}
	VI-4	0.4303	100 x 10^{-11}	232 x 10^{-11}
	VI-3	-- **	-- **	-- **
	VI-2	0.5105	107 x 10^{-11}	210 x 10^{-11}
S2	Cup	0.0348	12,240 x 10^{-11}	352,000 x 10^{-11}
	VI-1	0.1119	5,216 x 10^{-11}	46,610 x 10^{-11}
	VI-5	0.4799	1,016 x 10^{-11}	2,120 x 10^{-11}
	VI-4	0.2186	1,116 x 10^{-11}	5,100 x 10^{-11}
	VI-3	0.2168	1,179 x 10^{-11}	5,440 x 10^{-11}
	VI-2	0.3628	1,079 x 10^{-11}	2,970 x 10^{-11}
S5	Cup	0.0050	4,177 x 10^{-11}	835,000 x 10^{-11}
	VI-1	0.1668	3,374 x 10^{-11}	20,230 x 10^{-11}
	VI-5	0.0768	929 x 10^{-11}	12,100 x 10^{-11}
	VI-4	0.0438	477 x 10^{-11}	10,890 x 10^{-11}
	VI-3	0.0317	326 x 10^{-11}	10,280 x 10^{-11}
	VI-2	0.0405	716 x 10^{-11}	17,680 x 10^{-11}

* Activity corrected to 100 hours.

** Unit did not operate during test.

Note: Flow rate for each intake at S1S = 46 cfm, at S2 and S5 = 42.5 cfm.

TABLE 3.16 COMPARISON OF MASS AND ACTIVITY COLLECTED IN OPEN INTAKES AND CUPS WITH PC SAMPLES

Station		S1S	S2	S5
Mass collected, gms/ft^2	Open intake	24.6214	2.6642	3.9714
	Cup	0.0714	0.7102	0.1020
Mass collected in PC's, gm/ft^2	Minimum	0.1865	0.2447	0.0307
	Average	0.5593 (16 pans)	0.2953 (8 pans)	0.0973 (14 pans)
	Maximum	1.1782	0.4000	0.1375
*Activity collected, milliamps/$ft^2 \times 10^{11}$	Open intake	212,000	124,000	81,000
	Cup	151,000	249,000	86,000
*Activity collected in PC's, ma/$ft^2 \times 10^{11}$	Minimum	119,000	233,000	17,000
	Average	225,000 (16 pans)	278,000 (8 pans)	119,000 (14 pans)
	Maximum	263,000	410,000	159,000

* Corrected to 100 hours.

Note: Area of open intake = 0.042 ft^2, cup = 0.049 ft^2, PC = 4 ft^2.

TABLE 3.17 VI ACTIVITY IN COVERED INTAKES COMPARED WITH OPEN PIPE

Intake No. / Station	Percent of Open Pipe Activity 1	5	4	3	4
S1S	100.0	1.3	1.1	---*	1.2
S2	100.0	19.5	21.4	22.6	20.7
S5	100.0	27.5	14.1	9.7	21.2

*Did not operate during test.

TABLE 3.18 PARTICLE SIZE ANALYSIS OF VI SAMPLES

Sample Number	Particle Size: Mesh No. U. S. Std.	Particle Size: Diameter Microns	Sample Weight, Grams	Cumulative Weight, Percent Less than Stated Size	4 π Ion Chamber Activity, ma at 100 hrs x 10^{11}	Cumulative Activity, Percent Less than Stated Size
SIS-1 Total	---	---	1.0341	100.0	3910	100.0
SIS-1	100	149	0.0079	99.23	7621	14.46
SIS-1	120	125	0.0028	98.96	33	14.09
SIS-1	140	105	0.0021	98.76	22	13.84
SIS-1	230	63	0.0272	96.13	69	13.07
SIS-1	325	44	0.0415	92.11	43	12.59
SIS-1	---	30	0.3726	56.08	---	---
SIS-1	---	20	0.200	36.78	---	---
SIS-1	---	10	0.260	11.60	---	---
SIS-1	---	5	0.040	7.73	---	---
SIS-2 Total	---	---	0.5105	100.0	107	100.0
SIS-2	50	297	0.0032	99.37	---*	---
SIS-2	100	149	0.0217	95.11	---*	---
SIS-2	120	125	0.0124	92.69	---*	---
SIS-2	140	105	0.0116	90.42	---*	---
SIS-2	230	63	0.0688	76.95	---*	---
SIS-2	325	44	0.0458	67.98	---*	---
SIS-4 Total	---	---	0.4303	100.0	100	100.0
SIS-4	50	297	0.0019	99.56	---*	---
SIS-4	100	149	0.0110	97.00	---*	---
SIS-4	120	125	0.0079	95.17	---*	---
SIS-4	140	105	0.0031	93.29	---*	---
SIS-4	230	63	0.0652	73.13	---*	---
SIS-4	325	44	0.0504	66.43	---*	---
SIS-5 Total	---	---	0.4361	100.0	162	100.0
SIS-5	50	297	0.0012	99.74	---*	---
SIS-5	100	149	0.0079	98.12	---*	---

TABLE 3.18 CONTINUED

Sample Number	Particle Size		Sample Weight, Grams	Cumulative Weight, Percent Less than Stated Size	4π Ion Chamber Activity, ma at 100 hrs x 10^{11}	Cumulative Activity, Percent Less than Stated Size
	Mesh No. U. S. Std.	Diameter Microns				
SIS-5	120	125	0.0050	97.10	--- *	---
SIS-5	140	105	0.0046	96.17	--- *	---
SIS-5	230	63	0.0447	86.97	--- *	---
SIS-5	325	44	0.0540	75.87	--- *	---
S2-1 Total	---	---	0.1119	100.0	5216	100.0
S2-1	50	297	0.0025	97.74	4078	21.79
S2-1	100	149	0.0009	96.90	115	19.59
S2-1	120	125	0.0005	96.43	23	19.15
S2-1	140	105	0.0006	95.87	211	15.11
S2-1	230	63	0.0024	93.72	7	14.98
S2-1	325	44	0.0039	90.26	13	14.77
S2-1	---	30	---	90.26	---	---
S2-1	---	20	0.0203	72.16	---	---
S2-1	---	10	0.0553	22.70	---	---
S2-1	---	5	0.0197	5.10	---	---
S2-1	---	1	0.0054	0.31	---	---
S2-2 Total	---	---	0.3628	100.0	1079	100.0
S2-2	50	297	0.0020	99.44	17	98.42
S2-2	100	149	0.0034	98.51	46	94.16
S2-2	120	125	0.0042	97.35	20	92.30
S2-2	140	105	0.0057	95.78	34	89.15
S2-2	230	63	0.0745	75.24	85	81.27
S2-2	325	44	0.0634	57.77	71	74.69
S2-2	---	30	---	57.77	---	---
S2-2	---	20	0.1113	27.11	---	---
S2-2	---	10	0.0681	8.33	---	---
S2-2	---	5	0.0254	1.31	---	---
S2-2	---	1	0.0045	0.08	---	---

TABLE 3.18 CONTINUED

Sample Number	Particle Size: Mesh No. U. S. Std.	Particle Size: Diameter Microns	Sample Weight, Grams	Cumulative Weight, Percent Less than Stated Size	4 x Ion Chamber Activity, ma at 100 hrs x 10^{11}	Cumulative Activity, Percent Less than Stated Size
S2-3 Total	---	---	0.2168	100.0	1179	100.0
S2-3	50	297	0.0011	99.47	52	95.58
S2-3	100	149	0.0024	98.37	115	85.83
S2-3	120	125	0.0019	97.47	155	72.68
S2-3	140	105	0.0015	96.77	39	69.38
S2-3	230	63	0.0187	88.13	107	60.30
S2-3	325	44	0.0228	77.60	105	51.38
S2-3		30	---	77.60	---	---
S2-3		20	0.1054	29.07	---	---
S2-3		10	0.0390	11.07	---	---
S2-3		5	0.0131	5.04	---	---
S2-3		1	0.0103	0.27	---	---
S2-4 Total	---	---	0.2186	100.0	1116	100.0
S2-4	50	297	0.0078	96.43	28	97.49
S2-4	100	149	0.0055	93.91	192	80.28
S2-4	120	125	0.0026	92.72	156	66.30
S2-4	140	105	0.0025	91.58	77	59.40
S2-4	230	63	0.0289	78.36	38	56.00
S2-4	325	44	0.0256	66.65	31	53.22
S2-4	---	30	0.0838	28.31	---	---
S2-4	---	20	0.0360	11.84	---	---
S2-4	---	10	0.0148	5.07	---	---
S2-4	---	5	0.0077	1.55	---	---
S2-4	---	1	0.0033	0.04	---	---
S2-5 Total	---	---	0.4799	100.0	1016	100.0
S2-5	50	297	0.0019	99.60	13	98.72
S2-5	100	149	0.0086	97.81	8	97.93
S2-5	120	125	0.0070	96.35	7	97.24

TABLE 3.18 CONTINUED

Sample Number	Particle Size		Sample Weight, Grams	Cumulative Weight, Percent Less than Stated Size	4 x Ion Chamber Activity, ma at 100 hrs x 10^{11}	Cumulative Activity, Percent Less than Stated Size
	Mesh No. U. S. Std.	Diameter Microns				
S2-5	140	105	0.0089	94.49	17	95.57
S2-5	230	63	0.1161	70.29	42	91.43
S2-5	325	44	0.1125	46.85	41	87.40
S2-5	---	30	0.0745	31.33	---	---
S2-5	---	20	0.0708	16.59	---	---
S2-5	---	10	0.0623	3.60	---	---
S2-5	---	5	0.0127	0.96	---	---
S2-5	---	1	0.0045	0.03	---	---
S5-1 Total	---	---	0.1668	100.0	3374**	100.0
S5-2 Total	---	---	0.0405	100.0	716	100.0
S5-2	325	44	0.0100	75.30	42	94.13
S5-2	---	30	0.0072	57.48	---	---
S5-2	---	20	0.0082	37.23	---	---
S5-2	---	10	0.0104	11.52	---	---
S5-2	---	5	0.0028	4.67	---	---
S5-2	---	1	0.0016	0.62	---	---
S5-3 Total	---	---	0.0317	100.0	326	100.0
S5-3	325	44	0.0092	70.92	34	89.57
S5-3	---	30	0.0054	53.90	---	---
S5-3	---	20	0.0067	32.96	---	---
S5-3	---	10	0.0072	10.18	---	---
S5-3	---	5	0.0026	2.05	---	---
S5-3	---	1	0.0006	0.11	---	---
S5-4 Total	---	---	0.0438	100.0	477	100.0
S5-4	325	44	0.0076	82.64	66	86.16
S5-4	---	30	0.0138	51.10	---	---
S5-4	---	20	0.0109	26.29	---	---

TABLE 3.18 CONTINUED

Sample Number	Particle Size		Sample Weight, Grams	Cumulative Weight, Percent Less than Stated Size	4 π Ion Chamber Activity, ma at 100 hrs x 10^{11}	Cumulative Activity, Percent Less than Stated Size
	Mesh No. U. S. Std.	Diameter Microns				
S5-4	---	10	0.0089	5.96	---	---
S5-4	---	5	0.0020	1.28	---	---
S5-4	---	1	0.0006	0.05	---	---
S5-5 Total	---	---	0.0768	100.0	929	100.0
S5-5	325	44	0.0351	54.28	204	78.04
S5-5	---	30	---	54.28	---	---
S5-5	---	20	0.0078	44.11	---	---
S5-5	---	10	0.0207	17.25	---	---
S5-5	---	5	0.0074	7.56	---	---
S5-5	---	1	0.0055	0.36	---	---

* Fractions picked up extraneous activity during processing and are not reported.

**Sample lost due to breaking of test tube in centrifuge.

TABLE 3.19 COMPARISON OF GREASED AND UNGREASED COLLECTORS

NRDL Station No.	Mean Gamma Activity and Standard Deviation at 100 Hours		
	All Collectors	Bare Collectors	Greased Collectors
	(c/m)	(c/m)	(c/m)
101 AO	$6.729 \pm 2.241 \times 10^6$	$6.323 \pm 1.946 \times 10^6$	10.392×10^6
200 AO	$4.242 \pm 1.003 \times 10^4$	$4.009 \pm .722 \times 10^4$	6.339×10^4
201 AO	$3.486 \pm .478 \times 10^6$	$3.470 \pm .505 \times 10^6$	3.623×10^6
300 AO	$9.950 \pm 1.877 \times 10^3$	$9.792 \pm 1.942 \times 10^3$	11.209×10^3
301 AO	$2.834 \pm .537 \times 10^6$	$2.803 \pm .560 \times 10^6$	3.112×10^6
303 AO	$3.020 \pm .697 \times 10^6$	$3.138 \pm .643 \times 10^6$	2.083×10^6
305 AO	$1.755 \pm .420 \times 10^6$	$1.719 \pm .430 \times 10^6$	2.076×10^6
307 AO	$8.395 \pm 2.072 \times 10^3$	$8.192 \pm 2.089 \times 10^3$	10.222×10^3
400 AO	$1.445 \pm .295 \times 10^4$	$1.426 \pm .309 \times 10^4$	1.599×10^4
401 AO	$1.784 \pm .206 \times 10^6$	$1.795 \pm .217 \times 10^6$	1.680×10^6
403 AO	$2.758 \pm .688 \times 10^6$	$2.698 \pm .702 \times 10^6$	3.297×10^6
405 AO	$6.393 \pm 1.575 \times 10^5$	$6.246 \pm 1.596 \times 10^5$	7.706×10^5
407 AO	$6.364 \pm 1.268 \times 10^3$	$6.455 \pm 1.310 \times 10^3$	5.540×10^3
501 AO	$3.817 \pm 1.328 \times 10^4$	$3.733 \pm 1.393 \times 10^4$	4.490×10^4
503 AO	$7.215 \pm .862 \times 10^5$	$7.201 \pm .912 \times 10^5$	7.342×10^5
505 AO	$1.236 \pm .235 \times 10^6$	$1.197 \pm .218 \times 10^6$	1.544×10^6
509 AO	$8.815 \pm 2.852 \times 10^4$	$8.562 \pm 2.939 \times 10^4$	10.838×10^4
601 AO	$3.957 \pm .642 \times 10^4$	$3.887 \pm .647 \times 10^4$	4.522×10^4
603 AO	$7.085 \pm .962 \times 10^5$	$7.081 \pm 1.028 \times 10^5$	7.116×10^5
605 AO	$6.427 \pm .540 \times 10^5$	$6.417 \pm .576 \times 10^5$	6.512×10^5
607 AO	$4.550 \pm .378 \times 10^4$	$4.593 \pm .381 \times 10^4$	4.209×10^4
703 AO	$6.560 \pm 1.289 \times 10^4$	$6.347 \pm 1.317 \times 10^4$	7.625×10^4
705 AO	$1.514 \pm .170 \times 10^5$	$1.491 \pm .166 \times 10^5$	1.699×10^5
707 AO	$2.948 \pm .352 \times 10^5$	$2.913 \pm .371 \times 10^5$	3.160×10^5
100 PC	$.745 \pm .143 \times 10^6$	$721 \pm .145 \times 10^6$	$.837 \pm .095 \times 10^6$
203 PC	$1.006 \pm .142 \times 10^6$	$1.018 \pm .152 \times 10^6$	$.947 \pm .067 \times 10^6$
507 PC	$.519 \pm .087 \times 10^6$	$.511 \pm .093 \times 10^6$	$.551 \pm .051 \times 10^6$

TABLE 3.20 LOSS OF IODINE FROM PARTICULATE DEBRIS BY AIR EXPOSURE

Sample #	Weight	Duration of Air Exposure*	4π Activity at 13d		Observed	$\frac{\text{Observed I}}{\text{Expected I}}$**
	(g)	(d)	Total (ma)	Iodine (ma)	Iodine/Total	%
S2PC8	1.990	2	138×10^{-8}	960×10^{-10}	0.0696	34.3
S5PC8	0.471	2	880×10^{-9}	700×10^{-10}	0.0796	39.2
S2PC11	1.260	6	664×10^{-9}	330×10^{-10}	0.0495	24.4
S5PC11	0.206	6	100×10^{-8}	550×10^{-10}	0.0550	27.1
S2PC19	0.962	12	430×10^{-9}	108×10^{-10}	0.0251	12.4
S5PC19	0.399	12	870×10^{-9}	265×10^{-10}	0.0305	15.0

* Measured from detonation time.

** Reference 20, at D + 13d $\frac{\text{I (ma)}}{\text{fission product (ma)}} = 0.203$ expected.

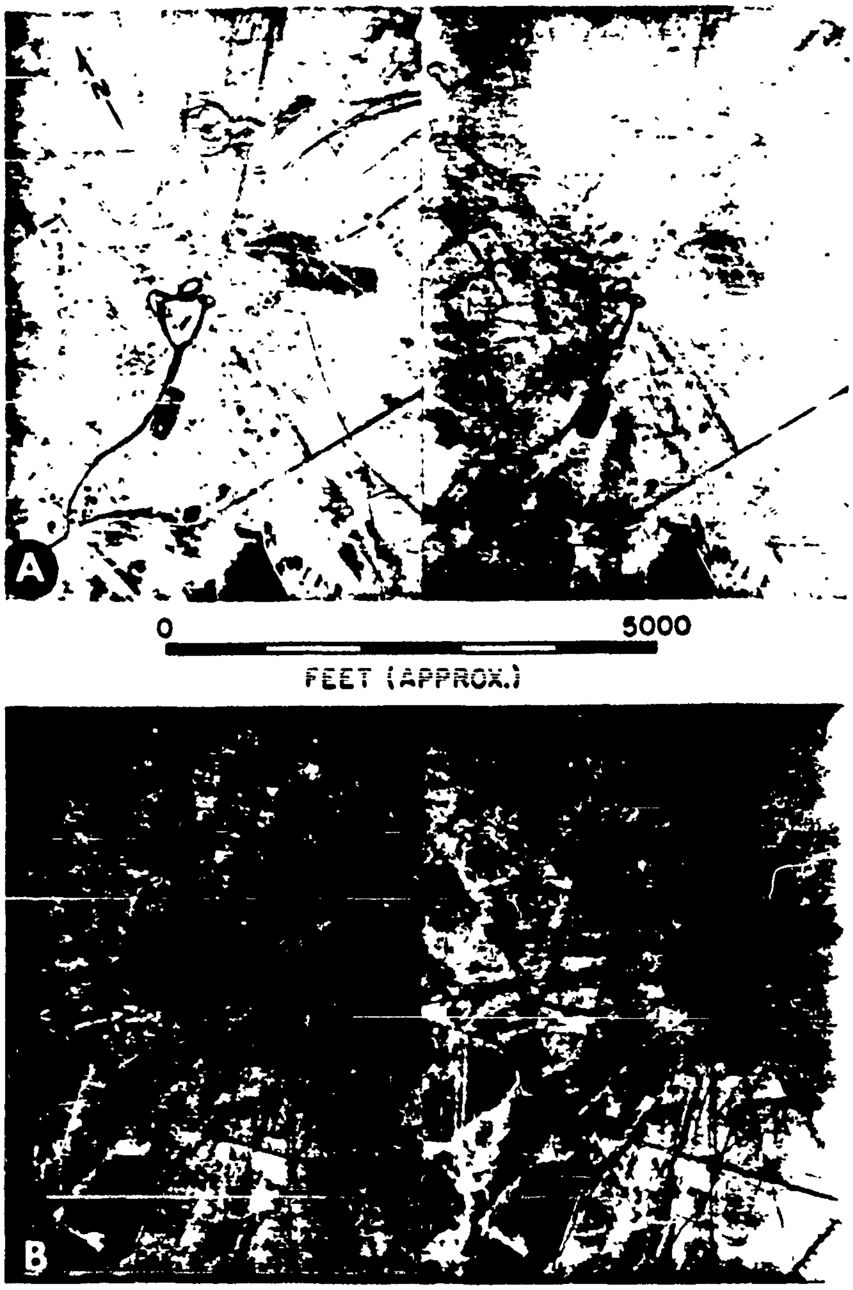


Figure 3.1 Stereo views of Small Boy ground zero area. A: Before—1110T on 5 July 1962 (D−9). B: After—1221T on 15 July 1962 (D+1). (NRDL-MSS-1626(L)-6-63)

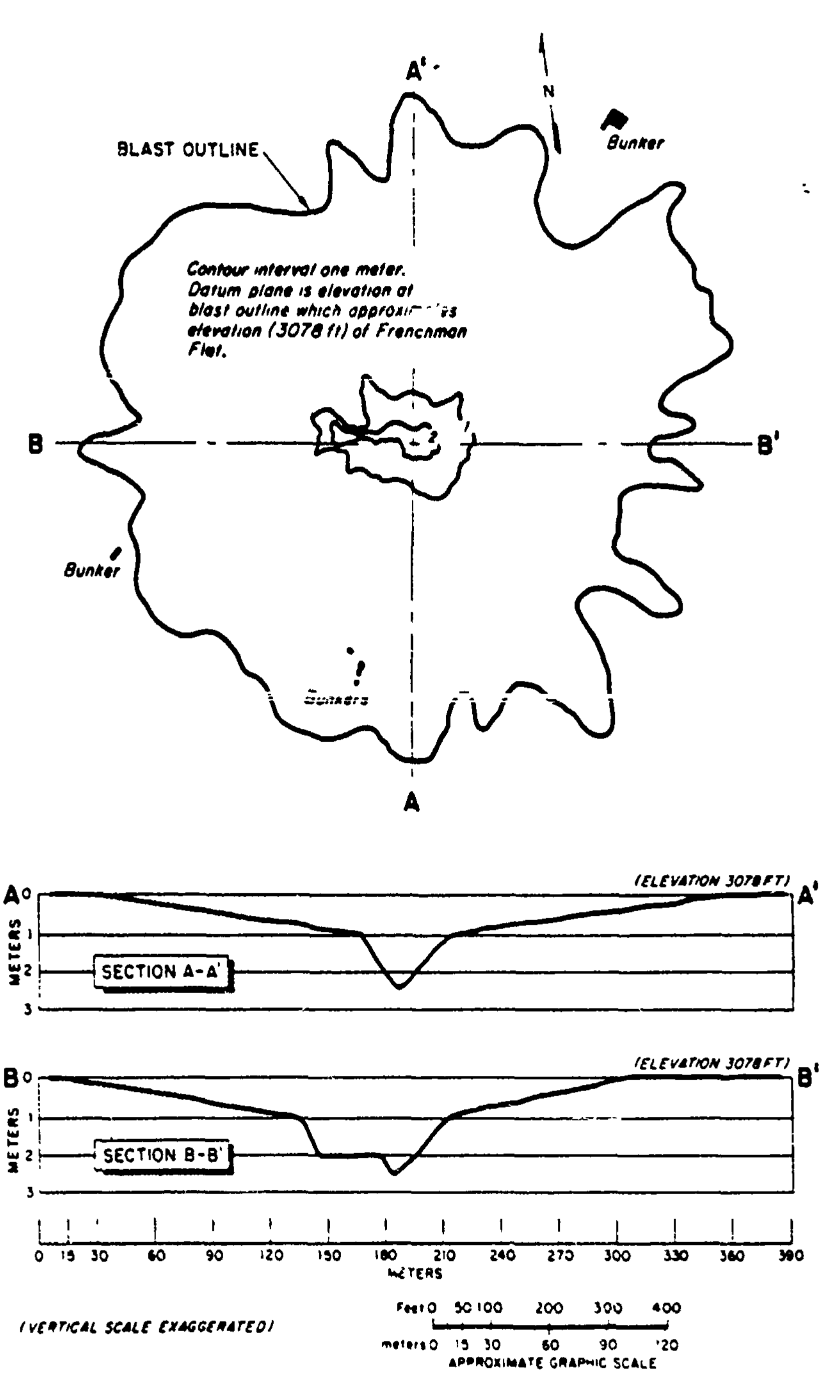


Figure 3.2 Crater contours and profiles.

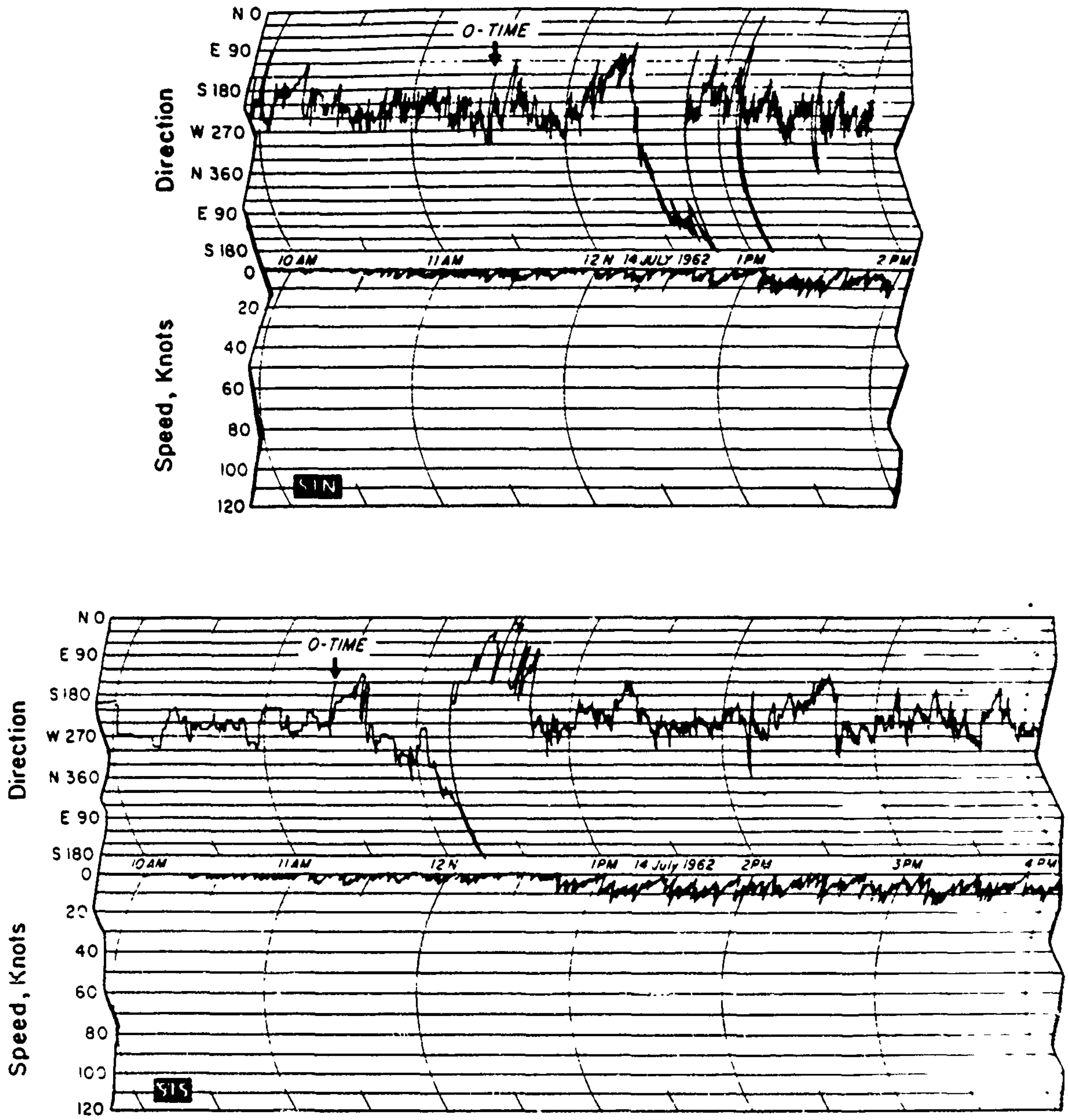
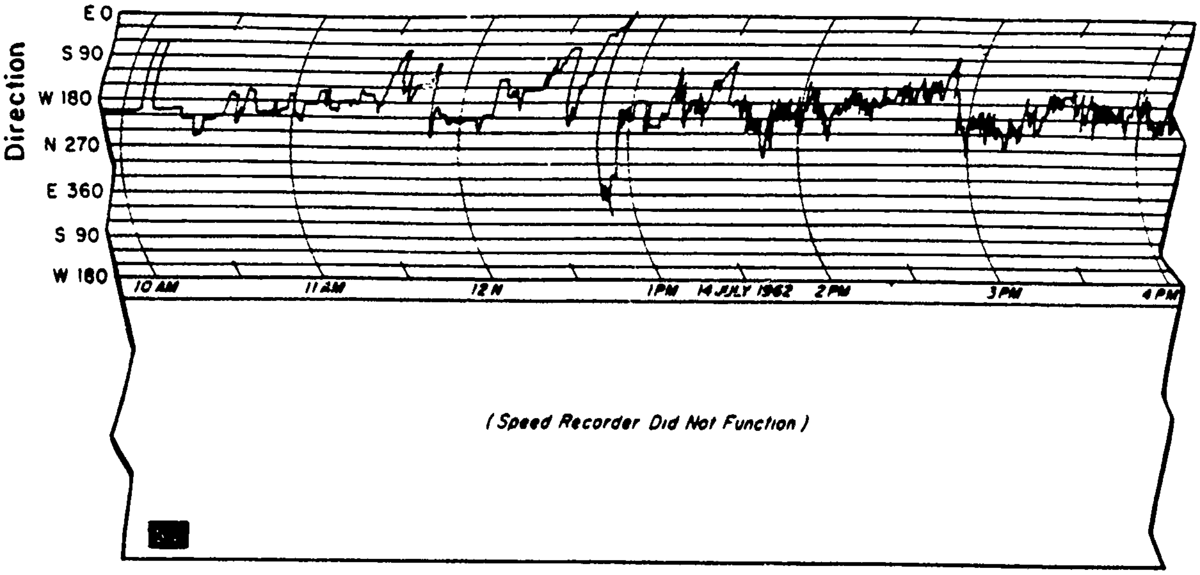


Figure 3.3 Wind velocity at the manned stations during the fallout event.



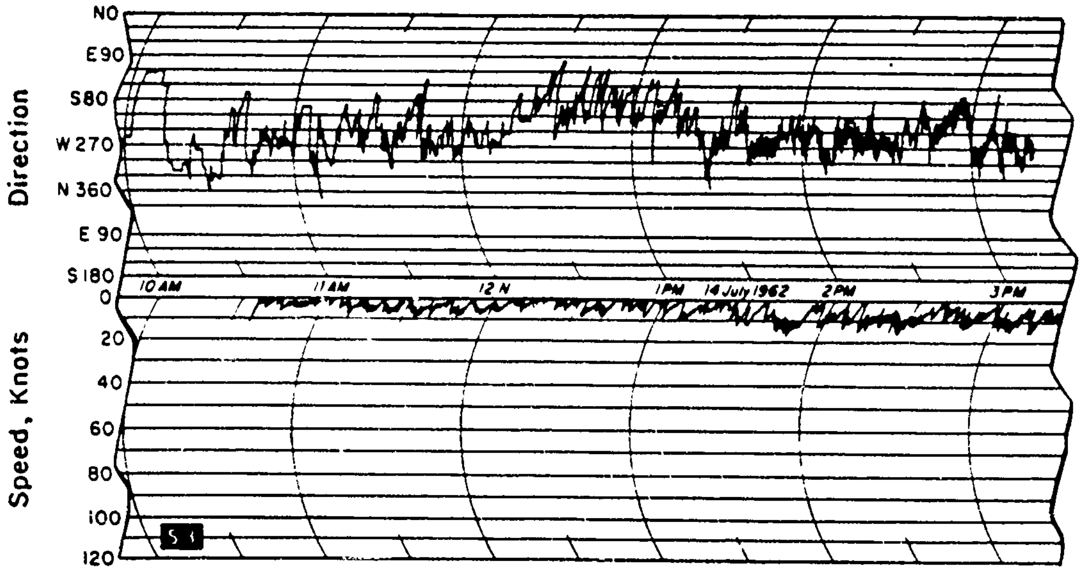
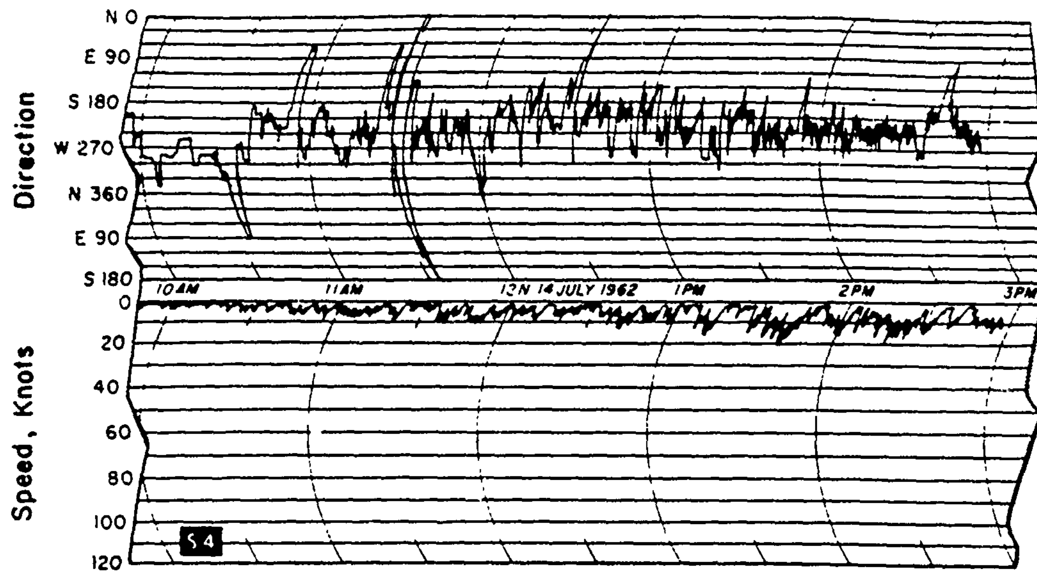


Figure 3.3 Continued.



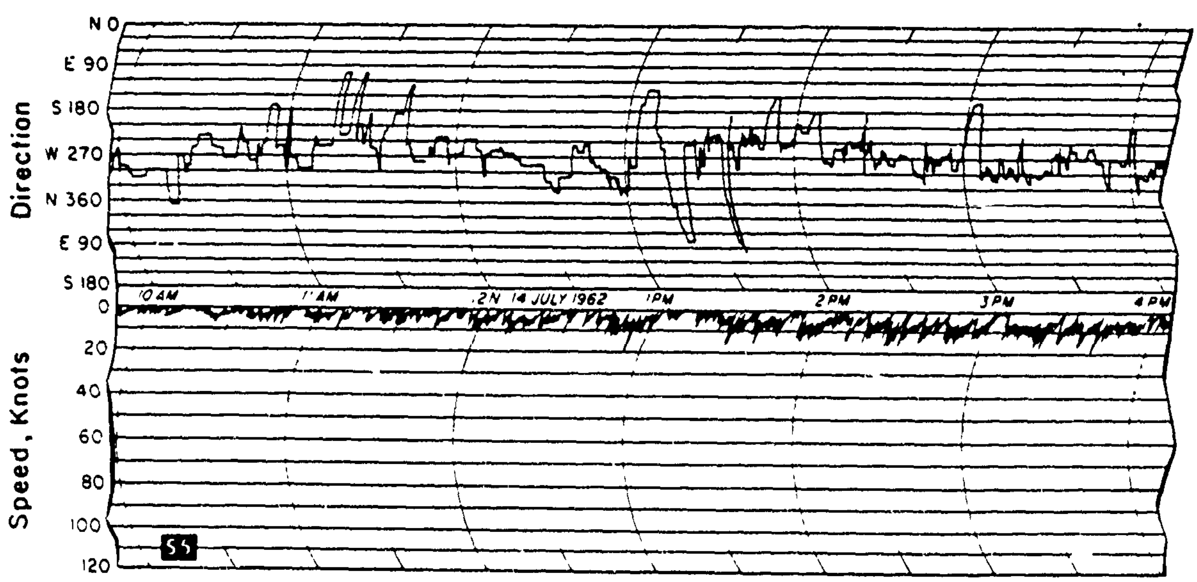


Figure 3.3 Continued.

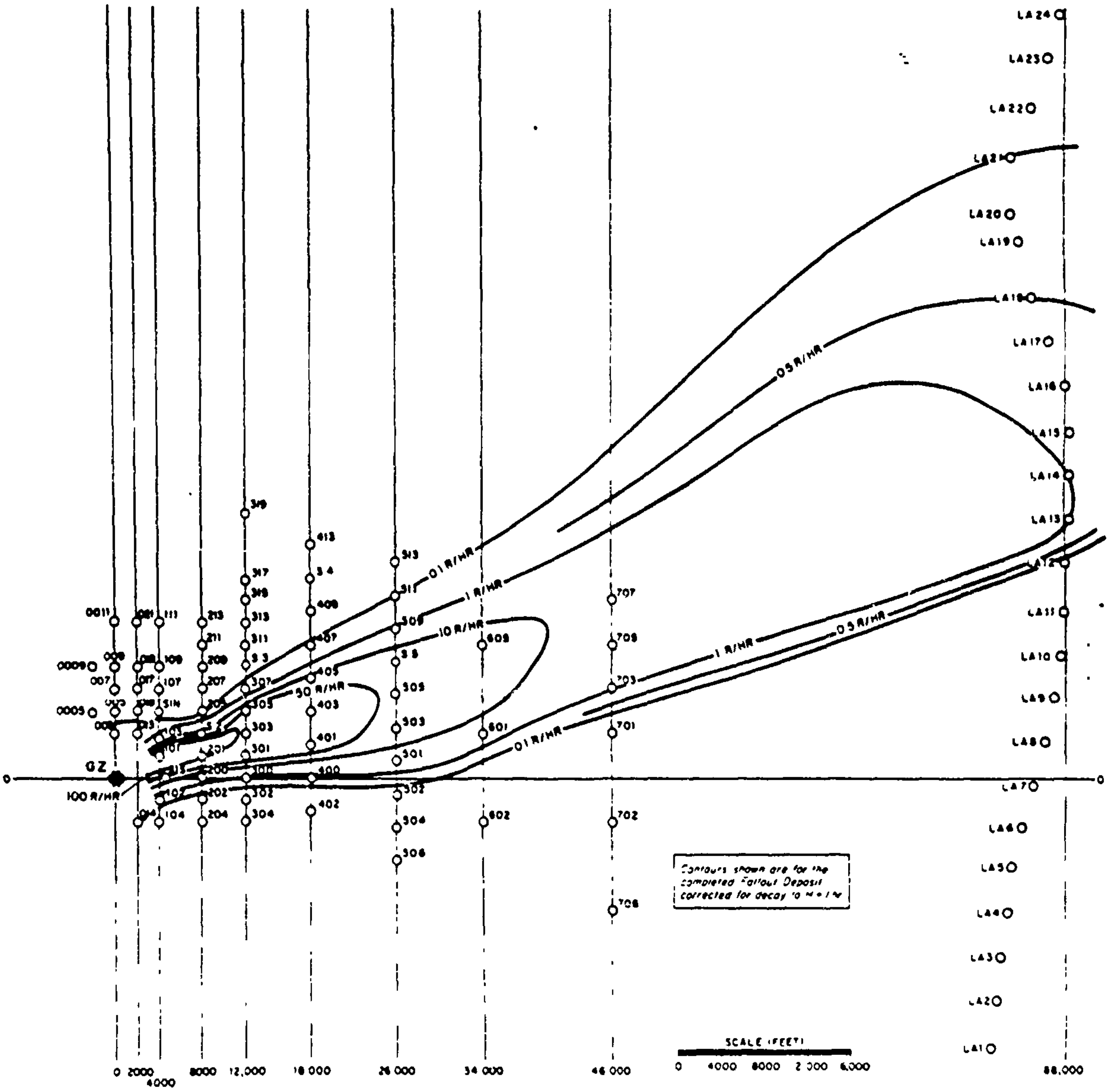


Figure 3.4 Fallout path through Project 2.9 and 2.11 arrays, Frenchman Flat and Indian Springs Valley.

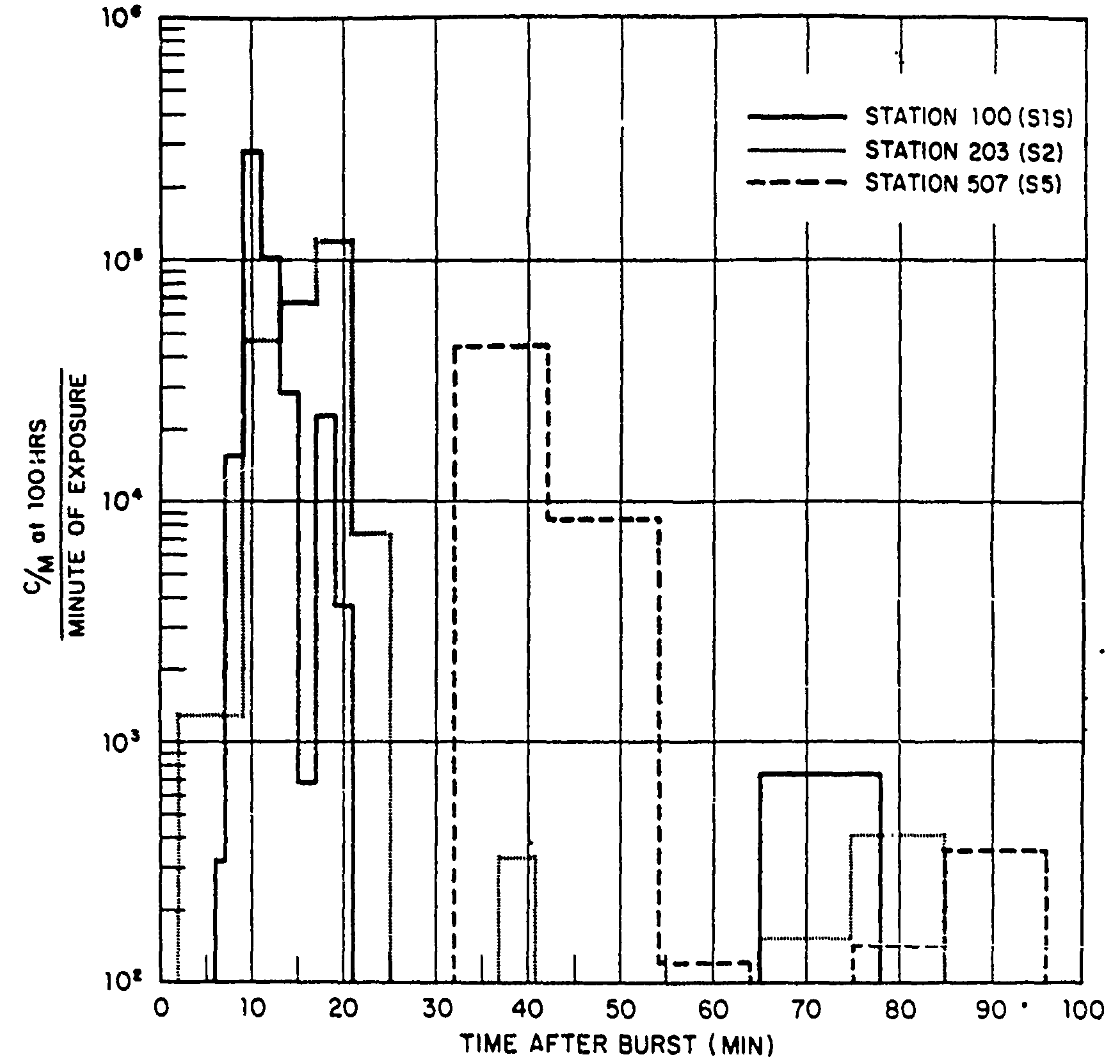


Figure 3.5 Arrival rate of fallout activity by IC.

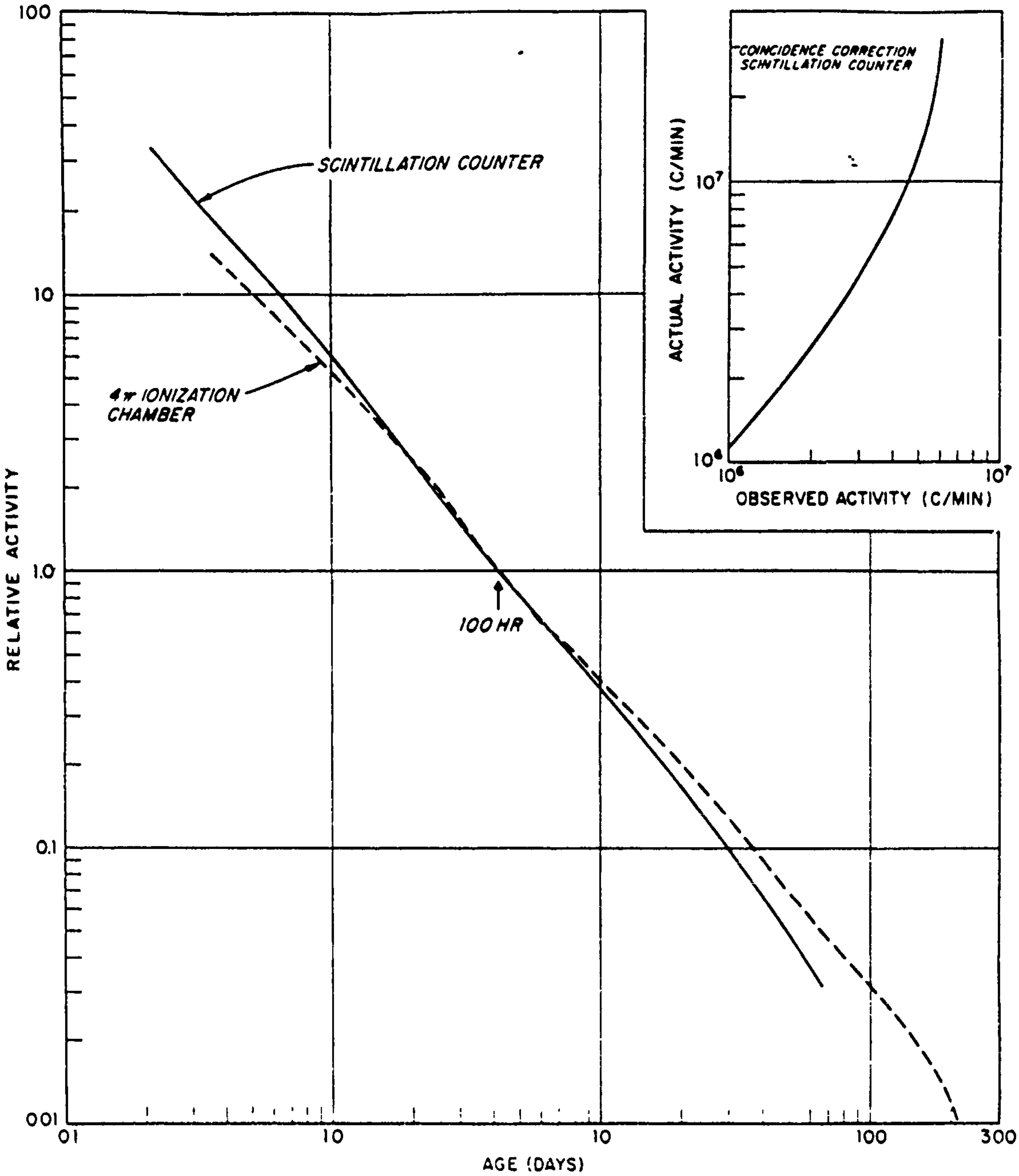


Figure 3.6 Representative sample gamma decay rates by low-geometry scintillation counter and 4π ionization chamber; coincidence correction curve for the scintillation counter.

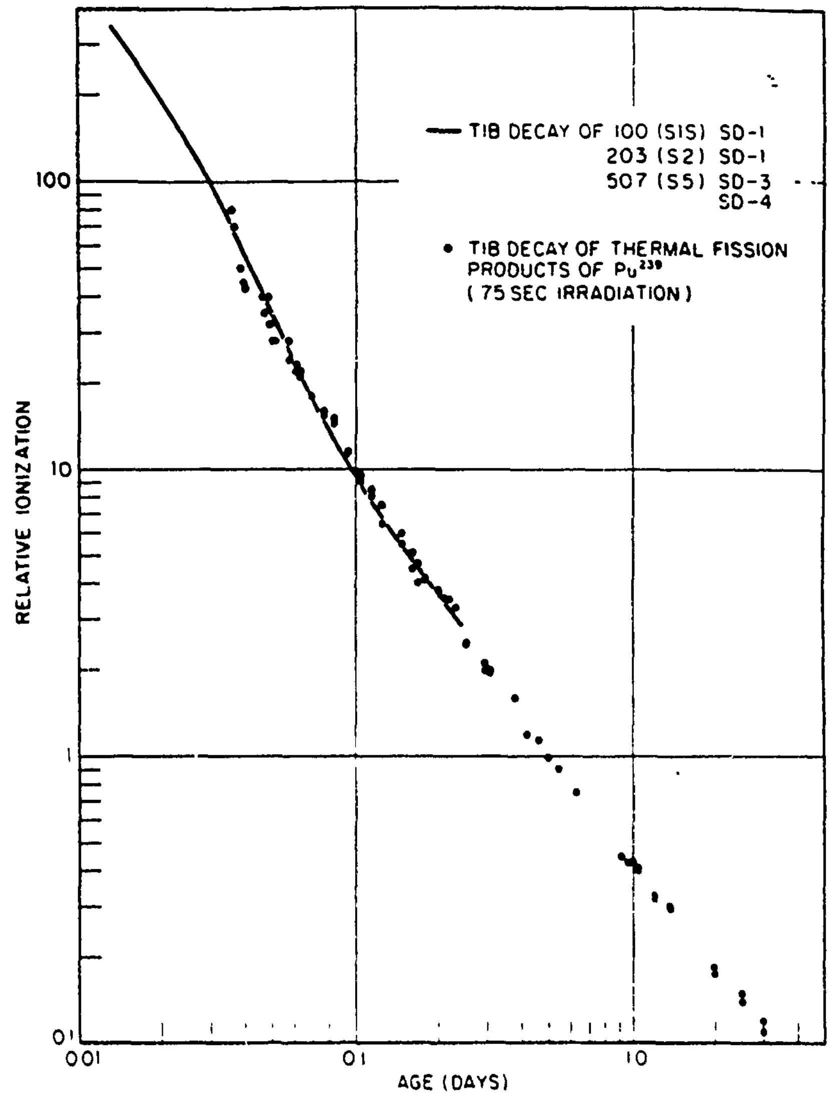


Figure 3.7 T1B decay of SD and plutonium fission product samples.

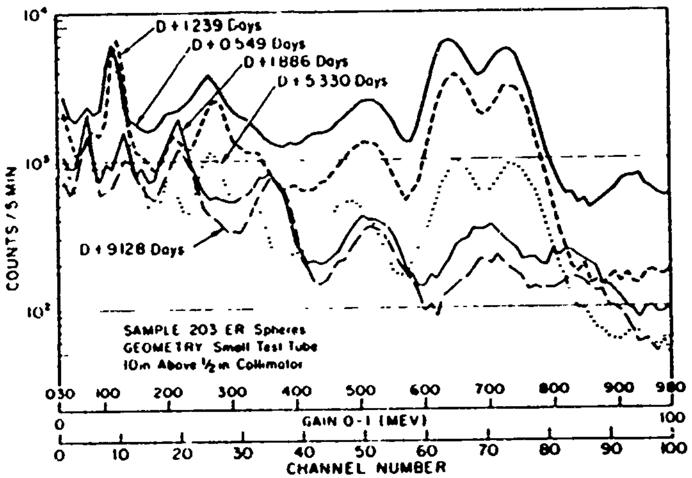


Figure 3.8 Effect of decay on pulse height distributions of activity in fused spheres.

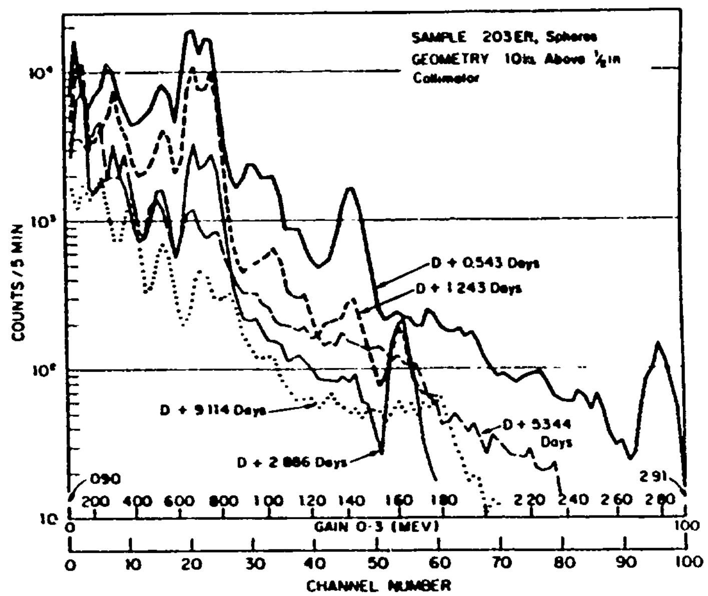


Figure 3.9 Effect of decay on pulse height distributions of activity in fused spheres.

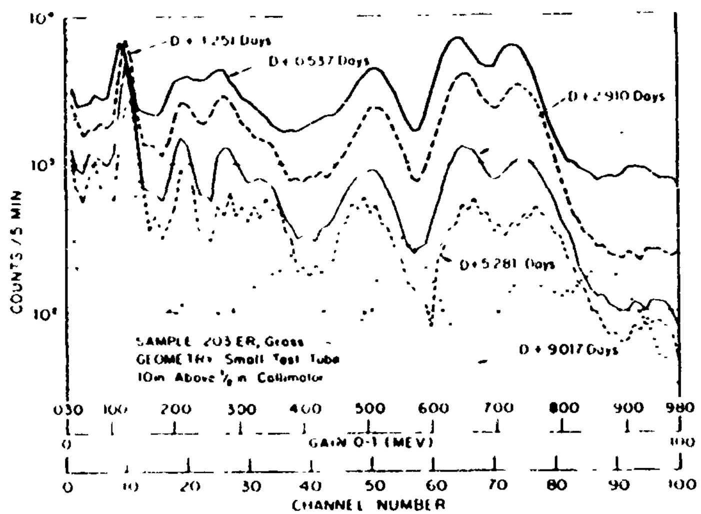


Figure 3.10 Effect of decay on pulse height distributions of activity in gross collections.

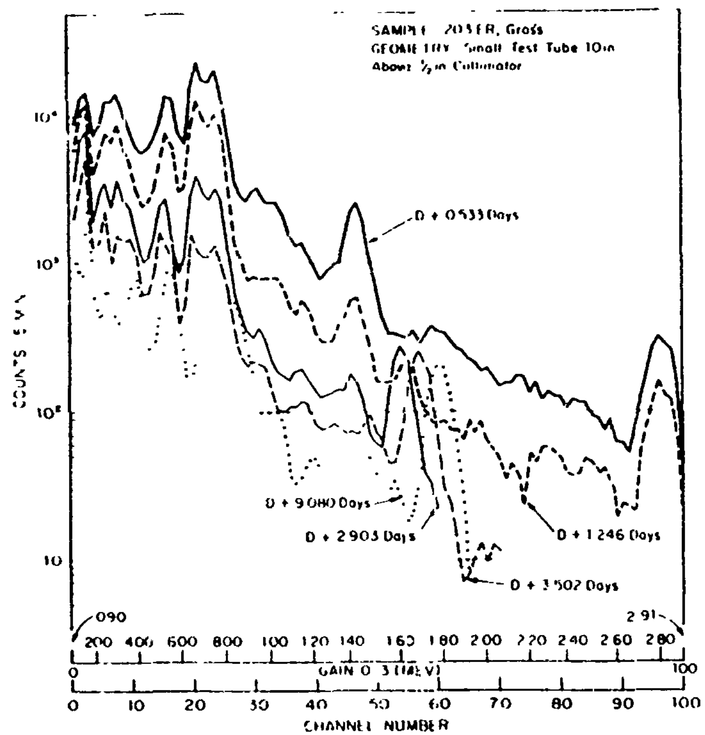


Figure 3.11 Effect of decay on pulse height distributions of activity in gross collections.

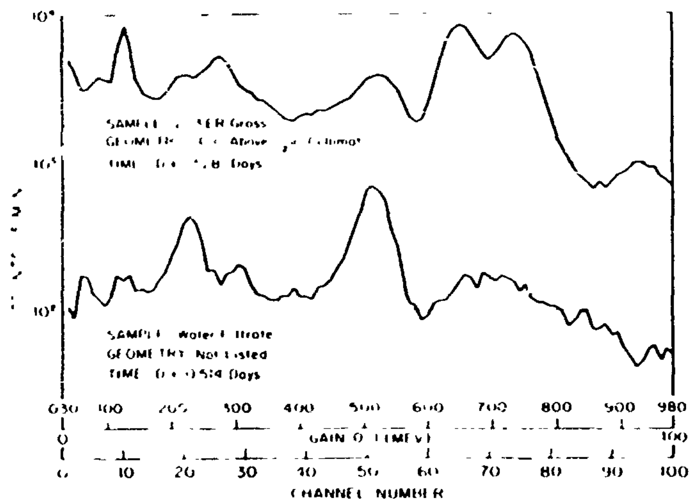


Figure 3.12 Pulse height distributions of activity.

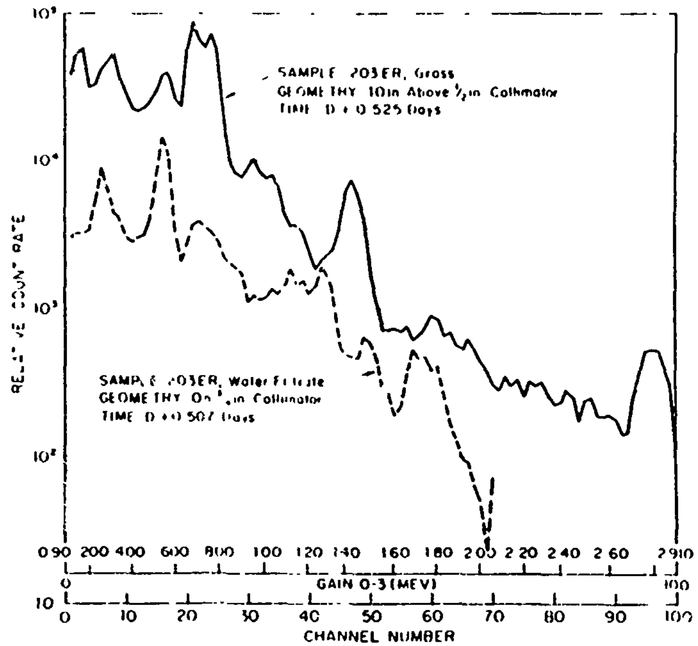


Figure 3.13 Pulse height distributions of activity.

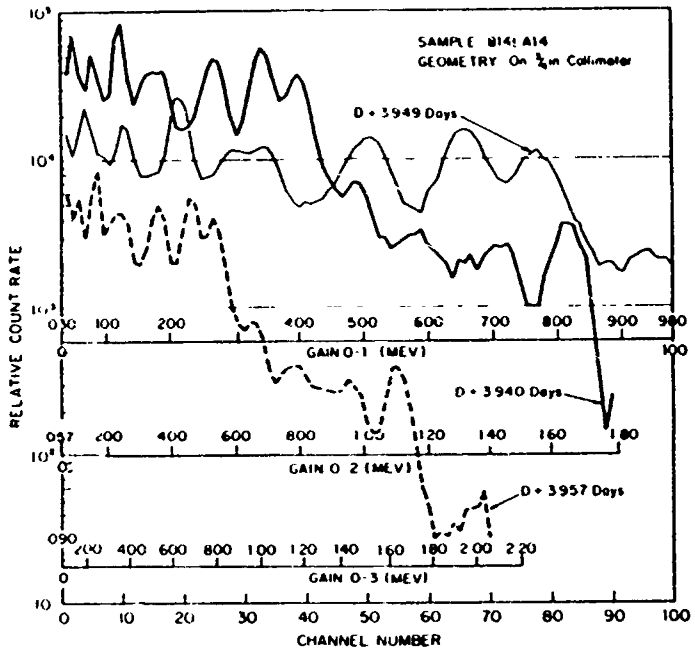


Figure 3.14 Pulse height distributions of activity removed by xylene wash.

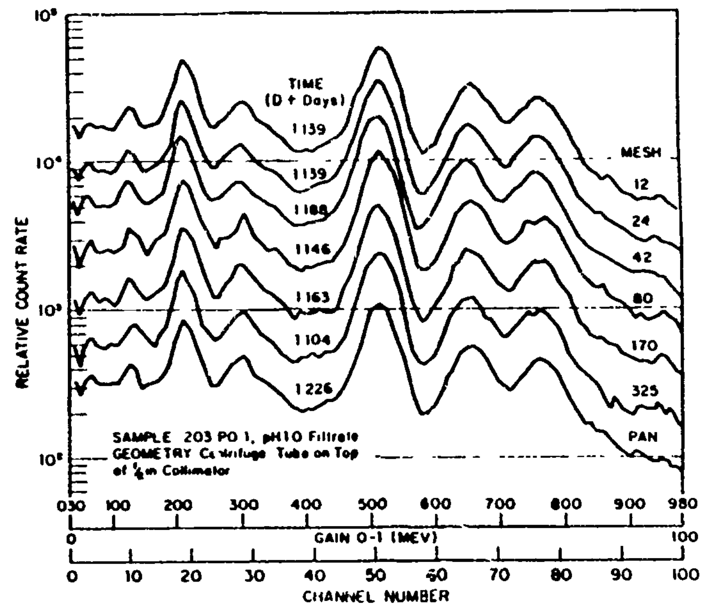


Figure 3.15 Pulse height distributions of leached activity.

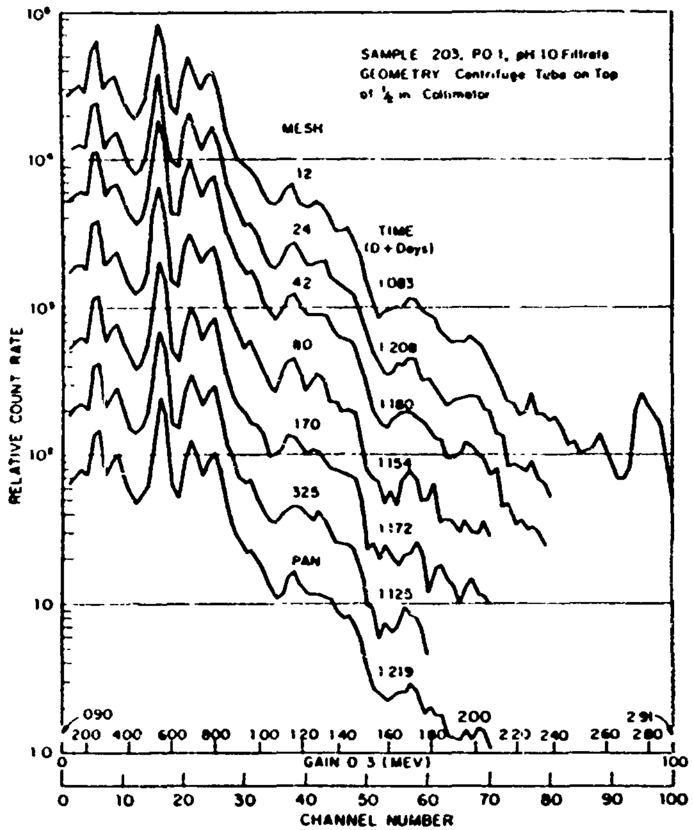


Figure 3.16 Pulse height distributions of leached activity.

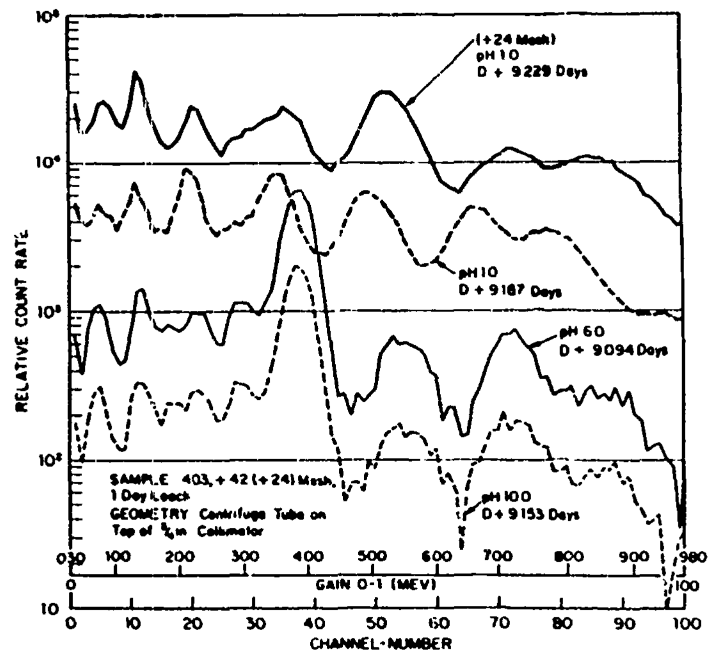


Figure 3.17 Pulse height distributions of leached activity.

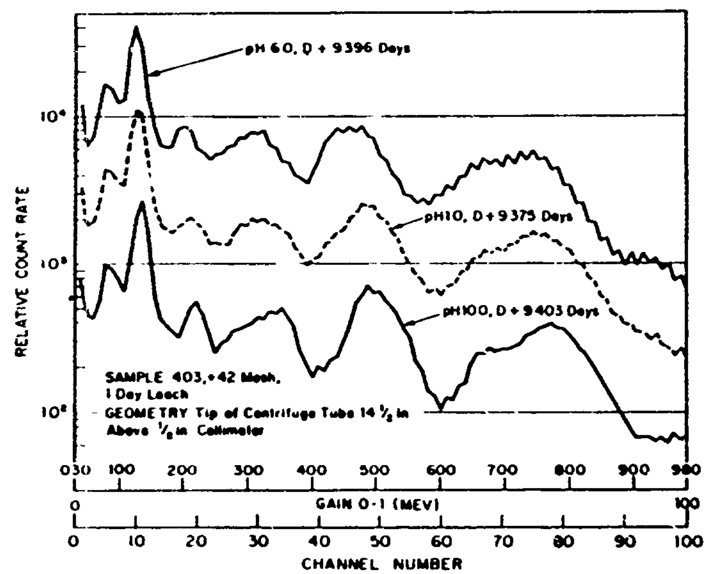


Figure 3.18 Pulse height distributions of residual activity after leaching.

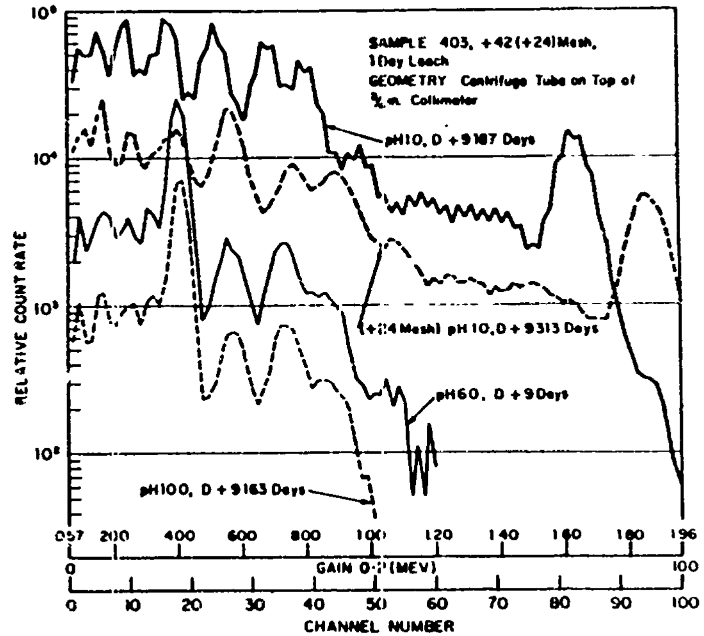


Figure 3.19 Pulse height distributions of leached activity.

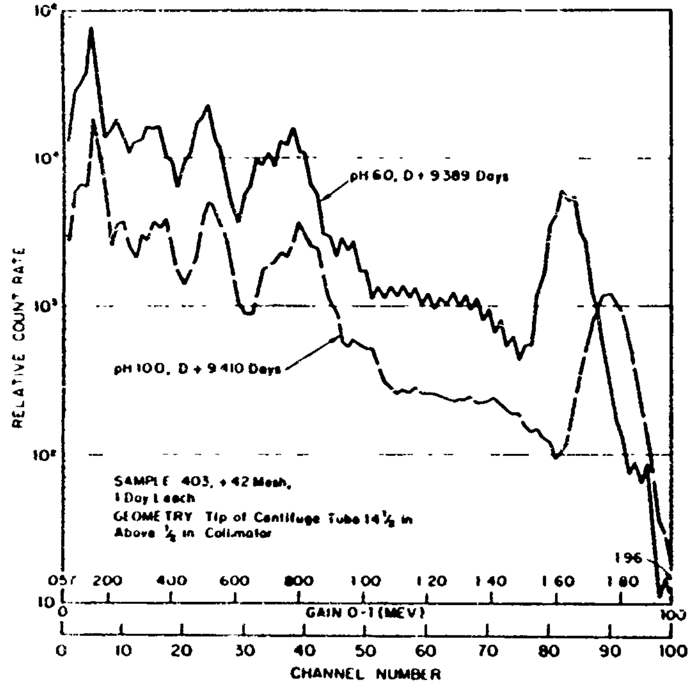


Figure 3.20 Pulse height distributions of residual activity after leaching.

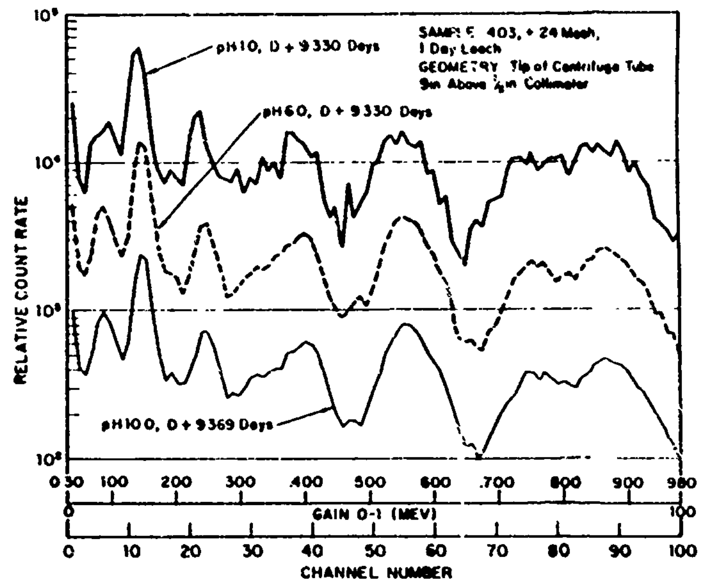


Figure 3.21 Pulse height distributions of residual activity after leaching.

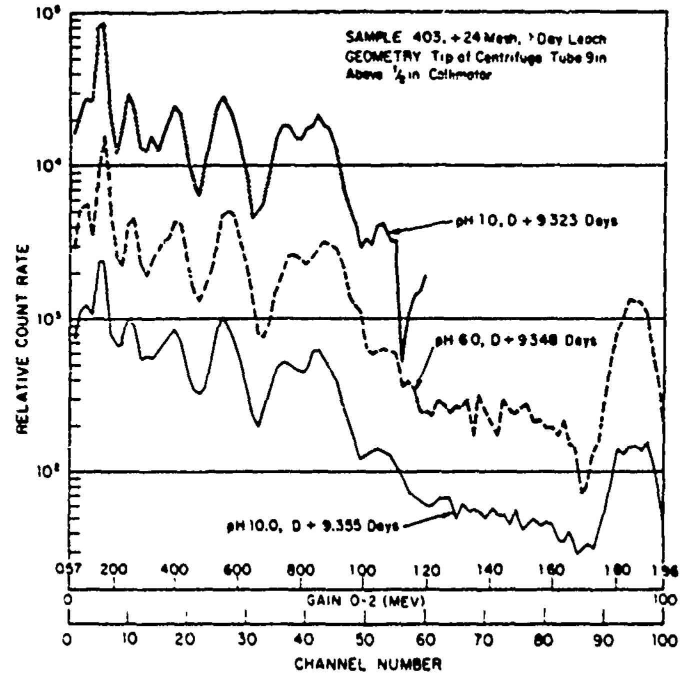


Figure 3.22 Pulse height distributions of residual activity after leaching.

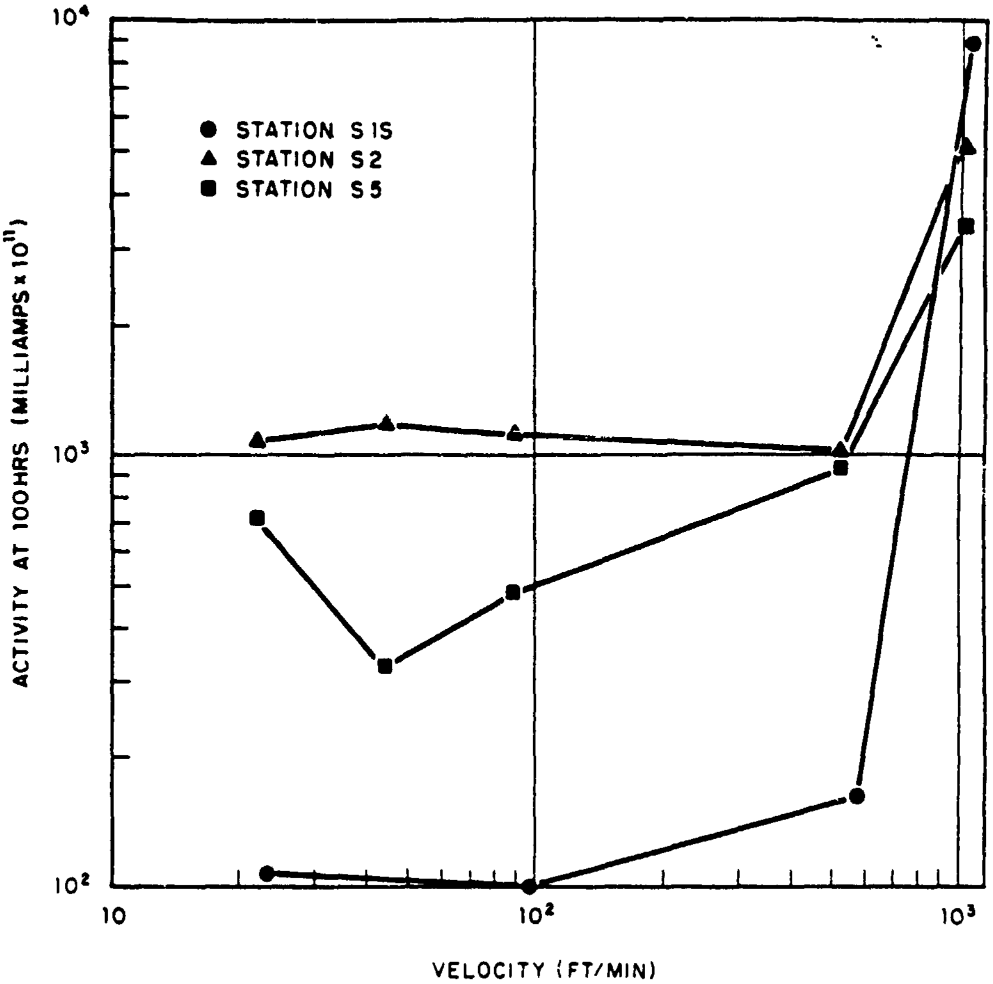


Figure 3.23 VI sample total activity versus average air inlet velocity.

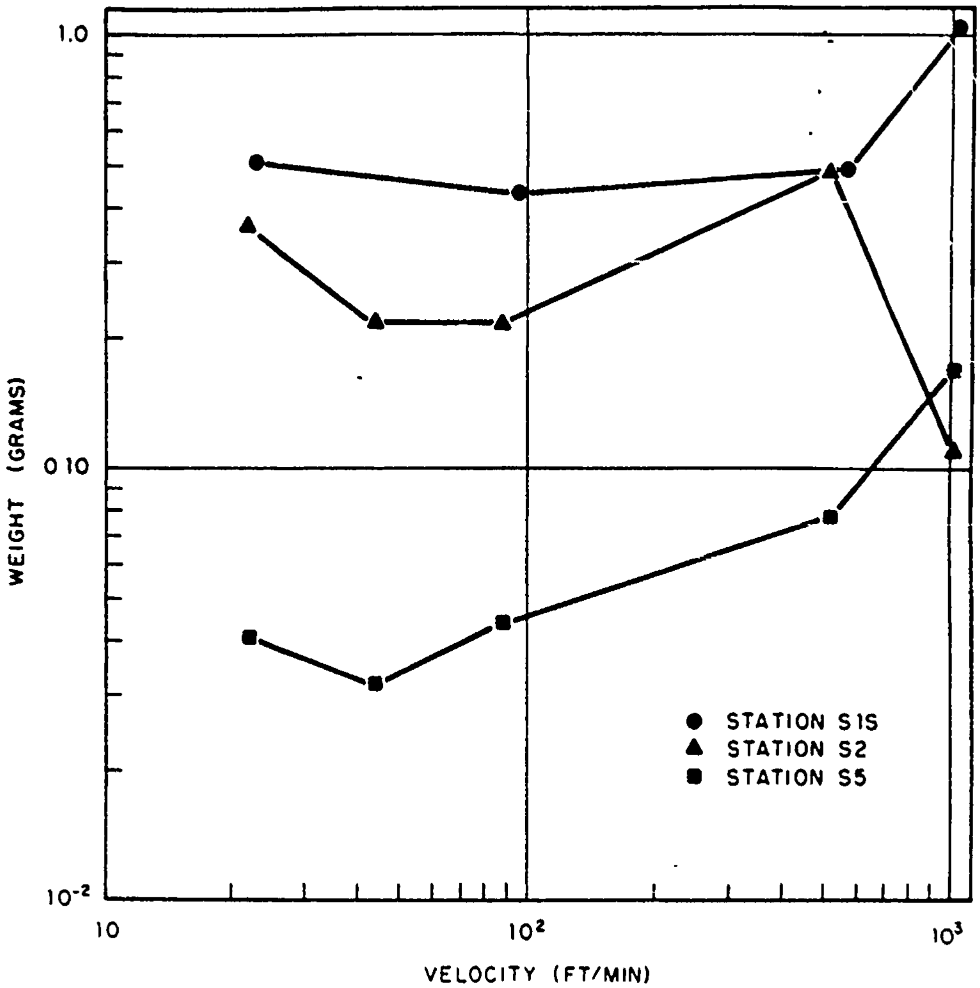


Figure 3.24 VI sample total weight versus average air inlet velocity.

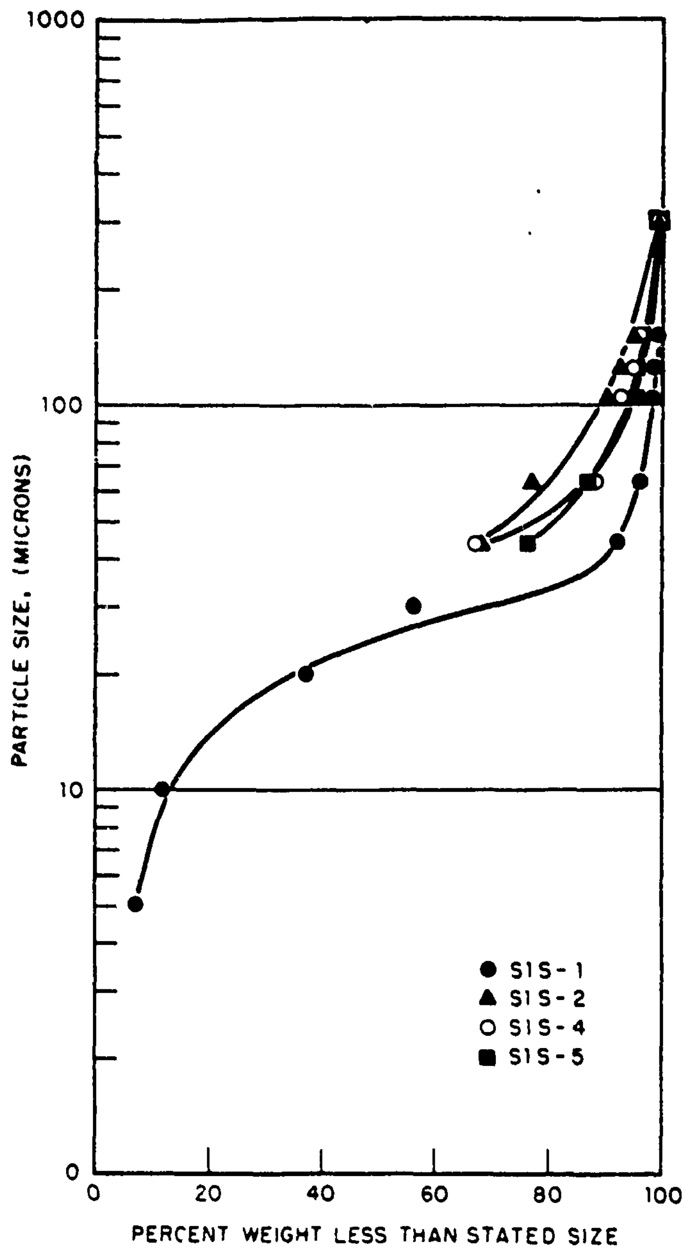


Figure 3.25 VI percent cumulative weight versus particle size at Station S1S.

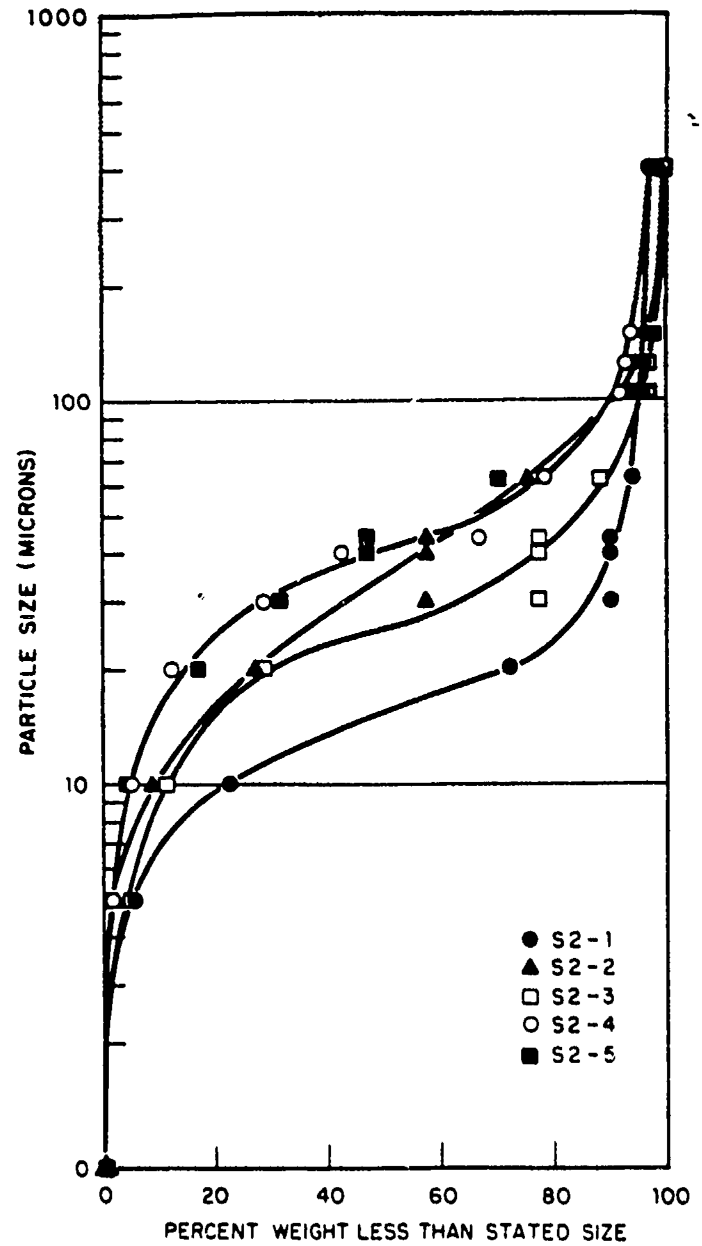


Figure 3.26 VI percent cumulative weight versus particle size at Station S2.

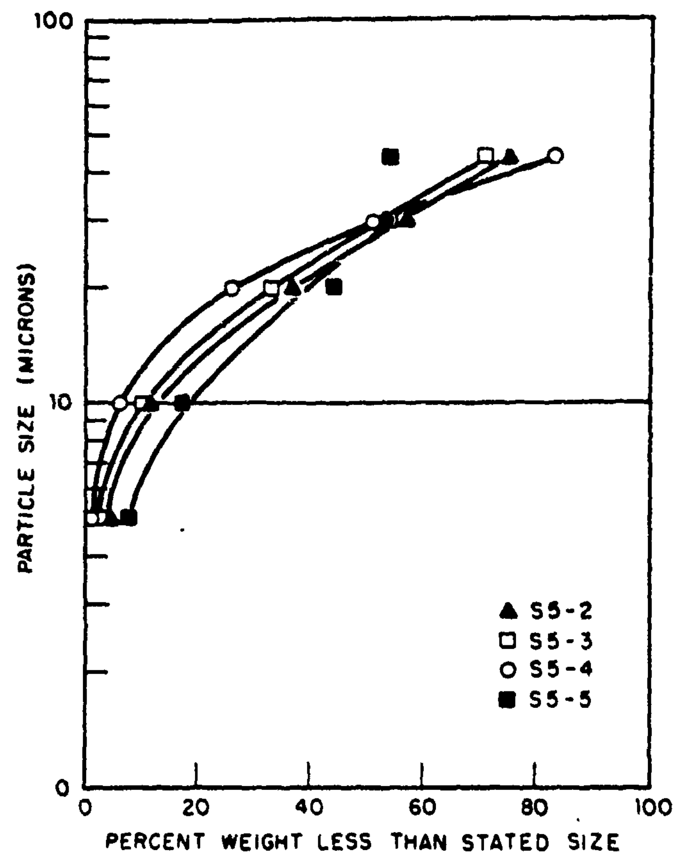


Figure 3.27 VI percent cumulative weight versus particle size at Station S5.

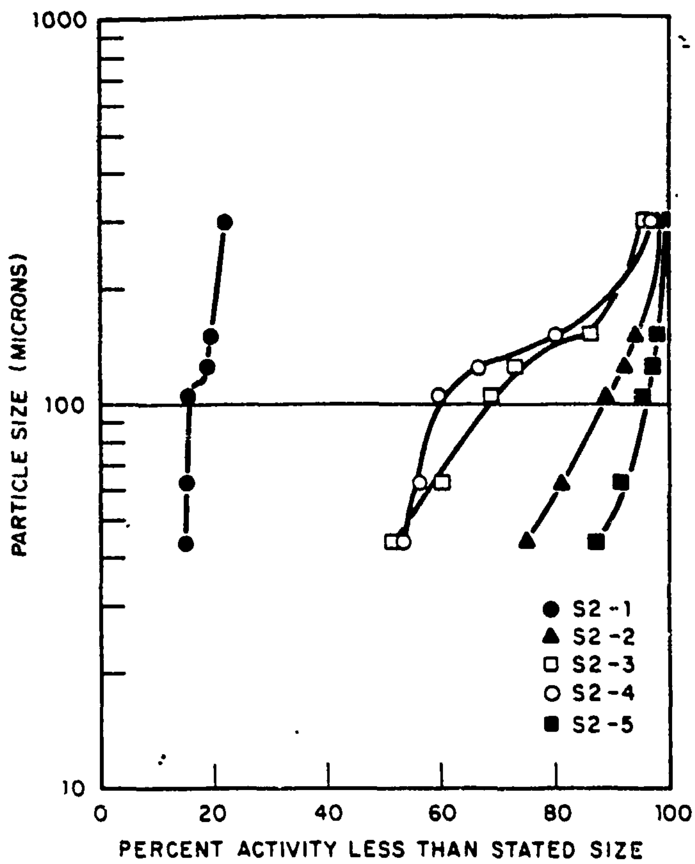


Figure 3.28 VI percent cumulative activity versus particle size at Station S2.

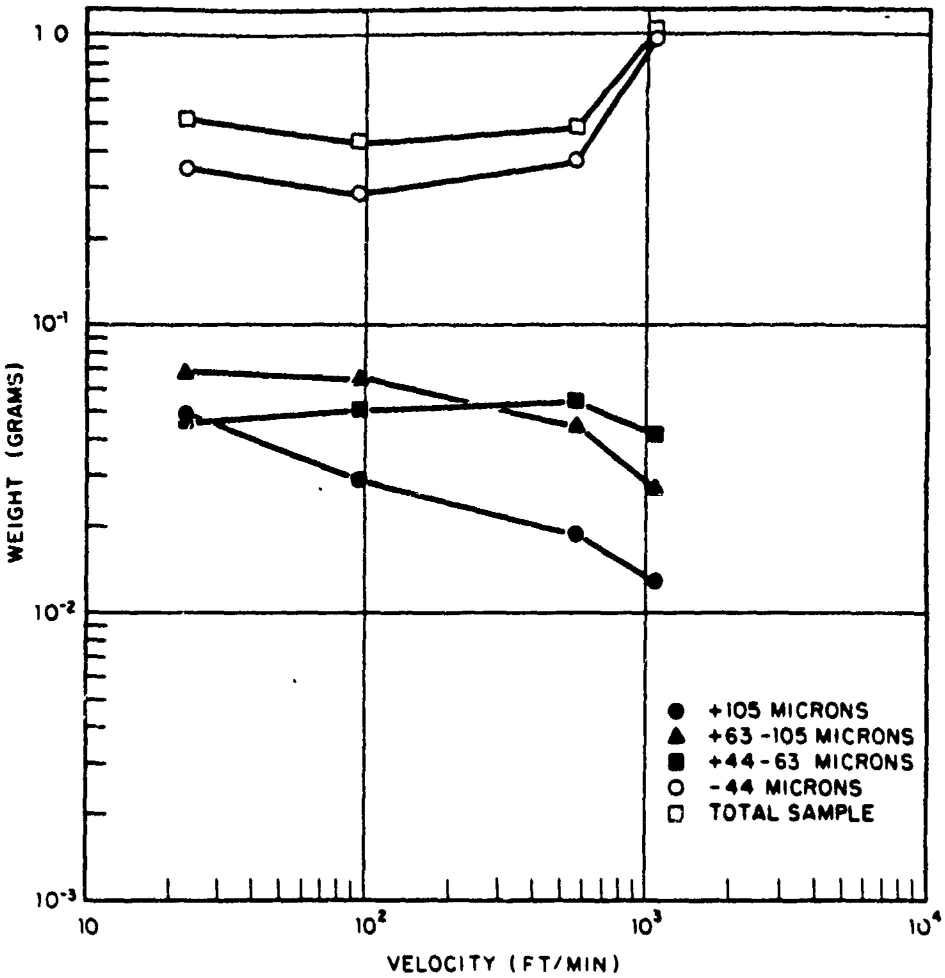


Figure 3.29 VI sieve fraction weight versus air inlet velocity at Station S1S.

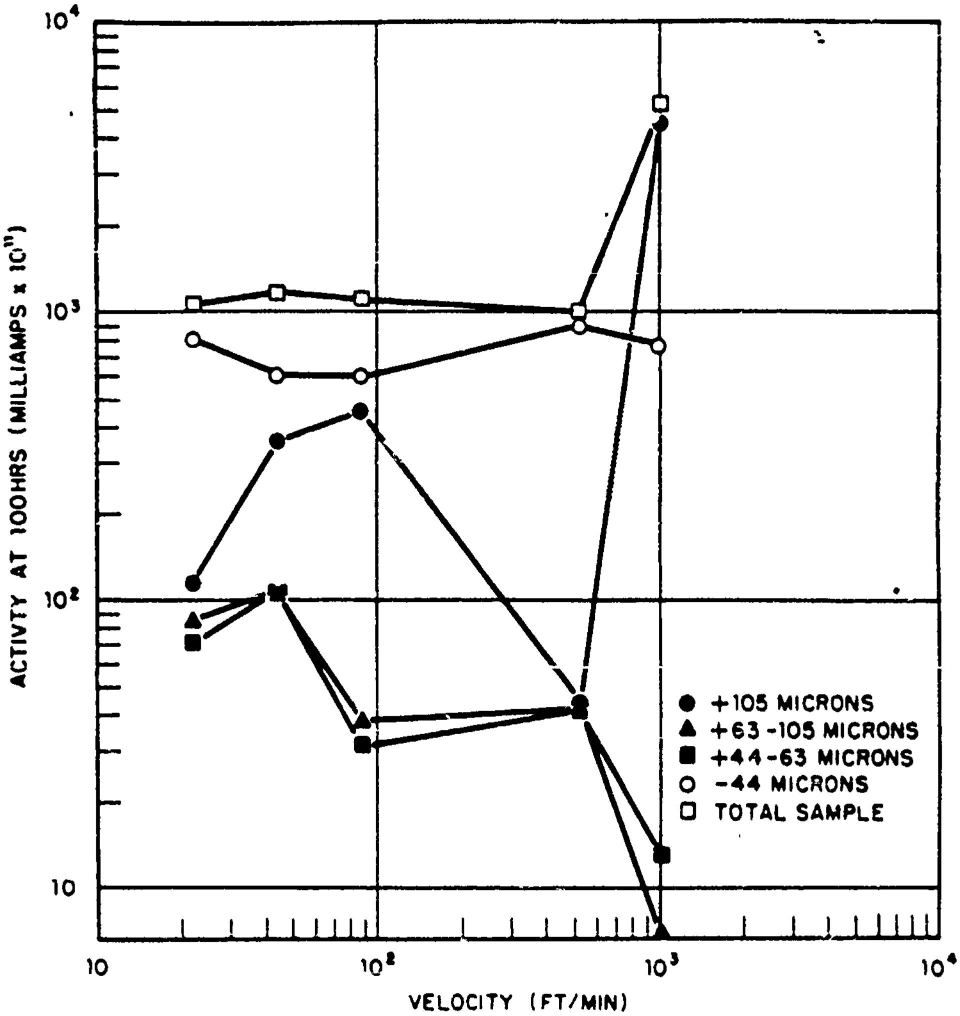


Figure 3.30 VI sieve fraction activity versus air inlet velocity at Station S2.

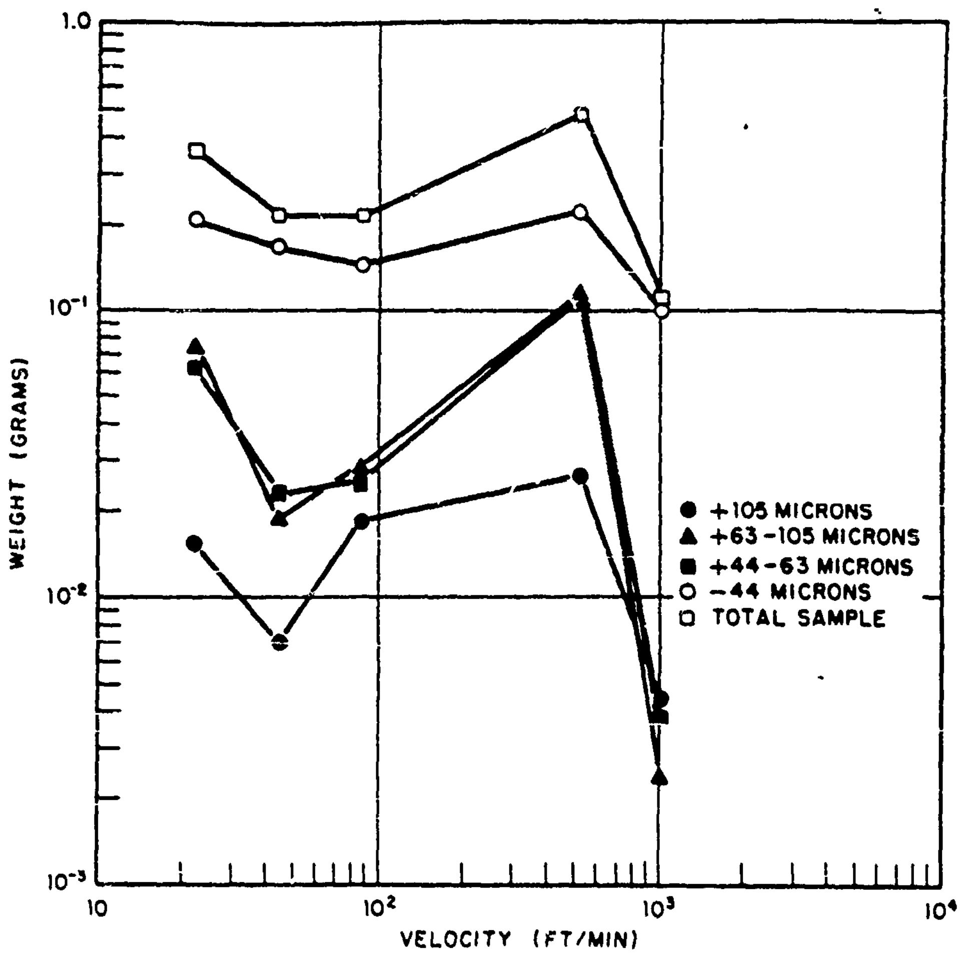


Figure 3.31 VI sieve fraction weight versus air inlet velocity at Station S2.

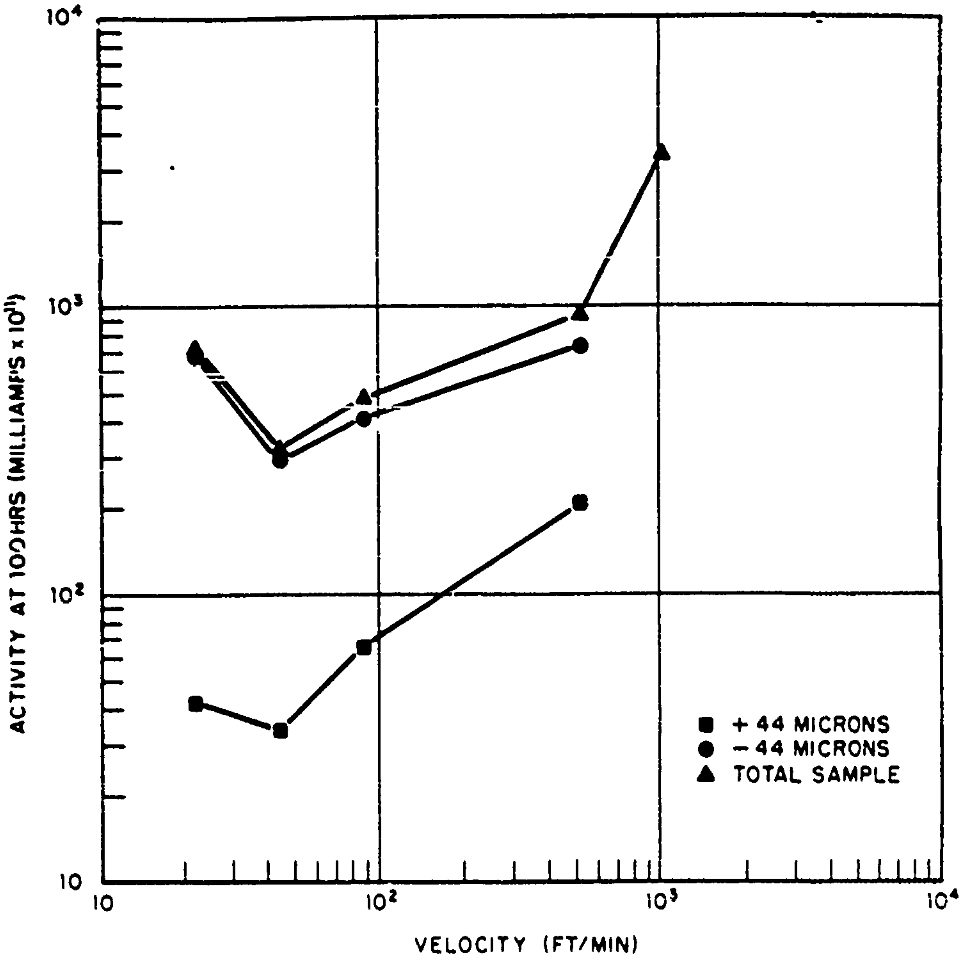


Figure 3.32 VI sieve fraction activity versus air inlet velocity at Station S5.

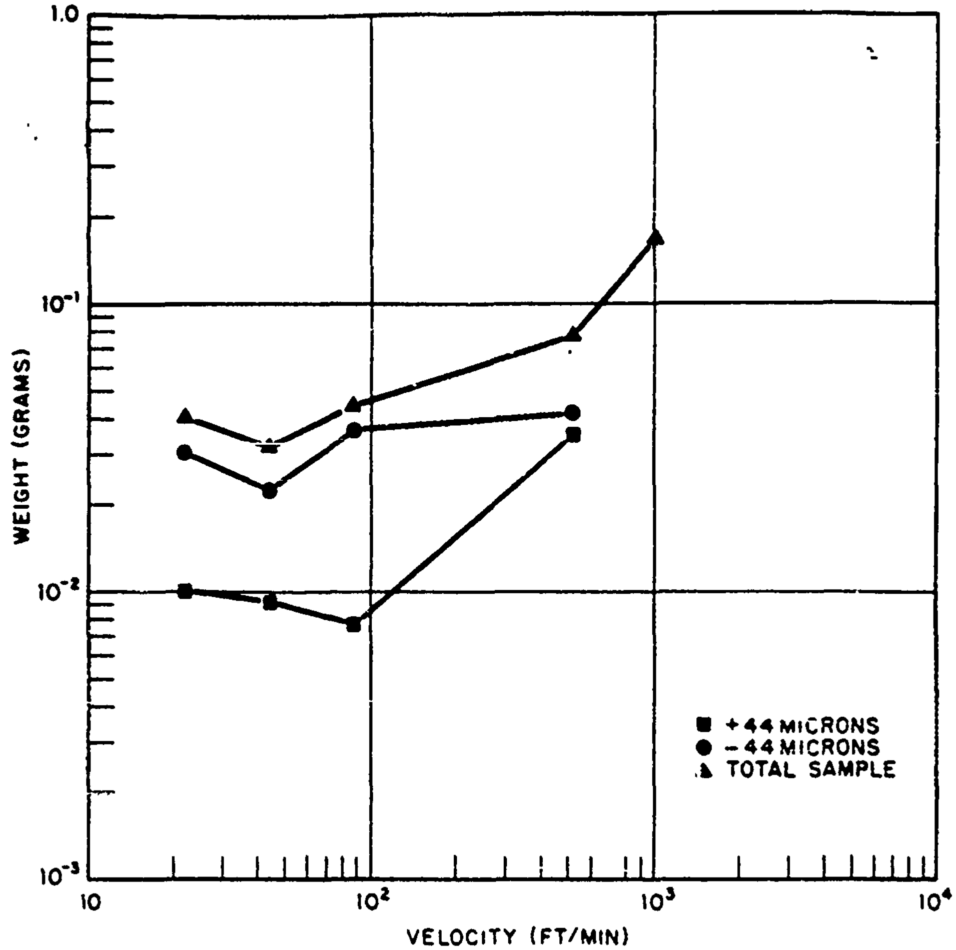


Figure 3.33 VI sieve fraction weight versus air inlet velocity at Station S5.

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CHAPTER 4

CONCLUSIONS AND RECOMMENDATIONS

The quality and kinds of measurements made on this operation were considerably improved over previous weapon test field work as a result of the experience gained by project personnel over the years prior to the moratorium. Sufficient data were obtained to satisfy most of the project objectives.

It appeared that time and spatial variations in wind velocity were too rapid for the balloon data to be interpretable, since a sounding to 20,000 feet required 20 to 30 minutes. Future fallout pattern predictions for Small Boy probably will be subject to interpretation because of these uncertainties and those which may be introduced by substitution of a steady-state wind structure.

The measurements made from the manned stations were generally successful, with the exception of the sequential air sampling program which yielded uninterpretable results that are not reported. The shelter ventilation intake studies led to several anomalies as yet unexplained; however, at Shelter S5, particle penetration decreased with increasing hood size, except for the largest hood. This last result may be due to wind effects.

At Stations S1S and S2 little variation was noted among the covered intakes. In general, the hoods reduced penetration to at least 25 percent of the open pipe penetration with the same flow rate. It seems valid to conclude that the activity associated with particles $>300\ \mu$ in diameter was the principal difference between open pipe and covered intake penetration at S1S and S2.

Visibility targets were located from 10 to 200 feet from each manned station and viewed through the periscope. Surprisingly, none were reported lost to view following the burst. If any obscuration did exist, it occurred only within the first few minutes and was short-lived. The tenuous fallout cloud was visible from the shelters for at least 30 minutes after burst.

The performance of all fallout collectors was very satisfactory. The gamma activities from collector-to-collector at the same station were possibly more uniform and reliable than any such measurements made previously. The agreements between different types of collector, and between UCLA and NRDL results for Indian Springs Valley, were especially noteworthy. For perhaps the first time, incremental collections were obtained which summed to gamma activity values well within the standard deviation of the platform total collectors, owing principally no doubt to the placement of the IC sampling port directly in the platform collector array. The debris collected on the degreased aluminum collector surfaces was easily and quickly removed by dry brushing, with very low residuals. Although usually enough material was obtained from each location to insure reliable measurements, it must be recognized that inactive background material was present in all collectors and has not been subtracted out of the weights of debris reported.

The particle size and gamma activity distribution data reported have not been analyzed and interpreted. It appears however that active fallout particles were formed which were larger than the native soil particles originally present in the vicinity of ground zero. In this respect, the close-in Small Boy fallout superficially resembled that from Operation Jangle S shot more than Frenchman Flat soil.

Na^{24} was the only induced gamma activity noticeable in the measurements of this project. There appeared to be little relative fractionation of gamma-emitting nuclides from station to station, because the decay curves were very much alike. The slopes of the field decay curves measured with the NRDL Project 2.11 gamma intensity-time recorders also showed little spread, averaging about $t^{-1.3}$.

It was found that solutions of HCl of pH 1.0 leached a much larger fraction of the radionuclides from the debris than did water or NaOH of pH 10.0. Contact times from 1 to 10 days showed little effect in either the leaching or exchange results.

The latter were about the same for both clay and adobe soils. Less than one percent of the fallout activity leached off in xylene. Particles retained on 42 mesh (350 micron) and 80 mesh (177 micron) screens lost a smaller fraction of their activity during leaching than did particles in larger and smaller size ranges.

Measurements made on fallout samples exposed to air showed a continuing loss of iodine over a period of 12 days following the burst. The fraction of activity with the particles due to iodine was lower than expected, which may have been due to initial fractionation and inability of the analytical procedure to remove iodine trapped within insoluble particles.

OPERATION SUN BEAM

SHOT SMALL BOY

FALLOUT COLLECTION AND GROSS SAMPLE ANALYSIS

PART 2 OFF-SITE COLLECTIONS AND MEASUREMENTS

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CHAPTER 5

INTRODUCTION

5.1 OBJECTIVES

During the initial phases of planning and design of this project, a division of effort and responsibility was agreed upon by NRDL and the Laboratory of Nuclear Medicine and Radiation Biology (NMRB), University of California Los Angeles. NMRB was responsible for the fallout studies 18 miles from ground zero to a distance at which fallout was predicted to occur at H + 18 to 24 hours or about 200 to 300 miles from ground zero.

The requirements were to obtain data on (1) radioactivity per unit area and mass per unit area; (2) radioactivity per size fraction and associated mass per size fraction in samples from selected locations along the fallout pattern; (3) the comparison of radioactive decay rates on collected fallout samples to radioactive decay of fallout left in the environment; and (4) the determination of the variability of the arrival times of fallout at different locations in the pattern as this relates to items (1) and (2).

5.2 BACKGROUND

Beginning with the first environmental radiation survey (1947) of the fallout pattern from Shot Trinity (1945), Alamogordo, New Mexico, NMRB has participated in off-site fallout programs in Operations Jangle (1951), Tumbler-Snapper (1952), Upshot-Knothole (1953), Teapot (1955), and Plumbbob (1957). Weapons Test and other reports resulted from these studies (References 4, 5, 21, 22, 23, 24, 25, 26, 27, and 28).

From the earliest studies, it was clear that fallout from the detonation of test devices at the Nevada Test Site was governed by many complex variables such as energy yields and type of device, wind structure prevailing during the dispersal of the cloud, the support used for the device, nature of the soil or ground surface within the fireball influence, how much contact the fireball had with the ground surface, and the mass of the inert material surrounding the device.

The detailed examination of fallout patterns out to distances 200 to 300 miles from GZ, particularly during Operation Plumbbob (1957) confirmed the existence of hot spots in most fallout patterns (Reference 5). Hot spots were first identified in 1948 when the fallout pattern of the Operation Trinity detonation in New Mexico was outlined in detail (Reference 21). This observation was again confirmed when a hot spot was found on the fallout pattern from Shot Jangle Sugar (1951) (Reference 23).

Operation Plumbbob provided some of the earliest data on studies of the intersection of the fireball with GZ surface material. Similarly it was shown there were great differences between tower-mounted devices and balloon-mounted devices in the amounts of total activity and Sr89, 90 deposited in the biosphere from about 1 mile from GZ to a distance at which fallout occurred at H + 12 hrs (References 27 and 28).

This project is intended to provide data on a surface detonation which will permit a better understanding of fallout phenomenology and to refine portions of the fallout models concerned with the deposition of fallout debris and its characteristics in the area in which fallout occurs from H + 2 to H + 24 hours.

CHAPTER 6

PROCEDURE

The NMRB group was responsible for the off-site studies from 18 to approximately 200 miles from ground zero. The general requirements were to obtain data as outlined in Section 5.1. These requirements necessitated the availability of predictions and estimates of the direction in which the line of maximum radiation intensity was to occur within the predicted fallout pattern.

6.1 PLANNING

Participation was limited to Shot Small Boy, a low-yield weapon supported 10 feet above the surface of Frenchman Flat Dry Lake by a wooden tower and detonated at 1130 PDT, 14 July 1962.

The conditions for detonation were such that the centerline (hot-line) of the predicted fallout pattern would lie within plus-or-minus thirty degrees of east. Unfortunately, an accurate prediction of the required westerly winds was particularly difficult for this shot since sustained winds toward the east have a very low probability of occurrence at NTS during July. These uncertainties increased the requirement for mobility in establishing off-site stations for collection and measurement of fallout debris.

Twelve teams of two men each received 15 days of intensive instruction and practice before the Ready Date in the use of equipment, collecting station location and station-set-up, general security and safety measures, and general area orientation. The latter consisted of becoming familiar with available landmarks, trails, and roads in the sectors to the east and northeast of NTS out to 250 miles. All teams became capable of performing their assignments in time periods of 3 to 5 hours, either in daylight or darkness.

6.2 PROJECT OPERATING PROCEDURES

Mobile field teams, directed from project control center at Mercury, placed instruments at stations along selected arcs intersecting the predicted fallout pattern at increasing distances from ground zero. The location of these stations was based on a prediction of the hot-line of the pattern from meteorological data supplied by the Fallout Prediction Unit (FOPU) and a knowledge of adequate roads and trails.

6.2.1 Fallout Prediction. A liaison was arranged and maintained with FOPL and the U. S. Weather Bureau Service Group of the Test Manager's Organization in order to furnish this project with current meteorological data and hot-line predictions. Analysis of these data provided estimates of the optimum arcs for location of the fallout sampling and radiation detection equipment before the estimated time of fallout.

6.2.2 Placement of Off-Site Stations. The NTS and adjacent environs in which this operation took place has been described in earlier reports (References 4 and 5).

During this operation, the area of study included distances up to 200 miles from ground zero in the direction of the predicted fallout pattern. Sampling stations were set up at various intervals along eleven arcs across the pattern. Mean distances of these arcs from ground zero were 18, 27, 35, 56, 60, 74, 80, 115, 130, 165, and 200 miles (Figure 6.1). (See Table 7.7 for station locations.)

Seven field teams were dispatched on D-1 day to rendezvous points 80 to 150 miles from NTS within the estimated sector of the fallout pattern. The remaining four field teams were dispatched about 10 hours before the proposed H-hour, 0800 hours, to rendezvous points 20 to 80 miles from ground zero. Communications were maintained by telephone and radio. Assignment of field teams to areas of greatest fallout probability and general coordination of a safe field effort were accomplished with the support of a USAF C-47 radio-relay aircraft. Specific station assignments were given between 0130 hours, D-day, and up to 6 hours before the estimated time of fallout arrival at a particular arc for the more distant locations. Each team required 3 to 5 hours for station placement, depending on the number of stations and the distance between stations. The first six teams could place a maximum of 20 stations, while the more distant teams could place 30 stations. In some cases, however, only 15 stations were established along an arc because of limitations imposed by the conditions of the roads or estimated changes in fallout time.

The equipment complement of each team is presented in Table 6.1. This instrumentation is described in detail in Section 6.3.1. Details of station installation were included in the instructions issued to each team.

Approximately 24 hours after fallout arrival at each arc, or during the next daylight period, the field teams recovered the instruments and conducted gamma radiation surveys of their respective stations. All samples were returned to the project laboratory at Mercury beginning on D + 1 day and continuing through D + 2 days.

At alternate stations along the 35 mile arc, duplicate gummed-paper (GP) collectors were exposed to the initial fallout.

These were recovered by a special team early on D + 1 day and returned to the laboratory by 0830 hours for gamma decay-rate studies (see Reference 10).

6.2.3 On-Site Laboratory Operations. A laboratory was established at Mercury by DOD and CETO. It was equipped to isolate and to measure certain characteristics of the fallout debris collected at the off-site stations and to perform appropriate radioassays. Details of these procedures are presented in conjunction with instrument descriptions in Section 6.3.2.

6.2.4 Aerial Radiological Surveys. Activities of Project 62.80 of CETO/EG&G were integrated with these studies. The project utilized two aircraft operated by U. S. Geological Survey and EG&G to perform aerial radiometric surveys. Preshot background levels of radioactivity were determined along four arcs, approximately 60, 130, 180, and 260 miles from ground zero.

Beginning on D + 2 days and continuing through D + 4 days, flights across the areas of suspected fallout delineated the pattern of deposition and measured the levels of gamma activity encountered at the 500-foot altitudes flown. Generally, aerial surveys made to define fallout patterns are begun on D + 1 day; but these measurements were delayed in this case to avoid possible contamination of the aircraft because the Small Boy debris was expected to be primarily small particles and therefore have delayed deposition. For details see the POR, Project 62.80

(when published), CETO/EG&G.

6.3 INSTRUMENTATION

To document the fallout distribution and the radiation exposure to the environment 18 to 200 miles from ground zero, NMRB utilized procedures and instruments which have been described in earlier reports (References 4 and 5). Experience and expediency dictated certain modifications, and these will be amplified accordingly.

Instrumentation was selected to fulfill three categories: (1) collection of fallout debris for subsequent characterization, (2) measurements of fallout time-of-arrival, and (3) radioassay to determine decay rates and specific activities.

6.3.1 Field Collectors and Instruments. Fallout debris was collected at off-site stations by granular collectors (GC). A typical station is illustrated in Figure 6.2.

Details of the granular collector assembly and the concept of the processing procedures have been reported previously (Reference 5). The GC consisted of a flat metal tray (29 by 47 inches by 3/8 inch deep) centrally divided into duplicate sample areas each 4.3 square feet. Each half of the tray was lined with a mylar plastic sheet (E. I. Dupont Co.) folded to approximately fit the edges of the tray and held in place with binder clips. Approximately 1.6 kg of 3/16-inch diameter plastic pellets (polyethylene) were spread uniformly on each half of the plastic covered tray which provided a matrix that trapped the incidental fallout debris.

In order to check the relationship of collector efficiency to surface area, five teams placed small granular collectors (SGC) at alternate stations along their arcs. These were identical in principle to the GC but provided only a single surface of 1.042 square feet compared to 4.336 square feet.

Following exposure of the trays, the mylar sheets were gathered around the pellets, tied, and each sample was individually packaged for transport back to the Mercury laboratory. The method for separating the fallout particles from the plastic pellets is described in Section 6.3.2.

Fallout-time-of-arrival detectors (TOAD) were placed at 51 selected stations to record the time of fallout. Each of these units consisted of a geiger tube coupled to a battery-powered clock by a fuse assembly. The fuse assembly was designed to break the circuit and stop the clock when a radiation intensity of 2 mr/hr was reached. Details of TOAD construction and operation have been reported previously (Reference 29).

Fallout arrival time was also obtained from 41 portable, battery-powered, gamma intensity recording units (GU). These included 18 Jordan Electronics, Inc., Pram Model-5 portable remote-area monitors which have also been described previously (Reference 4), and 23 Pram Model-6 units (see Figure 6.2).

This instrument is a revision of the original Model 6 to provide greater adaptability for field use and a recording period in excess of 250 hours.

The Pram-6 background recorders, as originally built, contained a vacuum tube chopper amplifier which increased the signal from an ion chamber sufficiently to operate a recorder. Unfortunately, due to compromises in design necessary for field operation, the stability of this amplifier was inadequate. A straight dc amplifier using transistors was designed as a replacement and was installed in the 23 instruments used in this program.

The variation in rate readings due to temperature changes was reduced by the addition of a thermistor resistor combination in the cathode of the electrometer tube. This modification was similar in principle to that described in Reference 30 but corrected for the temperature range 70° F to 140° F.

The Pram 5 has five decades of sensitivity: 0.1 to 10 mr/hr, 0.1 to 100 mr/hr, 0.1 to 10^{4} mr/hr, 1 to 100 mr/hr, and 10 to 10^{4} mr/hr; the useful range of the Pram 6 may be selected by stages from 0.1 to 10^{4} mr/hr. Multi-step calibration of each unit was carried out prior to the shot by exposing the sensing element to various known Co^{60} gamma-intensity levels throughout its particular sensitivity range. Field readings were subsequently corrected on the basis of the calibration curve obtained for each instrument.

Two types of hand-carried, field-survey meters were used in making the gamma radiation intensity surveys at time of recovery: OCDM No. CD-V700 (Anton Electronics Laboratories, Model 6) and CY 2312/PDR27J (Chatham Electronics, Inc., Radiac). These were calibrated prior to field use on the Rad-Safe Co^{60} calibration range at the Control Point, Building 2.

6.3.2 Laboratory Processing. Initial gamma radioactivity assays of the GC specimens were obtained in the NRDL end-on, low-geometry NaI scintillation counter (CH-I) (Reference 16), on all samples that registered 500 or more counts per minute per sample above instrument background. A similar but more sensitive instrument (CAVE) (see Section 6.3.4) was used to assay samples with lower levels of radioactivity.

The survey indicated that only a limited number of the samples on six arcs had levels of radioactivity sufficient to be assayed on either detection system within the desired limit of statistical variation for one-minute counts. As a result, a modified schedule of the numbers and types of samples to be processed was designed to satisfy the project objectives. The samples were sorted into groups for processing, as shown in Table 6.2.

The fallout debris from the exposed GC's was concentrated by treating each sample as follows: 500 ml of isopropyl alcohol (IPA) was introduced into the mylar plastic bag and the wet pellets transferred to the washer. The washer assembly consisted of a screen 18 inches in diameter set in a spring-mounted sieving pan actuated by a electric motor vibrator. The mylar sheet was spread out, clipped to an upright stainless steel tray and washed down with a pressure spray of IPA, and drained off with a rubber squeegee. IPA was added to just cover the pellets.

A vibration-flow method of washing replaced the procedure used previously (Reference 31). The pellets were simultaneously stirred and subjected to mechanical vibration for one minute. Then the IPA with suspended fallout debris was allowed to drain into a 6-liter enameled pot through a 3-inch diameter, tared sieve (U. S. No. 325) that retained all particles greater than 44 microns in diameter. An additional 500 ml of fresh IPA was simultaneously sprayed over the pellets to displace the liquid in the matrix. This operation was repeated until no more than 10 percent of the original radioactivity remained on the matrix (see Section 6.3.3). All exposed surfaces of the apparatus were finally rinsed to remove any radioactive residue.

The material retained on the sieve was washed with IPA again, dried under a heat lamp, weighed, and radioassayed. The less-than-44 micron material remaining in the drain pot was then removed by filtering the IPA suspension through a tared Millipore filter (Millipore Filter Corp.). The residue was washed using an IPA wash bottle, dried under the heat lamp, weighed, and radioassayed.

Two hundred fifty ml aliquots of the filtrate and 40-gram samples of the pellets were radioassayed initially to determine residual contamination. Later, it was determined that the recovery efficiencies could be determined routinely by recounting only the total pellet samples in the CAVE.

Selected samples were frac onated further as follows: the material retained by the 44-micron screen was quantitatively transferred to a sieve assembly containing tared screens of the following pore sizes: 1,000, 500, 350, 297, 250, 210, 177, 149, 125, 105, 88, and 44 microns. After 30 minutes on a Ro-Tap

(W. S. Tyler Co.) testing-sieve shaker, the assembly was dismantled, and the individual screens with the respective particle size fractions were weighed and placed in plastic petri dishes for radioassay (for details see Reference 31).

The less-than-44 micron material on Millipore filters was transferred quantitatively to 15 ml centrifuge tubes, and 10 ml of acetone was added to dissolve the filter. The suspension was stirred, centrifuged to settle the greater-than-two micron particles, and the supernatant was decanted into a two-inch glass petri dish. This process was repeated two more times.

The acetone remaining on the residue was evaporated in a water bath, IPA was added and used to transfer the residue to a tared Millipore filter for drying, weighing, and radioassay.

Gamma radioactivity in the processed GC samples and the gummed paper units was determined with detector units that consisted of a 2- by 2-inch NaI crystal affixed to a photomultiplier tube (Model 05-5, Nuclear Chicago) coupled to a binary scaler (Model 183, Nuclear Chicago). The count acceptance rate was increased one-hundred fold by introduction of two decade glow tubes (Model 180, Atomic Instrument Co.) between the last scaling stage and the mechanical register of the scaler. The probes were mounted in two-inch lead shields.

The detection system CAVE used in making the initial assay of the radioactivity in the total samples was similar to that above except for the shield. It was a specially constructed lead and steel cube with inside dimensions of 16 by 18 by 22 inches with the probe mounted 21 inches above the center of the floor.

Counting efficiencies were determined by Cs137 standards which were mounted in geometrical configurations identical to those of the experimental samples.

6.3.3 Sample Calculations. The following calculations were performed for each sample:

1. The total number of counts observed was divided by the duration of the count to obtain the gross counts per unit time.

2. The gross counts per unit time were corrected by deducting the instrument background and adding the coincidence loss, when necessary, to give the net counts per minute. The coincidence loss was significant on samples counting 500,000 counts per minute or higher.

3. The net counts per minute were converted to common times using an average decay slope. The average value very closely approximated that of $T^{-1.2}$ (Reference 10).

4. The net counts per minute at 12 hours postshot were further corrected for sample geometry and sample area to yield corrected counts per minute per square foot at H + 12 hours.

5. The conversion factor to CH-I, Shelf 5 was calculated as the ratio of the instrument geometries: CH-I, Shelf 5 to

the instrument used to count the size fractions.

6. The net counts per minute at 100 hours after shot were corrected for instrument efficiency and sample area and normalized using the conversion factor to give counts per minute per square foot at H + 100 hours on the 5th shelf of the CH-I counter.

On certain samples, 40 gram aliquots, 1/40 of the total mass of pellets in a sample, were counted to determine the residual radioactivity. Therefore, the net counts per minute obtained by correcting as in Step 2 above must be multiplied by 40.

6.3.4 Reliability of Procedures and Counting. Overall reliability can be assessed in terms of the error that is introduced in the various steps that are a part of the total operation. In these procedures there are at least four steps where error can be introduced: i.e. field sampling, gross counting, laboratory processing, and assay of the size fractions.

Field sampling includes variation from all parameters that have an influence on the reproducibility of sampling. Regular GC trays were compared with SGC trays at five locations to determine the influence of size of tray on the sample collected. The results, Table 6.3, indicate that the tray size had no discernible effect. Other factors that may have influenced field sampling were time of sampling relative to fallout time, orientation of the collector trays, ambient background mass, and radioactivity.

The gross gamma radioactivity as determined by either the

CH-I or the CAVE counter involves inherent counting errors that depend for their magnitude on the level of radioactivity present, the length of time counted, the reliability of the detection system, and the reproducibility of identical geometrical configurations in each sample. There was perhaps some variation in the pattern of activity dispersal in the pellet matrix at time of counting that contributed to the overall error of counting, but the main consideration was a valid statistical count. A count rate of 500 counts per minute above instrument background on the CH-I counter and 700 counts per minute on the CAVE resulted in a counting error of plus or minus 10 percent at the 95 percent confidence level for a one-minute count. Since the CAVE was more sensitive than the CH-I by a factor of approximately eight, a sample that counted 600 counts per minute on the CAVE theoretically counted about 70 counts per minute on the fifth shelf of the CH-I counter.

On this basis (maximum error of counting of $\pm$ 10 percent) approximately 45 percent of the samples counted on the CH-I or CAVE counter had activity levels too low to get a statistically valid count in a reasonable period of time on the available detection systems. The data obtained on the higher activity level samples indicated that the total gross activity as determined on the CH-I before processing and the sum total of the activity of the size fractions and the residual activity on the pellets after processing compared very favorably. The results are shown in Table 6.4.

These data are a basis for accepting the sum total of the radioactivity in the various size fractions and that remaining on the pellet matrix as the total activity of the sample. With a counting error of plus or minus 10 percent on the CH-I data as compared to a two percent counting error on the size fraction determinations, this assumption seems reasonable.

There is one more source of variation in the data that comes from the samples. In the laboratory processing there are at least two places where radioactivity is lost during the washing procedure. The results of checking six samples of IPA for radioactivity indicated an average loss of approximately one percent, and about seven percent remained on the pellet matrix after the washing procedure (see Section 6.3.2).
From the above considerations it appears that the overall reliability figure should be about 85 to 90 percent.

TABLE 6.1 EQUIPMENT COMPLEMENT OF FIELD TEAMS

Team No.	T-1	T-2	T-3	T-6	T-4	T-5	T-7	T-11	T-8	T-10	T-12
Arc (mi)	18	27	35	56	60	74	80	115	130	165	200
Granular Collectors (GC)*	20	20	20	20	20	20	30	30	30	30	30
Small Granular Collectors (SGC)**	0	40	40	60	40	60	80	0	80	80	0
Time-of-Arrival Detectors (TOAD)	5	5	5	5	5	5	5	5	5	5	5
PRAM Radiation Recorders (GU)***	1	4	4	4	4	4	4	4	4	4	4
Survey Meters CD-V700, 27J	2	2	2	2	2	2	2	2	2	2	2

* Granular Collector (GC) area = 4.336 ft^2

** Small Granular Collector (SGC) area = 1.042 ft^2

*** Gamma Monitoring Unit (GU)

TABLE 6.2 SAMPLE PROCESSING SCHEDULE

Sample Numbers			
Not Processed	>44μ	<44μ	<2μ
Group I - To Project 2.10 for complete radiochemistry			
18-12A*	18-12B*	18-12B	18-12B
27-1A	27-1B	27-1B	27-1B
35-19A	35-19B	35-19B	35-19B
56-12A	56-12B	56-12B	56-12B
Samples 18-12A and 27-1A were counted for decay in the CH-I counter until assays were completed on all above samples.			
Group IIa - To Project 2.10 for partial radiochemistry			
18-11A	18-11B	18-11B	
18-10A	18-10B fractionated by size into 14 fractions		
27-2A	27-2B	27-2B	
27-3A	27-3B fractionated by size into 14 fractions		
35-18A	5-18B	35-18B	
35-20A	35-20B fractionated by size into 14 fractions		
56-11A	-11B	56-11B	
56-13A	S-13B	56-13B	

Sample 35-20A was counted for decay on the CH-I counter until the assays were completed. Sample 56-11A was submitted to NRDL-CPI laboratory for Ion-Chamber decay

TABLE 6.2 CONTINUED

	Not Processed	>44μ	<44μ	<2μ
Group IIb - To Project 2.10 for partial radiochemistry				
	115-18A	115-18B fractionated by size into 14 fractions		
	115-19A	115-19B	115-19B	
	115-17A	115-17B	115-17B	
	200-18A	200-18B	200-18B	
	200-17A	200-17B	200-17B	
	200-19A	200-19B fractionated by size into 14 fractions		
Samples were selected on the basis of counting in the CAVE				
Group III - To Project 2.10 for leaching studies.				
	18-9A	18-9B	18-9B	
	27-4A	27-4B	27-4B	
	35-17A	35-17B	35-17B	
	56-14A	56-14B	56-14B	
Group IV - Remaining samples from six arcs				
	75 A samples	76 B samples	76 B samples	
Group V - GC samples recovered by NRDL. All samples in this group were separated into two parts: (1) alcohol with fallout, and (2) washed pellets				

* A and B are the two halves of the GC trays

TABLE 6.3 GRANULAR COLLECTOR EFFICIENCY RELATED TO TRAY SIZE

	Gamma Radioactivity Per Unit Area, c/m/ft^2 at H + 12 hrs*		
	Large Granular Collector		Small Granular Collector
Sta. No.	Part A	Part B	(Mean of Four Trays)
		27 Mile Arc	
1	7.80×10^8	7.70×10^8	$7.45 \times 10^8 \pm 13.08\%$
2	6.05×10^8	6.42×10^8	$6.95 \times 10^8 \pm 6.40\%$
		35 Mile Arc	
20	3.01×10^8	2.92×10^8	$3.00 \times 10^8 \pm 11.55\%$
		56 Mile Arc	
10	2.22×10^8	1.92×10^8	$1.77 \times 10^8 \pm 4.84\%$
12	1.99×10^8	2.08×10^8	$1.87 \times 10^8 \pm 14.12\%$

* See Section 6.3.3 and Appendix D.

TABLE 6.4 GAMMA ACTIVITY: FRACTION TOTALS VS CH-I TOTAL

	c/m/ft^2 at H + 12 hours*		Per Cent of
Sample	Sum Total	CH-I Total	CH-I Total
18-2B	1.21×10^8	1.23×10^8	91
18-9B	2.36×10^9	2.53×10^9	93
18-12B	3.43×10^9	3.78×10^9	98
27-1B	8.11×10^8	7.70×10^8	105
27-4B	2.07×10^8	2.06×10^8	100
27-9B	1.78×10^7	1.79×10^7	99
35-16B	4.26×10^7	5.15×10^7	83
35-18B	1.71×10^8	1.88×10^8	91
35-19B	2.82×10^8	2.78×10^8	101
56-5B	2.61×10^7	2.73×10^7	96
56-12B	1.89×10^8	2.07×10^8	91
56-14B	8.95×10^7	9.17×10^7	98

* See Appendix B.

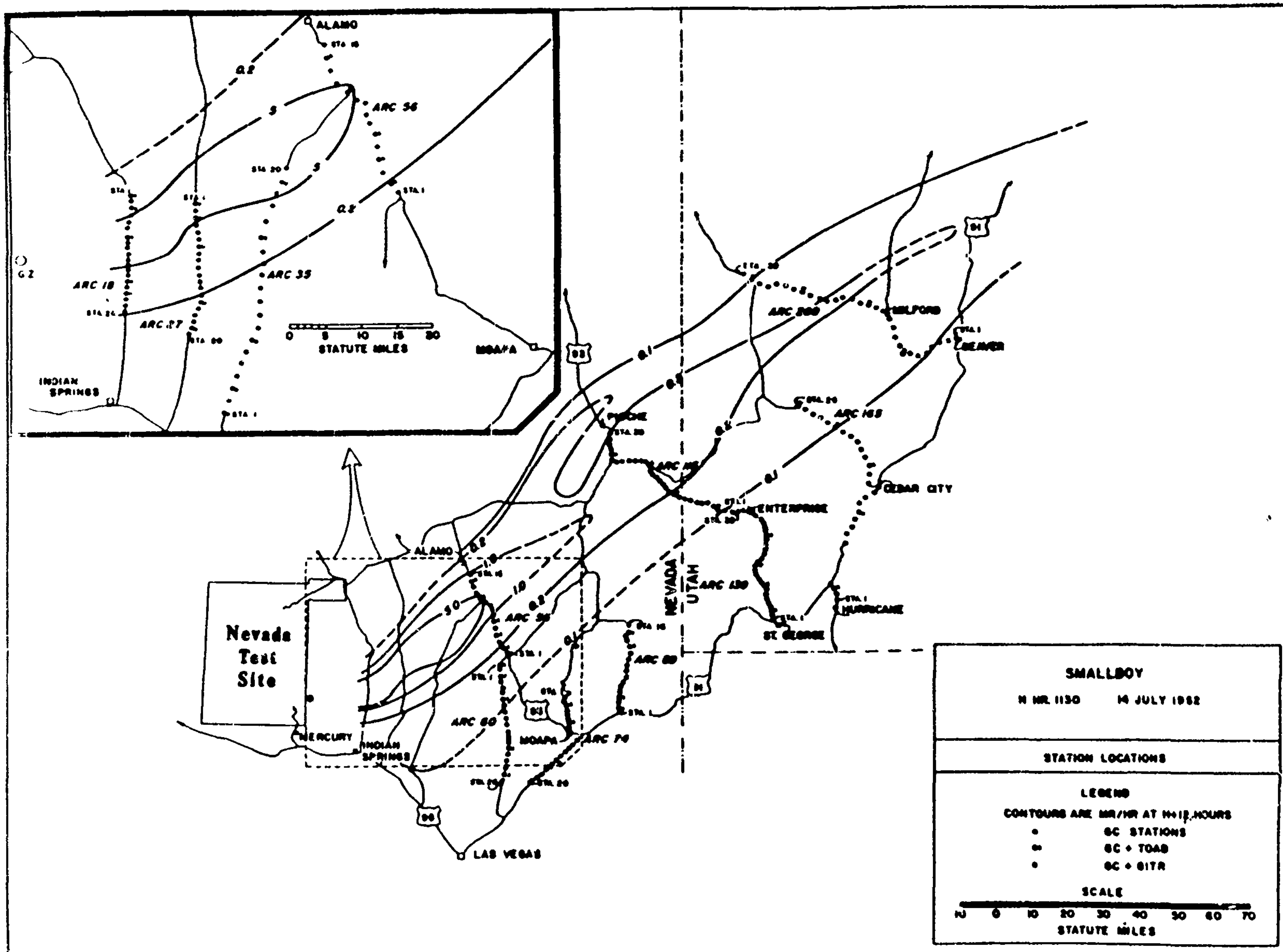

Figure 6.1 Station locations of Projects 2.9 – 2.11 UCLA.

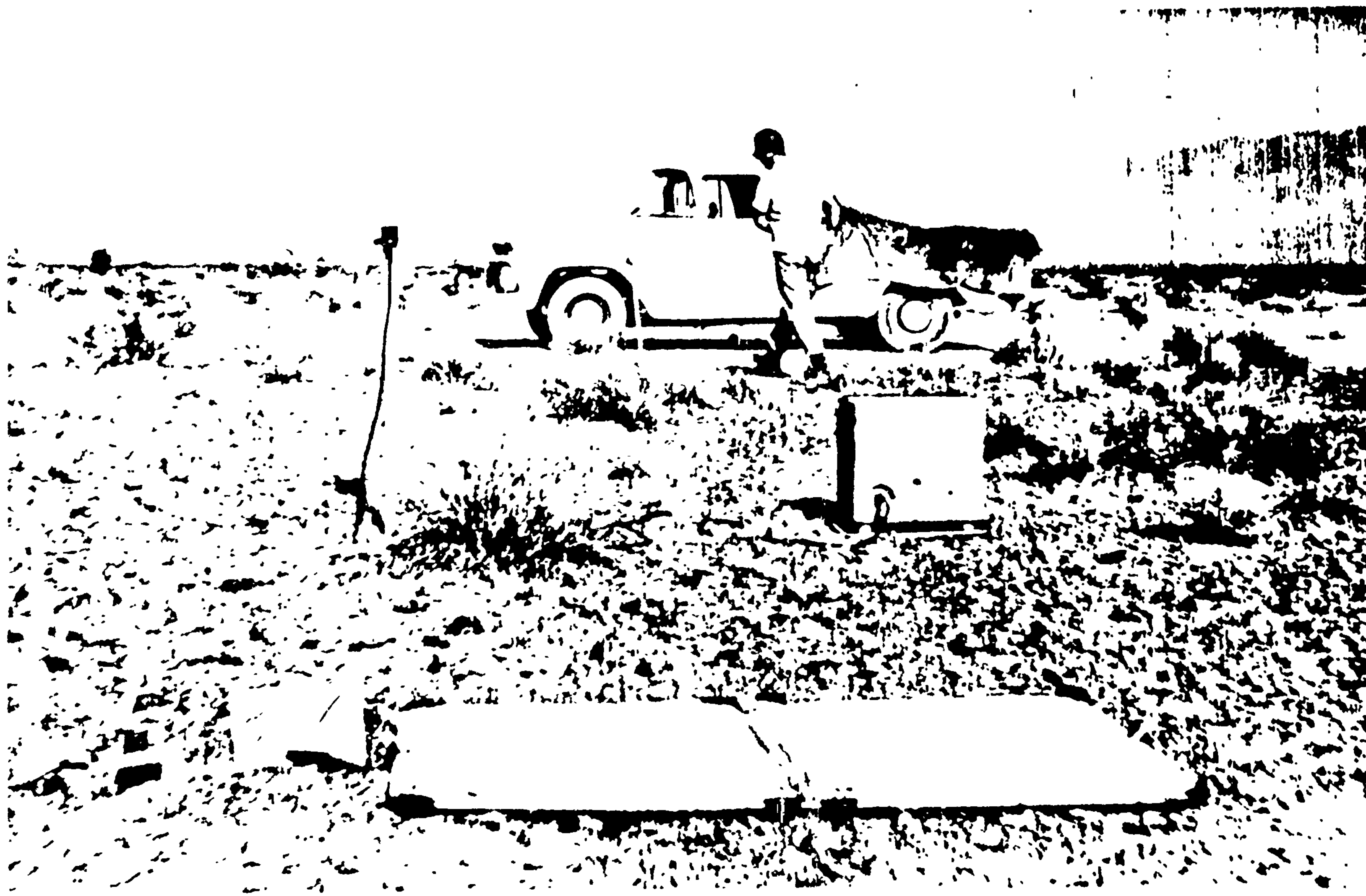

Figure 6.2 A typical off-site station showing a granular collector (GC) in foreground and a Pram Model-6 gamma monitoring unit (GU) with its ionization chamber supported 3 feet above the ground. (NMRB photo)

CHAPTER 7

RESULTS

Table 7.1 summarizes the types and number of instruments placed in the path of the predicted fallout between 18 and 200 miles from ground zero. Of the 247 stations establi' hed, 97 were contaminated by fallout debris from Shot Small Boy.

7.1 FALLOUT PREDICTION

The west winds that occurred during the Small Boy event resulted from passage of an unusual, low-pressure cell through the Test Site. Forecasts of the changes in wind direction and speed with time were subject to considerable uncertainty due to difficulty in establishing the movement of the low center. With the small likelihood of a west wind and the uncertainty in its forecast, it was necessary to proceed with the countdown whenever such a wind might occur. Winds forecast for the Small Boy event at 0800 PDT on 14 July 1962 are presented in Table 7.2.

Because of the uncertainties in wind direction and speed as detonation time approached, H-hour was set forward periodically until 1130 PDT. Table 7.3 summarizes the Frenchman Flat soundings during the period to detonation and immediately following.

Based on an estimated cloud rise to 18,000 feet and available estimates of trajectory direction at 0200 hours, i.e. 6 hours before the originally scheduled H-hour, teams were placed for a fallout pattern to the east. Following detonation at 1130 PDT, the cloud rose to approximately 19,000 ft. Tracking planes reported initial movement of the fallout cloud toward a bearing of 100 degrees followed by a change in direction toward 070 degrees. Also, a portion of the uppermost part of the cloud appeared to stream out toward a bearing of 100 to 110 degrees. As the soundings indicate, the winds were very light at all levels below 16,000 feet but increased in velocity above this level. The upper portion of the cloud appeared to be in the west-northwesterly flow.

As a characteristic of the prevailing meteorological conditions on D-day, it was almost impossible to follow the path of the cloud from the wind data available during the first several hours following detonation, even though the observational support was very good. Movement was slow, approximately 10 mph, and wind directions were quite variable on successive observations.

The teams to the more distant arcs were committed at about H + 6.5 hours, or 1800 hours D-day, on the basis of early offsite cloud tracking, early monitoring information obtained by the U. S. Public Health Service, and on the basis of the estimated projection of the wind field. A northeasterly path was estimated at that time, passing between Pioche, Nevada, and St. George, Utah.

The postshot analysis from Figure 7.1 indicates that the 4000-foot or surface layer arrived in the vicinity of

Alamo, Nevada, at H + 9 hours; the 7,000-foot layer arrived at H + 5.5 hours; and the 10,000-foot layer arrived at about H + 4.5 hours. This was reflected in the fallout-time recorded on Arc 56.

Beyond 50 to 60 miles the direction of the 4,000-foot layer changed about 90° at H + 12.5 hours to the northwest while the 7,000-foot layer contined in about its original direction for 2 hours longer before changing 90°, again to the northwest. The 10,000-foot layer, however, changed its direction to the east.

The 16,000-foot layer had a direction quite different. This explains why some of the GU's, and particularly the TOAD's, indicated time-of-fallout some distance from the primary fallout pattern. FOFU estimated that significant deposition from a cloud above 16,000 feet MSL would not occur before that portion of the cloud had travelled 250 to 500 miles. Results obtained support this contention in that only trace amounts of the fallout were measured north of Glendale, Nevada, or north of St. George, Utah.

7.2 FALLOUT ARRIVAL

The placement of 51 TOAD's and 41 GU's is indicated in Table 7.1. These units were located at various intervals determined from the available fallout predictions from H-5 to H + 8 hours. Twelve GU's and twenty TOAD's were in radiation fields of sufficient intensity to record time-of-arrival of fallout at their respective locations, see Figure 6.1 and Tables 7.4 and 7.5.

These time-of-arrival figures do not necessarily indicate a physical fallout of radioactive debris but may be the result of the passage of a radioactive cloud without any fallout. This is a feasible explanation for some of the time-of-arrival values that were recorded some distance from the primary fallout pattern. Irrespective of the location in the pattern, the amount of fallout, if any, is a definite function of the particle size in the cloud layer and the lapsed time after detonation.

7.3 FALLOUT PATTERN DELINEATION

The fallout pattern, delineated in Figure 6.1, indicates that the cloud did in fact move to the north-northeast. A late change in the predicted line of fallout necessitated a shift of the mobile teams on the more distant arcs toward the north. The net result was that the stations on three of the arcs were approximately in the path of fallout, and the stations of two others to the south covered only about one half of the fallout pattern. Stations on six of the eleven arcs received varying amounts of radioactive contamination.

Of a total of 97 stations contaminated, approximately 40 exceeded the NRDL criteria for radiation intensity, i.e. 0.5 mr/hr at H + 12 hours at the station location (see Table 7.6); and all these stations were within 56 miles from ground zero. The fallout in the general area covered by these stations represented about 1.3 percent of the theoretical radioactivity produced by the Small Boy event and almost 50 percent of the total radioactive fallout deposited between 18 and 200 miles from ground zero. The total fallout contamination was determined (Reference 23) by plotting observed radiation intensity (mr/hr) values on the six arcs with respect to distance across the fallout pattern and then integrating the areas beneath the respective curves by measurements with a polar planimeter. The integrated values were plotted as a function of distance from ground zero (see Figure 7.2), and a second integration was performed. The radioactive fallout totals obtained for the respective intervals of distance were used to make the above calculations. Amounts calculated in this manner were expressed as percentages of theoretical values corrected for terrain roughness (Reference 2). Weapon yield was assumed to be

In order to extend the fallout pattern, and particularly to include data on the smaller size particles that are important biologically, samples with lower activity levels (see Table 7.7) were assayed in the CAVE or processed into size fractions prior to radioassay and summation. This increased the accountable radioactivity to 2.7 percent and left about 97 percent of the theoretical total unaccounted for.

7.4 FALLOUT CHARACTERISTICS

The greater-than and the less-than 44-micron fractions of each GC sample were radioassayed and weighed to determine the radioactivity and the mass per unit area and the radioactivity and the mass of each size fraction. Selected samples were fractionated into 14-size fractions prior to weighing and radioassay. Gamma decays were run on certain samples (see Section 6.3.2 and Figure 7.3).

7.4.1 Ambient Debris of NTS Environs. In any sampling program there is an inherent error introduced due to the material, inert and radioactive, that is deposited with the fall-out in the collection tray. The amounts are highly variable. Based on an erosion study of the NTS environs (Reference 32), one might expect about 10 milligrams of debris per square foot per day in a pot fallout collector; but with a GC tray, set on the soil surface, the value would likely be much higher.

In Reference 33 it was shown that the amount of debris picked up by wind is a function of particle size, the fraction of each particle size present, the area covered by non-erodible particles, the surface cover, the cohesiveness of surface particles, the shape of individual particles, the wind speed, the temperature, the humidity, and the amount of precipitation. The most highly erodible particle size range is 50 to 500 microns (Reference 34).

In the St. George, Utah, area an attempt was made to establish background values of the radioactivity and the mass of material moving about in the environment prior to the detonation of Sedan and Small Boy. Data obtained from samples collected before and after shot are compared in Figure 7.4.

The postshot unit-area radioactivity and mass tended to be higher than the preshot values, but the difference is of doubtful significance. Based on average values and disregarding the anomaly at Station 3, a gamma radioactivity background of 2.38×10^4

$c/m/ft^2$ at time of counting (approximately H + 270 hours) was established as a realistic figure. A comparable figure for mass was precluded by the variability between locations.

7.4.2 Unit Area Activity and Mass. The radioactivity per unit area and the mass per unit area as a function of particle size for the 18, 56, and 115 mile arcs are shown in Figures 7.5, 7.6 and 7.7. Data for these figures was derived from Appendix C. The maximum contributions of radioactivity associated with the greater- and the less-than 44 micron size fractions occurred at the same station locations, but the maximum mass values of the two size fractions did not. Also, the maximum radioactivity did not coincide with the maximum mass for either size fraction, so no relation between the two is apparent. This implies that the radioactivity had a different source than the mass; hence, no correlation would be expected.

A detailed particle size distribution of individual samples (Table 7.8 and Appendix D), however, appears to contradict this thesis. The maximum radioactivity and mass were associated with the predominant particle size fractions which were the 44 to 88 micron fractions at 18 miles and the less-than-44 micron fraction at greater distances from ground zero.

TABLE 7.1 TOTAL NUMBER OF FALLOUT SAMPLING STATIONS ESTABLISHED AND CONTAMINATED BY SHOT SMALL BOY

Arc Mi from GZ	Station interval - miles	GC	SGC	GU	TOAD	Number Contaminated
18	0.3	20	0	1	5	20
27	1.0	20	9	4	5	10
35	2.0	20	10	4	5	11
56	2.0	15	7	4	5	15
60	2.0	20	9	4	5	0
74	1.5	20	11	4	3	0
80	2.0	16	0	4	4	0
115	1.5	30	0	4	4	10
130	1.5	30	0	4	5	19
165	2.5	26	0	4	5	1
200	2.5	30	0	4	5	11
TOTAL		247	46	41	51	97

GC = Granular Collector. Figures also give total number of stations.
SGC = Small Granular Collector.
GU = Gamma Monitoring Recorder. See Table 7.7 for locations.
TOAD = Time-of-Arrival Detector. See Table 7.7 for locations.

TABLE 7.2 FORECAST WINDS FOR SMALL BOY, 0800 PDT, 14 JULY 1962

Altitude	Bearing of Origin	Speed
ft	degrees	knots
20,000	300	20
18,000	290	15
16,000	290	15
14,000	280	15
12,000	270	15
10,000	260	10
9,000	260	10
8,000	250	10
7,000	240	05
6,000	240	05
5,000	240	05
4,000	310	05
Surface	050	05

TABLE 7.3 SUMMARY OF WIND DIRECTION AND SPEED FROM OBSERVATIONS OF U. S. WEATHER BUREAU, FRENCHMAN FLAT STATION

Time of Observ. PDT	Altitude Above Frenchman Flat in Feet: Surface	4000	5000	6000	7000	8000	9000	10000	12000	14000	16000	18000	20000
	degrees/knots*												
0720	calm	020/07	020/07	030/07	060/05	--	270/04	290/06	300/08	290/08	280/14	280/14	280/23
0750	calm	350/05	030/07	060/06	070/06	--	280/08	300/08	290/10	280/08	240/10	280/12	290/26
0830	calm	360/04	020/06	060/06	060/04	--	280/06	270/08	290/08	270/08	250/07	290/23	--
0900	115/01	340/04	030/05	090/03	100/02	270/04	--	--	--	--	--	--	--
0940	--	040/02	070/04	100/04	140/02	190/01	290/04	300/07	280/11	290/10	250/11	240/09	--
0950	calm	050/03	090/02	100/02	--	280/03	270/03	270/08	260/06	250/07	250/07	250/07	280/10
1030	calm	130/01	125/02	030/02	330/02	275/03	270/06	236/12	250/03	250/08	240/16	270/11	290/21
1045	calm	calm	--	203/03	270/02	262/05	234/06	233/11	250/08	250/09	240/06	270/08	290/16
1100	--	300/01	310/01	330/02	280/02	250/06	240/12	240/16	240/08	240/08	240/08	280/14	280/25
1130 H-hour													
1145	--	145/04	167/05	176/06	168/06	185/03	233/05	243/11	235/09	229/08	228/07	260/13	285/23
1405	--	200/08	190/10	--	200/14	[illegible]/14	200/14	200/13	220/11	250/08	250/09	270/14	--
1432	220/05	240/06	230/07	230/08	230/07	210/10	220/12	230/12	250/10	240/08	250/10	260/13	270/18

* Direction from which the wind is occurring.

TABLE 7.4 FALLOUT TIME OF ARRIVAL MEASURED BY TOAD UNITS

Arc	Station Number and Time of Arrival				
mi from GZ	H + x hrs				
18	(1)* 2.20	(3) NO**	(7) 1.45	(15) 2.17	(17) 2.20
27	(1) 2.25	(3) 2.08	(7) 2.50	(15) NO	(19) NO
35	(1) NO	(3) NSR	(7) NO	(15) 3.58	(19) 3.33
56	(2) NSR	(4) 5.23	(6) 5.83	(11) 4.67	(14) 4.93
60	(1) 3.33	(3) NSR***	(7) NSR	(15) NSR	(19) NSR
74	(3) NSR	(7) NO	(15) 12.7		
80	(1) NSR	(3) 14.8	(12) NSR	(15) NSR	
115	(2) NSR	(10) NSR	(18) NSR	(26) NSR	
130	(3) NSR	(9) 14.00	(15) NSR	(21) NSR	(27) NSR
165	(3) 14.25	(9) NSR	(15) NSR	(21) NSR	(26) NO
200	(1) NSR	(8) NSR	(15) 16.33	(23) NSR	(29) 16.5

* Figures in parentheses are station numbers

** NO: Non-operational

*** NSR: No significant radiation (less than 2 mr/hr)

TABLE 7.5 FALLOUT TIME OF ARRIVAL MEASURED BY GU RECORDERS

Arc	Station Number and Time of Arrival			
mi from GZ	H + x hrs			
18	(11)* 1.67			
27	(5) 2.28	(10) NSR***	(13) NSR	(18) NO**
35	(5) NSR	(10) NSR	(13) NO	(18) NO
56	(1) 5.8	(5) 5.7	(10) 4.83	(15) 5.67
60	(5) NSR	(10) NO	(13) NSR	(18) NO
74	(5) NSR	(10) 7.5	(13) 17.5	(18) NSR
80	(2) NSR	(5) NSR	(10) 7.4	(13) NSR
115	(6) 10.0	(14) NO	(22) <12.0	(30) <13.0
130	(6) NO	(12) NSR	(18) NSR	(24) NSR
165	(6) NSR	(12) NSR	(18) NSR	(24) <14.0
200	(5) NSR	(12) NSR	(19) NSR	(26) NSR

* Figures in parentheses are station numbers

** NO: Non-operational

*** NSR: No significant radiation (less than ? mr/hr)

TABLE 7.6 RADIATION INTENSITY, NRDL CRITERIA FOR SAMPLE SELECTION

Radiation intensity (mr/hr) is normalized to H + 12 hrs. All mr/hr values are corrected for an average background of 0.03 mr/hr. Unprocessed samples were assayed on the fifth shelf of the NRDL CH-I counter (See Appendix B.)

Sample No.	Field Radiation Intensity mr/hr	Gamma Activity 10^3c/m/Sample Time of Count	10^3c/m/ft^2 H + 100 hrs
18-1B	0.71	2.35	0.50
18-2B	1.3	3.79	0.81
18-3B	2.9	5.25	1.12
18-4B	4.3	8.43	1.80
18-5B	10.6	17.7	3.79
18-6B	14.3	31.5	6.79
18-7B	33.4	72.2	15.7
18-8B	38.6	85.5	18.6
18-9B	43.2	76.9	16.6
18-10B	43.7	163.	16.1
18-11B	46.1	193.	19.3
18-12B	54.3	247.	24.7
18-13B	5.2	14.7	1.48
18-14B	2.7	3.50	0.76
18-15B	0.66	1.07	0.23
18-16B	0.67	0.50	0.11
18-17B	0.37	0.43	0.09
18-18B	0.44	0.17	0.04
27-1B	5.1	50.0	5.04
27-2B	5.8	41.7	4.20
27-3B	6.6	41.4	4.22
27-4B	2.6	13.1	1.35
27-5B	1.3	9.02	0.97
27-6B	2.0	1.63	0.37
35-14B	0.44	0.25	0.07
35-15B	0.71	0.51	0.15
35-16B	1.43	1.19	0.34
35-17B	3.31	2.69	0.76
35-18B	5.08	11.8	1.23
35-19B	7.35	17.4	1.82
35-20B	7.28	18.3	1.91
56-4B	0.41	0.64	0.11
56-5B	0.59	1.07	0.18
56-6B	0.50	1.33	0.22
56-7B	0.77	1.56	0.26
56-8B	1.04	2.20	0.37
56-9B	1.04	2.15	0.37
56-10B	4.88	7.39	1.25
56-11B	5.19	12.1	1.33
56-12B	4.35	12.4	1.36
56-13B	3.94	8.43	0.93
56-14B	2.37	5.47	0.60
56-15B	1.50	2.90	0.49

TABLE 7.7 UNIT AREA RADIOACTIVITY AND MASS MEASURED AT OFF-SITE COLLECTION LOCATIONS

GU = GITR; INF = instrument failure; NR = no measurable radiation by instrument used; T = TOAD.

Station No.		Station Location[a] Road Miles from Reference	Miles from GZ	Bearing from GZ Degrees	Fallout Time H + _hrs	Gamma Activity[b] CH-I $10^3 c/m/ft^2$ H + 100 hrs	$10^7 c/m/ft^2$ H + 12 hrs	Recovered Mass mg/ft^2
Location reference (Arc-18) 29.2 miles north of Entrance of Indian Springs AFB and Highway 95 proceeding south								
18-1	(NRDL-24)	0.	21.5	52	2.2 (T)	0.41	6.28	102
18-2	(NRDL-23)	0.8	20.5	53	--	.0.79	12.1	194
18-3	(NRDL-22)	1.6	20.	54	INF (T)	0.97	14.7	79
18-4	(NRDL-21)	2.5	19.5	56	--	1.43	22.1	141
18-5	(NRDL-20)	3.3	18.5	48	--	3.36	51.1	121
18-6	(NRDL-19)	4.0	18.5	60	--	7.32	112.	209
18-7	(NRDL-18)	5.0	18.	63	1.5 (T)	11.8	180.	127
18-8	(NRDL-17)	5.8	18.	65	--	16.8	236.	142
18-9	(NRDL-16)	6.6	18.	68	--	15.5	236.	202
18-10	(NRDL-15)	7.4	17.5	70	--	15.3	233.	178
18-11	(NRDL-14)	8.2	17.5	73	1.7 (GU)	16.9	260.	146
18-12	(NRDL-13)	8.9	17.5	75	--	22.8	343.	150
18-13	(NRDL-12)	9.5	17.	77	--	2.42	37.0	205
18-14	(NRDL-11	10.6	17.	80	--	1.03	15.6	476
18-15	(NRDL-10)	11.2	16.5	83	2.2 (T)	0.34	5.3	943
18-16	(NRDL- 9)	12.2	16.5	85	--	0.72	11.0	1462
18-17	(NRDL- 8)	12.8	16.	89	2.2 (T)	0.12	1.9	332
18-18	(NRDL- 7)	13.8	16.	90	--	0.11	1.7	428
18-19	(NRDL- 6)	14.4	16.	93	--	0.10	1.6	84
18-20	(NRDL-5)	15.3	15.5	95	--	0.02	0.31	65
Location reference (Arc-27) 36.0 miles NE of Indian Springs AFB and U. S. Highway 95 on road east of Pintwater Range proceeding south								
27-1		0.	28.	72	2.3 (T)	5.28	81.1	54
27-2		1.0	28.	74	--	4.55	70.0	59
27-3		2.0	27.5	76	2.1 (T)	4.79	73.7	91
27-4		3.0	27.	78	--	1.36	20.7	51
27-5		4.0	27.	80	2.3 (GU)	1.17	17.8	234
27-6		5.0	27.	82	--	0.39	5.92	141
27-7		6.0	27.	84	2.5 (T)	0.11	1.65	172
27-8		7.0	27.	87	--	0.11	1.72	127
27-9		8.0	27.	89	--	0.12	1.78	233
27-10		9.0	26.5	92	NR (GU)	ND	ND	ND
27-11		10.0	26.5	94	--	0.04	0.65	231
27-12		11.0	27.	96	--	NSR	NSR	ND
27-13		12.0	27.5	97	NR (GU)	NSR	NSR	ND
27-14		13.0	28.	98	--	NSR	NSR	ND
27-15		14.0	27.	100	INF (T)	NSR	NSR	ND
27-16		15.0	26.5	102	--	NSR	NSR	ND
27-17		16.0	26.5	104	--	NSR	NSR	ND

TABLE 7.7 CONTINUED

GU = GITR; INF = instrument failure; NR = no measurable radiation by instrument used; T = TOAD.

	Station Location[a]				Gamma Activity[b]		
Station No.	Road Miles from Reference	Miles from GZ	Bearing from GZ Degrees	Fallout Time H + _hrs	CH-I 10^3c/m/ft^2 H + 100 hrs	10^7c/m/ft^2 H + 12 hrs	Recovered Mass mg/ft^2
27-18	17.0	26.	106	INF (GU)	NSR	NSR	ND
27-19	18.0	26.	109	INF (T)	NSR	NSR	ND
27-20	19.0	26.	111	--	NSR	NSR	ND
Location reference (Arc-35) on Sheep Canyon road 7.0 miles NW of a point on Sheep Canyon road 0.1 mile west of the Corn Creek Springs Wildlife Service Headquarters, proceeding north							
35-1	0.	35.	123	INF (T)	NSR	NSR	ND
35-2	2.0	34.5	119	--	NSR	NSR	ND
35-3	4.0	34.	116	NR (T)	NSR	NSR	ND
35-4	6.0	34.	113	--	NSR	NSR	ND
35-5	8.0	34.	109	NR (GU)	NSR	NSR	ND
35-6	10.0	34.	104	--	NSR	NSR	ND
35-7	12.0	34.5	102	INF (T)	NSR	NSR	ND
35-8	14.0	35.	100	--	NSR	NSR	ND
35-9	16.0	35.5	97	--	NSR	NSR	ND
35-10	18.0	35.	93	NR (GU)	0.07	1.12	58
35-11	20.0	35.5	90	--	0.03	0.49	64
35-12	22.0	35.5	87	--	0.02	0.38	99
35-13	24.0	36.	85	INF (GU)	0.01	0.20	45
35-14	26.0	36.	81	--	0.06	0.96	50
35-15	28.0	36.	79	3.6 (T)	0.12	1.78	62
35-16	30.0	36.5	76	--	0.28	4.76	39
35-17	32.0	38.	74	--	0.61	9.37	76
35-18	34.0	38.	72	INF (GU)	1.11	17.1	21
35-19	36.0	40.5	70	3.3 (T)	1.91	28.2	115
35-20	38.0	42.	68	--	2.05	30.4	56
Location reference (Arc-56) on U. S. Highway 93, 0.5 mile north of the junction of Kane Springs Wash road and U. S. Highway 93 proceeding north							
56-1	0.	57.	76	5.8 (GU)	0.05	0.728	118
56-2	2.1	56.	75	NR (T)	0.05	0.775	44
56-3	4.0	55.5	74	--	0.06	0.857	49
56-4	6.0	55.5	71	5.2 (T)	0.11	1.63	70
56-5	8.0	56.	70	5.7 (GU)	0.18	2.61	201
56-6	10.0	56.	68	5.8 (T)	0.20	3.05	110
56-7	12.0	56.5	66	--	0.27	4.13	658
56-8	14.0	56.5	64	--	0.35	5.36	316
56-9	16.1	57.5	62	--	0.43	6.48	755
56-10	18.1	56.5	61	4.8 (GU)	1.16	17.9	72
56-11	20.0	55.	60	4.7 (T)	0.90	13.7	64
56-12	22.1	55.5	58	--	1.24	18.9	64
56-13	24.1	55.5	55	--	0.91	13.9	76

TABLE 7.7 CONTINUED

GU = GITR; INF = instrument failure; NR = no measurable radiation by instrument used; T = TOAD.

Station No.	Station Location[a] Road Miles from Reference	Miles from GZ	Bearing from GZ Degrees	Fallout Time H + _hrs	Gamma Activity[b] CH-I 10^3c/m/ft^2 H + 100 hrs	10^3c/m/ft^2 H + 12 hrs	Recovered Mass mg/ft^2
56-14	26.2	56.5	54	4.9 (T)	0.59	8.95	37
56-15	28.0	57.	51	5.7 (GU)	0.49	7.47	127
Location reference (Arc-60) on Arrow Canyon road, 2.0 miles south of junction of Kane Springs Wash road and Arrow Canyon road proceeding south							
60-1	0.	54.5	79	3.3 (T)	NSR	NSR	ND
60-2	2.0	54.	81	--	NSR	NSR	ND
60-3	4.0	54.	84	NR (T)	NSR	NSR	ND
60-4	6.0	54.5	85	--	ND	ND	ND
60-5	8.0	55.	86	NR (GU)	ND	ND	ND
60-6	10.0	54.5	87	--	NSR	NSR	ND
60-7	12.0	54.5	89	NR (T)	ND	ND	ND
60-8	14.0	55.	91	--	ND	ND	ND
60-9	16.0	55.	92	--	ND	ND	ND
60-10	18.0	55.5	94	INF (GU)	ND	ND	ND
60-11	20.0	56.	96	--	ND	ND	ND
60-12	22.0	56.5	98	--	ND	ND	ND
60-13	24.0	57.	100	NR (GU)	ND	ND	ND
60-14	26.0	57.	101	--	ND	ND	ND
60-15	28.0	58.5	103	NR (T)	ND	ND	ND
60-16	30.0	58.5	105	--	ND	ND	ND
60-17	32.0	58.5	107	--	ND	ND	ND
60-18	34.0	58.5	109	INF (GU)	ND	ND	ND
60-19	36.0	58.5	111	NR (T)	ND	ND	ND
60-20	38.0	59.	113	--	ND	ND	ND
Location reference (Arc-74) on Meadow Valley Wash road, 5.0 miles south of Rox proceeding south							
74-1	0.	71.	88	--	ND	ND	ND
74-2	1.5	71.5	90	--	ND	ND	ND
74-3	3.0	72.	91	NR (T)	ND	ND	ND
74-4	4.5	72.	92	--	ND	ND	ND
74-5	6.0	72.5	93	NR (GU)	ND	ND	ND
76-6	7.5	73.	94	--	ND	ND	ND
74-7	9.0	73.	95	INF (T)	ND	ND	ND
74-8	10.5	73.3	96	--	ND	ND	ND
74-9	12.0	74.	96	--	ND	ND	ND
Location reference (Arc-74) on U. S. Highway 93, 1.0 miles SW of Glendale Junction (junction of U. S. Highways 91 and 93) proceeding SW							
74-10	0.	75.	97	7.5 (GU)	ND	ND	ND
74-11	1.5	75.	99	--	ND	ND	ND
74-12	3.0	73.5	100	--	ND	ND	ND

TABLE 7.7 CONTINUED

GU = GITR; INF = instrument failure; NR = no measurable radiation by instrument used; T = TOAD.

	Station Location[a]				Gamma Activity[b]		
Station No.	Road Miles from Reference	Miles from GZ	Bearing from GZ Degrees	Fallout Time H + _hrs	CH-I 10^3c/m/ft^2 H + 100 hrs	10^7c/m/ft^2 H + 12 hrs	Recovered Mass mg/ft^2
74-13	4.5	73.	101	17.5 (GU)	ND	ND	ND
74-14	6.0	73.	102	--	ND	ND	ND
74-15	7.5	72.	103	12.7 (T)	ND	ND	ND
74-16	9.0	71.	104	--	ND	ND	ND
74.17	10.5	71.	105	--	ND	ND	ND
74-18	12.0	69.5	106	NR (GU)	ND	ND	ND
74-19	13.5	68 5	107	--	ND	ND	ND
74-20	15.0	68.	109	--	ND	ND	ND
Location reference (Arc-80) on Mormon Mesa road 0.5 mile N of U. S. Highway 91 (Mormon Mesa road is 10 miles E of Mormon Peak) proceeding north							
80-1	0.	86.5	92	NR (T)	NSR	NSR	ND
80-2	2.0	86.5	90	NR (GU)	ND	ND	ND
80-3	4.0	86.5	89	14.8 (T)	NSR	NSR	ND
80-4	6.0	87.	87	--	ND	ND	ND
80-5	8.0	86.5	86	NR (GU)	NSR	NSR	ND
80-6	10.0	87.	85	--	ND	ND	ND
80-7	12.0	88.	84	--	ND	ND	ND
80-8	14.0	89.5	83	--	ND	ND	ND
80-9	16.0	90.	82	--	ND	ND	ND
80-10	18.0	90.5	81	7.4 (GU)	ND	ND	ND
80-11	20.0	91.5	80	--	ND	ND	ND
80-12	22.0	91.	79	NR (T)	NSR	NSR	ND
80-13	24.0	90.5	78	NR (GU)	NSR	NSR	ND
80-14	26.0	89.5	76	--	NSR	NSR	ND
80-15	28.0	89.5	75	NR (T)	NSR	NSR	ND
80-16	30.0	90.	74	--	ND	ND	ND
Location reference (Arc-115) on Utah 120, 9.5 miles west of the junction of Utah 18 and Utah 120 (Enterprise) proceeding west							
115-1	0.	126.	64	--	ND	ND	ND
115-2	1.5	125.	64	NR (T)	ND	ND	ND
115-3	3.0	124.	63	--	0.06	0.985	54
115-4	4.5	123.	63	--	ND	ND	ND
115-5	6.0	122.	62	--	NSR	NSR	113
115-6	7.5	121.	62	10.0 (GU)	ND	ND	ND
115-7	9.0	121.	61	--	0.02	0.367	89
115-8	10.5	120.	61	--	ND	ND	ND
115-9	12.0	119.	60	--	ND	ND	ND
115-10	13.5	118.	60	NR (T)	0.03	0.434	105
115-11	15.0	117.	59	--	ND	ND	ND
115-12	16.5	117.	58	--	0.03	0.492	102

TABLE 7.7 CONTINUED

GU = GITR; INF = instrument failure; NR = no measurable radiation by instrument used, T = TOAD.

Station No.	Station Location[a] Road Miles from Reference	Miles from GZ	Bearing from GZ Degrees	Fallout Time H + _hrs	Gamma Activity[b] CH-I $10^3 c/m/ft^2$ H + 100 hrs	$10^7 c/m/ft^2$ H + 12 hrs	Recovered Mass mg/ft^2
115-13	18.0	117.	57	--	ND	ND	ND
115-14	19.5	116.	57	INF (GU)	ND	ND	ND
115-15	21.0	116.	56	--	0.03	0.461	50
115-16	22.5	116.	55	--	ND	ND	ND
115-17	24.0	116	55	--	0.03	0.367	164
115-18	25.5	116.	54	NR (T)	0.04	0.568	44
Location reference (Arc-115) on Nevada 25, 9.8 miles east of the junction of U. S. Highway 93 and Utah 25 proceeding west							
115-19	0.	116.	54	--	0.03	0.396	37
115-20	1.5	115.	53	--	ND	ND	ND
115-21	3.0	114.	53	--	0.08	1.22	43
115-22	4.5	113.	52	<12.0 (GU)	ND	ND	ND
115-23	6.0	112.	52	--	ND	ND	ND
115-24	7.5	111.	51	--	0.01	0.083	123
115-25	9.1	110.	51	--	ND	ND	ND
Location reference (Arc-115) on U. S. Highway 93, 0.7 mile north of the junction of Nevada 25 and U. S. Highway 93 proceeding north							
115-26	0.	109.	50	NR (T)	ND	ND	ND
115-27	1.5	110.	50	--	NSR	NSR	ND
115-28	3.1	110.	49	--	ND	ND	ND
115-29	4.6	111.	48	--	ND	ND	ND
115-30	6.3	112.	48	<13.0 (GU)	ND	ND	ND
Location reference (Arc-130[c]) on Utah 18, 1.5 miles north of U. S. Highway 91 (St. George) proceeding north							
130-1	0.	131.	79	--	0.003	0.044	49
130-2	1.5	131.	78	--	0.047	0.672	123
130-3	3.0	131.	78	NR (T)	0.005	0.065	112
130-4	4.5	131.	77	--	0.007	0.104	526
130-5	6.0	130.	77	--	0.005	0.072	80
130-6	7.5	130.	76	INF (GU)	0.006	0.090	428
130-7	9.0	130.	75	--	0.005	0.081	61
130-8	10.5	130.	74	--	0.003	0.052	100
130-9	12.0	129.	74	14.0 (T)	0.006	0.088	140
130-10	13.5	129.	74	--	0.006	0.093	87
130-11	15.0	129.	73	--	0.006	0.091	287
130-12	16.5	129.	73	NR (GU)	0.005	0.078	69
130-13	18.0	130.	72	--	ND	ND	ND
130-14	19.5	131.	72	--	ND	ND	ND
130-15	21.0	132.	72	NR (T)	ND	ND	ND
130-16	22.5	133.	71	--	ND	ND	ND

TABLE 7.7 CONTINUED

GU = GITR; INF = instrument failure; NR = no measurable radiation by instrument used; T = TOAD.

Station No.	Station Location[a]: Road Miles from Reference	Station Location[a]: Miles from GZ	Station Location[a]: Bearing from GZ Degrees	Fallout Time H + _hrs	Gamma Activity[b]: CH-1 $10^3 c/m/ft^2$ H + 100 hrs	Gamma Activity[b]: $10^7 c/m/ft^2$ H + 12 hrs	Recovered Mass mg/ft^2
130-17	24.0	134.	71	--	ND	ND	ND
130-18	25.5	135.	70	NR (GU)	0.017	0.223	91
130-19	27.0	136.	70	--	ND	ND	ND
130-20	38.5	136.	69	--	0.007	0.087	51
130-21	30.0	136.	69	NR (T)	ND	ND	ND
130-22	31.5	136.	68	--	0.009	0.132	158
130-23	33.0	136.	57	--	ND	ND	ND
130-24	34.5	135.	67	NR (GU)	0.007	0.103	109
130-25	36.0	135.	66	--	ND	ND	ND
130-26	37.5	135.	66	--	0.011	0.165	81
Location reference (Arc-130[c]) on Utah 120, 1.5 miles west of the junction of Utah 18 and Utah 120 (Enterprise) proceeding west							
130-27	0.	133.	66	NR (T)	NSR	NSR	ND
130-28	1.5	131.	65	--	0.006	0.090	373
130-29	3.0	130.	65	--	NSR	NSR	ND
130-30	4.5	129.	65	--	0.017	0.262	593
Location reference (Arc-165) on Utah 15A, 1.3 miles south of the junction of Utah 15 and Utah 15A (Hurricane) proceeding north							
165-1	0.	151.	78	--	ND	ND	ND
165-2	2.5	151.	77	--	ND	ND	ND
165-3	5.0	151.	76	14.3 (T)	ND	ND	ND
165-4	7.5	150.	75	--	ND	ND	ND
Location reference (Arc-165) on U. S. Highway 91, 13.2 miles north of the junction of Utah 15 and U. S. Highway 91 proceeding north							
165-5	0.	157.	72	--	ND	ND	ND
165-6	2.5	159.	71	NR (GU)	ND	ND	ND
165-7	5.0	161.	71	--	ND	ND	ND
165-8	7.5	162.	70	--	ND	ND	ND
165-9	10.0	163.	70	NR (T)	ND	ND	ND
165-10	12.5	165.	70	--	ND	ND	ND
165-11	15.0	167.	70	--	ND	ND	ND
165-12	17.5	169.	70	NR (GU)	NSR	NSR	ND
Location reference (Arc-165 on Utah 19, 0.1 mile north of the junction of Utah 56 and Utah 19 proceeding north							
165-13	0.	168.	69	--	NSR	NSR	ND
165-14	2.5	169.	68	--	NSR	NSR	ND
165-15	5.0	170.	67	NR (T)	ND	ND	ND
165-16	7.5	170.	66	--	ND	ND	ND
165-17	10.0	169.	65	--	ND	ND	ND

TABLE 7.7 CONTINUED

GU = GITR; INF = instrument failure; NR = no measurable radiation by instrument used; T = TOAD.

Station No.	Station Location[a] Road Miles from Reference	Miles from GZ	Bearing from GZ Degrees	Fallout Time H + _hrs	Gamma Activity[b] CH-I 10^3c/m/ft^2 H + 100 hrs	10^7c/m/ft^2 H + 12 hrs	Recovered Mass mg/ft^2
165-18	12.5	168.	64	NR (GU)	NSR	NSR	ND
165-19	15.0	167.	64	--	ND	ND	ND
165-20	17.5	167.	63	--	ND	ND	ND
165-21	20.0	166.	62	NR (T)	ND	ND	ND
165-22	22.5	165.	61	--	ND	ND	ND
165-23	25.0	164.	60	--	NSR	NSR	ND
165-24	27.5	163.	59	<14.0 (GU)	NSR	NSR	ND
165-25	30.0	162.	59	--	NSR	NSR	ND
165-26	32.5	162.	58	INF (T)	0.017	0.269	424
Location reference (Arc-200) on Utah 21, 1.0 miles west of the junction of U. S. Highway 91 and Utah 21 in Beaver, Utah, proceeding west							
200-1	0.	207.	48	NR (T)	NSR	NSR	ND
200-2	2.5	205.	48	--	NSR	NSR	ND
200-3	5.0	203.	49	--	ND	ND	ND
200-4	7.5	202.	48	--	ND	ND	ND
200-5	10.0	198.	49	NR (GU)	0.009	0.137	52
200-6	12.5	196.	48	--	ND	ND	ND
200-7	15.0	194.	47	--	0.006	0.088	107
200-8	17.5	194	46	NR (T)	ND	ND	ND
200-9	20.0	193.	46	--	0.010	0.152	71
200-10	22.5	194.	45	--	ND	ND	ND
200-11	25.0	195.	45	--	ND	ND	ND
200-12	27.5	195.	44	NR (GU)	ND	ND	ND
200-13	30.0	195.	43	--	0.013	0.203	60
200-14	32.5	194.	43	--	ND	ND	ND
200-15	35.0	192.	42	16.3 (T)	ND	ND	ND
200-16	37.5	190.	42	--	0.036	0.553	63
200-17	40.0	189.	41	--	0.028	0.420	68
200-18	42.5	189.	41	--	0.042	0.645	139
200-19	45.0	185	40	NR (GU)	0.031	0.534	35
200-20	47.2	183.	40	--	ND	ND	ND
200-21	50.0	182.	39	--	ND	ND	ND
200-22	52.5	181.	38	--	ND	ND	ND
200-23	55.0	180.	37	NR (T)	ND	ND	ND
200-24	57.5	179.	37	--	0.018	0.280	15
200-25	60.0	178.	36	--	ND	ND	ND
200-26	62.5	175.	36	NR (GU)	ND	ND	ND
200-27	65.0	174.	36	--	0.028	0.434	40
200-28	67.5	173.	35	--	ND	ND	ND
200-29	70.0	172.	34	16.5 (T)	ND	ND	ND
200-30	72.5	171.	33	--	0.018	0.281	131

[a] Reference maps: U. S. Geological Survey 1: 250,000. Las Vegas (NJ 11-12), Caliente (NJ 11-9), Grand Canyon (NJ 12-10), Cedar City (NJ 12-7), Richfield (NJ 12-4).

[b] Results given are sum total gamma activity of processed samples. NSR = no significant gamma activity measured by CH-I or CAVE, minimum activity considered was 115 c/m/ft^2 at time of initial assay. CH-I = fifth shelf equivalent on NRDL CH-I counter. ND = gamma activity or mass not determined on sample. See Section 6.3.4 and Appendix B for details.

[c] These data have special significance in the proper interpretation regarding background results. See Section 7.4.1.

TABLE 7.8 DETAILED SIZE DISTRIBUTION OF GAMMA RADIOACTIVITY AND MASS FROM SELECTED LOCATIONS ALONG FALLOUT PATTERN

Gamma radioactivity is normalized to H + 12 hours. NSR = no significant gamma activity. NS = not significant.

	Particle size range, microns														
	2000-1000	1000-500	500-350	350-297	297-250	250-210	210-177	177-149	149-125	125-105	105-88	88-44	44-0	2-0	Total
18 miles from GZ (10B)															
Mass, mg/ft^2	0.2	0.3	0.8	0.3	0.6	1.0	1.1	2.1	5.2	0.2	15.	62.	42.	NS	132.
Activity 10^5 c/m/ft^2	2.3	7.3	75.	38.	96.	338.	255.	720.	2100.	52.	6440.	8350.	6310.	357.	24784.
Percent of sum total	0.01	0.03	0.29	0.15	0.37	1.3	0.99	2.8	8.1	0.20	24.9	32.3	23.9	5.65	94.7
27 miles from GZ (3B)															
Mass, mg/ft^2	3.3	1.1	0.5	0.4	0.2	0.4	0.5	0.9	1.1	2.2	3.2	14.	56.	NS	84.
Activity 10^5 c/m/ft^2	NSR	15.4	NSR	NSR	2.8	34.	75.	215.	410.	425.	669.	2040.	1980.	159.	5866.
Percent of sum total	NS	0.24	NS	NS	0.04	0.54	1.2	3.4	6.5	6.8	10.6	32.3	31.4	8.0	93.0
35 miles from GZ (20B)															
Mass, mg/ft^2	2.0	3.7	2.6	1.7	3.3	2.8	3.8	4.4	6.1	3.0	7.3	15.	17.	NS	73.
Activity 10^5 c/m/ft^2	2.9	2.3	4.6	2.9	4.0	4.8	20.	29.	58.	84.	217.	715.	1487.	56.	2632.
Percent of sum total	0.10	0.08	0.16	0.10	0.01	0.17	0.70	1.0	2.1	3.0	7.8	25.4	52.9	3.7	93.5
115 miles from GZ (18B)															
Mass, mg/ft^2	1.6	1.0	1.1	0.2	0.3	1.2	0.2	0.3	0.3	0.3	1.4	1.7	33.	NS	43.
Activity 10^5 c/m/ft^2	NSR	NSR	NSR	NSR	NSR	2.0	NSR	NSR	0.8	NSR	1.4	2.8	38.	6.5	45.
Percent of sum total	NS	NS	NS	NS	NS	4.1	NS	NS	1.7	NS	2.7	5.7	78.1	17.1	93.2
200 miles from GZ (19B)															
Mass, mg/ft^2	5.1	0.9	0.3	0.1	0.3	0.2	0.6	0.2	0.	0.	0.	0.	25.	NS	33.
Activity 10^5 c/m/ft^2	2.6	NSR	NSR	2.2	NSR	NSR	NSR	NSR	NSR	NSR	NSR	NSR	38.	6.8	42.8
Percent of sum total	5.0	NS	NS	4.1	NS	NS	NS	NS	NS	NS	NS	NS	73.1	17.8	82.2

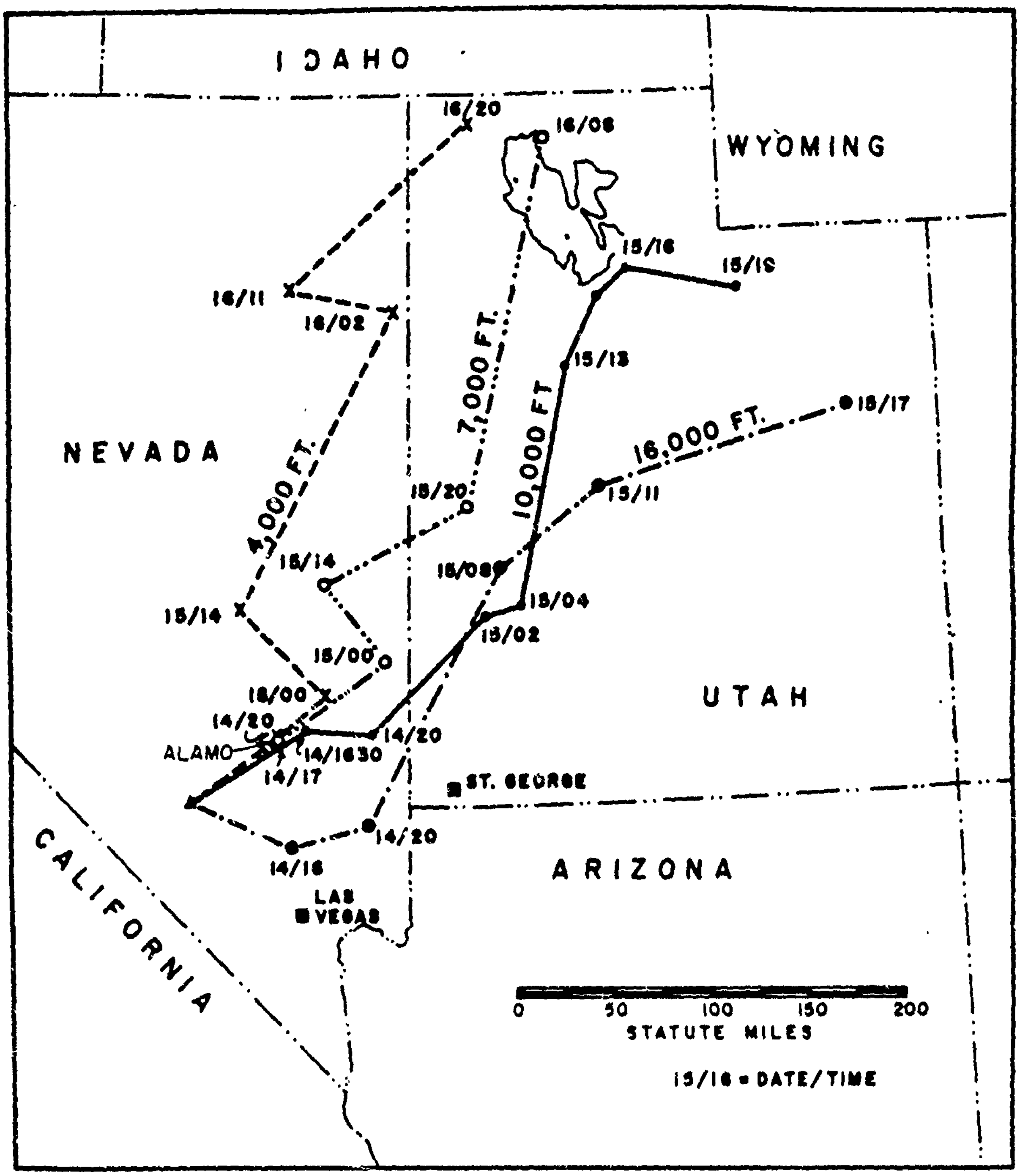

Figure 7.1 Wind directions at 4,000, 7,000, 10,000, and 16,000 feet above mean sea level for the 3-day period following Shot Small Boy.

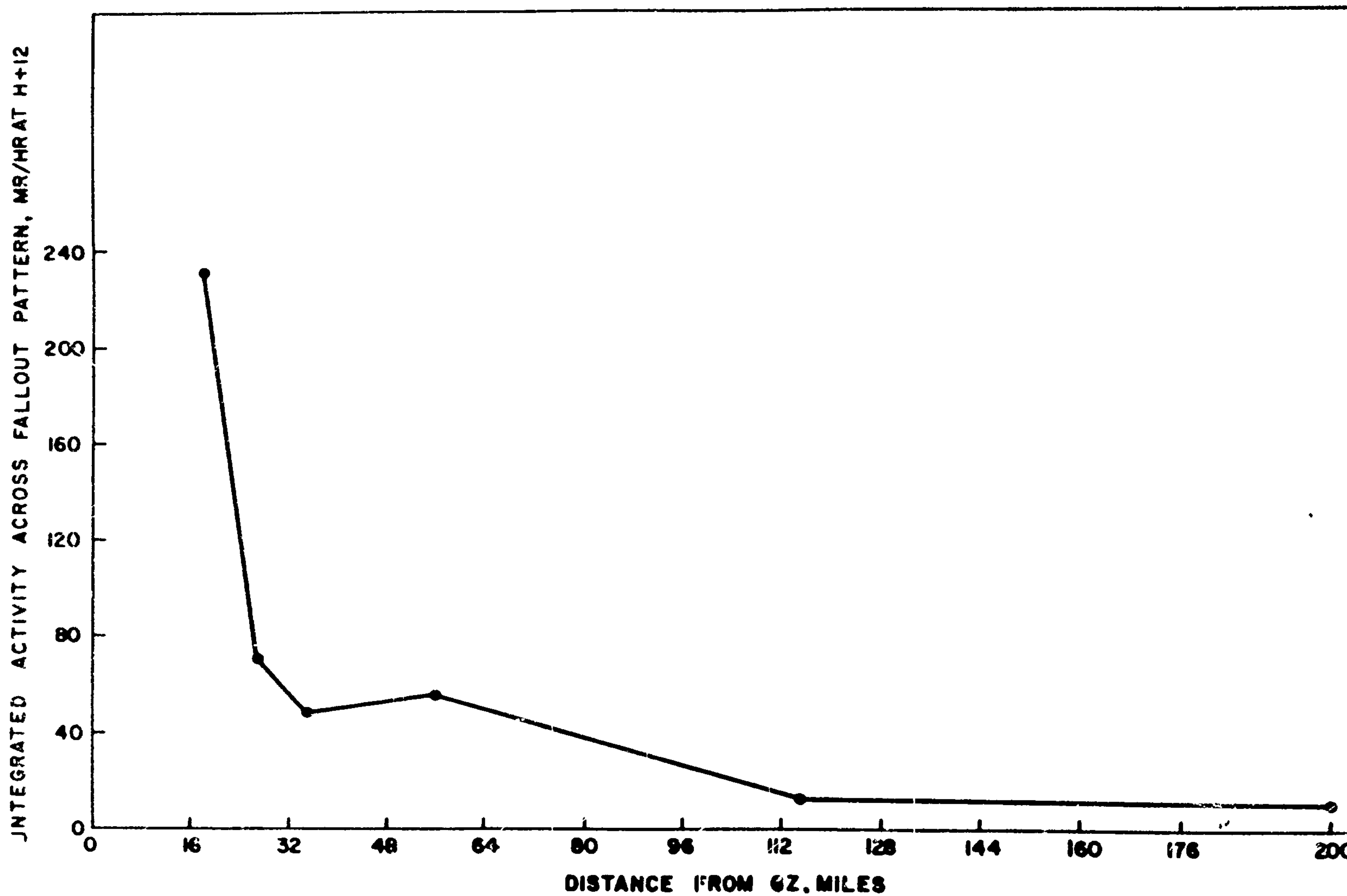

Figure 7.2 Variation in radiation intensity with distance from ground zero. Values were determined by integration across the fallout pattern.

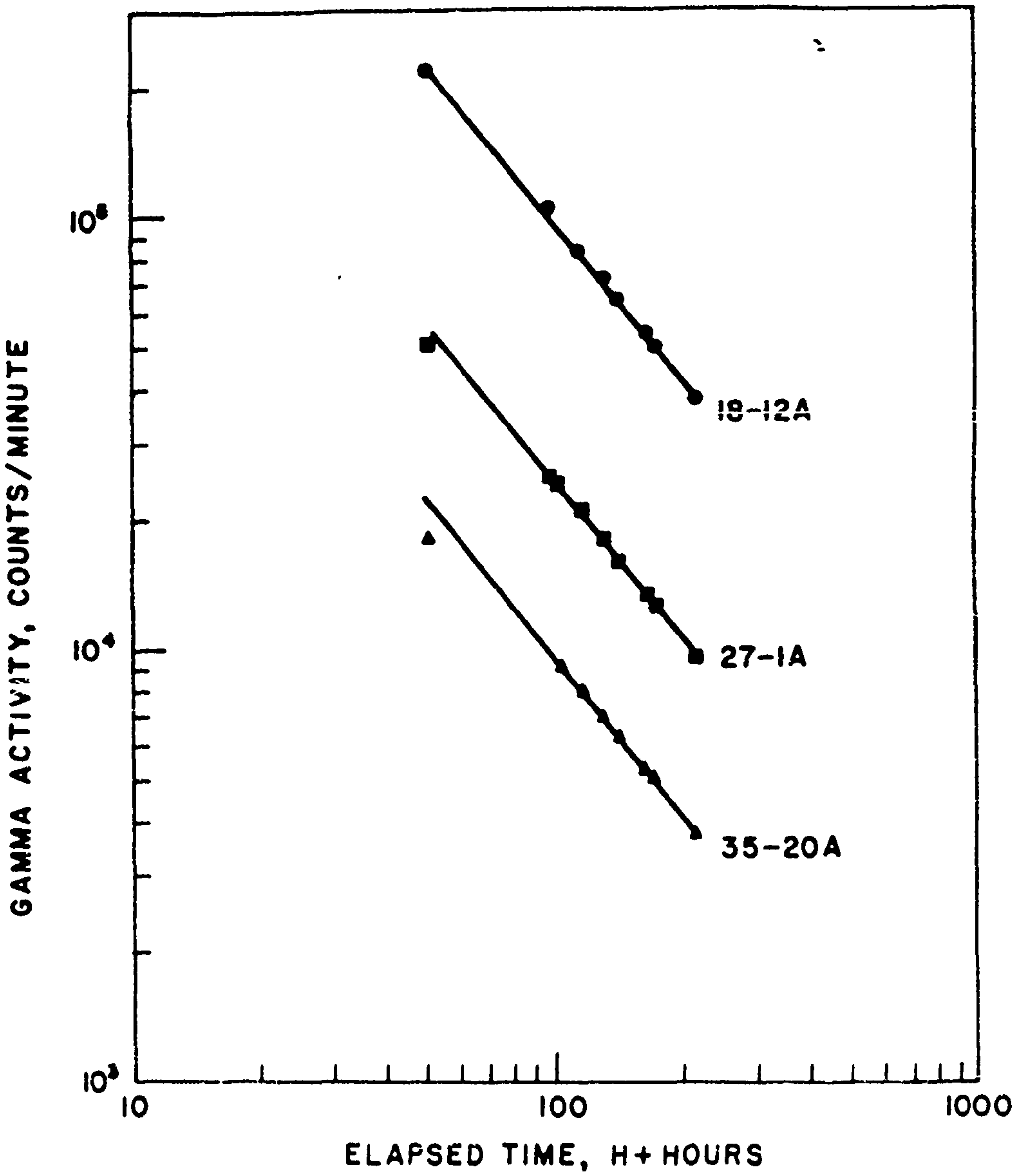

Figure 7.3 Gamma decay curves.

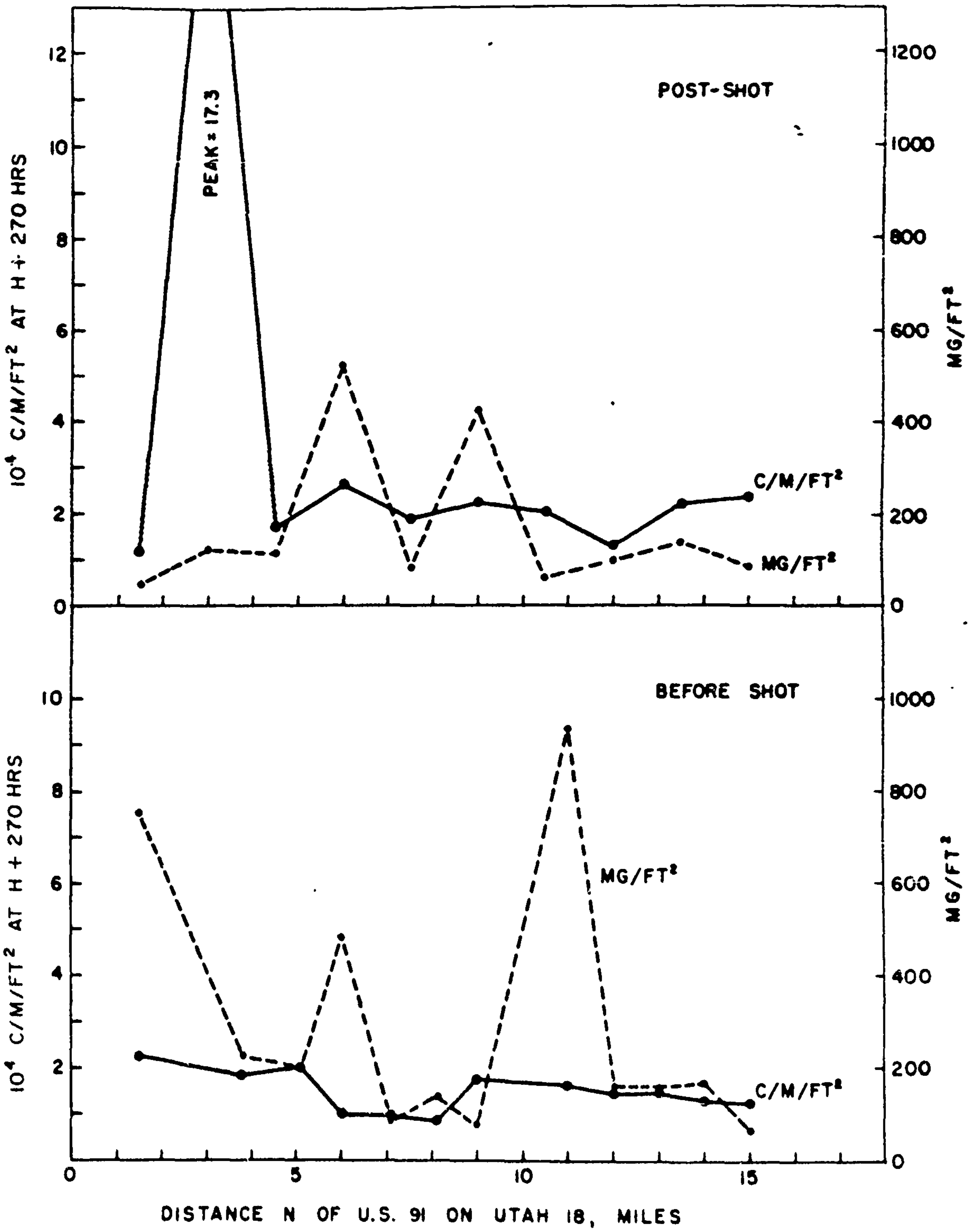

Figure 7.4 Radioactivity and mass pre- and postshot at 130 miles from ground zero.

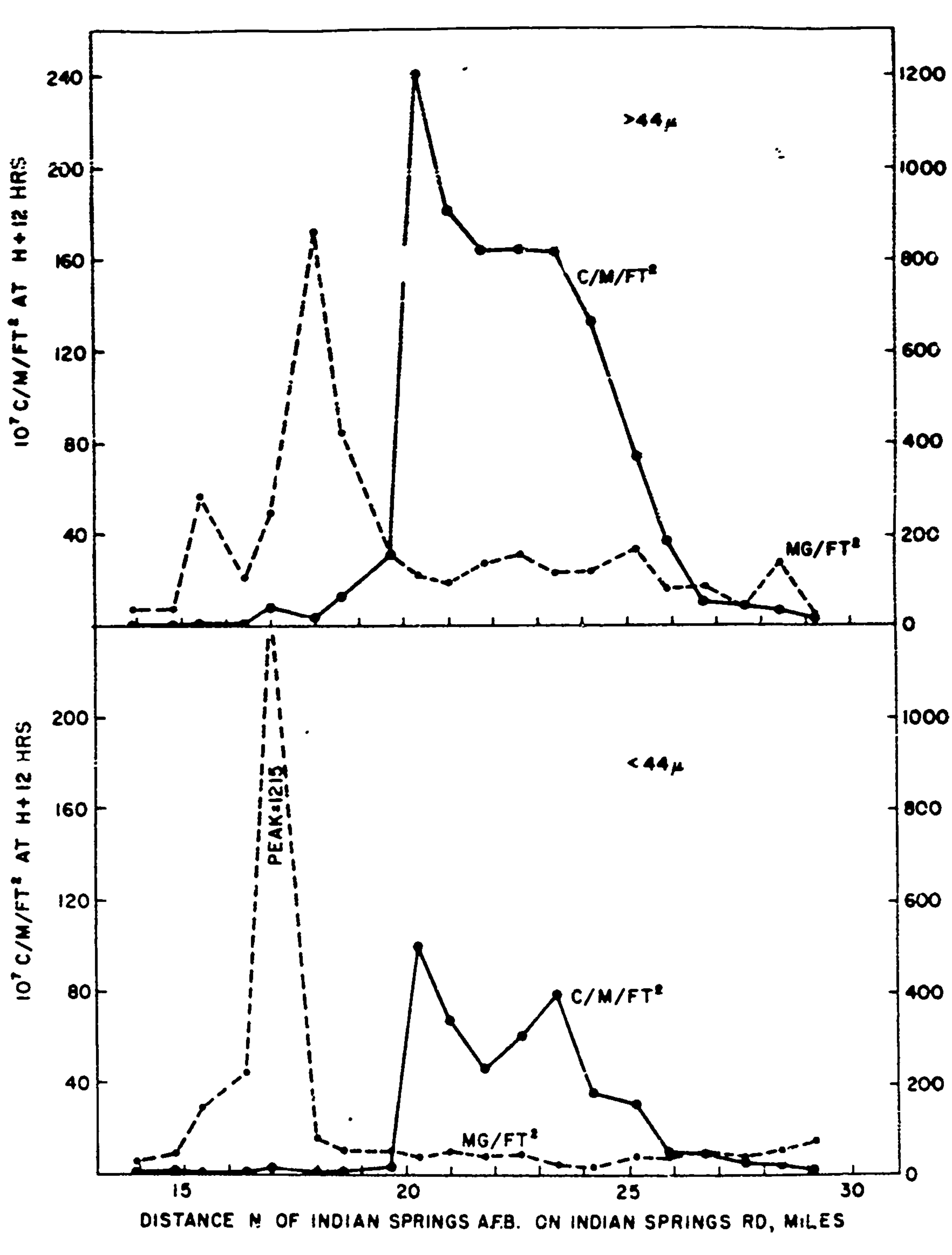

Figure 7.5 Unit area gamma radioactivity and mass in two particle size ranges across the fallout pattern at 18 miles from ground zero.

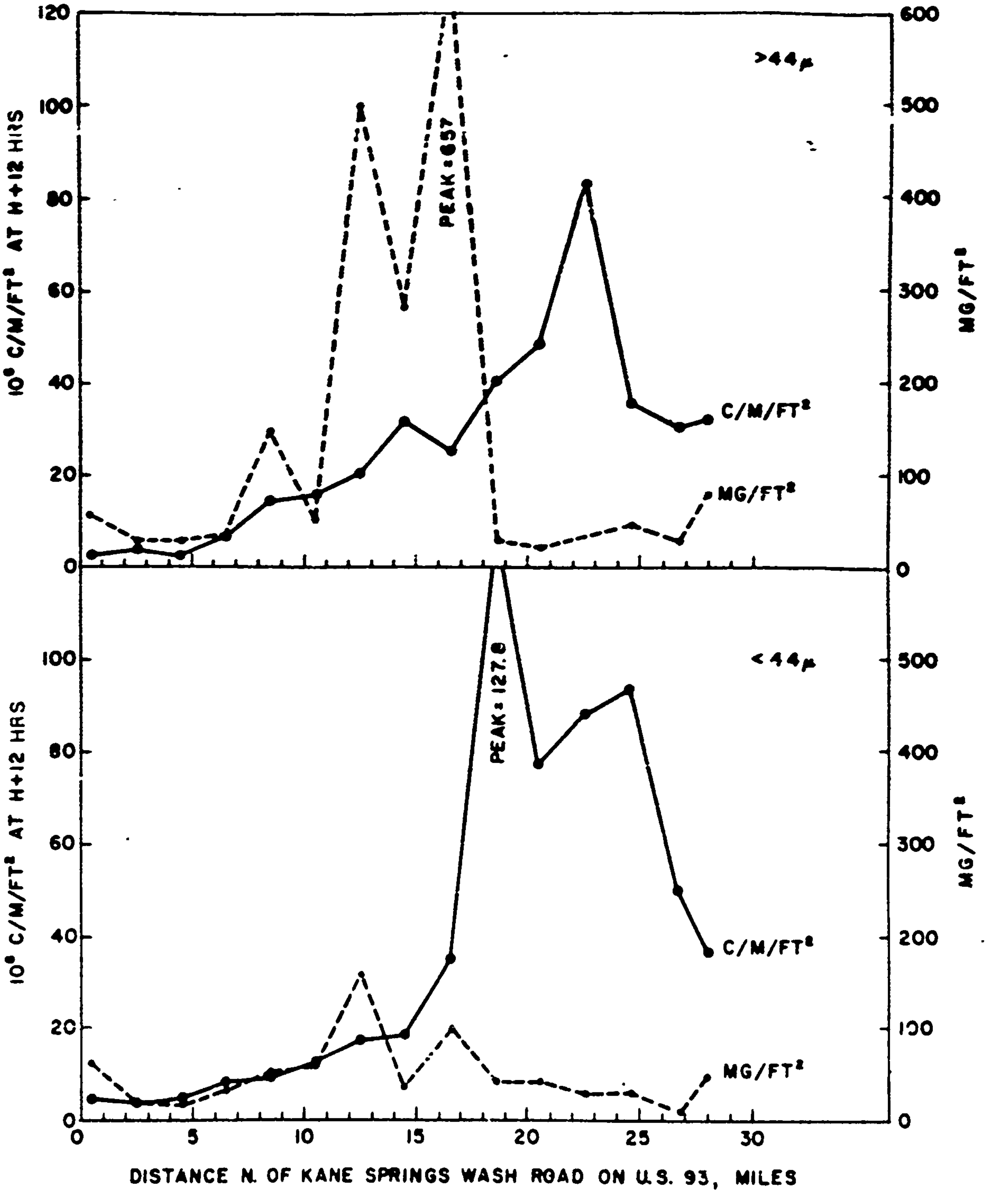

Figure 7.6 Unit area gamma radioactivity and mass in two particle size ranges across the fallout pattern at 56 miles from ground zero.

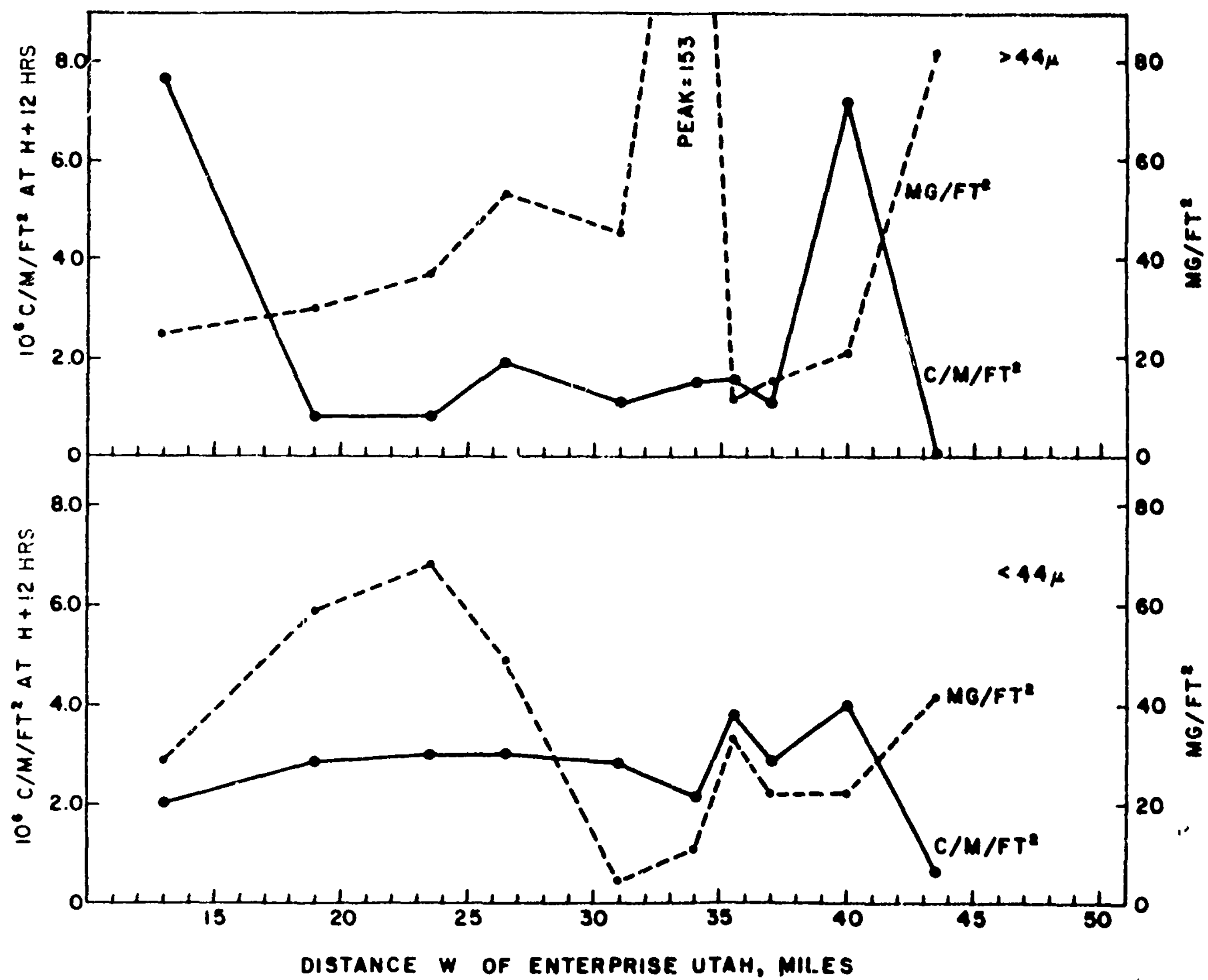

Figure 7.7 Unit area gamma radioactivity and mass in two particle size ranges across the fallout pattern at 115 miles from ground zero.

CHAPTER 8

SUMMARY AND CONCLUSIONS

8.1 SUMMARY

In an agreement between the Laboratory of Nuclear Medicine and Radiation Biology, U. C. L. A., and the Naval Radiological Defense Laboratory, San Francisco, a study was made by the Laboratory of Nuclear Medicine and Radiation Biology of certain aspects of the fallout pattern of Shot Small Boy, 14 July 1962. Stations having the capacity to detect the arrival of fallout and record the time, the intensity of the radiation resulting from the fallout, and several other characteristics of fallout were placed in the predicted fallout areas shortly before fallout arrival time. This was accomplished by mobile teams using trucks being directed to areas remote to ground zero by radio and telephone from Mercury. The teams were largely military personnel from the U. S. Marine Corps who had received intensive training in station placement in areas out to 200 miles from ground zero.

Of the 247 pre-established stations on eleven arcs, 97 stations on six arcs were contaminated by fallout debris from Small Boy. Twelve gamma-intensity-units and 20 time-of-arrival detectors were in radiation fields and functioned properly, recording arrival times from about two hours, at 18 miles, to 16 hours at 200 miles from ground zero.

These stations also provided fallout samples from pellet-tray collectors. The fallout samples were returned to the laboratory at Mercury, washed from the collector matrix, and separated into fractions according to sizes of the particles. Several other determinations were made, i.e., the masses of materials found on the collectors, the radiation associated with the particle size fractions, and the decay rates of the gamma radiation associated with the particles.

Adequate data were obtained from the samples and from monitoring to delineate the fallout pattern over the entire area under study.

Areas within which the estimated radiation intensity at H + 12 hours was 10 mr/hr extended approximately 30 miles from ground zero; areas within the 5 mr/hr isodose line extended approximately 60 miles from ground zero. At that distance the width of the pattern within the 0.1 mr/hr contour was about 40 miles.

8.2 CONCLUSIONS

8.2.1 Fallout Sample Decay and Fallout Decay in the Environment. Composite decay curves derived from selected GU-recorded data and data obtained from various off-site samples by laboratory measurements showed no significant difference from the classical decay constant of -1.2 (Reference 10). Similarly, the decay measurements on selected samples (Table 6.2 and Figure 7.3) generally approximated the same value of $T^{-1.2}$ for the time of H + 50 to H + 200 hours.

8.2.2. Radioactivity per Unit Area and Mass per Unit Area. The maximum contamination at any sampling station was detected at a distance of 18 miles from ground zero. The unit area activity, determined by laboratory assay, was 24,700 $c/m/ft^2$ at H + 100 hours (fifth shelf equivalent of the CH-I counter). Seventy percent of the activity was associated with the greater-than-44 micron size fraction.

At 200 miles from ground zero the predominant particle size was quite different. The maximum activity was 35.9 $c/m/ft^2$ with 59 percent of the activity associated with the less-than-44 micron size fraction.

With the unit-area mass, the results were inconclusive. Due to the nature of the GC's the masses reported here included not only the fallout debris but also the extraneous material present in the environment. The GC's do not discriminate between fallout coming into the collector and other material from the soil in the environment of the collector. The movement of men and equipment necessary to establish and retrieve fallout-collector stations will unavoidably create some disturbance in the light desert soils. Particles from such disturbances are collected without discrimination. Perhaps this accounts for the apparent lack of a relationship between the activity and the mass in a station to station comparison (Figures 7.5, 7.6, 7.7). Further, this indicates that most of the material collected on the fallout trays was from sources other than fallout. This does not preclude, however, that at some stations mass and fallout might not have been the same.

In a more detailed study of selected samples from stations where the mass of material was small, the activity and the mass were both associated with the same particle size fraction (Table 7.8). In these samples the particle-size fraction found most abundantly also contained the largest amount of radioactivity. Moreover, the largest mass-greatest activity occurred in a larger particle size fraction on the 18-mile arc than on the 27-mile arc.

These data have a certain usefulness in that they at least indicate the maximum limits of mass that could be expected. They also point out the need for a more sophisticated study of the problem of mass deposition from an atomic detonation.

Further interpretation of Table 7.8 is hazardous. If one makes certain ill-justified assumptions, tentative conclusions concerning the mass of fallout at these stations can be reached. If it is assumed, for example, the natural distribution of 0 to 44 micron particles in desert soils is that encountered on the more remote arcs where little activity was found, and if these values are subtracted from those of the nearer-arc values where relatively large amounts of activity were found, a very rough estimate of fallout mass can be made.

It seems quite possible that if more information were available on the sizes of particles moving about the landscape, estimates of the above could be refined considerably. The values for mass given in Table 7.8 for the more distant arcs are within the same magnitude of values published previously (Reference 32).

8.2.3 Fallout Arrival Time, Radioactivity per Unit Area, and Radioactivity of the Particle Size Fractions. Discussion of times of arrival was presented in Section 7.1. There was an inverse relation between the activity deposited with distance from ground zero. The mass of the greater-than 44 micron particle size fraction decreased and that of the less-than 44 micron size fraction increased with increasing distance from ground zero.

There was some evidence also that the activity levels varied inversely with fallout time, i.e., stations near the hot-line of the fallout pattern tend to have earlier arrival times than stations on the periphery of the pattern. This is illustrated in Table 7.7 for the 18-mile arc. The tendency was also observable for the 27-mile arc.

APPENDIX A

DEVELOPMENT OF BASIC NRDL FALLOUT SAMPLE COLLECTOR

The successful collection of fallout required initial capture of the falling material, retention during the post-shot meteorological environment, and easy removal for analysis. Previously developed collectors have relied on inserts or sticky surfaces in the trays to create particle traps or dead air spaces to contain fine particles. Past collections have shown losses by large particles bouncing out and difficulty in processing particles imbedded in a sticky surface coating. Some difficulty has also been experienced with shredding or disintegration of inserts.

The approach used in developing the present basic collector was to develop a better tray insert that could most effectively trap and retain the falling particles and from which the fallout could be easily removed for physical and chemical analyses. The fallout material expected from a land surface nuclear detonation is a dry granular or dusty particulate, so emphasis was placed on capture and retention of this material.

The experimental proof-testing setup shown in Figure A.1 was built at Camp Parks, California. Measured amounts of coarse sand in different size ranges were ejected from a sand blasting nozzle at an angle of 66° to the vertical to impinge on various collector configurations at an angle and speed which simulated the arrival of fallout. This angle applies to a range of conditions from 80 micron particles in a 1-knot wind to 800 micron particles in a 16-knot wind. Several collector insert geometries and orientations were used with different particle sizes to establish the most efficient collector configuration. Table A.1 summarizes the test conditions and the results obtained.

Using the best collector from the above tests, further tests were made using a straight drop of 30 feet where the material dropped was restrained by a 2-inch diameter pipe for the first 20 feet to insure that most of it hit the collector. The results of these tests, also summarized in Table A.1, show generally higher retention in all collector configurations but similar relative retentions.

The best basic collector was ultimately used during NRDL participation in Shots Small Boy, Johnie Boy, and Sedan at NTS (Figure 2.6). It consisted of a # 16 ga aluminum pan 24 inches square and 2 inches deep with an insert of 2-inch wide by 23-7/8-inch long bare aluminum venetian blind louvers. They were mounted on 1-1/4-inch centers in two parallel notched aluminum retainer bases at a 45° angle to the vertical. The concave surface of the louvers faced upward, and the most efficient collection of material was achieved when they sloped or opened toward the direction from which the material came. In the field, they opened into the direction of the expected wind.

The collector trays, covers, and inserts were given a perchloroethylene degreasing treatment prior to being closed and shipped to the field, to remove any grease that might cause the dry fallout to adhere. Collected fallout was easily removed by tapping or brushing the louver insert or by disassembling the insert and brushing the individual louvers. The dry particulate fallout collected in Nevada showed little tendency to adhere to the bare aluminum, so that disassembly of the insert usually proved unnecessary.

TABLE A.1 RESULTS OF BASIC COLLECTOR EVALUATION FOR PARTICLES FALLING AT 66° FROM THE VERTICAL AND VERTICALLY

Insert Configuration	Collector Orientation	Material Size (μ)	Material Retained (%)
	66° From Vertical		
Louvers, 1-1/4" centers at 45°	Open Upwind	700-1190	98.9
" "	Open Crosswind	700-1190	96.8
" "	Open Downwind	700-1190	91.9
" "	Open Upwind	500- 700	98.2
" "	Open Crosswind	500- 700	96.6
" "	Open Downwind	500- 700	57.8
" "	Open Upwind	350- 700	91.6
" "	Open Crosswind	350- 700	91.6
" "	Open Downwind	350- 700	85.8
" "	Open Upwind	1190-2000	[illegible]
" "	Open Downwind	1190-2000	98.4
Fiberglass Filter 24" x 24"	-	700-1190	83.0
3/8 " Al Hexcel	-	700-1190	82.0
Bare Tray 4" Deep	-	700-1190	85.0
Tray w/1 mil polyethylene liner	-	700-1190	76.4
Bare Tray, 2" Deep	-	700-1190	62.8
" " " "	-	500- 700	58.6
" " " "	-	350- 700	67.9
" " " "	-	1190-2000	70.5
	Vertical		
Louvers, 1-1/4" centers at 45°	-	700-1190	98.5
3/8" Al Hexcel	-	700-1190	97.0
Bare Tray 2" Deep	-	700-1190	91.4

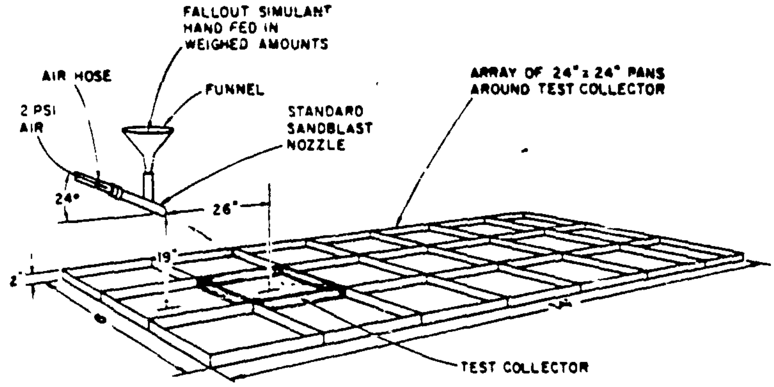

Figure A.1 Experimental arrangement for evaluation of collection efficiency.

APPENDIX B

GAMMA ACTIVITY IN GRANULAR COLLECTOR SAMPLES

B.1 SAMPLE CALCULATIONS.

The following calculations were performed for each sample:

1. The total number of counts observed was divided by the duration of the count to obtain the gross counts per unit time.

2. The gross counts per unit time were corrected by deducting the instrument background and adding the coincidence loss, when necessary, to give the net counts per minute. The coincidence loss was significant on samples counting 50,000 counts per minute or higher.

3. The net counts per minute were converted to common times using an average decay slope. The average value very closely approximated that of $T^{-1.2}$ (Reference 10).

4. The net counts per minute at 12 hours postshot were further corrected for sample geometry and sample area to yield corrected counts per minute per square foot at H + 12 hours.

5. The conversion factor to CH-I, Shelf 5, was calculated as the ratio of the instrument geometries: CH-I, Shelf 5 to the instrument used to count the size fractions.

6. The net counts per minute at 100 hours after shot were corrected for instrument efficiency and sample area and

normalized using the conversion factor to give counts per minute per square foot at H + 100 hours on the 5th shelf of the CH-I counter.

B.2 EXPLANATORY NOTES

(a) No correction has been made for instrument efficiency with the CH-I or the CAVE counter.

(b) The shelf factor is a correction to convert a count on a given shelf to one on the fifth shelf. The CH-I shelf factors are:

first = 1/56.5

second = 1/11.3

third = 1/4.78

fourth = 1/1.75

(c) Abbreviations used:

CH-I = NRDL end-on low-geometry NaI scintillation counter

Eff. = efficiency

EST = estimate

Inst. = instrument

NSV = not statistically valid

5392 = scaler number of the CAVE counter

(d) Sample calculations: see Section 6.3.3.

B.3 DATA SHEETS

Granular collector data sheets B.1 through B.98 are on the pages that follow.

B.1

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 18-1B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area: 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hrs
Collection Location: 29.2 miles N of Indian Springs AFB on Indian Springs Road (NRDL-24)

	Aliquot <44μ Fraction 1st Wash		Total <44μ Fraction 2nd Wash	Total >44μ Fraction 1st Wash	Total >44μ Fraction 2nd Wash	Residual on Pellets	Total before Processing
Date	7/18/62	7/18/62	7/20/62	7/18/62	7/20/62	7/20/62	7/18/62
Hour	1507	1630	1152	1645	1153	0900	0932
Scaler	5390	5478	5390	5478	5478	5392	CH-I
10^3 Total Counts	63.8	319.	47.9	256.	67.9	3.24	2.57
Minutes	2.00	2.80	2.45	0.62	6.55	2.00	1.00
10^3 c/m/Sample	31.9	114.	19.6	413.	10.4	1.62	2.57
Bkg. c/m	486.	842.	553.	842.	881.	559.	224.
Coincidence Correction	0	0	0	0	0	0	0
10^3(c/m-Bkg.)	31.4	113.	19.0	412.	9.48	1.07	2.35
Geometry Factor	87.23	25.32	86.58	25.32	25.44	1413.	11921.
Decay Factor H + 12 hrs.	12.66	12.89	19.77	12.89	19.77	19.26	11.82
10^6 c/m/ft^2 H + 12 hrs.	8.00	8.51	7.50	31.0	1.10	6.71	76.2
Inst. Eff. Factor	1.014	1.00	1.006	1.00	1.006	1.00	1.00
Decay Factor H + 100 hrs.	0.989	1.01	1.54	1.01	1.54	1.50	0.923
CH-I, shelf 5 Factor	136.7	470.8	137.7	470.8	468.6	8.44	1.00
c/m/ft^2, CH-5 H + 100 hrs.	53.1	55.1	49.3	201.	7.23	43.8	499.

B.2

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 18-2B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area: 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 28.4 miles N of Indian Springs AFB on Indian Springs Road (NRDL-23)

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction 1st Wash	>44μ Fraction 2nd Wash	Residual on Pellets	Total before Processing
Date	7/19/62	7/20/62	7/19/62	7/20/62	7/20/62	7/18/62
Hour	0947	1439	0910	1441	1007	0940
Scaler	5390	5390	5478	5478	5392	CH-I
10^3 Total Counts	111.	106.	2560.	82.9	3.48	4.01
Minutes	1.00	4.05	3.39	5.65	2.00	1.00
10^3c/m/Sample	111.	26.3	755.	14.7	1.74	4.01
Bkg. c/m	471.	553.	837.	881.	584.	224.
Coincidence Correction	0	0	0	0	0	0
10^3(c/m-Bkg.)	111.	25.7	754.	13.8	1.16	3.79
Geometry Factor	85.13	86.58	25.15	25.44	1413.	11921.
Decay Factor H + 12 hrs.	15.61	21.19	15.46	21.19	19.43	11.84
10^6c/m/ft^2 H + 12 hrs.	33.9	10.9	67.6	1.72	7.31	123.
Inst. Eff. Factor	0.990	1.006	0.996	1.006	1.00	1.00
Decay Factor H + 100 hrs.	1.22	1.65	1.21	1.65	1.52	0.925
CH-I, shelf 5 Factor	140.	138.	474.	469.	8.44	1.00
c/m/ft^2, CH-5 H + 100 hrs.	220.	71.3	442.	11.3	43.0	808.

B.3

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 18-3B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area: 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 27.6 miles N of Indian Springs AFB on Indian Springs Road (NRDL-22)

	Aliquot $<44\mu$ Fraction 1st Wash	Total $<44\mu$ Fraction 2nd Wash	Total $<44\mu$ Fraction 3rd Wash	Total $>44\mu$ Fraction 1st Wash	Total $>44\mu$ Fraction 2nd Wash	Residual on Pellets	Total before Processing
Date	7/18/62	7/20/62	7/20/62	7/18/62	7/20/62	7/20/62	7/18/62
Hour	1606	1203	1443	1640	1200	1125	0946
Scaler	5390	5390	5477	5478	5478	5392	CH-I
10^3 Total Counts	461.	87.2	178.	256.	10.4	3.68	5.47
Minutes	3.12	3.12	3.93	0.23	5.00	2.00	1.00
10^3c/m/Sample	147.	27.9	45.2	1110.	2.07	1.84	5.47
Bkg. c/m	478.	553.	451.	842.	881.	584.	224.
Coincidence Correction	0	0	0	0	0	0	0
10^3(c/m-Bkg.)	146.	27.4	44.7	1110.	1.19	1.26	5.25
Geometry Factor	87.23	86.58	31.19	25.32	25.44	1413.	11921.
Decay Factor H + 12 hrs.	12.89	19.77	20.19	12.89	19.77	19.68	11.86
10^6c/m/ft^2 H + 12 hrs.	37.9	10.8	6.49	83.5	0.14	8.05	171.
Inst. Eff. Factor	1.014	1.006	0.999	1.00	1.006	1.00	1.00
Decay Factor H + 100 hrs.	1.01	1.54	1.58	1.01	1.54	1.54	0.926
CH-I, shelf 5 Factor	137.	138.	382.	471.	469.	8.44	1.00
c/m/ft^2, CH-5 H + 100 hrs.	252.	71.0	42.6	549.	0.91	52.8	1121.

B.4 GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 18-4B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area: 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 26.7 miles N of Indian Springs AFB on Indian Springs Road (NRDL-21)

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction 1st Wash	>44μ Fraction 2nd Wash	Residual on Pellets	Total before Processing
Date	7/19/62	7/20/62	7/18/62	7/20/62	7/20/62	7/18/62
Hour	0850	1210	0835	1208	1031	0954
Scaler	5390	5390	5478	5478	5392	CH-I
10^3 Total Counts	252.	149.	256.	256.	10.9	8.65
Minutes	1.00	2.65	0.20	6.23	3.00	1.00
10^3c/m/Sample	252.	56.4	1280.	41.1	3.65	8.65
Bkg. c/m	471.	553.	837.	881.	584.	224.
Coincidence Correction	0	0	1.70×10^5	0	0	0
10^3(c/m-Bkg.)	251.	55.8	1450.	40.2	3.06	8.43
Geometry Factor	85.13	86.58	25.32	25.44	1413.	11921.
Decay Factor H + 12 hrs.	15.39	19.77	11.68	19.77	19.51	11.88
10^6c/m/ft^2 H + 12 hrs.	75.9	22.0	98.9	4.66	19.5	275.
Inst. Eff. Factor	0.990	1.006	0.995	1.006	1.00	1.00
Decay Factor H + 100 hrs.	1.19	1.54	0.912	1.54	1.52	0.928
CH-I, shelf 5 Factor	140.	138.	471.	469.	8.44	1.00
c/m/ft^2, CH-5 H + 100 hrs.	487.	145.	644.	30.6	127.	1804.

B.5

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 18-5B   Date Collected: 7/15/62   Shot Name: Small Boy   Sample Area 4.336 ft^2
Standard Used: Cs137   Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 25.9 miles N of Indian Springs AFB on Indian Springs Rd (NRDL-20)

	<44µ Fraction 1st Wash	<44µ Fraction 2nd Wash	>44µ Fraction	Residual on Pellets	Total Before Processing
Date	7/18/62	7/20/62	7/18/62	7/20/62	7/18/62
Hour	1615	1432	1642	1100	1001
Scaler No.	5390	5477	5478	5392	CH-I
10^3 Total Counts	256	512	2560	12.4	17.9
Minutes	1.01	1.98	0.88	2.00	1.00
10^3c/m Sample	253	259	2900	6.21	17.9
Bkg., c/m	478	451	842	584	224
Coincidence Correction	0	0	2.05×10^6	0	0
10^3 (c/m-Bkg.)	2.52	2.58	4950	5.62	17.7
Geometry Factor	87.23	31.19	25.32	1413	11,921
Decay Factor, H + 12 hrs.	12.89	20.19	12.89	19.60	11.90
10^6 c/m/ft^2, H + 12 hrs.	55.3	37.5	372	35.9	578
Inst. Eff. Factor	1.014	0.999	1.00	1.00	1.00
Decay Factor, H + 100 hrs.	1.01	1.58	1.01	1.53	0.929
CH-I, Shelf 5 Factor	137	382	471	8.44	1.00
c/m/ft^2, CH-I, H + 100 hrs.	434	246	2448	235	3789

B.6

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 18-6B   Date Collected: 7/15/62   Shot Name: Small Boy   Sample Area 4.336 ft^2
Standard Used: Cs137   Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 25.2 miles N of Indian Springs AFB on Indian Springs Rd (NRDL-19)

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/18/62	7/20/62	7/18/62	7/20/62	7/18/62
Hour	1703	1446	1647	1105	1017
Scaler No.	5390	5390	5478	5392	CH-I
10^3 Total Counts	512	512	2560	19.6	31.8
Minutes	0.565	5.12	0.50	2.00	1.00
10^3c/m Sample	906	100	5120	9.78	31.8
Bkg., c/m	478	553	842	584	224
Coincidence Correction	1.0×10^5	0	4.70×10^6	0	0
10^3 (c/m-Bkg.)	1060	99.0	9800	9.19	31.5
Geometry Factor	87.23	85.68	25.32	1413	11,921
Decay Factor, H + 12 hrs.	12.96	20.27	12.96	19.60	11.94
10^6 c/m/ft^2, H + 12 hrs.	276	39.7	742	57.8	1040
Inst. Eff. Factor	1.014	1.006	1.00	1.00	1.00
Decay Factor, H + 100 hrs.	1.01	1.58	1.01	1.53	0.933
CH-I, Shelf 5 Factor	137	139	471	8.44	1.00
c/m/ft^2, CH-I, H + 100 hrs.	1827	261	4847	384	6789

B.7

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 18-7B   Date Collected: 7/15/62   Shot Name: Small Boy   Sample Area 4.336 ft^2
Standard Used: Cs137   Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 24.2 miles N of Indian Springs AFB on Indian Springs Rd (NRDL-18)

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/18/62	7/20/62	7/18/62	7/20/62	7/18/62
Hour	1707	1728	1649	1425	1113
Scaler No.	5390	5390	5478	5392	CH-I
10^3 Total Counts	256	768	2560	35.5	72.5
Minutes	0.286	3.08	0.38	2.00	1.00
10^3c/m Sample	895	249	6740	17.7	72.5
Bkg., c/m	478	553	842	611	224
Coincidence Correction	1.0×10^5	0	1.07×10^7	0	0
10^3 (c/m-Bkg.)	994	248	17,400	17.1	72.2
Geometry Factor	87.23	86.58	25.32	1413	11,921
Decay Factor, H + 12 hrs.	13.03	20.70	13.03	19.68	12.09
10^6 c/m/ft^2, H + 12 hrs.	260	103	1330	110	2400
Inst. Eff. Factor	1.014	1.006	1.00	1.00	1.00
Decay Factor, H + 100 hrs.	1.02	1.57	1.02	1.54	0.944
CH-I, Shelf 5 Factor	137	138	471	8.44	1.00
c/m/ft^2, CH-I, H + 100 hrs.	1731	655	8741	721	15,727

B.8

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 18-8B   Date Collected: 7/15/62   Shot Name: Small Boy   Sample Area 4.336 ft^2
Standard Used: Cs137   Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 23.4 miles N of Indian Springs AFB on Indian Springs Rd (NRDL-17)

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/18/62	7/21/62	7/18/62	7/20/62	7/18/62
Hour	1710	0900	1651	1400	1106
Scaler No.	5390	5390	5478	5392	CH-I
10^3 Total Counts	512	512	2560	46.2	85.7
Minutes	0.255	1.49	0.35	2.10	1.00
10^3c/m Sample	2010	344	7310	22.0	85.7
Bkg., c/m	478	503	842	611	224
Coincidence Correction	4.485×10^5	0	1.42×10^7	0	0
10^3 (c/m-Bkg.)	2450	343	21,500	21.4	85.5
Geometry Factor	87.23	84.76	25.32	1413	11,921
Decay Factor, H + 12 hrs.	12.96	23.28	12.96	20.10	12.07
10^6 c/m/ft^2, H + 12 hrs.	639	156	1630	140	2840
Inst. Eff. Factor	1.014	0.986	1.00	1.00	1.00
Decay Factor, H + 100 hrs.	1.01	1.82	1.01	1.57	0.943
CH-I, Shelf 5 Factor	137	141	471	8.44	1.00
c/m/ft^2, CH-I, H + 100 hrs.	4224	1007	10,634	918	18,591

B.9

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 18-9B   Date Collected: 7/15/62   Shot Name: Small Boy   Sample Area 4.336 ft^2
Standard Used: Cs137   Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 22.6 miles N of Indian Springs AFB on Indian Springs Rd (NRDL-16)

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/18/62	7/21/62	7/18/62	7/20/62	7/18/62
Hour	1713	0912	1644	1355	1034
Scaler No.	5390	5390	5478	5392	CH-I
10^3 Total Counts	512	768	2560	35.3	77.2
Minutes	0.329	2.78	0.35	2.00	1.00
10^3c/m Sample	1570	276	7310	17.6	77.2
Bkg., c/m	478	503	842	611	224
Coincidence Correction	2.8×10^5	0	1.42×10^7	0	0
10^3 (c/m-Bkg.)	1850	276	21,500	17.0	76.9
Geometry Factor	87.23	84.76	25.32	1413	11,921
Decay Factor, H + 12 hrs.	13.03	23.28	13.03	20.10	11.98
10^6 c/m/ft^2, H + 12 hrs.	485	126	1640	111	2530
Inst. Eff. Factor	1.014	0.985	1.00	1.00	1.00
Decay Factor, H + 100 hrs.	1.02	1.82	1.02	1.57	0.936
CH-I, Shelf 5 Factor	137	141	471	8.44	1.00
c/m/ft^2, CH-I, H + 100 hrs.	3220	809	10,739	730	16,610

B.10

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 18-10B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 21.8 miles N of Indian Springs AFB on Indian Springs Rd

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/18/62	7/20/62	7/18/62	7/20/62	7/16/62
Hour	1630	1424	1652	1300	1300
Scaler No.	5390	5390	5478	5392	CH-I
10^3 Total Counts	5120	512	2560	50.8	327
Minutes	3.88	0.62	0.35	2.00	2.00
10^3c/m Sample	1320	826	7310	25.4	163
Bkg., c/m	478	451	842	611	243
Coincidence Correction	$1.8x10^5$	$8.4x10^4$	$1.42x10^7$	0	0
10^3 (c/m-Bkg.)	1500	910	21,500	24.8	163
Geometry Factor	87.23	31.19	25.32	1413	11,921
Decay Factor, H + 12 hrs.	13.03	20.19	13.03	20.00	5.47
10^6 c/m/ft^2, H + 12 hrs.	393	132	1640	162	2450
Inst. Eff. Factor	1.014	0.999	1.00	1.00	1.00
Decay Factor, H + 100 hrs.	1.02	1.58	1.02	1.56	0.427
CH-I, Shelf 5 Factor	136.7	382.2	470.8	8.44	1.00
c/m/ft^2, CH-I, H + 100 hrs.	2625	866.3	10,750	1056	16,056

B.11

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 18-11B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 21 miles N of Indian Springs AFB on Indian Springs Road

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellete	Total Before Processing
Date	7/18/62	7/21/62	7/18/62	7/20/62	7/16/62
Hour	1716	0923	1656	1510	1311
Scaler No.	5390	5390	5478	5392	CH-I
10^3 Total Counts	512	1020	25,600	34.3	387
Minutes	0.31	2.79	3.44	2.00	2.00
10^3c/m Sample	1650	367	7440	17.2	19.4
Bkg., c/m	478	503	842	611	243
Coincidence Correction	3.0×10^5	0	1.606×10^7	0	0
10^3 (c/m-Bkg.)	1950	367	23,500	16.5	193
Geometry Factor	87.23	84.76	25.32	1413	11,921
Decay Factor, H + 12 hrs.	13.03	23.36	13.03	20.4	5.55
10^6 c/m/ft^2, H + 12 hrs.	511	168	1810	110	2950
Inst. Eff. Factor	1.014	0.9852	1.00	1.00	1.00
Decay Factor, H + 100 hrs.	1.02	1.82	1.02	1.59	0.433
CH-I, Shelf 5 Factor	136.7	140.6	470.8	8.44	1.00
c/m/ft^2, CH-I, H + 100 hrs.	3413	899	11,895	716	19,281

B.12

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 18-12B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 20.3 miles N of Indian Springs AFB on Indian Springs Road

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/16/62	7/24/62	7/18/62	7/24/62	7/16/62
Hour	2200	1455	0900	1350	1326
Scaler No.	5390	5390	5478	5392	CH-I
10^3 Total Counts	7860	238	25,600	22.3	494
Minutes	1.84	8.32	3.07	2.00	2.00
10^3c/m Sample	4170	28.6	8340	11.2	247
Bkg., c/m	581	632	734	543	243
Coincidence Correction	2.58×10^6	0	2.67×10^7	0	0
10^3 (c/m-Bkg.)	6750	28.0	35,000	10.4	247
Geometry Factor	85.12	85.48	25.35	1413	11,921
Decay Factor, H + 12 hrs.	6.68	37	11.75	37	5.57
10^6 c/m/ft^2, H + 12 hrs.	886	20.4	2400	128	3780
Inst. Eff. Factor	1.039	0.9936	1.00	1.00	1.00
Decay Factor, H + 100 hrs.	0.522	2.89	0.92	2.89	0.435
CH-I, Shelf 5 Factor	140	139	470.3	8.44	1.00
c/m/ft^2, CH-I, H + 100 hrs.	6028	133	15,785	837	24,740

B.13

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 18-13B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 19.7 miles N of Indian Springs AFB on Indian Springs Rd (NRDL-12)

	<44µ Fraction 1st Wash	<44µ Fraction 2nd Wash	>44µ Fraction	Residuel on Pellets	Total Before Processing
Date	7/18/62		7/18/62	7/20/62	7/16/62
Hour	1725		1700	1114	1355
Scaler No.	5390		5478	5392	CH-I
10^3 Total Counts	512		2560	15.8	29.8
Minutes	3.63		0.85	4.00	2.00
10^3c/m Sample	1.41	Not Required	3010	3.96	14.9
Bkg., c/m	478		842	584	261
Coincidence Correction	0		1.12×10^6	0	0
10^3 (c/m-Bkg.)	140		4120	3.38	14.7
Geometry Factor	87.23		25.32	1413	11,921
Decay Factor, H + 12 hrs.	13.01		12.96	19.66	5.61
10^6 c/m/ft^2, H + 12 hrs.	36.6		312	21.6	226
Inst. Eff. Factor	1.014		1.00	1.00	1.00
Decay Factor, H + 100 hrs.	1.02		1.01	1.54	0.438
CH-I, Shelf 5 Factor	137		471	8.44	1.00
c/m/ft^2, CH-I, H + 100 hrs.	244		2038	142	1480

B.14

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 18-14B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 18.6 miles N of Indian Springs AFB on Indian Springs Rd (NRDL-11)

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/18/62	Not Required	7/18/62	7/19/62	7/18/62
Hour	1732		1750	0944	1120
Scaler No.	5390		5478	5481	CH-I
10^3 Total Counts	142		2560	7.12	7.44
Minutes	2.05		1.73	4.65	2.00
10^3c/m Sample	69.5		1480	1.53	3.72
Bkg., c/m	478		842	360	224
Coincidence Correction	0		2.4×10^5	0	0
10^3 (c/m-Bkg.)	69.0		1720	1.17(X40)	3.50
Geometry Factor	87.23		25.32	42.61	11,921
Decay Factor, H + 12 hrs.	13.03		13.08	15.57	12.10
10^6 c/m/ft^2, H + 12 hrs.	18.1		131	7.16	116
Inst. Eff. Factor	1.014		1.00	1.028	1.00
Decay Factor, H + 100 hrs.	1.02		1.02	1.22	0.945
CH-I, Shelf 5 Factor	137		471	280	1.00
c/m/ft^2, CH-I, H + 100 hrs.	120		859	48.3	762

B.15

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 18-15B   Date Collected: 7/15/62   Shot Name: Small Boy   Sample Area 4.336 ft^2
Standard Used: Cs137   Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 18.0 miles N of Indian Springs AFB on Indian Springs Rd (NRDL-10)

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/18/62	7/21/62	7/18/62	7/20/62	7/18/62
Hour	1737	0942	1706	1118	1127
Scaler No.	5390	5390	5478	5392	CH-I
10^3 Total Counts	31.6	131	256	1.83	2.59
Minutes	1.30	8.25	0.54	2.00	2.00
10^3c/m Sample	24.3	15.8	474	0.91	1.30
Bkg., c/m	478	503	842	611	224
Coincidence Correction	0	0	$2.5x10^4$	0	0
10^3 (c/m-Bkg.)	23.8	15.3	499	0.30	1.07
Geometry Factor	87.23	84.76	25.32	1413	11,921
Decay Factor, H + 12 hrs.	13.04	23.40	12.97	19.67	12.11
10^6 c/m/ft^2, H + 12 hrs.	6.24	7.00	37.8	1.94	35.7
Inst. Eff. Factor	1.014	0.985	1.00	1.00	1.00
Decay Factor, H + 100 hrs.	1.02	1.83	1.01	1.54	0.946
CH-I, Shelf 5 Factor	137	141	471	8.44	1.00
c/m/ft^2, CH-I, H + 100 hrs.	41.4	45.1	245	12.7	234

B.16

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 18-16B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 17.0 miles N of Indian Springs AFB on Indian Springs Rd (NRDL-9)

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/19/62		7/19/62	7/19/62	7/18/62
Hour	0925		0915	1002	1135
Scaler No.	5390		5478	5841	CH-I
10^3 Total Counts	144		2560	1.92	1.45
Minutes	1.54		2.82	3.8	2.00
10^3c/m Sample	93.7	Not Required	908	0.51	0.72
Bkg., c/m	471		837	360	224
Coincidence Correction	0		0	0 (X40)	0
10^3 (c/m-Bkg.)	93.2		907	0.15 (EST)	0.50
Geometry Factor	85.13		25.15	42.61	11,921
Decay Factor, H + 12 hrs.	15.53		15.50	15.61	12.13
10^6 c/m/ft^2, H + 12 hrs.	28.4		81.5	0.89	16.7
Inst. Eff. Factor	0.990		0.996	1.028	1.00
Decay Factor, H + 100 hrs.	1.21		1.21	1.22	0.947
CH-I, Shelf 5 Factor	140		474	280	1.00
c/m/ft^2, CH-I, H + 100 hrs.	184		532	6.0	109

B.17

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 18-17B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 16.4 miles N of Indian Springs AFB on Indian Springs Rd (NRDL-8)

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/19/62		7/19/62	7/19/62	7/18/62
Hour	0847		0845	0947	1140
Scaler No.	5390		5478	5841	CH-I
10^3 Total Counts	29.5		256	1.10	1.30
Minutes	1.85		1.69	2.42	2.00
10^3c/m Sample	15.9	Not Required	151	0.46	0.65
Bkg., c/m	471		837	360	224
Coincidence Correction	0		0	0 (X40)	0
10^3 (c/m-Bkg.)	15.5		150	0.10 (EST)	0.43 (NSV)
Geometry Factor	85.13		25.15	42.61	
Decay Factor, H + 12 hrs.	15.42		15.42	15.58	
10^6 c/m/ft^2, H + 12 hrs.	4.69		13.4	0.59	
Inst. Eff. Factor	0.990		0.995	1.028	
Decay Factor, H + 100 hrs.	1.20		1.20	1.22	
CH-I, Shelf 5 Factor	140		474	280	
c/m/ft^2, CH-I, H + 100 hrs.	30.3		87.2	3.97	

B.18

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 18-18B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 15.4 miles N of Indian Springs AFB on Indian Springs Rd (NRDL-7)

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residuel on Pellets	Total Before Processing
Date	7/19/62		7/19/62	7/19/62	7/18/62
Hour	0908		0847	0949	1150
Scaler No.	5390		5478	5481	CH-I
10^3 Total Counts	63.7		256	2.82	0.80
Minutes	2.90		2.19	7.19	2.00
10^3c/m Sample	22.0	Not Required	117	0.39	0.40
Bkg., c/m	471		837	360	224
Coincidence Correction	0		0	0 (X40)	0
10^3 (c/m-Bkg.)	21.5		116	0.03(EST)	0.17(NSV)
Geometry Factor	85.13		25.15	42.61	
Decay Factor, H + 12 hrs.	15.49		15.42	15.58	
10^6 c/m/ft^2, H + 12 hrs.	6.54		10.4	0.20	
Inst. Eff. Factor	0.990		0.995	1.028	
Decay Factor, H + 100 hrs.	1.21		1.20	1.22	
CH-I, Shelf 5 Factor	140		474	280	
c/m/ft^2, CH-I, H + 100 hrs.	42.4		67.4	1.32	

B.19

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 18-19B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 14.8 miles N of Indian Springs AFB on Indian Springs Rd (NRDL-6)

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/18/62	7/21/62	7/18/62	7/20/62	7/18/62
Hour	1745	0957	1710	1410	1158
Scaler No.	5390	5390	5478	5392	CH-I
10^3 Total Counts	7.66	77.1	4.90	1.49	0.49
Minutes	2.00	2.50	2.00	2.00	2.00
10^3c/m Sample	3.83	30.8	2.45	0.74	0.24
Bkg., c/m	478	503	842	611	224
Coincidence Correction	0	0	0	0	0
10^3 (c/m-Bkg.)	3.35	30.3	1.61	0.13(EST)	0.02(NSV)
Geometry Factor	87.23	84.76	25.32	1413	
Decay Factor, H + 12 hrs.	13.06	23.44	12.98	20.16	
10^6 c/m/ft^2, H + 12 hrs.	1.01	13.9	0.12	0.87	
Inst. Eff. Factor	1.014	0.985	1.00	1.00	
Decay Factor, H + 100 hrs.	1.02	1.83	1.01	1.57	
CH-I, Shelf 5 Factor	137	141	471	8.44	
c/m/ft^2, CH-I, H + 100 hrs.	5.83	89.4	0.79	5.71	

B.20

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 15-20B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 13.9 miles N of Indian Springs AFB on Indian Springs Rd (NRDL-5)

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/19/62		7/18/62	7/18/62	7/18/62
Hour	0900		1713	1740	1207
Scaler No.	5390		5478	5481	CH-I
10^3 Total Counts	11.4		71.1	4.28	0.49
Minutes	3.00		2.85	10.10	2.00
10^3c/m Sample	3.81	Not Required	24.9	0.43	0.24
Bkg., c/m	471		842	380	224
Coincidence Correction	0		0	0 (X40)	0
10^3 (c/m-Bkg.)	3.34		24.1	0.05 (EST)	0.02 (NSV)
Geometry Factor	85.13		25.37	51.46	
Decay Factor, H + 12 hrs.	15.46		12.99	13.05	
10^6 c/m/ft^2, H + 12 hrs.	1.01		1.83	0.30	
Inst. Eff. Factor	0.990		1.00	1.242	
Decay Factor, H + 100 hrs.	1.21		1.01	1.02	
CH-I, Shelf 5 Factor	140		470	232	
c/m/ft^2, CH-I, H + 100 hrs.	6.59		11.9	2.41	

B.21

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 27-1B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area: 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 36.0 miles NE of Indian Springs AFB on East Indian Springs Road

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	<44μ Fraction 3rd Wash	>44μ Fraction	Residual on Pellets	Total before Processing
Date	7/19/62	7/23/62	7/23/62	7/19/62	7/23/62	7/16/62
Hour	1409	1535	1717	1512	1710	1406
Scaler	5390	5477	5390	5478	5392	CH-I
10^3 Total Counts	512.	512.	88.1	2560.	8.24	100.1
Minutes	1.07	3.135	6.89	0.66	2.00	2.0
10^3c/m/Sample	479.	163.	12.8	3880.	4.12	50.3
Bkg. c/m	471.	460.	528.	791.	760.	261.
Coincidence Correction	1.05×10^4	0	0	2.12×10^6	0	0
10^3(c/m-Bkg.)	489.	163.	12.3	6000.	3.36	50.0
Geometry Factor	85.13	31.15	85.54	25.15	1413.	11921.
Decay Factor H + 12 hrs.	16.27	33.2	33.2	16.44	33.2	5.60
10^6c/m/ft^2 H + 12 hrs.	156.	38.9	8.06	572.	36.3	770.
Inst. Eff. Factor	0.990	0.997	0.994	0.995	1.00	1.00
Decay Factor H + 100 hrs.	1.27	2.59	2.59	1.28	2.59	0.437
CH-I, shelf 5 Factor	140.0	382.7	139.4	474.0	8.44	1.00
c/m/ft^2, CH-5 H + 100 hrs.	1012.	254.	52.4	3720.	238.	5040.

E.22

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 27-2B   Date Collected: 7/15/62   Shot Name: Small Boy   Sample Area 4.336 ft^2
Standard Used: Cs137   Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 35.0 miles NE of Indian Springs AFB on East Indian Springs Road

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/19/62	7/23/62	7/19/62	7/23/62	7/16/62
Hour	1543	1536	1543	1155	1419
Scaler No.	5390	5390	5478	5392	CH-I
10^3 Total Counts	379	496	2560	11.4	84.0
Minutes	1.0	7.4	0.75	2.00	2.00
10^3c/m Sample	379	67.0	3410	5.69	42.0
Bkg., c/m	471	528	795	702	261
Coincidence Correction	0	0	1.59×10^6	0	0
10^3 (c/m-Bkg.)	379	66.5	5,000	4.99	41.7
Geometry Factor	85.13	85.54	25.15	1413	11,921
Decay Factor, H + 12 hrs.	16.56	33.2	16.56	32.0	5.60
10^6 c/m/ft^2, H + 12 hrs.	123	43.6	481	51.9	642
Inst. Eff. Factor	0.990	0.997	0.995	1.00	1.00
Decay Factor, H + 100 hrs.	1.29	2.59	1.29	2.50	0.437
CH-I, Shelf 5 Factor	140.0	139.4	474.0	8.44	1.00
c/m/ft^2, CH-I, H + 100 hrs.	796	284.0	3125	341	4203

B.23

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 27-3B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 34.0 miles NE of Indian Springs AFB on East Indian Springs Road

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/19/62	7/24/62	7/19/62	7/23/62	7/16/62
Hour	1610	0900	1608	1705	1432
Scaler No.	5390	5390	5478	5392	CH-I
10^3 Total Counts	517	448	2560	9.53	83.3
Minutes	1.15	7.59	0.73	2.00	2.00
10^3c/m Sample	449	59.1	3510	4.77	41.6
Bkg., c/m	471	457	795	760	261
Coincidence Correction	2.0×10^4	0	1.69×10^6	0	0
10^3 (c/m-Bkg.)	469	58.6	5200	4.01	41.4
Geometry Factor	85.13	85.48	25.15	1413	11,921
Decay Factor, H + 12 hrs.	16.56	35.8	16.56	33.0	5.67
10^6 c/m/ft^2, H + 12 hrs.	152	41.4	500	43.1	645
Inst. Eff. Factor	0.9896	0.9936	0.995	1.00	1.00
Decay Factor, H + 100 hrs.	1.29	2.80	1.29	2.58	0.443
CH-I, Shelf 5 Factor	140.0	139.0	474.0	8.44	1.00
c/m/ft^2, CH-I, H + 100 hrs.	986	270	3250	282	4220

B.24

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 27-4B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 33.0 miles NE of Indian Springs AFB on East Indian Springs Rd

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/19/62		7/19/62	7/19/62	7/16/62
Hour	1620		1610	1607	1445
Scaler No.	5390		5478	5841	CH-I
10^3 Total Counts	158		2560	2.56	26.8
Minutes	1.00		1.93	1.46	2.00
10^3c/m Sample	158	Not Required	1330	1.75	13.4
Bkg., c/m	471		795	360	261
Coincidence Correction	0		1.9×10^5	0	0
10^3 (c/m-Bkg.)	158		1520	1.39 (X40)	13.1
Geometry Factor	85.13		25.15	42.61	11,921
Decay Factor, H + 12 hrs.	16.62		16.60	16.59	5.70
10^6 c/m/ft^2, H + 12 hrs.	51.6		146	9.02	206
Inst. Eff. Factor	0.990		0.995	1.028	1.00
Decay Factor, H + 100 hrs.	1.30		1.30	1.33	0.445
CH-I, Shelf 5 Factor	140		474	280	1.00
c/m/ft^2, CH-I, H + 100 hrs.	335		957	62.7	1348

B.25

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 27-5B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cal37 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 32 miles NE of Indian Springs AFB on East Indian Springs Road

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/19/62		7/19/62	7/19/62	7/16/62
Hour	1617		1614	1612	1625
Scaler No.	5390		5478	5841	CH-I
10^3 Total Counts	107		2560	2.56	18.5
Minutes	1.00		2.25	0.81	2.00
10^3c/m Sample	107	Not Required	1140	3.16	9.27
Bkg., c/m	471		795	360	254
Coincidence Correction	0		1.60×10^5	0	0
10^3 (c/m-Bkg.)	106		1300	2.80 (X40)	9.02
Geometry Factor	85.13		25.15	42.61	11,921
Decay Factor, H + 12 hrs.	16.62		16.61	16.61	5.94
10^6 c/m/ft^2, H + 12 hrs.	34.6		125	18.3	147
Inst. Eff. Factor	0.990		0.995	1.028	1.00
Decay Factor, H + 100 hrs.	1.30		1.30	1.30	0.464
CH-I, Shelf 5 Factor	140		474	280	1.00
c/m/ft^2, CH-I, H + 100 hrs.	225		818	123 *	965

B.26

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 27-6B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 31.0 miles NE of Indian Springs AFB on East Indian Springs Road

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/19/62		7/19/62	7/19/62	7/18/62
Hour	1642		1641	1644	1410
Scaler No.	5390		5478	5841	CH-I
10^3 Total Counts	39.3		256	2.56	3.77
Minutes	1.05		0.64	1.71	2.00
10^3c/m Sample	37.4	Not Required	400	1.50	1.88
Bkg., c/m	471		795	360	250
Coincidence Correction	0		1.0×10^4	0	0
10^3 (c/m-Bkg.)	36.9		409	1.14(X40)	1.63
Geometry Factor	85.13		25.15	42.61	11,921
Decay Factor, H + 12 hrs.	16.68		16.68	16.69	12.53
10^6 c/m/ft^2, H + 12 hrs.	12.1		39.6	7.46	56.3
Inst. Eff. Factor	0.990		0.995	1.028	1.00
Decay Factor, H + 100 hrs.	1.30		1.30	1.30	0.979
CH-I, Shelf 5 Factor	140		474	280	1.00
c/m/ft^2, CH-I, H + 100 hrs.	78.2		257	50.0	369

B.27

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 27-7B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 30 miles NE of Indian Springs AFB on East Indian Springs Road

	<44µ Fraction 1st Wash	<44µ Fraction 2nd Wash	>44µ Fraction	Residual on Pellets	Total Before Processing
Date	7/19/62		7/19/62	7/19/62	7/18/62
Hour	1647		1645	1651	1435
Scaler No.	5390		5478	5841	CH-I
10^3 Total Counts	17.2		256	2.56	1.23
Minutes	1.40		2.20	4.38	2.00
10^3c/m Sample	12.3	Not Required	116	0.58	0.62
Bkg., c/m	471		795	360	250
Coincidence Correction	0		0	0 (X40)	0
10^3 (c/m-Bkg.)	11.8		116	0.22 (EST)	0.37 (NSV)
Geometry Factor	85.13		25.15	42.61	
Decay Factor, H + 12 hrs.	16.70		16.69	16.71	
10^6 c/m/ft^2, H + 12 hrs.	3.87		11.2	1.47	
Inst. Eff. Factor	0.990		0.995	1.028	
Decay Factor, H + 100 hrs.	1.30		1.30	1.30	
CH-I, Shelf 5 Factor	140		474	280	
c/m/ft^2, CH-I, H + 100 hrs.	25.0		73.0	9.86	

B.28

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 27-8B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 29 miles NE of Indian Springs AFB on East Indian Springs Road

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/19/62		7/19/62	7/19/62	7/18/62
Hour	1652		1650	1655	1443
Scaler No.	5390		5478	5481	CH-I
10^3 Total Counts	17.5		256	2.00	1.42
Minutes	1.30		2.64	2.25	2.00
10^3c/m Sample	13.5	No Data	97.0	0.89	0.71
Bkg., c/m	471		795	360	250
Coincidence Correction	0		0	0	0
10^3 (c/m-Bkg.)	13.0		96.2	0.53 (X40)	0.46 (NSV)
Geometry Factor	85.13		25.50	42.61	
Decay Factor, H + 12 hrs.	16.72		16.71	16.72	
10^6 c/m/ft^2, H + 12 hrs.	4.27		9.45	3.49	
Inst. Eff. Factor	0.990		0.995	1.028	
Decay Factor, H + 100 hrs.	1.31		1.30	1.31	
CH-I, Shelf 5 Factor	140		467	280	
c/m/ft^2, CH-I, H + 100 hrs.	27.8		61.4	23.6	

B.29

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 27-9B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 28 miles NE of Indian Springs AFB on East Indian Springs Road

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/19/62		7/19/62	7/19/62	7/18/62
Hour	1657		1653	1700	1516
Scaler No.	5390		5478	5841	CH-I
10^3 Total Counts	22.2		256	1.22	1.52
Minutes	1.36		2.27	2.00	2.00
10^3c/m Sample	16.3	Not Required	113	0.61	0.76
Bkg., c/m	471		795	360	250
Coincidence Correction	0		0	0 (X40)	0
10^3 (c/m-Bkg.)	15.9		112	0.25(EST)	0.51
Geometry Factor	85.13		25.15	42.61	11,921
Decay Factor, H + 12 hrs.	16.73		16.72	16.74	12.71
10^6 c/m/ft^2, H + 12 hrs.	5.22		10.9	1.64	17.9
Inst. Eff. Factor	0.990		0.995	1.028	1.00
Decay Factor, H + 100 hrs.	1.31		1.31	1.31	0.993
CH-I, Shelf 5 Factor	140		474	280	1.00
c/m/ft^2, CH-I, H + 100 hrs.	34.0		71.0	11.0	117

B.30

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 27-11B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 26 miles NE of Indian Springs AFB on East Indian Springs Road

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/19/62		7/19/62	7/19/62	7/18/62
Hour	1747		1744	1746	1532
Scaler No.	5390		5478	5841	CH-I
10^3 Total Counts	14.4		103	2.56	0.90
Minutes	1.50		4.90	4.31	2.00
10^3c/m Sample	9.59	No Data	21.0	0.59	0.45
Bkg., c/m	471		848	360	250
Coincidence Correction	0		0	0 (X40)	0
10^3 (c/m-Bkg.)	9.12		20.1	0.23 (EST)	0.20 (NSV)
Geometry Factor	85.13		25.15	42.61	
Decay Factor, H + 12 hrs.	16.85		16.85	16.85	
10^6 c/m/ft^2, H + 12 hrs.	3.02		1.96	1.55	
Inst. Eff. Factor	0.990		0.995	1.028	
Decay Factor, H + 100 hrs.	1.32		1.32	1.32	
CH-I, Shelf 5 Factor	140		474	280	
c/m/ft^2, CH-I, H + 100 hrs.	19.6		12.8	10.5	

B.31

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 35-10B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 25 miles NW of Corn Creek Ranger Station on Sheep Canyon Road.

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/19/62		7/19/62	7/19/62	7/19/62
Hour	1550		1548	1554	1014
Scaler No.	5390		5478	5477	CH-I
10^3 Total Counts	25.3		256	2.14	0.24
Minutes	2.15		3.44	5.09	1.00
10^3c/m Sample	11.8	Not Required	74.4	0.42	0.24
Bkg., c/m	471		795	360	229
Coincidence Correction	0		0	0	0
10^3 (c/m-Bkg.)	11.3		73.6	2.44	0.02 (NSV)
Geometry Factor	85.13		25.15	42.61	
Decay Factor, H + 12 hrs.	16.57		16.57	16.56	
10^6 c/m/ft^2, H + 12 hrs.	3.68		7.07	0.40	
Inst. Eff. Factor	0.9896		0.995	1.028	
Decay Factor, H + 100 hrs.	1.29		1.29	1.29	
CH-I, Shelf 5 Factor	140.0		474.0	279.8	
c/m/ft^2, CH-I, H + 100 hrs.	23.7		46.0	2.66	

B.32

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 35-11B   Date Collected: 7/15/62   Shot Name: Small Boy   Sample Area 4.336 ft^2
Standard Used: Cs137   Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 27 miles NW of Corn Creek Ranger Station on Sheep Canyon Road

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/19/62		7/19/62	7/19/62	7/19/62
Hour	1558		1557	1600	1024
Scaler No.	5390		5478	5477	CH-I
10^3 Total Counts	15.1		97.4	1.95	0.24
Minutes	2.4		3.60	4.50	1.00
10^3c/m Sample	6.28	Not Required	27.1	0.43	0.24
Bkg., c/m	471		795	360	229
Coincidence Correction	0		0	0 (X40)	0
10^3 (c/m-Bkg.)	5.81		26.3	0.07 (EST)	0.01 (NSV)
Geometry Factor	85.13		25.15	42.61	
Decay Factor, H + 12 hrs.	16.56		16.56	16.57	
10^6 c/m/ft^2, H + 12 hrs.	1.89		2.52	0.48	
Inst. Eff. Factor	0.9896		0.995	1.028	
Decay Factor, H + 100 hrs.	1.29		1.29	1.27	
CH-I, Self S Factor	140		474	279.8	
c/m/ft^2, CH-I, H + 100 hrs.	12.2		16.4	3.12	

B.33

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 35-12B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 29 miles NW of Corn Creek Ranger Station on Sheep Canyon Road

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/19/62	7/24/62	7/19/62	7/24/62	7/19/62
Hour	1358	1510	1318	0850	1030
Scaler No.	5390	5390	5478	5392	CH-I
10^3 Total Counts	12.5	8.98	70.2	0.57	0.33
Minutes	2.58	6.00	3.65	1.00	1.00
10^3c/m Sample	4.85	1.50	19.2	0.57	0.33
Bkg., c/m	471	632	891	582	229
Coincidence Correction	0	0	0	0	0
10^3 (c/m-Bkg.)	4.38	0.87	18.3	Bkg	0.10 (NSV)
Geometry Factor	85.13	85.48	25.15		
Decay Factor, H + 12 hrs.	16.25	37.0	16.17		
10^6 c/m/ft^2, H + 12 hrs.	1.40	0.63	1.72		
Inst. Eff. Factor	0.9996	0.9936	0.995		
Decay Factor, H + 100 hrs.	1.27	2.89	1.26		
CH-I, Shelf 5 Factor	140	139	474		
c/m/ft^2, CH-I, H + 100 hrs.	9.06	4.12	11.2		

B.34

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 35-13B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 31 miles NW of Corn Creek Ranger Station on Sheep Canyon Road

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/19/62	7/23/62	7/19/62	7/23/62	7/19/62
Hour	1405	1545	1321	1250	1035
Scaler No.	5390	5390	5478	5392	CH-I
10^3 Total Counts	9.63	10.0	11.4	1.92	0.57
Minutes	2.45	6.20	3.83	3.20	2.00
10^3c/m Sample	3.93	1.62	2.97	0.60	0.29
Bkg., c/m	471	528	891	702	229
Coincidence Correction	0	0	0	0	0
10^3 (c/m-Bkg.)	3.46	1.09	2.07	Bkg	0.06 (NSV)
Geometry Factor	85.13	85.54	25.15		
Decay Factor, H + 12 hrs.	16.25	33.2	16.17		
10^6 c/m/ft^2, H + 12 hrs.	1.10	0.7	0.20		
Inst. Eff. Factor	0.9896	0.9943	0.995		
Decay Factor, H + 100 hrs.	1.27	2.59	1.26		
CH-I, Shelf 5 Factor	140	139.4	474.0		
c/m/ft^2, CH-I, H + 100 hrs.	7.16	4.64	1.25		

B.35

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 35-14B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 33 miles NW of Corn Creek Ranger Station on Sheep Canyon Road

	<44µ Fraction 1st Wash	<44µ Fraction 2nd Wash	>44µ Fraction	Residual on Pellets	Total Before Processing
Date	7/19/62	7/24/62	7/19/62	7/24/62	7/19/62
Hour	1410	1523	1337	0847	1040
Scaler No.	5390	5390	5478	5392	CH-I
10^3 Total Counts	20.2	12.8	132	1.16	0.48
Minutes	1.30	6.00	3.25	2.00	1.00
10^3c/m Sample	15.5	2.13	40.6	0.58	0.48
Bkg., c/m	471	632	891	582	229
Coincidence Correction	0	0	0	0	0
10^3 (c/m-Bkg.)	15.1	1.49	39.7	Bkg	0.25 (NSV)
Geometry Factor	85.13	85.48	25.15		
Decay Factor, H + 12 hrs.	16.25	37	16.17		
10^6 c/m/ft^2, H + 12 hrs.	4.82	1.09	3.72		
Inst. Eff. Factor	0.9896	0.9936	0.995		
Decay Factor, H + 100 hrs.	1.27	2.89	1.26		
CH-I, Shelf 5 Factor	140	139	474		
c/m/ft^2, CH-I, H + 100 hrs.	31.3	7.11	24.2		

B.36

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 35-15B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs^{137} Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 35 miles NW of Corn Creek Ranger Station on Sheep Canyon Road

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/19/62	7/24/62	7/19/62	7/24/62	7/19/62
Hour	1414	1540	1326	1249	1050
Scaler No.	5390	5390	5478	5392	CH-I
10^3 Total Counts	29.0	29.8	256	1.38	0.74
Minutes	1.20	6.29	4.31	2.00	1.00
10^3c/m Sample	24.2	4.74	59.4	0.69	0.74
Bkg., c/m	471	632	891	543	229
Coincidence Correction	0	0	0	0	0
10^3 (c/m-Bkg.)	23.7	4.10	58.5	0.15 (EST)	0.51
Geometry Factor	85.13	85.48	25.15	1413	11,921
Decay Factor, H + 12 hrs.	16.29	37.0	16.16	36.0	15.8
10^6 c/m/ft^2, H + 12 hrs.	7.58	2.99	5.48	1.71	22.2
Inst. Eff. Factor	0.9896	0.9936	0.995	1.00	1.00
Decay Factor, H + 100 hrs.	1.27	2.89	1.26	2.81	1.23
CH-I, Shelf 5 Factor	140.0	139.0	474.0	8.44	1.00
c/m/ft^2, CH-I, H + 100 hrs.	49.1	19.5	35.7	11.2	145

B.37

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 35-16B   Date Collected: 7/15/62   Shot Name: Small Boy   Sample Area 4.336 ft^2
Standard Used: Cs137   Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 37 miles NW of Corn Creek Ranger Station on Sheep Canyon Road

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/19/62	7/24/62	7/19/62	7/24/62	7/19/62
Hour	1424	1554	1352	1115	1058
Scaler No.	5390	5390	5478	5392	CH-I
10^3 Total Counts	217	35.1	256	1.72	1.41
Minutes	4.17	6.00	1.34	2.00	1.00
10^3c/m Sample	52.0	5.85	191	0.86	1.41
Bkg., c/m	471	632	891	582	229
Coincidence Correction	0	0	3×10^4	0	0
10^3 (c/m-Bkg.)	51.5	5.22	202	0.28(EST)	1.19
Geometry Factor	85.13	85.48	25.15	1413	11,921
Decay Factor, H + 12 hrs.	16.33	37.0	16.25	36.2	15.8
10^6 c/m/ft^2, H + 12 hrs.	16.5	3.81	19.0	3.30	51.5
Inst. Eff. Factor	0.9896	0.9936	0.995	1.00	1.00
Decay Factor, H + 100 hrs.	1.28	2.89	1.27	2.83	1.23
CH-I, Shelf 5 Factor	140.0	139.0	474.0	8.44	1.00
c/m/ft^2, CH-I, H + 100 hrs.	107.1	24.9	124	21.6	336

B.38

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 35-17B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 39 miles NW of Corn Creek Ranger Station on Sheep Canyon Road

	<44µ Fraction 1st Wash	<44µ Fraction 2nd Wash	>44µ Fraction	Residual on Pellets	Total Before Processing
Date	7/19/62	7/24/62	7/19/62	7/24/62	7/19/62
Hour	1428	0953	1355	1040	1106
Scaler No.	5390	5390	5478	5392	CH-I
10^3 Total Counts	87.0	101	256	3.04	2.92
Minutes	1.0	7.98	0.54	2.00	1.00
10^3c/m Sample	87.0	12.6	474	1.52	2.92
Bkg., c/m	471	632	891	582	229
Coincidence Correction	0	0	2.0×10^4	0	0
10^3 (c/m-Bkg.)	86.5	12.0	493	0.94	2.69
Geometry Factor	85.13	85.48	25.15	1413	11,921
Decay Factor, H + 12 hrs.	16.35	35.8	16.24	35.9	15.8
10^6 c/m/ft^2, H + 12 hrs.	27.8	8.47	46.4	11.0	117
Inst. Eff. Factor	0.9896	0.9936	0.995	1.00	1.00
Decay Factor, H + 100 hrs.	1.28	2.80	1.27	2.80	1.23
CH-I, Shelf 5 Factor	140.0	139.0	474.0	8.44	1.00
c/m/ft^2, CH-I, H + 100 hrs.	180	55.3	303	71.7	763

B.39

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 35-18B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 41 miles NW of Corn Creek Ranger Station on Sheep Canyon Road

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/19/62	7/23/62	7/19/62	7/23/62	7/16/62
Hour	1513	1545	1500	1505	1522
Scaler No.	5390	5477	5478	5392	CH-I
10^3 Total Counts	255	512	2560	4.69	24.1
Minutes	1.57	8.20	2.97	2.10	2.00
10^3c/m Sample	163	62.5	862	2.23	12.1
Bkg., c/m	471	460	795	663	254
Coincidence Correction	0	0	5.0×10^4	0	0
10^3 (c/m-Bkg.)	162	62.0	910	1.57	11.8
Geometry Factor	85.13	31.15	25.15	1413	11,921
Decay Factor, H + 12 hrs.	16.42	33.2	16.42	33.0	5.80
10^6 c/m/ft^2, H + 12 hrs.	52.2	14.8	86.6	16.9	188
Inst. Eff. Factor	0.9896	0.997	0.995	1.00	1.00
Decay Factor, H + 100 hrs.	1.28	2.59	1.28	2.58	0.453
CH-I, Shelf 5 Factor	140.0	382.7	474.0	8.44	1.00
c/m/ft^2, CH-I, H + 100 hrs.	339	96.7	564	111	1233

B.40

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 35-19B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 43 miles N of Corn Creek Ranger Station on Sheep Canyon Road

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/19/62	7/23/62	7/19/62	7/23/62	7/16/62
Hour	1432	1737	1358	1700	1536
Scaler No.	5390	5390	5478	5392	CH-I
10^3 Total Counts	289	262	2560	6.03	35.3
Minutes	1.00	8.45	1.82	2.00	2.00
10^3 c/m Sample	289	31.0	1410	3.01	17.6
Bkg., c/m	471	528	891	760	254
Coincidence Correction	1.2×10^4	0	1.9×10^5	0	0
10^3 (c/m-Bkg.)	299	30.4	1600	2.25	17.4
Geometry Factor	85.13	85.54	25.15	1413	11,921
Decay Factor, H + 12 hrs.	16.33	35.3	16.25	33.0	5.80
10^6 c/m/ft^2, H + 12 hrs.	95.9	21.2	151	24.2	278
Inst. Eff. Factor	0.9896	0.9943	0.995	1.00	1.00
Decay Factor, H + 100 hrs.	1.28	2.76	1.27	2.58	0.453
CH-I, Shelf 5 Factor	140	139.4	474	8.44	1.00
c/m/ft^2, CH-I, H + 100 hrs.	625	138	984	159	1818

B.41

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 35-20B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 45 miles NW of Corn Creek Ranger Station on Sheep Canyon Road

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/19/62	7/23/62	7/19/62	7/23/62	7/16/62
Hour	1518	1754	1507	1510	1549
Scaler No.	5390	5390	5478	5392	CH-I
10^3 Total Counts	383	165	2560	4.71	37.1
Minutes	1.0	7.44	1.83	2.00	2.00
10^3c/m Sample	383	22.2	1400	2.36	18.6
Bkg., c/m	471	528	795	663	254
Coincidence Correction	$2x10^4$	0	$2x10^5$	0	0
10^3 (c/m-Bkg.)	403	21.6	1600	1.69	18.3
Geometry Factor	85.13	85.54	25.15	1413	11,921
Decay Factor, H + 12 hrs.	16.49	35.3	16.25	32.7	5.80
10^6 c/m/ft^2, H + 12 hrs.	130	15.0	151	18.1	292
Inst. Eff. Factor	0.9896	0.9943	0.995	1.00	1.00
Decay Factor, H + 100 hrs.	1.29	2.76	1.27	2.55	0.453
CH-I, Shelf 5 Factor	140	139.4	474.0	8.44	1.00
c/m/ft^2, CH-I, H + 100 hrs.	846	98.1	984	118	1912

B.42

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 56-1B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area: 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 0.5 mile N of Kane Springs Wash Road on U. S. 93

	Aliquot <44μ Fraction 1st Wash		Total <44μ Fraction 2nd Wash	Total >44μ Fraction	Residual on pellets	Total before Processing
Date	7/18/62	7/18/62	7/24/62	7/18/62	7/24/62	7/17/62
Hour	1320	1400	1608	1405	0823	1453
Scaler	5390	5478	5390	5478	5392	CH-I
10^3 Total Counts	21.6	213.	7.41	120.	1.15	10.9
Minutes	3.0	5.96	6.00	3.25	2.00	5.00
10^3c/m/Sample	7.19	35.9	1.23	37.1	0.58	2.18(1/56.5)
Bkg. c/m	486.	842.	632.	842.	582.	232.
Coincidence Correction	0	0	0	0	0	0
10^3(c/m-Bkg.)	6.71	35.1	0.60	36.2	Bkg.	0.03
Geometry Factor	87.23	25.32	85.48	25.32		11921.
Decay Factor H + 12 hrs.	12.42	12.42	37.0	12.42		9.0
10^6c/m/ft^2 H + 12 hrs.	1.68	2.54	0.44	2.62		0.85
Inst. Eff. Factor	1.014	1.00	0.9936	1.00		1.00
Decay Factor H + 100 hrs.	0.970	0.970	2.89	0.970		0.703
CH-1, shelf 5 Factor	136.7	470.8	139.0	470.8		1.00
c/m/ft^2, CH-5 H + 100 hrs.	11.1	16.7	2.87	17.2		5.59

B.43

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 56-2B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 2.6 miles N of Kane Springs Wash Road on U.S. 93

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/18/62	7/18/62	7/18/62	7/18/62	6/17/62
Hour	1328	1410	1413	1425	1527
Scaler No.	5390	5478	5478	5477	CH-I
10^3 Total Counts	19.3	106	111	4.57	17.3
Minutes	3.30	3.20	2.15	10.0	5.00
10^3c/m Sample	5.84	31.7	51.5	0.46	3.47 (X 1/11.3)
Bkg., c/m	486	842	842	380	232
Coincidence Correction	0	0	0	0 (X40)	0
10^3 (c/m-Bkg.)	5.35	30.9	50.6	0.08 (EST)	0.29
Geometry Factor	87.23	25.32	25.32	51.46	11,921
Decay Factor, H + 12 hrs.	12.42	12.50	12.50	12.58	9.5
10^6 c/m/ft^2, H + 12 hrs.	1.34	2.26	3.69	0.46	7.50
Inst. Eff. Factor	1.014	1.00	1.00	1.242	1.00
Decay Factor, H + 100 hrs.	0.970	0.976	0.976	0.982	0.742
CH-I, Shelf 5 Factor	136.7	470.8	470.8	231.7	1.00
c/m/ft^2, CH-I, H + 100 hrs.	8.88	14.8	24.2	3.73	49.1

B.44

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 56-3B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area: 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 4.5 miles N of Kane Springs Wash Road on U. S. 93

	Aliquot <44μ Fraction 1st Wash		Total <44μ Fraction 2nd Wash	Total >44μ Fraction	Residual on Pellets	Total before Processing
Date	7/18/62	7/18/62	7/21/62	7/18/62	7/20/62	7/17/62
Hour	1405	1427	0915	1430	1700	1552
Scaler	5390	5478	5477	5478	5392	CH-I
10^3 Total Counts	60.0	71.0	51.2	87.5	1.73	11.0
Minutes	6.15	3.73	7.18	2.75	2.00	3.0
10^3c/m/Sample	9.76	19.0	7.13	31.8	0.86	3.67(x1/11.3)
Bkg. c/m	486.	842.	440.	842.	635.	232.
Coincidence Correction	0	0	0	0	0	0
10^3(c/m-Bkg.)	9.27	18.2	6.69	31.0	0.23 (Est)	0.30
Geometry Factor	87.23	25.32	31.00	25.32	1413.	11921.
Decay Factor H + 12 hrs.	12.49	12.58	23.28	12.58	20.2	9.30
10^6c/m/ft^2 H + 12 hrs.	2.33	1.34	1.11	2.28	1.51	7.77
Inst. Eff. Factor	1.014	1.00	0.9925	1.00	1.00	1.00
Decay Factor H + 100 hrs.	0.975	0.982	1.82	0.982	1.58	0.726
CH-I, shelf 5 Factor	136.7	470.8	384.5	470.8	8.44	1.00
c/m/ft^2, CH-5 H + 100 hrs.	15.5	8.75	7.23	14.9	9.89	50.9

B.45

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 56-4B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area: 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 6.5 miles N of Kane Springs Wash Road on U. S. 93

	Aliquot <44μ Fraction 1st Wash		Total <44μ Fraction 2nd Wash	Total >44μ Fraction	Residual on Pellets	Total before Processing
Date	7/18/62	7/18/62	7/21/62	7/18/62	7/20/62	7/17/62
Hour	1410	1439	0925	1445	1600	1606
Scaler	5390	5478	5477	5478	5392	CH-I
10^3 Total Counts	31.3	78.3	51.2	256.	1.76	0.87
Minutes	2.00	3.47	3.02	2.89	2.00	1.00
10^3c/m/Sample	15.7	22.6	17.0	88.6	0.88	0.87
Bkg. c/m	486.	842.	440.	842.	635.	232.
Coincidence Correction	0	0	0	0	0	0
10^3(c/m-Bkg.)	15.2	21.7	16.5	87.8	0.24 (Est)	0.64
Geometry Factor	87.23	25.32	31.00	25.32	1413.	11921.
Decay Factor H + 12 hrs.	12.58	12.58	23.36	12.58	20.4	9.4
10^6c/m/ft^2 H + 12 hrs.	3.85	1.59	2.76	6.44	1.62	16.4
Inst. Eff. Factor	1.014	1.00	0.9925	1.00	1.00	1.00
Decay Factor H + 100 hrs.	0.982	0.982	1.82	0.982	1.59	0.734
CH-I, shelf 5 Factor	136.7	470.8	384.5	470.8	8.44	1.00
c/m/ft^2, CH-5 H + 100 hrs.	25.5	10.4	17.8	42.2	10.6	108.

B.46

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 56-5B   Dare Collected: 7/15/62   Shot Name: Small Boy   Sample Area 4.336 ft^2
Standard Used: Cs137   Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 8.5 miles N of Kane Springs Wash Road on U.S. 93

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residuel on Pellets	Total Before Processing
Date	7/18/62	7/18/62	7/18/62	7/18/62	7/17/62
Hour	1419	1449	1458	1509	1620
Scaler No.	5390	5478	5478	5477	CH-I
10^3 Total Counts	68.4	132	256	5.32	1.30
Minutes	3.0	2.65	1.29	7.0	1.0
10^3c/m Sample	22.8	49.6	198	0.760	1.30
Bkg., c/m	486	842	842	380	232
Coincidence Correction	0	0	0	0 (X40)	0
10^3 (c/m-Bkg.)	22.3	48.8	198	0.38 (EST)	1.07
Geometry Factor	87.23	25.32	25.32	51.46	11,921
Decay Factor, H + 12 hrs.	12.58	12.66	12.66	12.66	9.3
10^6 c/m/ft^2, H + 12 hrs.	5.64	3.61	14.6	2.28	27.3
Inst. Eff. Factor	1.014	1.00	1.00	1.242	1.00
Decay Factor, H + 100 hrs.	0.982	0.989	0.989	0.989	0.726
CH-I, Shelf 5 Factor	136.7	470.8	470.8	231.7	1.00
c/m/ft^2, CH-I, H + 100 hrs.	37.5	23.6	95.8	18.5	179

B.47

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 56-6B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area: 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 10.5 miles N of Kane Springs Wash Road on U. S. 93

	Aliquot <44μ Fraction 1st Wash		Total <44μ Fraction 2nd Wash	Total >44μ Fraction	Residual on Pellets	Total before Processing
Date	7/19/62	7/18/62	7/24/62	7/18/62	7/24/62	7/17/62
Hour	0835	1755	1013	1800	1035	1633
Scaler	5390	5478	5390	5478	5392	CH-I
10^3 Total Counts	132.	135.	13.1	256.	1.50	1.56
Minutes	4.65	2.98	6.78	1.24	2.00	1.00
10^3c/m/Sample	28.5	45.3	1.93	206.	0.75	1.56
Bkg. c/m	471.	842.	632.	842.	582.	232.
Coincidence Correction	0	0	0	0	0	0
10^3(c/m-Bkg.)	28.0	44.5	1.30	206.	0.17 (Est)	1.33
Geometry Factor	85.13	25.32	85.48	25.32	1413.	11921.
Decay Factor H + 12 hrs.	15.39	13.1	35.3	13.1	36.2	9.3
10^5c/m/ft^2 H + 12 hrs.	8.46	3.40	0.92	15.8	1.96	34.0
Inst. Eff. Factor	0.9896	1.00	0.9936	1.00	1.00	1.00
Decay Factor H + 100 hrs.	1.20	1.02	2.80	1.02	2.83	0.726
CH-I, shelf 5 Factor	140.0	470.8	139.0	470.8	8.44	1.00
c/m/ft^2, CH-5 H + 100 hrs.	54.9	22.3	6.01	103.	12.3	223.

B.48

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 56-7B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs^{137} Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 12.5 miles N of Kane Springs Wash Road on U.S. 93

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/18/62	7/18/62	7/18/62	7/20/62	7/17/62
Hour	1427	1507	1512	1615	1646
Scaler No.	5390	5478	5478	5392	CH-I
10^3 Total Counts	67.3	357	256	2.38	1.79
Minutes	2.0	2.95	0.93	2.00	1.00
10^3c/m Sample	33.7	121	275	1.19	1.79
Bkg., c/m	486	842	842	635	232
Coincidence Correction	0	0	0	0	0
10^3 (c/m-Bkg.)	33.2	120	275	0.56	1.56
Geometry Factor	87.23	25.32	25.32	1413	11,921
Decay Factor, H + 12 hrs.	12.58	12.66	12.66	20.5	9.3
10^6 c/m/ft^2, H + 12 hrs.	8.40	8.87	20.3	3.72	39.9
Inst. Eff. Factor	1.014	1.00	1.00	1.00	1.00
Decay Factor, H + 100 hrs.	0.982	0.989	0.989	1.60	0.726
CH-I, Shelf 5 Factor	136.7	470.8	470.8	8.44	1.00
c/m/ft^2, CH-I, H + 100 hrs.	55.8	58.1	133	24.3	261

B.49

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 56-8B   Date Collected: 7/15/62   Shot Name: Small Boy   Sample Area 4.336 ft^2
Standard Used: Cs137   Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 14.5 miles N of Kane Springs Wash Road on U.S. 93

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/18/62	7/18/62	7/18/62	7/20/62	7/17/62
Hour	1431	1539	1545	1625	1656
Scaler No.	5390	5473	5478	5392	CH-I
10^3 Total Counts	102	512	256	2.38	2.43
Minutes	2.0	6.58	0.6	2.00	1.00
10^3c/m Sample	51.0	77.8	427	1.19	2.43
Bkg., c/m	486	842	842	635	232
Coincidence Correction	0	0	0	0	0
10^3 (c/m-Bkg.)	50.5	77.0	426	0.55	2.20
Geometry Factor	87.23	25.32	25.32	1413	11,921
Decay Factor, H + 12 hrs.	12.58	12.75	12.78	20.5	9.3
10^6 c/m/ft^2, H + 12 hrs.	12.8	5.73	31.4	3.69	56.2
Inst. Eff. Factor	1.014	1.00	1.00	1.00	1.00
Decay Factor, H + 100 hrs.	0.982	0.996	0.998	1.60	0.726
CH-I, Shelf 5 Factor	136.7	470.8	470.8	8.44	1.00
c/m/ft^2, CH-I, H + 100 hrs.	84.8	37.5	208	24.2	368

B.50

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 56-9B   Date Collected: 7/15/62   Shot Name: Small Boy   Sample Area 4.336 ft^2
Standard Used: Cs^{137} Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 16.6 miles N of Kane Springs Wash Road on U.S. 93

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/18/62	7/18/62	7/18/62	7/20/62	7/17/62
Hour	1441	1552	1553	1445	1708
Scaler No.	5390	5478	5478	5392	CH-I
10^3 Total Counts	185	346	256	2.61	2.38
Minutes	3.01	2.15	0.96	2.00	1.00
10^3c/m Sample	61.4	161	266	1.31	2.38
Bkg., c/m	486	842	842	611	232
Coincidence Correction	0	0	0	0	0
10^3 (c/m-Bkg.)	60.9	160	265	0.69	2.15
Geometry Factor	87.23	25.32	25.32	1413	11,921
Decay Factor, H + 12 hrs.	16.25	16.25	16.25	20.2	9.42
10^6 c/m/ft^2, H + 12 hrs.	19.9	15.2	25.1	4.57	55.7
Inst. Eff. Factor	1.014	1.00	1.00	1.00	1.00
Decay Factor, H + 100 hrs.	1.27	1.27	1.27	1.58	0.736
CH-I, Shelf 5 Factor	136.7	470.8	470.8	8.44	1.00
c/m/ft^2, CH-I, H + 100 hrs.	132	99.5	165	30.0	365

B.51

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 56-10B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area: 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 18.6 miles N of Kane Springs Wash Road on U. S. 93

	Aliquot <44μ Fraction 1st Wash		Total <44μ Fraction 2nd Wash	Total >44μ Fraction	Residual on Pellets	Total before Processing
Date	7/19/62	7/19/62	7/21/62	7/19/62	7/20/62	7/17/62
Hour	0932	0940	1004	0942	1710	1717
Scaler	5390	5478	5477	5478	5392	CH-I
10^3 Total Counts	251.	1020.	51.2	256.	4.55	7.62
Minutes	1.28	[illegible]	0.47	0.57	2.00	1.00
10^3c/m/Sample	196.	551.	109.	449.	2.27	7.62
Bkg. c/m	471.	837.	440.	837.	635.	232.
Coincidence Correction	0	0	0	0	0	0
10^3(c/m-Bkg.)	196.	550.	109.	448.	1.64	7.39
Geometry Factor	85.13	25.15	31.00	25.15	1413.	11921.
Decay Factor H + 12 hrs.	15.53	15.53	23.44	15.53	20.8	9.42
10^6c/m/ft^2 H + 12 hrs.	59.8	49.6	18.3	40.4	11.1	191.
Inst. Eff. Factor	0.9896	0.995	0.9925	0.995	1.00	1.00
Decay Factor H + 100 hrs.	1.21	1.21	1.83	1.21	1.62	0.736
CH-I, shelf 5 Factor	140.0	474.0	384.5	474.0	8.44	1.00
c/m/ft^2, CH-I H + 100 hrs.	386.	322.	119.	263.	72.6	1254.

B.52

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 56-11A Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs^{137} Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 20.5 miles N of Kane Springs Wash Road on U.S. 93

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/19/62	7/24/62	7/19/62	7/24/62	7/16/62
Hour	0912	1632	0843	1245	1654
Scaler No.	5390	5390	5478	5392	CH-I
10^3 Total Counts	378	41.7	2560	7.05	24.9
Minutes	1.0	3.60	3.82	4.00	2.0
10^3c/m Sample	378	11.6	670	1.41	12.4
Bkg., c/m	471	632	837	543	263
Coincidence Correction	0	0	$6.\times10^4$	0	0
10^3 (c/m-Bkg.)	377	11.0	730	0.87	12.2
Geometry Factor	85.13	85.48	25.15	1413	11,921
Decay Factor, H + 12 hrs.	15.46	37.0	15.46	36.8	5.94
10^6 c/m/ft^2, H + 12 hrs.	114	8.02	65.5	10.4	199
Inst. Eff. Factor	0.9896	0.9936	0.995	1.00	1.00
Decay Factor, H + 100 hrs.	1.21	2.89	1.21	2.87	0.464
CH-I, Shelf 5 Factor	140.0	139.0	474.0	8.44	1.00
c/m/ft^2, CH-I, H + 100 hrs.	743	52.4	428.0	68.0	1305

B.53

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 56-11B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area: 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 20.5 miles N of Kane Springs Wash Road on U. S. 93

	Aliquot <44µ Fraction 1st Wash		Total <44µ Fraction 2nd Wash	Total >44µ Fraction	Residual on Pellets	Total before Processing
Date	7/18/62	7/18/62		7/18/62	7/20/62	7/16/62
Hour	1450	1602		1607	1715	1703
Scaler	5390	5478		5478	5392	CH-I
10^3 Total Counts	512.	512.		256.	4.49	24.8
Minutes	2.50	1.46		0.42	2.00	2.00
10^3c/m/Sample	204.	350.	Not Required	610.	2.25	12.4
Bkg. c/m	486.	842.		842.	635.	264.
Coincidence Correction	0	0		5.00×10^4	0	0
10^3 (c/m-Bkg.)	203.	349.		660.	1.61	12.1
Geometry Factor	87.23	25.32		25.32	1413.	11921.
Decay Factor H + 12 hrs.	12.58	12.58		12.58	20.7	6.08
10^6c/m/ft^2 H + 12 hrs.	51.4	25.7		48.5	10.9	200.
Inst. Eff. Factor	1.014	1.00		1.00	1.00	1.00
Decay Factor H + 100 hrs.	0.982	0.982		0.982	1.62	0.475
CH-I, shelf 5 Factor	136.7	470.8		470.8	8.44	1.00
c/m/ft^2, CH-5 H + 100 hrs.	341.	168.		317.	71.3	1331.

B.54

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 56-12B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area: 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 22.6 miles N of Kane Springs Wash Road on U. S. 93

	Aliquot <44μ Fraction 1st Wash		Total <44μ Fraction 2nd Wash	Total >44μ Fraction	Residual on Pellets	Total before Processing
Date	7/18/62	7/18/62	7/21/62	7/18/62	7/20/62	7/16/62
Hour	1500	1605	0939	1610	1730	1739
Scaler	5390	5478	5390	5478	5392	CH-I
10^3 Total Counts	307.	512.	51.2	256.	6.42	25.4
Minutes	2.10	1.14	0.51	0.25	2.00	2.00
10^3c/m/Sample	146.	450.	100.	1020.	3.21	12.7
Bkg. c/m	486.	842.	440.	842.	635.	242.
Coincidence Correction	[illegible]	[illegible]	0	1.04×10^5	0	0
10^3(c/m/-Bkg.)	[illegible]	450.	100.	1100.	2.57	12.4
Geometry Factor	87.23	25.32	31.00	25.32	1413.	11921.
Decay Factor H + 12 hrs.	12.89	12.89	23.36	12.89	20.7	6.08
10^6c/m/ft^2 H + 12 hrs.	37.6	33.9	16.7	82.9	17.4	207.
Inst. Eff. Factor	1.014	1.002	0.9925	1.002	1.00	1.00
Decay Factor H + 100 hrs.	1.01	1.01	1.82	1.01	1.62	0.475
CH-I, shelf 5 Factor	136.7	470.8	384.5	470.8	8.44	1.00
c/m/ft^2, CH-5 H + 100 hrs.	251.	223.	108.	546.	114.	1364.

B.55

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 56-13B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area: 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 24.6 miles N of Kane Springs Wash Road on U. S. 93

	Aliquot <44μ Fraction 1st Wash		Total <44μ Fraction 2nd Wash	Total >44μ Fraction	Residual on Pellets	Total before Processing
Date	7/18/62	7/18/62	7/21/62	7/18/62	7/20/62	7/16/62
Hour	1645	1615	1008	1618	1740	1752
Scaler	5390	5478	5390	5478	5392	CH-I
10^3 Total Counts	512.	512.	56.9	256.	4.17	17.3
Minutes	4.16	0.75	2.93	0.54	2.00	2.00
10^3c/m/Sample	123.	683.	22.8	470.	2.09	8.67
Bkg. c/m	478.	842.	503.	842.	635.	242.
Coincidence Correction	0	0	0	0	0	0
10^3(c/m-Bkg.)	122.	682.	22.3	470.	1.45	8.43
Geometry Factor	87.23	25.32	84.76	25.32	1413.	11921.
Decay Factor H + 12 hrs.	12.96	12.96	23.44	12.96	20.8	6.1
10^6c/m/ft^2 H + 12 hrs.	31.8	51.6	10.2	35.6	9.84	141.
Inst. Eff. Factor	1.014	1.00	0.9852	1.00	1.00	1.00
Decay Factor H + 100 hrs.	1.01	1.01	1.83	1.01	1.62	0.476
CH-I, shelf 5 Factor	136.7	470.8	140.6	470.8	8.44	1.00
c/m/ft^2, CH-5 H + 100 hrs.	211.	338.	66.0	233.	64.3	925.

B.56

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 56-14B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 26.7 miles N of Kane Springs Wash Road on U.S. 93

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/19/62	7/18/62	7/18/62	7/19/62	7/16/62
Hour	0842	1805	1810	1020	1806
Scaler No.	5390	5478	5478	5477	CH-I
10^3 Total Counts	106	512	512	4.75	11.4
Minutes	1.15	1.36	0.60	2.00	2.00
10^3c/m Sample	92.4	376	427	2.38	5.71
Bkg., c/m	471	842	842	360	242
Coincidence Correction	0	0.02×10^5	0.04×10^5	0	0
10^3 (c/m-Bkg.)	91.9	377	430	2.02 (X40)	5.47
Geometry Factor	85.13	25.32	25.32	42.61	11,921
Decay Factor, H + 12 hrs.	11.68	13.10	11.98	11.98	6.1
10^6 c/m/ft^2, H + 12 hrs.	21.1	28.8	30.1	9.49	91.7
Inst. Eff. Factor	0.9896	1.00	1.00	1.028	1.00
Decay Factor, H + 100 hrs.	0.912	1.02	0.936	0.936	0.476
CH-I, Shelf 5 Factor	140.0	470.8	470.8	279.8	1.00
c/m/ft^2, CH-I, H + 100 hrs.	137	189	197	64.0	601

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 56-15B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area: 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 28.0 miles N of Kane Springs Wash Road on U. S. 93

	Aliquot <44μ Fraction 1st Wash		Total <44μ Fraction 2nd Wash	Total >44μ Fraction	Residual on Pellets	Total before Processing
Date	7/18/62	7/18/62	7/21/62	7/18/62	7/20/62	7/17/62
Hour	1652	1621	0948	1625	1735	1726
Scaler	5390	5478	5477	5478	5392	CH-I
10^3 Total Counts	215.	301.	51.2	256.	3.19	3.13
Minutes	4.15	1.54	1.035	0.62	2.00	1.00
10^3c/m/Sample	51.8	196.	49.5	413.	1.59	3.13
Bkg. c/m	478.	842.	440.	842.	635.	232.
Coincidence Correction	0	0	0	0.07×10^5	0	0
10^3(c/m-Bkg.)	51.3	195.	49.0	420.	0.96	2.90
Geometry Factor	87.23	25.32	31.00	25.32	1413.	11921.
Decay Factor H + 12 hrs.	12.96	12.96	23.44	12.96	20.7	9.42
10^6c/m/ft^2 H + 12 hrs.	13.4	14.8	8.21	31.8	6.46	75.1
Inst. Eff. Factor	1.014	1.00	0.9925	1.00	1.00	1.00
Decay Factor H + 100 hrs.	1.01	1.01	1.83	1.01	1.62	0.736
CH-I, shelf 5 Factor	136.7	470.8	384.5	470.8	8.44	1.00
c/m/ft^2, CH-5 H + 100 hrs.	88.8	96.5	53.4	208.	42.4	492.

B.58

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 115-3B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 13 miles W of Enterprise on Utah 120

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/19/62		7/19/62	7/19/62	7/18/62
Hour	1011		1013	1035	0900
Scaler No.	5390		5478	5477	5392
10^3 Total Counts	10.6		256	4.52	7.31
Minutes	1.5		3.16	10.0	5.00
10^3c/m Sample	7.10	Not Required	81.0	0.45	1.46
Bkg., c/m	471		849	360	1083
Coincidence Correction	0		0	0 (X40)	0
10^3 (c/m-Bkg.)	6.63		80.2	0.09 (EST)	0.38 (NSV)
Geometry Factor	85.13		25.15	42.61	
Decay Factor, H + 12 hrs.	15.61		15.61	15.53	
10^6 c/m/ft^2, H + 12 hrs.	2.03		7.26	0.56	
Inst. Eff. Factor	0.9896		0.995	1.028	
Decay Factor, H + 100 hrs.	1.22		1.22	1.21	
CH-I, Shelf 5 Factor	140.0		474.0	279.8	
c/m/ft^2, CH-I, H + 100 hrs.	13.2		47.5	3.75	

B.59

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 115-7B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 19 miles W of Enterprise on Utah 120

	<44µ Fraction 1st Wash	<44µ Fraction 2nd Wash	>44µ Fraction	Residual on Pellets	Total Before Processing
Date	7/19/62	7/24/62	7/19/62	7/24/62	7/18/62
Hour	0944	1650	0931	0830	1446
Scaler No.	5390	5390	5478	5392	CH-I
10^3 Total Counts	12.4	9.22	35.7	1.15	0.33
Minutes	1.5	7.21	3.65	2.00	1.00
10^3c/m Sample	8.27	1.28	9.78	0.58	0.33
Bkg., c/m	471	632	837	582	250
Coincidence Correction	0	0	0	0	0
10^3 (c/m-Bkg.)	7.80	0.65	8.95	Bkg	0.08 (NSV)
Geometry Factor	85.13	85.48	25.15		
Decay Factor, H + 12 hrs.	15.53	37	15.77		
10^6 c/m/ft^2, H + 12 hrs.	2.38	0.47	0.82		
Inst. Eff. Factor	0.9896	0.9936	0.996		
Decay Factor, H + 100 hrs.	1.21	2.89	1.23		
CH-I, Shelf 5 Factor	140.0	139.0	474.0		
c/m/ft^2, CH-I, H + 100 hrs.	15.4	3.08	5.33		

B.60

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 115-10B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 23.5 miles W of Enterprise on Utah 120

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/19/62	7/24/62	7/19/62	7/24/62	7/18/62
Hour	1018	1715	1000	0835	1451
Scaler No.	5390	5390	5478	5392	CH-I
10^3 Total Counts	13.4	22.0	44.3	1.26	0.38
Minutes	2.0	10.60	4.50	2.00	1.00
10^3c/m Sample	6.71	2.08	9.83	0.63	0.38
Bkg., c/m	471	632	849	582	250
Coincidence Correction	0	0	0	0	0
10^3 (c/m-Bkg.)	6.24	1.45	8.99	0.05 (EST)	0.13 (NSV)
Geometry Factor	85.13	85.48	25.15	1413	
Decay Factor, H + 12 hrs.	15.69	37	15.61	36	
10^6 c/m/ft^2, H + 12 hrs.	1.92	1.06	0.81	0.55	
Inst. Eff. Factor	0.9896	0.9936	0.996	1.00	
Decay Factor, H + 100 hrs.	1.23	2.89	1.22	2.81	
CH-I, Shelf 5 Factor	140.0	139.0	474.0	8.44	
c/m/ft^2, CH-I, H + 100 hrs.	12.5	6.89	5.31	3.61	

B.61

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 115-12B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 26.5 miles W of Enterprise on Utah 120

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/19/62	7/23/62	7/19/62	7/23/62	7/18/62
Hour	1037	1610	1038	1055	1015
Scaler No.	5390	5390	5478	5392	5392
10^3 Total Counts	15.2	10.7	166	1.15	17.2
Minutes	2.0	6.025	7.61	2.00	10.0
10^3c/m Sample	7.60	1.78	21.8	0.57	1.73
Bkg., c/m	471	528	825	585	941
Coincidence Correction	0	0	0	0	0
10^3 (c/m-Bkg.)	7.12	1.25	21.0	Bkg	0.78
Geometry Factor	85.13	85.54	25.15		1413
Decay Factor, H + 12 hrs.	15.69	33.2	15.69		11.8
10^6 c/m/ft^2, H + 12 hrs.	2.19	0.82	1.91		3.01
Inst. Eff. Factor	0.9896	0.9943	0.995		1.00
Decay Factor, H + 100 hrs.	1.23	2.59	1.23		0.922
CH-I, Shelf 5 Factor	140.0	139.4	474.0		8.44
c/m/ft^2, CH-I, H + 100 hrs.	14.3	5.33	12.5		19.76

B.62

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 115-15B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 31.0 miles W of Enterprise on Utah 120

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/19/62	7/23/62	7/19/62	7/23/62	7/18/62
Hour	1042	1603	1045	1042	1455
Scaler No.	5390	5477	5478	5392	CH-I
10^3 Total Counts	11.2	38.9	50.9	1.30	0.37
Minutes	2.27	6.00	4.00	2.00	1.00
10^3c/m Sample	4.96	6.48	12.7	0.65	0.37
Bkg., c/m	471	460	825	585	250
Coincidence Correction	0	0	0	0	0
10^3 (c/m-Bkg.)	4.48	6.02	12.0	0.07 (EST)	0.12 (NSV)
Geometry Factor	85.13	31.15	25.15	1413	
Decay Factor, H + 12 hrs.	15.69	33.2	15.69	32	
10^6 c/m/ft^2, H + 12 hrs.	1.38	1.44	1.09	0.70	
Inst. Eff. Factor	0.9396	0.997	0.995	1.00	
Decay Factor, H + 100 hrs.	1.23	2.59	1.23	2.50	
CH-I, Shelf 5 Factor	140.0	382.7	474.0	8.44	
c/m/ft^2, CH-I, H + 100 hrs.	3.97	9.39	7.14	4.58	

B.63

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 115-17B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 24.0 miles W of Enterprise on Utah 120

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/23/62		7/23/62	7/23/62	7/23/62
Hour	1437		1437	1045	0913
Scaler No.	5390		5478	5392	5392
10^3 Total Counts	33.9		59.7	1.06	1.87
Minutes	8.87		7.00	2.00	2.00
10^3c/m Sample	3.82	Not Required	8.53	0.53	0.93
Bkg., c/m	528		1181	585	585
Coincidence Correction	0		0	0	0
10^3 (c/m-Bkg.)	3.29		7.34	Bkg	0.35 (NSV)
Geometry Factor	85.54		27.04		
Decay Factor, H + 12 hrs.	33.2		33.2		
10^6 c/m/ft^2, H + 12 hrs.	2.15		1.52		
Inst. Eff. Factor	0.9943		1.069		
Decay Factor, H + 100 hrs.	2.59		2.59		
CH-I, Shelf 5 Factor	139.4		440.9		
c/m/ft^2, CH-I, H + 100 hrs.	14.0		10.6		

B.64

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 115-18B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 35.5 miles W of Enterprise on Utah 120

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/19/62	7/23/62	7/19/62	7/23/62	7/18/62
Hour	1007	1808	1008	1650	1425
Scaler No.	5390	5390	5478	5392	CH-I
10^3 Total Counts	25.6	17.0	73.9	1.58	0.40
Minutes	3.00	6.60	4.16	2.00	1.00
10^3c/m Sample	8.53	2.57	17.8	0.79	0.40
Bkg., c/m	471	528	849	760	250
Coincidence Correction	0	0	0	0	0
10^3 (c/m-Bkg.)	8.06	2.04	16.9	0.03 (EST)	0.15 (NSV)
Geometry Factor	85.13	85.54	25.15	1413	
Decay Factor, H + 12 hrs.	15.7	33.2	15.7	33.0	
10^6 c/m/ft^2, H + 12 hrs.	2.48	1.34	1.54	0.32	
Inst. Eff. Factor	0.9896	0.9943	0.995	1.00	
Decay Factor, H + 100 hrs.	1.23	2.59	1.23	2.58	
CH-I, Shelf 5 Factor	140.0	139.4	474.0	8.44	
c/m/ft^2, CH-I, H + 100 hrs.	16.1	8.69	10.1	1.90	

B.65

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 115-19B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 9.8 miles E of US 93 on Nevada 25

	<44µ Fraction 1st Wash	<44µ Fraction 2nd Wash	>44µ Fraction	Residual on Pellets	Total Before Processing
Date	7/24/62		7/24/62	7/23/62	7/23/62
Hour	0921		0924	1740	1410
Scaler No.	5390		5478	5392	539?
10^3 Total Counts	32.9		30.3	1.83	2.15
Minutes	7.25		5.25	3.00	2.00
10^3c/m Sample	4.54	Not Required	5.77	0.61	1.08
Bkg., c/m	457		1166	760	663
Coincidence Correction	0		0	0	0
10^3 (c/m-Bkg.)	4.09		460	Bkg	0.41 (NSV)
Geometry Factor	85.48		28.43		
Decay Factor, H + 12 hrs.	35.8		35.8		
10^6 c/m/ft^2, H + 12 hrs.	2.88		1.08		
Inst. Eff. Factor	0.9936		1.124		
Decay Factor, H + 100 hrs.	2.80		2.80		
CH-I, Shelf 5 Factor	139.0		419.3		
c/m/ft^2, CH-I, H + 100 hrs.	18.9		7.96		

B.66

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 115-21B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 6.8 miles E of U.S. 93 on Nevada 25

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/19/62		7/19/62	7/19/62	7/18/62
Hour	0940		0925	1131	1500
Scaler No.	5390		5478	5477	CH-I
10^3 Total Counts	27.1		658	2.02	0.37
Minutes	2.00		8.15	3.90	1.00
10^3c/m Sample	13.5	Not Required	80.7	0.52	0.37
Bkg., c/m	471		837	360	250
Coincidence Correction	0		0	0 (X40)	0
10^3 (c/m-Bkg.)	13.1		79.9	0.16 (EST)	0.12 (NSV)
Geometry Factor	85.13		25.15	42.61	
Decay Factor, H + 12 hrs.	15.56		15.52	15.85	
10^6 c/m/ft^2, H + 12 hrs.	4.00		7.19	0.98	
Inst. Eff. Factor	0.9896		0.996	1.028	
Decay Factor, H + 100 hrs.	1.22		1.21	1.24	
CH-I, Shelf 5 Factor	140.0		474.0	279.8	
c/m/ft^2, CH-I, H + 100 hrs.	26.1		46.8	6.59	

B.67

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 115-24B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 2.3 miles E of U.S. 93 on Nevada 25

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellete	Total Before Processing
Date	7/19/62		7/19/62	7/19/62	
Hour	1448		1342	1419	
Scaler No.	5390		5478	5477	
10^3 Total Counts	15.5		3.05	0.80	
Minutes	6.18		3.26	2.10	
10^3 c/m Sample	2.51	No Data	0.94	0.38	No Data
Bkg., c/m	471		891	360	
Coincidence Correction	0		0	0	
10^3 (c/m-Bkg.)	2.04		0.05	0.02 (EST) (X40)	
Geometry Factor	85.13		25.15	42.61	
Decay Factor, H + 12 hrs.	16.38		16.20	16.30	
10^6 c/m/ft^2, H + 12 hrs.	0.66		0.004	0.13	
Inst. Eff. Factor	0.9896		0.995	1.028	
Decay Factor, H + 100 hrs.	1.28		1.27	1.27	
CH-I, Shelf 5 Factor	140.0		474.0	279.8	
c/m/ft^2, CH-I, H + 100 hrs.	4.26		0.63	0.86	

B.68

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 130-1B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 1.5 mi N of U.S. Hwy 91 on Utah Hwy 18

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/24/62		7/24/62	7/24/62	
Hour	1654		1652	1646	
Scaler No.	5288		5478	5477	
10^3 Total Counts	11.8		24.6	6.33	
Minutes	6.14		11.82	14.10	
10^3 c/m Sample	1.92	Not Required	2.08	0.45	No Data
Bkg., c/m	495		1158	467	
Coincidence Correction	0		0	0	
10^3 (c/m-Bkg.)	1.43		0.92	Bkg.	
Geometry Factor	18.40		28.43		
Decay Factor, H + 12 hrs.	36.32		36.30		
10^6 c/m/ft^2, H + 12 hrs.	0.22		0.22		
Inst. Eff. Factor	1.166		1.124		
Decay Factor, H + 100 hrs.	2.84		2.84		
CH-I, Shelf 5 Factor	648		419		
c/m/ft^2, CH-I, H + 100 hrs.	1.68		1.61		

B.69

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 130-2B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 3 mi N of U.S. Hwy 91 on Utah Hwy 18

	<44µ Fraction 1st Wash	<44µ Fraction 2nd Wash	>44µ Fraction	Residual on Pellets	Total Before Processing
Date	7/25/62		7/25/62	7/25/62	
Hour	0933		1053	0930	
Scaler No.	5390		5478	5477	
10^3 Total Counts	17.0		130	4.90	
Minutes	6.85		6.00	11.0	
10^3c/m Sample	2.49	Not Required	21.7	0.45	No Data
Bkg., c/m	458		1010	430	
Coincidence Correction	0		0	0	
10^3 (c/m-Bkg.)	2.03		20.7	Bkg.	
Geometry Factor	84.85		27.84		
Decay Factor, H + 12 hrs.	38.81		39.00		
10^6 c/m/ft^2, H + 12 hrs.	1.54		5.18		
Inst. Eff. Factor	0.9863		1.101		
Decay Factor, H + 100 hrs.	3.03		3.05		
CH-I, Shelf 5 Factor	140		428		
c/m/ft^2, CH-I, H + 100 hrs.	9.98		37.4		

B.70

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 130-3B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 4.5 mi N of U.S. Hwy 91 on Utah Hwy 18.

	<44µ Fraction 1st Wash	<44µ Fraction 2nd Wash	>44µ Fraction	Residual on Pellets	Total Before Processing
Date	7/25/62		7/25/62	7/25/62	
Hour	0936		1102	0937	
Scaler No.	5288		5478	5477	
10^3 Total Counts	27.1		10.8	3.33	
Minutes	7.75		6.00	7.80	
10^3c/m Sample	3.50	Not Required	1.80	0.43	No Data
Bkg., c/m	528		1010	430	
Coincidence Correction	0		0	0	
10^3 (c/m-Bkg.)	2.97		0.79	Bkg	
Geometry Factor	16.92		27.84		
Decay Factor, H + 12 hrs.	38.82		39.02		
10^6 c/m/ft^2, H + 12 hrs.	0.45		0.20		
Inst. Eff. Factor	1.073		1.101		
Decay Factor, H + 100 hrs.	3.03		3.05		
CH-I, Shelf 5 Factor	705		428		
c/m/ft^2, CH-I, H + 100 hrs.	3.16		1.43		

B.71

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 130-4B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 6.0 mi N of U.S. Hwy 91, on Utah Hwy 18

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/25/62		7/25/62	7/25/62	
Hour	0952		1110	0950	
Scaler No.	5390		5478	5477	
10^3 Total Counts	8.83		16.2	3.81	
Minutes	7.00		6.00	9.00	
10^3c/m Sample	1.26	Not Required	2.70	0.42	No Data
Bkg., c/m	458		1010	430	
Coincidence Correction	0		0	0	
10^3 (c/m-Bkg.)	0.80		1.69	Bkg.	
Geometry Factor	84.85		27.84		
Decay Factor, H + 12 hrs.	38.88		39.04		
10^6 c/m/ft^2, H + 12 hrs.	0.61		0.42		
Inst. Eff. Factor	.9863		1.101		
Decay Factor, H + 100 hrs.	3.04		3.05		
CH-I, Shelf 5 Factor	140		428		
c/m/ft^2, CH-I, H + 100 hrs.	3.96		3.06		

B.72

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 130-5B   Date Collected: 7/15/62   Shot Name: Small Boy   Sample Area 4.336 ft^2
Standard Used: Cs137   Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 7.5 mi N of U.S. Hwy 91, on Utah Hwy 18

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/[illegible]/62		7/25/62	7/25/62	
Hour	[illegible]		1116	0957	
Scaler No.	[illegible]		5478	5477	
10^3 Total Counts	[illegible]		16.2	3.25	
Minutes	[illegible]		6.00	7.42	
10^3c/m Sample	[illegible]	Not Required	2.70	0.44	No Data
Bkg., c/m	[illegible]		1010	430	
Coincidence Correction			0	0	
10^3 (c/m-Bkg.)	[illegible]		1.69	Bkg.	
Geometry Factor	[illegible]		27.84		
Decay Factor, H + 12 hrs.	[illegible]		39.05		
10^6 c/m/ft^2, H + 12 hrs.	[illegible]		0.42		
Inst. Eff. Factor	[illegible]		1.101		
Decay Factor, H + 100 hrs.	[illegible]		3.05		
CH-I, Shelf 5 Factor	[illegible]		428		
c/m/ft^2, CH-I, H + 100 hrs.	[illegible]		3.06		

B.73

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 130-6B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 9.0 mi N of U.S. Hwy 91 on Utah Hwy 18

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/25/62		7/25/62	7/25/62	
Hour	1402		1538	1537	
Scaler No.	5390		5478	5477	
10^3 Total Counts	8.05		11.3	4.29	
Minutes	6.00		6.00	6.82	
10^3c/m Sample	1.34	Not Required	1.89	0.63	No Data
Bkg., c/m	465		1010	430	
Coincidence Correction	0		0	0	
10^3 (c/m-Bkg.)	0.88		0.88	Bkg.	
Geometry Factor	84.85		27.84		
Decay Factor, H + 12 hrs.	39.50		39.72		
10^6 c/m/ft^2, H + 12 hrs.	0.68		0.22		
Inst. Eff. Factor	0.9863		1.101		
Decay Factor, H + 100 hrs.	3.08		3.10		
CH-I, Shelf 5 Factor	140		428		
c/m/ft^2, CH-I, H + 100 hrs.	4.38		1.61		

B.74

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 130-7B Data Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 10.5 mi N of U.S. Hwy 91 on Utah Hwy 18

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/25/62	Not Required	7/25/62	7/25/62	No Data
Hour	1355		1612	1548	
Scaler No.	5390		5478	5477	
10^3 Total Counts	7.48		10.9	4.26	
Minutes	6.00		6.00	7.72	
10^3c/m Sample	1.25		1.82	0.55	
Bkg., c/m	465		1010	430	
Coincidence Correction	0		0	0	
10^3 (c/m-Bkg.)	0.78		0.81	Bkg.	
Geometry Factor	84.85		27.84		
Decay Factor, H + 12 hrs.	39.48		39.81		
10^6 c/m/ft^2, H + 12 hrs.	0.60		0.21		
Inst. Eff. Factor	0.9863		1.101		
Decay Factor, H + 100 hrs.	3.08		3.11		
CH-I, Shelf 5 Factor	140		428		
c/m/ft^2, CH-I, H + 100 hrs.	3.91		1.49		

B.75

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 130-8B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 12 mi N of U.S. Hwy 91 on Utah Hwy 18

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/25/62		7/25/62	7/25/62	
Hour	1430		1620	1556	
Scaler No.	5390		5478	5477	
10^3 Total Counts	5.39		11.3	3.49	
Minutes	6.00		6.55	6.56	
10^3c/m Sample	0.90	Not Required	1.72	0.53	No Data
Bkg., c/m	465		1010	430	
Coincidence Correction	0		0	0	
10^3 (c/m-Bkg.)	0.43		0.71	Bkg.	
Geometry Factor	84.85		27.84		
Decay Factor, H + 12 hrs.	39.56		39.83		
10^6 c/m/ft^2, H + 12 hrs.	0.34		0.18		
Inst. Eff. Factor	0.9863		1.101		
Decay Factor, H + 100 hrs.	3.09		3.11		
CH-I, Shelf 5 Factor	140		428		
c/m/ft^2, CH-I, H + 100 hrs.	2.17		1.32		

B.76

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 130-9B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 13.5 mi N of U.S. Hwy 91 on Utah Hwy 18

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/25/62		7/25/62	7/25/62	7/19/62
Hour	1425		1625	1603	1405
Scaler No.	5390		5478	5477	5392
10^3 Total Counts	7.84		11.8	3.12	0.53
Minutes	6.07		6.00	6.00	1.00
10^3c/m Sample	1.29	Not Required	1.97	0.52	0.53
Bkg., c/m	465		1010	430	509
Coincidence Correction	0		0	0	0
10^3 (c/m-Bkg.)	0.83		0.96	Bkg.	0.02 (NSV)
Geometry Factor	84.85		27.84		
Decay Factor, H + 12 hrs.	39.55		39.84		
10^6 c/m/ft^2, H + 12 hrs.	0.64		0.25		
Inst. Eff. Factor	0.9863		1.101		
Decay Factor, H + 100 hrs.	3.09		3.11		
CH-I, Shelf 5 Factor	140		428		
c/m/ft^2, CH-I, H + 100 hrs.	4.15		1.77		

B.77

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 130-10B   Date Collected: 7/15/62   Shot Name: Small Boy   Sample Area 4.336 ft^2
Standard Used: Cs137   Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 15 mi N of U.S. Hwy 91 on Utah Hwy 18

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/25/62		7/25/62	7/25/62	
Hour	1506		1634	1612	
Scaler No.	5390		5478	5477	
10^3 Total Counts	8.33		11.2	3.17	
Minutes	6.00		6.00	6.00	
10^3c/m Sample	1.39	Not Required	1.86	0.53	No Data
Bkg., c/m	465		1010	430	
Coincidence Correction	0		0	0	
10^3 (c/m-Bkg.)	0.92		0.85	Bkg.	
Geometry Factor	84.85		27.84		
Decay Factor, H + 12 hrs.	39.66		39.86		
10^6 c/m/ft^2, H + 12 hrs.	0.72		0.22		
Inst. Eff. Factor	0.9863		1.101		
Decay Factor, H + 100 hrs.	3.10		3.11		
CH-I, Shelf 5 Factor	140		428		
c/m/ft^2, CH-I, H + 100 hrs.	4.65		1.57		

B.78 GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 130-11B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 16.5 mi N of U.S. Hwy 91 on Utah Hwy 18

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/25/62		7/25/62	7.25/62	
Hour	1535		1640	1620	
Scaler No.	5390		5478	5477	
10^3 Total Counts	7.37		13.5	3.03	
Minutes	6.00		6.00	6.00	
10^3c/m Sample	1.23	Not Required	2.26	0.51	No Data
Bkg., c/m	465		1010	430	
Coincidence Correction	0		0	0	
10^3 (c/m-Bkg.)	0.76		1.25	Bkg.	
Geometry Factor	84.85		27.84		
Decay Factor, H + 12 hrs.	39.71		39.87		
10^6 c/m/ft^2, H + 12 hrs.	0.59		0.32		
Inst. Eff. Factor	0.9863		1.101		
Decay Factor, H + 100 hrs.	3.10		3.11		
CH-I, Shelf 5 Factor	140		428		
c/m/ft^2, CH-I, H + 100 hrs.	3.84		2.30		

B.79

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 130-12B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 18 mi [illegible] of U.S. Hwy 91 on Utah Hwy 18

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/19/62	7/24/62	7/19/62	7/24/62	7/19/62
Hour	[illegible]	1735	1730	1015	1537
Scaler No.	[illegible]	5268	5478	Cave	5392
10^3 Total Counts	1[illegible].4	1[illegible]	7.08	1.24	0.53
Minutes	7.50	7.52	5.00	2.00	1.00
10^3c/m Sample	[illegible]	2.10	1.54	0.62	0.55
Bkg., c/m	571	425	545	582	526
Coincidence Correction	0	0	0	0	0
10^3 (c/m-Bkg.)	1.42	1.61	0.99	Bkg.	Bkg.
Geometry Factor	85.15	13.40	25.15		
Decay Factor, H + 12 hrs.	35.87	35.42	10.85		
10^6 c/m/ft^2, H + 12 hrs.	0.47	0.25	0.07		
Inst. Eff. Factor	0.9396	[illegible]105	0.995		
Decay Factor, H + 100 hrs.	1.32	2.84	1.32		
CH-I, Shelf 5 Factor	140	548	474		
c/m/ft^2, CH-I, H + 100 hrs.	3.05	1.89	0.32		

B.80

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 130-188 **Date Collected:** 7/15/62 **Shot Name:** Small Boy **Sample Area** 4.336 ft^2
Standard Used: Cs137 **Date and Hour of Shot:** 7/14/62, 1130 hours
Collection Location: 27 mi N of U.S. Hwy 91 on Utah Hwy 18

	<44µ Fraction 1st Wash	<44µ Fraction 2nd Wash	>44µ Fraction	Residual on Pellets	Total Before Processing
Date	7/24/62		7/24/62	7/24/62	
Hour	1637		1638	1628	
Scaler No.	5288		5478	5477	
10^3 Total Counts	33.5		83.4	3.08	
Minutes	4.88		13.00	6.62	
10^3c/m Sample	6.87	Not Required	6.42	0.47	No Data
Bkg., c/m	495		1158	467	
Coincidence Correction	0		0	0	
10^3 (c/m-Bkg.)	6.38		5.26	Bg.	
Geometry Factor	18.40		28.43		
Decay Factor, H + 12 hrs.	36.27		36.27		
10^6 c/m/ft^2, H + 12 hrs.	0.98		1.25		
Inst. Eff. Factor	1.166		1.124		
Decay Factor, H + 100 hrs.	2.83		2.83		
CH-I, Shelf 5 Factor	648		419		
c/m/ft^2, CH-I, H + 100 hrs.	7.49		9.20		

B.81

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 130-20B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 30 mi N of U.S. Hwy 91 on Utah Hwy 18

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/24/62		7/24/62	7/24/62	
Hour	1712		1702	1716	
Scaler No.	5288		5478	5477	
10^3 Total Counts	26.8		25.9	13.4	
Minutes	7.43		9.30	28.80	
10^3c/m Sample	3.60	Not Required	2.79	0.47	No Data
Bkg., c/m	495		1158	467	
Coincidence Correction	0		0	0	
10^3 (c/m-Bkg.)	3.11		1.63	Bkg.	
Geometry Factor	18.40		28.43		
Decay Factor, H + 12 hrs.	36.36		36.34		
10^6 c/m/ft^2, H + 12 hrs.	0.48		0.39		
Inst. Eff. Factor	1.166		1.124		
Decay Factor, H + 100 hrs.	2.84		2.84		
CH-I, Shelf 5 Factor	648		419		
c/m/ft^2, CH-I, H + 100 hrs.	3.66		2.86		

B.82

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 130-22B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 33 mi N of U.S. Hwy 91 on Utah Hwy 18

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/25/62		7/25/62	7/25/62	
Hour	1012		1122	1004	
Scaler No.	5390		5478	5477	
10^3 Total Counts	13.3		19.1	3.16	
Minutes	9.04		6.00	7.20	
10^3c/m Sample	1.48	Not Required	3.19	0.44	No Data
Bkg., c/m	458		1010	430	
Coincidence Correction	0		0	0	
10^3 (c/m-Bkg.)	1.02		2.18	Bkg.	
Geometry Factor	84.85		27.84		
Decay Factor, H + 12 hrs.	38.91		39.07		
10^6 c/m/ft^2, H + 12 hrs.	0.78		0.55		
Inst. Eff. Factor	0.9863		1.101		
Decay Factor, H + 100 hrs.	3.04		3.05		
CH-I, Shelf 5 Factor	140		428		
c/m/ft^2, CH-I, H + 100 hrs.	5.03		3.95		

B.83

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 130-24B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs^{137} Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 36 mi N of U.S. Hwy 91 on Utah Hwy 18

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/25/62		7/25/62	7/25/62	
Hour	1017		1128	1012	
Scaler No.	5288		5478	5477	
10^3 Total Counts	33.8		13.5	3.01	
Minutes	6.41		6.00	7.02	
10^3c/m Sample	5.28	Not Required	2.25	0.43	No Data
Bkg., c/m	528		1010	430	
Coincidence Correction	0		0	0	
10^3 (c/m-Bkg.)	4.75		1.24	Bkg.	
Geometry Factor	16.93		27.84		
Decay Factor, H + 12 hrs.	38.92		39.08		
10^6 c/m/ft^2, H + 12 hrs.	0.72		0.31		
Inst. Eff. Factor	1.073		1.101		
Decay Factor, H + 100 hrs.	3.04		3.05		
CH-I, Shelf 5 Factor	705		428		
c/m/ft^2, CH-I, H + 100 hrs.	5.07		2.25		

B.84

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 130-26B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 39 mi N of U.S. Hwy 91 on Utah Hwy 18

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/25/62		7/25/62	7/25/62	
Hour	1032		1135	1024	
Scaler No.	5390		5478	5477	
10^3 Total Counts	18.2		16.0	4.45	
Minutes	8.24		704	11.12	
10^3c/m Sample	2.21	Not Required	2.27	0.40	No Data
Bkg., c/m	458		1010	430	
Coincidence Correction	0		0	0	
10^3 (c/m-Bkg.)	1.74		1.26	Bkg.	
Geometry Factor	84.85		27.84		
Decay Factor, H + 12 hrs.	38.95		39.10		
10^6 c/m/ft^2, H + 12 hrs.	1.33		0.32		
Inst. Eff. Factor	0.9863		1.101		
Decay Factor, H + 100 hrs.	3.04		3.05		
CH-I, Shelf 5 Factor	140		428		
c/m/ft^2, CH-I, H + 100 hrs.	8.58		2.27		

B.85

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 130-28B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 3 mi W of Utah Hwy 18 on Utah Hwy 120

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/25/62		7/25/62	7/25/62	7/19/62
Hour	1037		1142	1030	1545
Scaler No.	5288		5478	5477	5392
10^3 Total Counts	38.6		12.3	2.66	0.52
Minutes	8.1[illegible]		6.00	6.30	1.00
10^3c/m Sample	4.72	Not Required	2.05	0.42	0.52
Bkg., c/m	528		1010	430	526
Coincidence Correction	0		0	0	0
10^3 (c/m-Bkg.)	4.19		1.04	Bkg.	Bkg.
Geometry Factor	16.92		27.84		
Decay Factor, H + 12 hrs.	38.96		39.12		
10^6 c/m/ft^2, H + 12 hrs.	0.64		0.26		
Inst. Eff. Factor	1.073		1.101		
Decay Factor, H + 100 hrs.	3.04		3.05		
CH-I, Shelf 5 Factor	705		428		
c/m/ft^2, CH-I, H + 100 hrs.	4.47		1.89		

B.86

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 130-30B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 6 mi W of Utah Hwy 18 on Utah Hwy 120

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/19/62	7/24/62	7/19/62	7/24/62	7/19/62
Hour	1830	1736	1804	1027	1550
Scaler No.	5390	5477	5478	5392	5392
10^3 Total Counts	37.9	15.2	109	0.65	0.77
Minutes	7.74	8.16	12.28	1.00	1.00
10^3c/m Sample	4.90	1.87	8.87	0.65	0.77
Bkg., c/m	471	455	848	582	526
Coincidence Correction	0	0	0	0	0
10^3 (c/m-Bkg.)	4.43	1.41	8.02	Bkg	0.25 (NSV)
Geometry Factor	35.13	30.91	25.15		
Decay Factor, H + 12 hrs.	16.92	36.42	16.87		
10^6 c/m/ft^2, H + 12 hrs.	1.47	0.37	0.79		
Inst. Eff. Factor	0.9896	0.9896	0.995		
Decay Factor, H + 100 hrs.	1.32	2.84	1.32		
CH-I, Shelf 5 Factor	140	386	474		
c/m/ft^2, CH-I, H + 100 hrs.	9.53	2.37	5.13		

B.87

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 165-26B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: Lund, Utah

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellete	Total Before Processing
Date	7/19/62	7/24/62	7/19/62	7/24/62	7/19/62
Hour	1452	1750	1346	0852	0920
Scaler No.	5390	5390	5478	5392	5392
10^3 Total Counts	10.2	10.5	21.5	0.58	1.05
Minutes	1.93	7.93	2.80	1.00	1.00
10^3c/m Sample	5.28	1.32	7.67	0.58	1.05
Bkg., c/m	471	632	891	582	510
Coincidence Correction	0	0	0	0	0
10^3 (c/m-Bkg.)	4.81	0.69	6.77	Bkg	0.54 (NSV)
Geometry Factor	85.13	85.48	25.15		
Decay Factor, H + 12 hrs.	16.41	37.0	16.25		
10^6 c/m/ft^2, H + 12 hrs.	1.55	0.50	0.64		
Inst. Eff. Factor	0.9896	0.9936	0.995		
Decay Factor, H + 100 hrs.	1.28	2.89	1.27		
CH-I, Shelf 5 Factor	140.0	139.0	474.0		
c/m/ft^2, CH-I, H + 100 hrs.	10.0	3.27	4.16		

B.88

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 200-5B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 11 miles W of U.S. 91 in Beaver on Utah 21

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/19/62	7/24/62	7/19/62	7/24/62	7/18/62
Hour	1240	1753	1151	1230	1512
Scaler No.	5390	5288	5478	5392	5392
10^3 Total Counts	15.8	10.7	7.96	0.56	8.59
Minutes	4.50	6.00	2.60	2.00	10.0
10^3c/m Sample	3.51	1.78	3.06	0.58	0.86
Bkg., c/m	471	495	825	582	678
Coincidence Correction	0	0	0	0	0
10^3 (c/m-Bkg.)	3.04	1.28	2.24	Bkg	0.18 (NSV)
Geometry Factor	85.13	18.40	25.15		
Decay Factor, H + 12 hrs.	16.04	37.0	16.07		
10^6 c/m/ft^2, H + 12 hrs.	0.96	0.20	0.21		
Inst. Eff. Factor	0.9896	1.166	0.995		
Decay Factor, H + 100 hrs.	1.25	2.89	1.26		
CH-I, Shelf 5 Factor	140.0	647.9	474.0		
c/m/ft^2, CH-I, H + 100 hrs.	6.20	1.54	1.37		

B.89

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 200-7B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 16 miles W of U.S. 91 in Beaver on Utah 21

	<44µ Fraction 1st Wash	<44µ Fraction 2nd Wash	>44µ Fraction	Residual on Pellets	Total Before Processing
Date	7/19/62	7/24/62	7/19/62	7/24/62	7/18/62
Hour	1250	1755	1146	1230	1540
Scaler No.	5390	5477	5478	5392	5392
10^3 Total Counts	18.4	10.4	4.78	2.90	1.34
Minutes	8.06	6.79	4.25	5.00	1.00
10^3c/m Sample	2.28	1.53	1.13	0.58	1.34
Bkg., c/m	471	455	825	582	718
Coincidence Correction	0	0	0	0	0
10^3 (c/m-Bkg.)	1.81	1.07	0.30	Bkg	0.62 (NSV)
Geometry Factor	85.13	30.91	25.15		
Decay Factor, H + 12 hrs.	16.06	37.0	15.89		
10^6 c/m/ft^2, H + 12 hrs.	0.57	0.28	0.03		
Inst. Eff. Factor	0.9896	0.9896	0.995		
Decay Factor, H + 100 hrs.	1.25	2.89	1.24		
CH-I, Shelf 5 Factor	140.0	385.7	474.0		
c/m/ft^2, CH-I, H + 100 hrs.	3.69	1.84	0.17		

B.90

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 200-9B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs^{137} Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 21 miles W of U.S. 91 in Beaver on Utah 21

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/19/62	7/24/62	7/19/62	7/24/62	7/18/62
Hour	1325	1806	1124	1045	1545
Scaler No.	5390	5390	5478	5392	5392
10^3 Total Counts	36.1	9.63	15.7	1.16	1.34
Minutes	12.5	6.65	6.36	2.00	1.00
10^3c/m Sample	2.89	1.45	2.47	0.58	1.34
Bkg., c/m	471	632	825	582	718
Coincidence Correction	0	0	0	0	0
10^3 (c/m-Bkg.)	2.43	0.82	1.64	Bkg.	0.62 (NSV)
Geometry Factor	85.13	85.48	25.15		
Decay Factor, H + 12 hrs.	16.17	37.0	15.85		
10^6 c/m/ft^2, H + 12 hrs.	0.77	0.60	0.15		
Inst. Eff. Factor	0.9896	0.9936	0.995		
Decay Factor, H + 100 hrs.	1.26	2.89	1.24		
CH-I, Shelf 5 Factor	140.0	139.0	474.0		
c/m/ft^2, CH-I, H + 100 hrs.	4.98	3.89	0.94		

B.91

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 200-13B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 31 miles W of U.S. 91 in Beaver on Utah 21

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/19/62	7/24/62	7/19/62	7/24/62	7/18/62
Hour	1339	1808	1129	1055	1549
Scaler No.	5390	5288	5478	5392	5392
10^3 Total Counts	11.3	14.3	7.98	1.10	1.69
Minutes	2.0	6.56	3.60	2.00	1.00
10^3c/m Sample	5.64	2.17	2.22	0.55	1.69
Bkg., c/m	471	495	825	582	718
Coincidence Correction	0	0	0	0	0
10^3 (c/m-Bkg.)	5.17	1.68	1.39	Bkg	0.97
Geometry Factor	85.13	18.40	25.15		1413
Decay Factor, H + 12 hrs.	16.17	37.0	15.85		12.8
10^6 c/m/ft^2, H + 12 hrs.	1.64	0.26	0.13		4.04
Inst. Eff. Factor	0.9896	1.166	0.995		1.00
Decay Factor, H + 100 hrs.	1.26	2.89	1.24		1.00
CH-I, Shelf 5 Factor	140.0	647.9	474.0		8.44
c/m/ft^2, CH-I, H + 100 hrs.	10.6	2.01	0.80		26.4

B.92

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 200-16B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 38.5 miles W of U.S. 91 in Beaver on Utah 21

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/19/62	7/24/62	7/19/62	7/24/62	7/18/62
Hour	1345	1811	1155	1100	1616
Scaler No.	5390	5477	5478	5392	5392
10^3 Total Counts	24.5	25.1	92.3	1.27	2.35
Minutes	2.15	6.65	12.79	2.00	1.00
10^3c/m Sample	11.4	3.78	7.21	0.63	2.35
Bkg., c/m	471	455	825	582	1291
Coincidence Correction	0	0	0	0	0
10^3 (c/m-Bkg.)	10.9	3.33	6.39	0.05 (EST)	1.06
Geometry Factor	85.13	30.91	25.15	1413	1413
Decay Factor, H + 12 hrs.	16.17	37.0	15.93	36.0	12.8
10^6 c/m/ft^2, H + 12 hrs.	3.46	0.88	0.59	0.60	4.41
Inst. Eff. Factor	0.9896	0.9896	0.995	1.00	1.00
Decay Factor, H + 100 hrs.	1.26	2.89	1.24	2.81	1.00
CH-I, Shelf 5 Factor	140.0	385.7	474.0	8.44	8.44
c/m/ft^2, CH-I, H + 100 hrs.	22.4	5.69	3.65	3.92	28.9

B.93

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 200-17B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 41 miles W of U.S. 91 in Beaver on Utah 21

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/23/62		7/23/62	7/23/62	7/23/62
Hour	1412		1429	1040	0905
Scaler No.	5477		5478	5392	5392
10^3 Total Counts	51.2		16.7	1.20	2.24
Minutes	3.18		6.00	2.00	2.00
10^3c/m Sample	16.1	Not Required	2.78	0.60	1.12
Bkg., c/m	460		1181	585	585
Coincidence Correction	0		0	0	0
10^3 (c/m-Bkg.)	15.6		1.60	0.01 (EST)	0.54
Geometry Factor	31.15		27.04	1413	1413
Decay Factor, H + 12 hrs.	33.2		33.2	32.0	31.5
10^6 c/m/ft^2, H + 12 hrs.	3.72		0.33	0.15	5.49
Inst. Eff. Factor	0.997		1.069	1.00	1.00
Decay Factor, H + 100 hrs.	2.59		2.59	2.50	2.46
CH-I, Shelf 5 Factor	382.7		440.9	8.44	8.44
c/m/ft^2, CH-I, H + 100 hrs.	24.3		2.32	0.96	35.9

B.94

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 200-18B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 43.5 miles W of U.S. 91 in Beaver on Utah 21

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/19/62	7/24/62	7/19/62	7/24/62	7/18/62
Hour	1332	1821	1212	1110	1623
Scaler No.	5390	5390	5478	5392	5392
10^3 Total Counts	24.7	9.25	55.3	1.25	2.41
Minutes	1.70	6.36	5.20	2.00	1.00
10^3c/m Sample	14.5	1.45	10.6	0.62	2.41
Bkg., c/m	471	632	825	582	1129
Coincidence Correction	0	0	0	0	0
10^3 (c/m-Bkg.)	14.0	0.82	9.85	0.04 (EST)	1.28
Geometry Factor	85.13	85.48	25.15	1413	1413
Decay Factor, H + 12 hrs.	16.18	37.0	15.96	36.2	12.9
10^6 c/m/ft^2, H + 12 hrs.	4.45	0.60	0.91	0.48	5.38
Inst. Eff. Factor	0.9896	0.9936	0.995	1.00	1.00
Decay Factor, H + 100 hrs.	1.26	2.89	1.25	2.83	1.01
CH-I, Shelf 5 Factor	140.0	139.0	474.0	8.44	8.44
c/m/ft^2, CH-I, H + 100 hrs.	28.7	3.91	5.96	3.17	35.3

B.95

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 200-19B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 46 miles W of U.S. 91 in Beaver on Utah 21

	<44µ Fraction 1st Wash	<44µ Fraction 2nd Wash	>44µ Fraction	Residual on Pellets	Total Before Processing
Date	7/19/62	7/23/62	7/19/62	7/23/62	7/18/62
Hour	1107	1628	1108	1050	1631
Scaler No.	5390	5390	5478	5392	5392
10^3 Total Counts	16.1	14.7	22.3	1.35	2.57
Minutes	1.50	9.71	3.20	2.00	1.00
10^3c/m Sample	10.7	1.51	6.98	0.68	2.57
Bkg., c/m	471	528	825	585	1504
Coincidence Correction	0	0	0	0	0
10^3 (c/m-Bkg.)	10.3	0.99	6.15	0.09 (EST)	1.06
Geometry Factor	85.13	85.54	25.15	1413	1413
Decay Factor, H + 12 hrs.	15.77	33.2	15.77	32.0	12.9
10^6 c/m/ft^2, H + 12 hrs.	3.19	0.65	0.56	0.94	4.46
Inst. Eff. Factor	0.9896	0.9943	0.995	1.00	1.00
Decay Factor, H + 100 hrs.	1.23	2.59	1.23	0.937	1.01
CH-I, Shelf 5 Factor	140	139.4	474	8.44	8.44
c/m/ft^2, CH-I, H + 100 hrs.	20.7	4.20	3.66	2.30	29.3

B.96

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 200-24B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 58.5 miles W of U.S. 91 in Beaver on Utah 21

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/19/62	7/24/62	7/19/62	7/24/62	7/18/62
Hour	1112	1832	1114	1050	1638
Scaler No.	5390	5288	5478	5392	5392
10^3 Total Counts	16.1	12.5	11.3	1.20	2.01
Minutes	2.12	6.00	5.00	2.00	1.00
10^3c/m Sample	7.59	2.08	2.26	0.60	2.01
Bkg., c/m	471	495	825	582	1379
Coincidence Correction	0	0	0	0	0
10^3 (c/m-Bkg.)	7.12	1.59	1.43	0.02 (EST)	0.64 (NSV)
Geometry Factor	85.13	18.40	25.15	1413	
Decay Factor, H + 12 hrs.	15.77	37.0	15.77	36.0	
10^6 c/m/ft^2, H + 12 hrs.	2.20	0.25	0.131	0.22	
Inst. Eff. Factor	0.9896	1.166	0.995	1.00	
Decay Factor, H + 100 hrs.	1.23	2.89	1.23	2.81	
CH-I, Shelf 5 Factor	140	647.9	414	8.44	
c/m/ft^2, CH-I, H + 100 hrs.	14.2	1.90	0.85	1.46	

B.97

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 200-27B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 66 miles W of U.S. 91 in Beaver on Utah 21

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/19/62	7/24/62	7/19/62	7/24/62	7/18/62
Hour	1300	1826	1051	1400	1645
Scaler No.	5390	5477	5478	5392	5392
10^3 Total Counts	17.3	23.1	6.79	1.15	2.07
Minutes	2.0	6.42	2.40	2.00	1.00
10^3c/m Sample	8.63	3.60	2.83	0.61	2.07
Bkg., c/m	471	455	825	543	1258
Coincidence Correction	0	0	0	0	0
10^3 (c/m-Bkg.)	8.16	3.15	2.00	0.06 (EST)	0.81
Geometry Factor	85.13	30.91	25.15	1413	1413
Decay Factor, H + 12 hrs.	16.09	37.0	15.77	37.0	12.8
10^6 c/m/ft^2, H + 12 hrs.	2.58	0.83	0.18	0.77	3.38
Inst. Eff. Factor	0.9896	0.9896	0.995	1.00	1.00
Decay Factor, H + 100 hrs.	1.26	2.89	1.23	2.89	1.00
CH-I, Shelf 5 Factor	140.0	385.7	474.0	8.44	8.44
c/m/ft^2, CH-I, H + 100 hrs.	16.7	5.38	1.19	5.06	22.1

B.98

GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 200-30B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/6 , 1130 hours
Collection Location: 73.5 miles W of U.S. 91 in Beaver on Utah 21

	<44μ Fraction 1st Wash	<44μ Fraction 2nd Wash	>44μ Fraction	Residual on Pellets	Total Before Processing
Date	7/19/62	7/24/62	7/19/62	7/24/62	7/18/62
Hour	1351	1834	1215	1235	1654
Scaler No.	5390	5390	5478	5392	5392
10^3 Total Counts	12.8	9.32	6.55	1.07	1.55
Minutes	1.90	6.00	2.80	2.00	1.00
10^3c/m Sample	6.75	1.55	2.34	0.53	1.55
Bkg., c/m	471	632	325	543	928
Coincidence Correction	0	0	0	0	0
10^3 (c/m-Bkg.)	6.28	0.92	1.52	Bkg	0.63(NSV)
Geometry Factor	85.13	85.48	25.15		
Decay Factor, H + 12 hrs.	16.25	37.0	15.93		
10^6 c/m/ft^2, H + 12 hrs.	2.00	0.67	0.14		
Inst. Eff. Factor	0.9896	0.9936	0.995		
Decay Factor, H + 100 hrs.	1.27	2.89	1.24		
CH-I, Shelf 5 Factor	140.0	139.0	474.0		
c/m/ft^2, CH-I, H + 100 hrs.	13.0	4.38	0.87		

APPENDIX C

UNIT AREA GAMMA RADIOACTIVITY AND MASS IN TWO PARTICLE SIZE RANGES

Radioactive measurements are normalized to H + 12 hours. Values used are for GC replication B.
NA = not available

Station No.		Road Miles[a] from Reference	Less than 44μ Fraction Radioactivity		Less than 44μ Fraction Mass		Greater than 44μ Fraction Radioactivity		Greater than 44μ Fraction Mass	
			$10^7 c/m/ft^2$	pct of total	mg/ft^2	pct of total	$10^7 c/m/ft^2$	pct of total	mg/ft^2	pct of total
Location reference (Arc-18) 29.2 miles north of intersection of Indian Springs AFB and U. S. Highway 95, proceeding south										
18-1	(NRDL-24)	0.0	2.40	38.2	75.	73.5	3.21	51.1	27.	26.5
18-2	(NRDL-23)	0.8	4.48	37.0	57.	29.4	6.93	57.3	137.	70.6
18-3	(NRDL-22)	1.6	5.52	37.6	41.	51.9	8.36	56.9	38.	48.1
18-4	(NRDL-21)	2.5	9.79	44.3	57.	40.4	10.4	46.9	84.	59.6
18-5	(NRDL-20)	3.3	10.3	20.1	38.	31.4	37.2	72.8	83.	68.6
18-6	(NRDL-19)	4.0	31.6	28.2	42.	20.1	74.2	66.3	167.	79.9
18-7	(NRDL-18)	5.0	36.3	20.1	9.	7.1	133.	73.6	118.	92.9
18-8	(NRDL-17)	5.8	79.5	31.1	26.	18.3	163.	63.6	116.	81.7
18-9	(NRDL-16)	6.6	61.1	25.9	47.	23.3	164.	69.3	155.	76.7
18-10	(NRDL-15)	7.4	46.8	20.6	42.	23.6	164.	72.3	136.	76.4
18-11	(NRDL-14)	8.2	67.9	26.1	52.	35.6	181.	69.6	94.	64.4
18-12	(NRDL-13)	8.9	90.6	26.4	38.	25.3	240.	70.0	112.	74.7
18-13	(NRDL-12)	9.5	3.66	9.9	51.	24.9	31.2	84.3	154.	75.1
18-14	(NRDL-11)	10.6	1.81	11.6	53.	11.1	13.1	84.0	423.	88.9

UNIT AREA GAMMA RADIOACTIVITY AND MASS IN TWO PARTICLE SIZE RANGES (Continued)

Radioactive measurements are normalized to H + 12 hours. Values used are for GC replication B.
NA = not available

Station No.	Road Miles[a] from Reference	Less than 44μ Fraction Radioactivity		Less than 44μ Fraction Mass		Greater than 44μ Fraction Radioactivity		Greater than 44μ Fraction Mass	
		10^7c/m/ft^2	pct of total	mg/ft^2	pct of total	10^7c/m/ft^2	pct of total	mg/ft^2	pct of total
18-15 (NRDL-10)	11.2	1.32	25.1	77.	8.2	3.78	71.2	866.	91.8
18-16 (NRDL- 9)	12.2	2.84	25.8	1215.	83.1	8.15	74.1	247	16.9
18-17 (NRDL- 8)	12.8	0.469	25.1	225.	67.8	1.34	71.1	107	32.2
18-18 (NRDL- 7)	13.8	0.654	38.3	144.	33.7	1.04	60.8	284.	66.4
18-19 (NRDL- 6)	14.4	1.49	93.2	46.	54.8	0.012	0.8	38.	45.2
18-20 (NRDL- 5)	15.3	0.101	32.2	27.	41.5	0.183	52.3	38.	58.5
Location reference (Arc-27) 36.0 miles NE of Indian Springs AFB and U. S. Highway 95 on road east of Pintwater Range, proceeding south									
27-1	0.0	20.3	25.0	32.	59.3	57.2	70.5	22.	40.8
27-1[b]	0.0	9.73	31.4	53.	44.5	15.7	49.0	66.	55.5
27-1[b]	0.0	10.8	15.6	32.	66.7	36.7	53.0	16.	33.3
27-1[b]	0.0	NA	NA	110.	90.9	NA	NA	11.	9.1
27-1[b]	0.0	14.1	22.1	77.	NA	42.0	66.0	Lost	NA
27-2	1.0	16.7	23.8	35.	59.3	48.1	68.7	24.	40.7
27-2[b]	1.0	15.2	15.8	139.	74.3	69.8	72.4	48.	25.7
27-2[b]	1.0	16.5	25.9	553.	65.8	38.1	59.8	287.	34.2

UNIT AREA GAMMA RADIOACTIVITY AND MASS IN TWO PARTICLE SIZE RANGES (Continued)

Radioactive measurements are normalized to H + 12 hours. Values used are for GC replication B. NA = not available

Station No.	Road Miles[a] from Reference	Less than 44μ Fraction Radioactivity		Less than 44μ Fraction Mass		Greater than 44μ Fraction Radioactivity		Greater than 44μ Fraction Mass	
		10^7c/m/ft^2	pct of total	mg/ft^2	pct of total	10^7c/m/ft^2	pct of total	mg/ft^2	pct of total
Location reference (Arc-27) 36.0 miles NE of Indian Springs AFB and U. S. Highway 95 on road east of Pintwater Range, proceeding south									
27-2[b]	1.0	14.1	23.7	46.	79.3	37.8	63.5	12.	20.7
27-2[b]	1.0	9.35	20.5	95.	NA	29.5	64.8	Lost	NA
27-3	2.0	19.3	26.2	56.	61.5	50.0	67.8	35.	38.5
27-4	3.0	5.16	24.9	47.	92.2	14.6	70.5	4.	7.9
27-5	4.0	3.46	19.4	79.	33.8	12.5	70.2	155.	66.2
27-6	5.0	1.21	20.4	50.	35.5	3.96	66.9	91.	64.5
27-7	6.0	0.387	23.5	74.	43.0	1.12	67.9	98.	57.0
27-8	7.0	0.427	24.8	58	45.7	0.945	54.9	69.	54.3
27-9	8.0	0.522	29.4	92	39.5	1.09	61.4	141.	60.5
27-11	10.0	0.302	46.3	68	29.4	0.196	30.0	163.	70.6

Location reference (Arc-35) on Sheep Canyon road, 7.0 miles NW of a point on Sheep Canyon road 0.1 mile west of the Corn Creek Springs Wildlife Service Headquarters, proceeding north

UNIT AREA GAMMA RADIOACTIVITY AND MASS IN TWO PARTICLE SIZE RANGES (Continued)

Radioactive measurements are normalized to H + 12 hours. Values used are for GC replication B.
NA = not available

Station No.	Road Miles[a] from Reference	Less than 44μ Fraction Radioactivity		Less than 44μ Fraction Mass		Greater than 44μ Fraction Radioactivity		Greater than 44μ Fraction Mass	
		10^7c/m/ft^2	pct of total	mg/ft^2	pct of total	10^7c/m/ft^2	pct of total	mg/ft^2	pct of total
Location reference (Arc-35) on Sheep Canyon road, 7.0 miles NW of a point on Sheep Canyon road 0.1 mile west of the Corn Creek Springs Wildlife Service Headquarters, proceeding north									
35-10	18.0	0.368	32.9	32.	55.2	0.707	63.4	26.	44.8
35-11	20.0	0.189	38.7	40.	62.5	0.252	51.5	24.	37.5
35-12	22.0	0.203	54.1	59.	59.6	0.172	45.9	40.	40.4
35-13	24.0	0.181	90.3	28.	56.0	0.020	9.8	22.	44.0
35-14	26.0	0.591	61.4	30.	60.0	0.372	38.6	20.	40.0
35-15	28.0	1.06	59.6	42.	67.8	0.548	30.8	20.	32.3
35-16	30.0	2.03	47.7	18.	46.2	1.90	44.6	21.	53.9
35-17	32.0	3.63	38.7	54.	71.1	4.64	49.5	22.	29.0
35-18	34.0	6.70	39.2	8.	38.1	8.66	50.6	13.	61.9
35-19	36.0	117.	41.5	60.	52.2	15.1	50.0	55.	47.8
35-20	38.0	14.5	47.7	17.	30.4	15.1	49.7	39.	69.7
35-20[b]	38.0	8.79	35.2	156.	52.5	10.6	42.4	141.	47.5
35-20[b]	38.0	15.0	33.2	64.	40.0	25.9	57.3	96.	60.0
35-20[b]	38.0	7.36	42.4	59.	24.3	9.40	54.2	184.	75.7

UNIT AREA GAMMA RADIOACTIVITY AND MASS IN TWO PARTICLE SIZE RANGES (Continued)

Radioactive measurements are normalized to H + 12 hours. Values used are for GC replication B.
NA = not available

Station No.	Road Miles[a] from Reference	Less than 44μ Fraction Radioactivity		Less than 44μ Fraction Mass		Greater than 44μ Fraction Radioactivity		Greater than 44μ Fraction Mass	
		10^7 c/m/ft^2	pct of total	mg/ft^2	pct of total	10^7 c/m/ft^2	pct of total	mg/ft^2	pct of total
Location reference (Arc-56) on U. S. Highway 93, 0.5 mile north of the junction of Kane Springs Wash road and U. S. Highway 93, proceeding north									
56-1	0.0	0.466	64.0	60.	50.8	0.262	36.0	58.	49.2
56-2	2.1	0.360	46.5	18.	40.9	0.369	47.6	26.	59.1
56-3	4.0	0.578	55.8	16.	32.7	0.228	26.6	33.	67.4
56-4	6.0	0.820	50.0	33.	47.1	0.644	39.3	37.	52.9
56-5	8.0	0.925	34.4	53.	26.4	146.	56.0	148.	73.6
56-6	10.0	1.28	41.9	59.	53.6	1.58	51.8	51.	46.4
56-7	12.0	1.73	41.8	158.	24.0	2.03	49.2	500.	76.0
56-8	14.0	1.85	34.6	36.	11.4	3.14	58.6	280.	88.6
56-9	16.1	3.51	54.2	98.	13.0	2.51	38.7	657.	87.0
56-10[b]	18.1	12.8	71.3	42.	58.3	4.04	22.6	30.	41.7
56-10[b]	18.1	9.20	52.5	61.	NA	5.31	30.3	Lost	NA
56-10[b]	18.1	8.13	56.9	51.	72.9	3.05	21.3	19.	27.2
56-10[b]	18.1	6.53	51.0	36.	75.0	2.97	23.2	12.	25.0
56-10[b]	18.1	14.5	64.4	62.	70.5	4.88	21.7	26.	29.6

UNIT AREA GAMMA RADIOACTIVITY AND MASS IN TWO PARTICLE SIZE RANGES (Continued)

Radioactive measurements are normalized to H + 12 hours. Values used are for GC replication B.
NA = not available

Station No.	Road Miles[a] from Reference	Less than 44μ Fraction Radioactivity		Less than 44μ Fraction Mass		Greater than 44μ Fraction Radioactivity		Greater than 44μ Fraction Mass	
		10^7c/m/ft^2	pct of total	mg/ft^2	pct of total	10^7c/m/ft^2	pct of total	mg/ft^2	pct of total
Location reference (Arc-56) on U. S. Highway 93, 0.5 mile north of the junction of Kane Springs Wash road and U. S. Highway 93, proceeding north									
56-11	20.0	7.71	56.5	43.	67.2	4.85	35.9	21.	32.8
56-12	22.1	8.82	46.7	30.	46.9	8.29	43.9	34.	53.1
56-12[b]	22.1	8.24	41.6	65.	42.8	8.03	40.6	87.	57.2
56-12[b]	22.1	7.40	42.8	61.	98.4	5.71	33.0	1.	1.6
56-12[b]	22.1	10.0	47.8	67.	70.5	5.44	26.0	28.	29.5
56-12[b]	22.1	5.66	49.2	81.	NA	3.21	27.9	Lost	NA
56-13	24.1	9.36	67.3	30.	39.5	3.56	25.6	46.	60.5
56-14	26.2	4.99	55.8	11.	29.7	3.01	33.6	26.	70.3
56-15	28.0	3.64	48.7	47.	37.0	3.18	42.6	80.	63.0
Location reference (Arc-115) on Utah 120, 9.5 miles west of the junction of Utah 18 and Utah 120 (Enterprise), proceeding west									
115-3	3.0	0.203	20.6	29.	53.7	0.726	73.7	25.	46.3
115-7	9.0	0.285	77.7	59.	66.3	0.082	22.3	30.	33.7

UNIT AREA GAMMA RADIOACTIVITY AND MASS IN TWO PARTICLE SIZE RANGES (Continued)

Radioactive measurements are normalized to H + 12 hours. Values used are for GC replication B. NA = not available

Station No.	Road Miles[a] from Reference	Less than 44μ Fraction Radioactivity		Less than 44μ Fraction Mass		Greater than 44μ Fraction Radioactivity		Greater than 44μ Fraction Mass	
		10^7c/m/ft^2	pct of total	mg/ft^2	pct of total	10^7c/m/ft^2	pct of total	mg/ft^2	pct of total
Location reference (Arc-115) on Utah 120, 9.5 miles west of the junction of Utah 18 and Utah 120 (Enterprise), proceeding west									
115-10	13.5	0.298	68.7	68.	64.8	0.081	18.7	37.	35.2
115-12	16.5	0.301	61.2	49.	48.0	0.191	38.8	53.	52.0
115-15	21.0	0.282	61.2	5.	10.0	0.109	23.6	45.	90.0
115-17	24.0	0.215	58.6	11.	6.7	0.152	41.4	153.	93.3
115-18	25.5	0.382	67.3	33.	75.0	0.154	27.1	11.	25.0
Location reference (Arc-115) on Nevada 25, 9.8 miles east of the junction of U. S. Highway 93 and Utah 25, proceeding west									
115-19	0.0	0.288	72.7	22.	59.5	0.108	27.3	15.	40.6
115-21	3.0	0.400	32.8	22.	51.2	0.719	58.9	21.	48.8
115-24	7.5	0.066	79.5	41.	33.3	0.000	0.	82.	66.7
Location reference (Arc-130) on Utah 18, 1.5 miles north of U. S. Highway 91 (St. George), proceeding north									

UNIT AREA GAMMA RADIOACTIVITY AND MASS IN TWO PARTICLE SIZE RANGES (Continued)

Radioactive measurements are normalized to H + 12 hours. Values used are for GC replication B. NA = not available

Station No.	Road Miles[a] from Reference	Less than 44μ Fraction Radioactivity		Less than 44μ Fraction Mass		Greater than 44μ Fraction Radioactivity		Greater than 44μ Fraction Mass	
		$10^7 c/m/ft^2$	pct of total	mg/ft^2	pct of total	$10^7 c/m/ft^2$	pct of total	mg/ft^2	pct of total
Location reference (Arc-130) on Utah 18, 1.5 miles north of U. S. Highway 91 (St. George), proceeding north									
130-1	0.0	0.022	50.0	26.	53.1	0.022	50.0	23.	46.9
130-2	1.5	0.154	22.9	26.	21.1	0.518	77.1	97.	78.9
130-3	3.0	0.045	69.2	43.	38.4	0.020	30.8	69.	61.6
130-4	4.5	0.061	58.7	50.	9.5	0.043	41.4	476.	90.5
130-5	6.0	0.030	41.7	20.	25.0	0.042	58.3	60.	75.0
130-6	7.5	0.068	75.6	14.	3.3	0.022	24.5	414.	96.7
130-7	9.0	0.060	74.1	37.	60.7	0.021	25.9	24.	39.4
130-8	10.5	0.034	65.4	33.	33.0	0.018	34.6	67.	67.0
130-9	12.0	0.064	72.7	70.	50.0	0.024	27.3	70.	50.0
130-10	13.5	0.072	77.4	39.	44.8	0.021	22.6	48.	55.2
130-11	15.0	0.059	64.8	87.	30.3	0.032	35.2	200.	69.7
130-12	16.5	0.072	92.3	42.	60.9	0.006	7.7	27.	39.1
130-18	25.5	0.098	43.9	47.	51.6	0.125	56.1	44.	48.4

UNIT AREA GAMMA RADIOACTIVITY AND MASS IN TWO PARTICLE SIZE RANGES (Continued)

Radioactive measurements are normalized to H + 12 hours. Values used are for GC replication B. NA = not available

Station No.	Road Miles[a] from Reference	Less than 44μ Fraction: Radioactivity		Less than 44μ Fraction: Mass		Greater than 44μ Fraction: Radioactivity		Greater than 44μ Fraction: Mass	
		10^7 c/m/ft^2	pct of total	mg/ft^2	pct of total	10^7 c/m/ft^2	pct of total	mg/ft^2	pct of total
Location reference (Arc-130) on Utah 18, 1.5 miles north of U. S. Highway 91 (St. George), proceeding north									
130-20	28.5	0.048	55.2	22.	43.1	0.039	44.8	29.	56.9
130-22	31.5	0.078	59.1	49.	31.0	0.054	40.9	109.	69.0
130-24	34.5	0.072	69.9	37.	33.9	0.031	30.1	72.	66.1
130-26	37.5	0.133	80.6	46.	56.8	0.032	19.4	35.	43.2
Location reference (Arc-130) on Utah 120, 1.5 miles west of the junction of Utah 18 and Utah 120 (Enterprise), proceeding west									
130-28	1.5	0.064	71.1	137.	36.7	0.026	28.9	236.	63.3
130-30	4.5	0.184	70.2	148.	25.0	0.078	29.8	445.	75.1
Location reference (Arc-165) on Utah 19, 0.1 mile north of the junction of Utah 56 and Utah 19, proceeding north									
165-26	32.5	0.205	76.2	168.	39.6	0.064	23.8	256.	60.4

UNIT AREA GAMMA RADIOACTIVITY AND MASS IN TWO PARTICLE SIZE RANGES (Continued)

Radioactive measurements are normalized to H + 12 hours. Values used are for GC replication B.
NA = not available

Station No.	Road Miles[a] from Reference	Less than 44µ Fraction Radioactivity		Less than 44µ Fraction Mass		Greater than 44µ Fraction Radioactivity		Greater than 44µ Fraction Mass	
		10^7 c/m/ft^2	pct of total	mg/ft^2	pct of total	10^7 c/m/ft^2	pct of total	mg/ft^2	pct of total
Location reference (Arc-200) on Utah 21, 1.0 mile west of the junction of U. S. Highway 91 and Utah 21 in Beaver, Utah, proceeding west									
200-5	10.0	0.116	84.7	37.	71.2	0.021	15.3	15.	28.9
200-7	15.0	0.085	96.6	75.	70.1	0.003	3.4	32.	29.9
200-9	20.0	0.137	90.1	32.	45.1	0.015	9.9	39.	54.9
200-13	30.0	0.199	93.6	23.	38.3	0.013	6.4	37.	61.7
200-16	37.5	0.434	78.5	26.	41.3	0.059	10.7	37.	58.7
200-17	40.0	0.372	88.6	22.	32.4	0.033	7.9	46.	67.7
200-18	42.5	0.503	78.3	62.	44.6	0.091	14.1	77.	55.4
200-19	45.0	0.384	71.9	25.	71.4	0.056	10.5	10.	28.6
200-24	57.5	0.245	87.5	4.	26.7	0.013	4.6	11.	73.3
200-27	65.0	0.341	78.6	17.	42.5	0.018	4.1	23.	57.5
200-30	72.5	0.267	95.0	26.	19.9	0.014	5.0	105.	80.2

[a] Reference maps: U. S. Geological Survey 1:250,000. Las Vegas (NJ 11-12), Caliente (NJ 11-9), Grand Canyon (NJ 12-10), Cedar City (NJ 12-7), Richfield (NJ 12-4)

[b] Small granular collector samples

APPENDIX D

GAMMA ACTIVITY IN GC SAMPLES: PARTICLE SIZE DISTRIBUTION AND EFFECT OF TRAY SIZE

D.1 EXPLANATORY NOTES:

(a) The counting data for each particle size range is presented. The 0 to 44 micron fraction includes the 0 to 2 micron fraction.

(b) The geometry factor was determined with the probe at various elevations in the lead shield.

(c) Abbreviations used: CH-I = NRDL end-on low-geometry NaI scintillation counter. CH-I, Shelf 5 factor = ratio of the geometry factor determined on the fifth shelf of the CH-I counter to the geometry factor of the scaler on which the sample was counted.

Bkg. = background

Coinc. = coincidence

Geo. = geometry

Inst. = instrument

N. S. = not significant

(d) Sample calculations: See Section 7. 3. 3.

D.2 DATA SHEETS

Particle size data sheets, D.1 through D.5.

Less than 2 micron size data sheet, D.6.

Small GC tray data sheets, D.7 through D.11.

Large GC tray data sheet, D.12.

D.1

PARTICLE SIZE ACTIVITY - GRANULAR COLLECTOR

Sample No: 18-10B   Date Collected: 7/15/62   Shot Name: Small Boy   Sample Area: 4.336 ft^2
Standard Used: Cs137   Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 21.8 miles N of Indian Springs AFB on Indian Springs Road

Particle Size Range Microns	2000 1000	1000 500	500 350	350 297	297 250	250 210	210 177	177 149	149 125	125 105	105 88	88 44	44 0	2 0
Date	7-23	7-23	7-23	7-23	7-23	7-23	7-23	7-23	7-23	7-23	7-23	7-23	7-23	7-25
Hour	1520	1515	1510	1505	1452	1448	1445	1442	1440	1434	1420	1418	1416	1112
Scaler	5477	5477	5477	5477	5477	5477	5477	5477	5477	5477	5477	5477	5477	5477
10^3 Counts	7.16	17.5	159	82.9	256	256	256	256	2560	2560	2560	2560	2560	256
Minutes	5.00	5.00	5.00	5.00	6.29	1.80	2.38	0.89	3.16	11.5	1.19	0.97	5.97	2.21
10^3c/m/Sample	1.43	3.51	31.8	16.8	40.7	142	108	288	810	22.2	2150	2640	429	116
Bkg. 10^3c/m	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46
Coinc. 10^3c/m	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	15.0	70.0	N.S.	550	860	20.0	N.S.
10^3(c/m-Bkg)	0.97	3.05	31.4	16.1	40.2	142	107	302	880	21.8	2700	3500	448	116
Geo. Factor	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	33.5
Decay Factor H + 12 hrs.	33	33	33	33	33	33	33	33	33	33	33	33	33	40
10^5c/m/ft^2 H + 12 hrs.	2.32	7.27	74.8	38.4	95.9	338	255	720	2100	51.9	6440	8350	1070	357
Inst. Eff. Factor	.997	.997	.997	.997	.997	.997	.997	.997	.997	.997	.997	.997	.997	1.00
Decay Factor H + 100 hrs.	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	3.1
CH-I, shelf 5 Factor	383	383	383	383	383	383	383	383	383	383	383	383	383	356
c/m/ft^2, CH-I H + 100 hrs.	1.51	4.75	48.9	25.1	62.8	221	167	471	1370	34.0	4210	5460	699	235

D.2

PARTICLE SIZE ACTIVITY - GRANULAR COLLECTOR

Sample No: 27-38 Date Collected: 7/15/62 Shot Name: Small Boy Sample Area: 4.356 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 34.0 miles NE of Indian Springs AFB on East Indian Springs Road

	Particle Size Range Microns													
	2000 1000	1000 500	500 350	350 297	297 250	250 210	210 177	177 149	149 125	125 105	105 88	88 44	44 0	2 0
Date	7-24	7-24	7-24	7-24	7-24	7-24	7-24	7-24	7-24	7-24	7-24	7-24	7-24	7-25
Hour	1311	1302	1255	1247	1239	1231	1139	1129	1123	1118	1112	1107	1147	1132
Scaler	5390	5390	5390	5390	5390	5390	5390	5390	5390	5390	5390	5390	5390	5477
10^3 Counts	4.31	16.8	3.04	4.23	7.07	236	85.1	165	256	256	256	256	65.9	256
Minutes	3.93	6.00	6.00	7.73	7.47	43.3	7.65	6.00	4.38	4.23	2.70	0.89	6.00	4.92
10^3 c/m/sample	0.43	2.79	0.51	0.55	1.03	5.46	11.1	30.9	58.4	60.5	94.8	288	11.0	52.0
Bkg. 10^3 c/m	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.46
Coinc. 10^3 c/m	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.
10^3 (c/m-Bkg.)	Bkg.	2.16	Bkg.	Bkg.	0.40	4.83	10.5	30.2	57.8	59.9	94.2	287	10.3	51.5
Geo. Factor		85.5			85.5	85.5	85.5	85.5	85.5	85.5	85.5	85.5	85.5	33.5
Decay Factor H + 12 hrs.		36			36	36	36	36	36	36	36	36	36	40
10^3 c/m/ft^2 H + 12 hrs.		15.4			2.80	34.3	74.5	215	410	425	669	2040	73.4	159.
Inst. Eff. Factor		.994			.994	.994	.994	.994	.994	.994	.994	.994	.994	1.00
Decay Factor H + 100 hrs.		2.8			2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	3.1
CH-1, shelf 5 Factor		140			140	140	140	140	140	140	140	140	140	356
c/m/ft^2, CH-1 H + 100 hrs.		9.98			1.82	22.3	48.5	140	267	277	432	1326	47.8	104

D.3

PARTICLE SIZE ACTIVITY - GRANULAR COLLECTOR

Sample No: 35-20B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area: 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 45.0 miles NW of Corn Creek Ranger Station on Sheep Canyon Road

	Particle Size Range Microns													
	2000 1000	1000 500	500 350	350 297	297 250	250 210	210 177	177 149	149 125	125 105	105 88	88 44	44 0	2 0
Date	7-24	7-24	7-24	7-24	7-24	7-24	7-24	7-24	7-24	7-24	7-24	7-24	7-24	7-25
Hour	1616	1610	1604	1556	1549	1542	1535	1527	1520	1512	1505	1500	1458	1506
Scaler	5477	5477	5477	5477	5477	5477	5477	5477	5477	5477	5477	5477	5477	5477
10^3 Counts	9.26	7.89	13.2	9.26	12.5	13.5	47.2	69.5	133	194	256	256	76.1	49.1
Minutes	6.00	6.00	6.00	6.01	6.00	6.00	6.00	6.00	6.00	6.00	3.09	0.94	6.56	2.67
10^3c/m/Sample	1.54	1.31	2.20	1.54	2.08	2.26	7.87	11.6	22.2	32.3	82.8	272	11.6	18.4
Bkg. 10^3c/m	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.40
Coinc.10^3c/m	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.
10^3(c/m-Bkg.)	1.09	0.86	1.75	1.09	1.53	1.80	7.42	11.1	21.8	31.7	82.4	271	11.2	18.0
Geo. Factor	30.9	30.9	30.9	30.9	30.9	30.9	30.9	30.9	30.9	30.9	30.9	30.9	30.9	33.5
Decay Factor H + 12 hrs.	37	37	37	37	37	37	37	37	37	37	37	37	37	40
10^5c/m/ft^2 H + 12 hrs.	2.87	2.27	4.61	2.86	4.03	4.75	19.6	29.3	57.5	83.6	217	715	29.5	55.6
Inst. Eff. Factor	.990	.990	.990	.990	.990	.990	.990	.990	.990	.990	.990	.990	.990	1.00
Decay Factor H + 100 hrs.	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	3.1
CH-I, shelf 5 Factor	386	386	386	386	386	386	386	386	386	386	386	386	386	356
c/m/ft^2, CH-I H + 100 hrs.	1.79	1.42	2.88	1.79	2.52	2.97	12.2	18.3	35.9	52.2	136	447	18.5	36.4

D.4

PARTICLE SIZE ACTIVITY - GRANULAR COLLECTOR

Sample No: 115-18B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area: 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 35.5 miles W of Enterprise on Utah 120

	Particle Size Range Microns													
	2000 / 1000	1000 / 500	500 / 350	350 / 297	297 / 250	250 / 210	210 / 177	177 / 149	149 / 125	125 / 105	105 / 88	88 / 44	44 / 0	2 / 0
Date	7-24	7-24	7-24	7-24	7-24	7-24	7-24	7-24	7-24	7-24	7-24	7-24	7-24	7-25
Hour	1447	1439	1433	1426	1419	1410	1403	1357	1349	1343	1335	1326	1318	1513
Scaler	5288	5288	5288	5288	5288	5288	5288	5288	5288	5288	5288	5288	5288	5477
10^3 Counts	2.68	2.68	4.20	2.80	3.95	10.6	2.71	2.73	6.15	3.74	11.0	13.8	4.12	15.1
Minutes	6.00	6.00	6.00	6.10	8.00	6.00	6.00	6.00	6.00	6.42	8.14	6.02	8.11	6.00
10^3c/m/Sample	0.45	0.45	0.70	0.46	0.49	1.77	0.45	0.46	1.03	0.58	1.35	2.28	0.51	2.51
Bkg. 10^3c/m	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.40
Coinc. 10^3c/m	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.
10^3(c/m-Bkg.)	Bkg.	Bkg.	Bkg.	Bkg.	Bkg.	1.27	Bkg.	Bkg.	0.53	Bkg.	0.85	1.78	Bkg.	2.11
Geo. Factor						18.4			18.4		18.4	18.4		33.5
Decay Factor H + 12 hrs.						37			37		37	37		40
10^5c/m/ft^2 H + 12 hrs.						2.00			0.83		1.35	2.81		6.52
Inst. Eff. Factor						1.17			1.17		1.17	1.17		1.00
Decay Factor H + 100 hrs.						2.9			2.9		2.9	2.9		3.1
CH-I, shelf 5 Factor						648			648		648	648		356
c/m/ft^2, CH-I H + 100 hrs.						1.52			0.64		1.03	2.15		4.27

D.5

PARTICLE SIZE ACTIVITY - GRANULAR COLLECTOR

Sample No: 200-19B Date Collected: 7/15/62 Shot Name: Small Boy Sample Area: 4.336 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 46.0 miles W of U. S. 91 in Beaver on Utah 21

	Particle Size Range Microns													
	2000 1000	1000 500	500 350	350 297	297 250	250 210	210 177	177 149	149 125	125 105	105 88	88 44	44 0	2 0
Date	7-24	7-24	7-24	7-24	7-24	7-24	7-24	7-24	7-24	7-24	7-24	7-24	7-24	7-25
Hour	1620	1613	1607	1600	1552	1545	1538	1532	1524	1517	1512	1504	1457	1528
Scaler	5288	5288	5288	5288	5288	5288	5288	5288	5288	5288	5288	5288	5288	5288
10^3 Counts	13.0	2.75	2.99	11.2	3.14	2.85	2.63	2.61	2.60	2.67	2.76	2.70	4.47	15.7
Minutes	6.00	6.00	6.00	6.00	7.00	6.00	6.00	6.00	6.00	6.00	6.20	6.00	8.68	6.00
10^3c/m/Sample	2.17	0.46	0.46	1.86	0.45	0.48	0.44	0.44	0.43	0.45	0.45	0.45	0.51	2.61
Bkg. 10^3c/m	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.40
Coinc. 10^3c/m	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.
10^3(c/m-Bkg.)	1.67	Bkg.	Bkg.	1.37	Bkg.	Bkg.	Bkg.	Bkg.	Bkg.	Bkg.	Bkg.	Bkg.	Bkg.	2.22
Geo. Factor	18.4			18.4										33.5
Decay Factor H + 12 hrs.	37			37										40
10^5c/m/ft^2 H + 12 hrs.	2.63			2.15										6.86
Inst. Eff. Factor	1.17			1.17										1.00
Decay Factor H + 100 hrs.	2.9			2.9										3.1
CH-I, shelf 5 Factor	648			648										356
c/m/ft^2, CH-I H + 100 hrs.	2.01			1.64										4.46

D.6

<2 MICRON GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 18-12B; 27-1B; 35-19B; 56-12B Date Collected: 7/15/62 Shot Name: Small Boy
Standard Used: Cs137 Sample Area: 4.336 ft^2 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: See corresponding data sheets in Appendix B

Sample No.	18-12B	27-1B	35-19B	56-12B
Date	7/25/62	7/25/62	7/25/62	7/25/62
Hour	1116	1128	1455	1520
Scaler	5477	5478	5477	5477
10^3 Total Counts	256.	124.	109.	101.
Minutes	1.85	6.14	5.00	4.00
10^3c/m/Sample	138.	20.2	21.8	25.1
Bkg. c/m	397.	456.	397.	397.
Coincidence Correction	0	0	0	0
10^3(c/m-Bkg.)	138.	19.7	21.5	24.7
Geometry Factor	33.48	33.48	33.48	33.48
Decay Factor H + 12 hrs.	40.6	40.6	41.3	41.7
10^3c/m/ft^2 H + 12 hrs	43.3	6.18	6.86	7.95
Inst. Eff. Factor	1.003	1.003	1.003	1.003
Decay Factor H + 100 hrs.	3.17	3.17	3.23	3.26
CH-I, shelf 3 Factor	356.	356.	356.	356.
c/m/ft^2, CH-I H + 100 hrs.	284.	40.6	45.1	52.3

D.7

TOTAL GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 27-1 CDEF Date Collected: 7/15/62 Shot Name: Small Boy Sample Area: 1.042 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 36.0 miles NE of Indian Springs AFB on East Indian Springs Road

Sample No.	27-1C	27-1D	27-1E	27-1F
Date	7/26/62	7/26/62	7/26/62	7/26/62
Hour	1510	1520	1530	1535
Scaler	5392	5392	5392	5392
10^3 Total Counts	18.1	56.1	71.4	61.7
Minutes	2.00	5.00	5.00	5.00
10^3 c/m/Sample	9.04	11.2	14.3	12.3
Bkg. c/m	738.	738.	738.	738.
Coincidence Correction	0	0	0	0
10^3 (c/m-Bkg.)	8.30	10.5	13.5	11.6
Geometry Factor	1413.	1413.	1413.	1413.
Decay Factor H + 12 hrs.	46.35	46.35	46.35	46.35
10^6 c/m/ft^2 H + 12 hrs.	521.	660.	848.	729.
Inst. Eff. Factor	1.00	1.00	1.00	1.00
Decay Factor H + 100 hrs.	3.62	3.62	3.62	3.62
CH-I, shelf 5 Factor	8.44	8.44	8.44	8.44
c/m/ft^2, CH-I H + 100 hrs.	3415.	4322.	5557.	4775.

D.8

TOTAL GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 27-2 CDEF   Date Collected: 7/15/62   Shot Name: Small Boy   Sample Area: 1.042 ft^2
Standard Used: Cs137   Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 35 mile. NE of Indian Springs AFB on East Indian Springs Road

Sample No.	27-2C	27-2D	27-2E	27-2F
Date	7/26/62	7/26/62	7/26/62	7/26/62
Hour	1453	1455	1500	1505
Scaler	5392	5392	5392	5392
10^3 Total Counts	25.6	23.0	23.4	24.0
Minutes	2.00	2.00	2.10	2.00
10^3c/m/Sample	12.8	11.5	11.1	12.0
Bkg. c/m	738.	738.	738.	738.
Coincidence Correction	0	0	0	0
10^3(c/m-Bkg.)	12.0	10.8	10.4	11.3
Geometry Factor	1413.	1413.	1413.	1413.
Decay Factor H + 12 hrs.	46.09	46.09	46.09	46.09
10^6c/m/ft^2 H + 12 hrs.	753.	673.	650.	705.
Inst. Eff. Factor	1.00	1.00	1.00	1.00
Decay Factor H + 100 hrs.	3.60	3.60	3.60	3.60
CH-I, shelf 5 Factor	8.44	8.44	8.44	8.44
c/m/ft^2, CH-I H + 100 hrs.	4931.	4402.	4259.	4615.

D.9

TOTAL GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 35-20 CDEF Date Collected: 7/15/62 Shot Name: Small Boy Sample Area: 1.042 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 45.0 miles NW of Corn Creek Ranger Station on Sheep Canyon Road

Sample No.	35-20C	35-20D	35-20E	35-20F
Date	7/26/62	7/26/62	7/26/62	7/26/62
Hour	1110	1118	1450	1445
Scaler	5392	5392	5392	5392
10^3 Total Counts	11.4	12.9	9.81	10.2
Minutes	2.00	2.00	2.00	2.00
10^3 c/m/Sample	5.69	6.43	4.91	5.12
Bkg. c/m	685.	685.	738.	738.
Coincidence Correction	0	0	0	0
10^3 (c/m-Bkg.)	5.00	5.74	4.17	4.38
Geometry Factor	1413.	1413.	1413.	1413.
Decay Factor H + 12 hrs.	45.58	45.58	46.09	46.09
10^6 c/m/ft^2 H + 12 hrs.	309.	355.	261.	274.
Inst. Eff. Factor	1.00	1.00	1.00	1.00
Decay Factor H + 100 hrs.	3.56	3.56	3.60	3.60
CH-I, shelf 5 Factor	8.44	8.44	8.44	8.44
c/m/ft^2, CH-I H + 100 hrs.	2025.	2324.	1706.	1792.

D.10

TOTAL GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 56-10 CDEF Date Collected: 7/15/62 Shot Name: Small Boy Sample Area: 1.042 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 18.6 miles N of Kane Springs Wash Road on U. S. 93

Sample No.	56-10C	56-10D	56-10E	56-10F
Date	7/26/62	7/26/62	7/26/62	7/26/62
Hour	1030	1035	1040	1045
Scaler	5392	5392	5392	5392
10^3 Total Counts	7.95	7.06	6.35	7.10
Minutes	2.00	2.00	2.00	2.00
10^3c/m/Sample	3.97	3.53	3.17	3.55
Bkg. c/m	685.	685.	685.	685.
Coincidence Correction	0	0	0	0
10^3(c/m-Bkg.)	3.29	2.85	2.49	2.87
Geometry Factor	1413.	1413.	1413.	1413.
Decay Factor H + 12 hrs.	45.33	45.33	45.33	45.33
10^6c/m/ft^2 H + 12 hrs.	202.	175.	153.	176.
Inst. Eff. Factor	1.00	1.00	1.00	1.00
Decay Factor H + 100 hrs.	3.54	3.54	3.54	3.54
CH-I, shelf 5 Factor	8.44	8.44	8.44	8.44
c/m/ft^2, CH-I H + 100 hrs.	1323.	1146.	1002.	1154.

D.11

TOTAL GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 56-12 CDEF Date Collected: 7/15/62 Shot Name: Small Boy Sample Area: 1.042 ft^2
Standard Used: Cs137 Date and Hour of Shot: 7/14/62, 1130 hours
Collection Location: 22.6 miles N of Kane Springs Wash Road on U. S. 93

Sample No.	56-12C	56-12D	56-12E	56-12F
Date	7/26/62	7/26/62	7/26/62	7/26/62
Hour	1050	1055	1100	1105
Scaler	5392	5392	5392	5392
10^3 Total Counts	7.36	7.61	7.73	7.05
Minutes	2.00	2.00	2.00	2.00
10^3c/m/Sample	3.68	3.81	3.87	3.54
Bkg. c/m	685.	685.	685.	685.
Coincidence Correction	0	0	0	0
10^3(c/m-Bkg.)	3.00	3.12	3.18	2.85
Geometry Factor	1413.	1413.	1413.	1413.
Decay Factor H + 12 hrs.	45.33	45.33	45.33	45.33
10^6c/m/ft^2 " + 12 hrs.	184.	192.	196.	175.
Inst. Eff. Factor	1.00	1.00	1.00	1.00
Decay Factor H + 100 hrs.	3.54	3.54	3.54	3.54
CH-I, shelf 5 Factor	8.44	8.44	8.44	8.44
c/m/ft^2, CH-I H + 100 hrs.	1206.	1256.	1280.	1148.

D.12

TOTAL GAMMA ACTIVITY - GRANULAR COLLECTOR

Sample No: 27-1A; 27-2A; 35-20A; 56-10A; 56-12A Date Collected: 7/15/62 Shot Name: Small Boy
Standard Used: Cs137 Sample Area: 4.336 ft^2 Date and Hour of Shot: 7/14/62. 1130 hours
Collection Location: See data sheets for small trays on corresponding arcs

Sample No.	27-1A	27-2A	35-20A	56-10A	56-12A
Date	7/16/62	7/16/62	7/16/62	7/17/62	7/16/62
Hour	1400	1414	1544	1714	1732
Scaler	CH-I	CH-I	CH-I	CH-I	CH-I
10^3 Total Counts	103.	80.1	38.3	8.79	24.3
Minutes	2.0	2.0	2.0	1.00	2.00
10^3c/m/Sample	51.6	40.1	19.1	8.79	12.1
Bkg. c/m	261.	261.	254.	232.	242.
Coincidence Correction	0	0	0	0	0
10^3(c/m-Bkg.)	51.3	39.8	18.9	8.55	11.9
Geometry Factor	11921.	11921.	11921.	11921.	11921.
Decay Factor H + 12 hrs.	5.53	5.53	5.80	9.45	6.08
10^6c/m/ft^2 H + 12 hrs.	780.	605.	301.	222.	199.
Inst. Eff. Factor	1.00	1.00	1.00	1.00	1.00
Decay Factor H + 100 hrs.	0.432	0.432	0.453	0.738	0.475
CH-I, shelf 5 Factor	1.00	1.00	1.00	1.00	1.00
c/m/ft^2, CH-I H + 100 hrs.	5111.	3965.	1972.	1456.	1303.

Appendix E

NRDL RAW COUNTING AND WEIGHING DATA

TABLE E.1 SCINTILLATION COUNTER MEASUREMENTS

SAMPLE NUMBER		AGE DAYS		OBSERVED C/M	ACTIVITY C/M	BKGD C/M	STD C/M
101 AO 1	SB	2.441	2	4542146	4542868	2599	32619
101 AO 1	SB E	2.458	2	70906	71275	1338	33933
101 AO 2	SB	2.378	2	4524089	4595641	1450	32619
101 AO 2	SB E	2.446	2	62116	62774	1403	33933
101 AO 3	SB	2.383	2	4446684	4445400	1450	32619
101 AO 3	SB E	2.448	2	39250	39410	1403	33933
101 AO 4	SB	2.437	2	4497994	4507642	2599	32619
101 AO 4	SB E	2.460	2	27662	27426	1338	33933
101 AO 5	SB	2.913	3	5344316	5366696	593	34160
101 AO 6	SB	2.376	2	4592788	4610377	1450	32619
101 AO 6	SB E	2.465	2	37834	38276	1338	33922
101 AO 7	SB	9.414	2	2509687	2499537	830	33482
101 AO 7	SB E	9.461	2	7413	7405	725	33286
101 AO 8	SB	9.437	2	1607365	1606090	816	33482
101 AO 8	SB E	9.468	2	9998	10145	735	33399
101 AO 9	SB	9.418	2	2475376	2473776	1044	33482
101 AO 9	SB E	9.466	2	4874	4872	735	33399
101 AO 10	SB	9.432	2	2590072	2579024	816	33482
101 AO 10	SB E	9.470	2	10932	10827	735	33399
200 AO 1	SB	9.394	2	21842	22213	790	33482
200 AO 1	SB E	9.434	2	2726	2692	854	33199
200 AO 2	SB	9.384	2	19095	19219	790	33482
200 AO 3	SB	9.393	2	13807	13684	816	33482
200 AO 3	SB E	9.454	2	1715	1741	742	33286
200 AO 4	SB	9.395	2	13934	13730	816	33482
200 AO 4	SB E	9.473	2	2276	2212	734	33399
200 AO 5	SB	9.913	3	25564	26029	946	33930
200 AO 6	SB	9.383	2	20240	20346	790	33482
200 AO 6	SB E	9.425	2	2356	2348	1044	33482
200 AO 7	SB	9.294	2	18930	19061	746	33527
200 AO 7	SB E	9.457	2	2291	2300	725	33286
200 AO 8	SB	4.223	3	44642	45153	962	34596
200 AO 9	SB	3.966	2	50748	50950	840	32378
200 AO 10	SB	9.392	2	16135	15911	816	33482
200 AO 10	SB E	9.459	2	1650	1698	725	33285
201 AO 1	SB	4.372	2	2696427	2701556	1964	34508
201 AO 1	SB E	4.409	2	60431	60414	1661	32295
201 AO 2	SB	4.370	2	2630607	2636196	1303	34522
201 AO 2	SB E	4.405	2	53415	53916	1661	32295
201 AO 3	SB	4.368	2	2712457	2715266	1303	34522
201 AO 3	SB E	4.377	2	59426	59480	1964	34508
201 AO 4	SB	2.326	2	3534299	3532114	1397	33188
201 AO 4	SB E	2.463	2	79029	79276	1338	33933
201 AO 5	SB	2.910	3	4260554	4300917	761	35122
201 AO 6	SB	4.346	2	2524728	2524394	1303	34522
201 AO 6	SB E	4.375	2	47445	46375	1964	34508
201 AO 7	SB	2.338	2	3618981	3616751	1815	32619
201 AO 7	SB E	2.416	2	80223	80134	1915	32619
201 AO 8	SB	2.431	2	3636355	3629753	1815	32619
201 AO 8	SB E	2.436	2	72455	72681	1915	32619
201 AO 9	SB	2.077	2	3732635	3736561	995	31949
201 AO 9	SB E	2.143	2	96035	96013	1481	33451
201 AO 10	SB	2.223	2	3808326	3808482	1417	33243
[illegible] AO 1	SB	9.393	2	4232	4263	816	33482
[illegible] AO 2	SB	9.423	2	4551	4498	1044	33482

TABLE E.1 CONTINUED

SAMPLE NUMBER		AGE DAYS		OBSERVED C/M	ACTIVITY C/M	BKGD C/M	STD C/M
300 AO 3	SB	9.340	2	4885	4922	660	33327
300 AO 4	SB	9.400	2	3903	3931	816	33482
300 AO 5	SB	9.923	3	4997	5015	546	33930
300 AO 6	SB	9.342	2	4567	4627	660	33327
300 AO 7	SB	9.367	2	5422	5511	678	33482
300 AO 7	SB E	9.433	2	1251	1308	600	33155
300 AO 8	SB	4.197	3	14912	15003	611	34596
300 AO 9	SB	3.999	2	11370	11769	800	32399
301 AO 1	SB	9.371	2	1035117	1035049	678	33482
301 AO 1	SB E	9.429	2	46538	47034	600	33155
301 AO 2	SB	9.375	2	991631	997172	678	33482
301 AO 2	SB E	9.431	2	51476	50892	600	33155
301 AO 3	SB	9.316	2	945585	946051	743	33327
301 AO 3	SB E	9.446	2	65730	65256	742	33286
301 AO 4	SB	9.332	2	894836	893121	460	33327
301 AO 4	SB E	9.439	2	41988	41876	354	33155
301 AO 5	SB	9.925	3	1034303	1035968	546	33930
301 AO 6	SB	9.335	2	1098907	1098660	680	33327
301 AO 6	SB E	9.440	2	45586	46077	854	33155
301 AO 7	SB	9.298	2	1187863	1187474	746	33527
301 AO 7	SB E	9.449	2	38904	38930	742	33286
301 AO 8	SB	9.302	2	953461	951818	746	33527
301 AO 8	SB E	9.452	2	41380	42039	742	33286
301 AO 9	SB	9.307	2	1134875	1133986	746	33527
301 AO 9	SB E	9.445	2	39466	38792	742	33286
301 AO 10	SB	9.303	2	1256149	1256130	746	33527
301 AO 10	SB E	9.443	2	38257	38269	854	33155
303 AO 1	SB	4.315	2	1301739	1297353	1320	32892
303 AO 1	SB E	4.326	2	84218	84207	1320	32892
303 AO 2	SB	4.308	2	2351847	2352378	1320	32892
303 AO 2	SB E	4.337	2	71765	71349	1280	32892
303 AO 3	SB	4.306	2	2326123	2324778	1040	32838
303 AO 3	SB E	4.339	2	58058	57392	1280	32892
303 AO 4	SB	4.322	2	2364529	2367354	1320	32892
303 AO 4	SB E	4.334	2	60971	61245	1280	32892
303 AO 5	SB	3.939	3	1755770	1783149	583	34929
303 AO 6	SB	4.320	2	2459502	2461491	1320	32892
303 AO 6	SB E	4.334	2	57371	57725	1230	32892
303 AO 7	SB	4.317	2	2434567	2426912	1320	32892
303 AO 7	SB E	4.324	2	60750	60559	1320	32892
303 AO 8	SB	4.210	2	2329995	2330589	1057	32838
303 AO 9	SB	4.124	2	2427748	2430820	817	32391
305 AO 1	SB	1.367	2	3001819	3058070	802	31804
305 AO 1	SB E	1.404	2	130315	129931	780	31804
305 AO 2	SB	1.372	2	3323505	3308680	802	31804
305 AO 2	SB E	1.406	2	130894	130024	780	31804
305 AO 3	SB	1.354	2	4285009	4288015	800	31757
305 AO 3	SB E	1.390	2	137310	136413	802	31804
305 AO 4	SB	1.359	2	3411708	3412270	800	31757
305 AO 4	SB E	1.377	2	170102	169054	802	31804
305 AO 5	SB	2.993	3	2249206	2251681	559	34311
305 AO 6	SB	1.344	2	3444953	3417117	800	31757
305 AO 6	SB E	1.360	2	151248	151385	788	31804
305 AO 7	SB	10.412	2	611538	612408	790	32552
305 AO 7	SB E	10.445	2	29254	29046	1004	33248

TABLE E.1 CONTINUED

SAMPLE NUMBER			AGE DAYS		OBSERVED C/M	ACTIVITY C/M	BKGD C/M	STD C/M
305 AO 8	SB		4.162	2	1830289	1831685	985	32836
305 AO 9	SB		3.890	2	1833321	1837670	1032	32447
305 AO 10	SB		10.420	2	725247	726467	790	32552
305 AO 10	SB	E	10.447	2	14585	14711	1004	33248
307 AO 1	SB		11.315	3	3563	3646	476	33373
307 AO 2	SB		11.319	3	3308	3373	476	33373
307 AO 3	SB		11.322	3	3042	2926	476	33373
307 AO 4	SB		11.317	3	3912	3948	476	33373
307 AO 5	SB		10.905	3	3957	4177	336	34098
307 AO 6	SB		11.324	3	2313	2328	476	33373
307 AO 7	SB		11.311	3	4648	4599	511	33373
307 AO 8	SB		11.329	3	3456	3424	465	33575
307 AO 9	SB		11.313	3	3071	3176	511	33373
307 AO 10	SB		11.327	3	2319	2410	465	33575
400 AO 1	SB		9.516	2	8928	8965	723	32972
400 AO 1	SB	E	9.529	2	3389		774	33237
400 AO 2	SB		1.092	3	74617	73198	317	35746
400 AO 3	SB		1.089	2	85659	35781	508	31328
400 AO 4	SB		1.092	2	54498	54254	515	31328
400 AO 5	SB		1.086	2	84911	85298	508	31328
400 AO 6	SB		1.084	2	70957	71183	508	31328
400 AO 7	SB		1.087	3	95776	95781	317	35746
400 AO 8	SB		4.175	2	13682	13565	985	32838
400 AO 9	SB		1.085	3	82985	82811	512	35746
401 AO 1	SB		9.532	2	693523	694021	774	33237
401 AO 1	SB	E	9.553	2	21674	21570	601	33245
401 AO 2	SB		9.540	2	692323	706048	774	33237
401 AO 2	SB	E	9.563	2	24208	24196	601	33245
401 AO 3	SB		9.538	2	684457	685698	774	33237
401 AO 3	SB	E	9.556	2	26915	26740	601	33245
401 AO 4	SB		9.535	2	607224	613484	774	33237
401 AO 4	SB	E	9.554	2	21499	21632	601	33245
401 AO 5	SB		9.951	3	662688	663198	405	33738
401 AO 6	SB		9.549	2	710262	709721	765	33237
401 AO 6	SB	E	9.559	2	20914	21004	601	33245
401 AO 7	SB		9.547	2	712157	712794	765	33237
401 AO 7	SB	E	9.558	2	30775	28263	601	33245
401 AO 8	SB		4.196	2	1684827	1689129	1057	32838
401 AO 9	SB		4.141	2	1767388	1764442	1017	32830
401 AO 10	SB		9.542	2	735530	735009	774	33237
401 AO 10	SB	E	9.561	2	18433	18248	601	33245
403 AO 1	SB		1.900	2	3452510	3433396	875	31940
403 AO 1	SB	E	1.910	2	193482	194439	875	31940
403 AO 2	SB		2.251	2	2217249	2213698	1214	33188
403 AO 2	SB	E	2.387	2	126684	125668	1450	32619
403 AO 3	SB		1.942	2	3362671	3357196	875	31940
403 AO 3	SB	E	1.997	2	144776	145066	1010	31940
403 AO 4	SB		1.945	2	3510168	3503013	875	31940
403 AO 4	SB	E	1.971	2	174650	174469	1091	31940
403 AO 5	SB		3.963	3	2498631	2499942	583	34929
403 AO 6	SB		3.570	2	2672607	2672758	1073	31855
403 AO 6	SB	E	3.594	2	88742	88297	1096	32690
403 AO 7	SB		3.584	2	2724368	2727167	1096	32690
403 AO 7	SB	E	3.605	2	53722	53922	1292	32533

TABLE E.1 CONTINUED

SAMPLE NUMBER		AGE DAYS		OBSERVED C/M	ACTIVITY C/M	BKGD C/M	STD C/M
403 AO 8	SB	3.583	2	2657829	2658255	1096	32690
403 AO 8	SB E	3.589	2	63264	63573	1096	32690
403 AO 9	SB	3.581	2	2593129	2595273	1096	32690
403 AO 9	SB E	3.587	2	63012	62271	1096	32690
403 AO 10	SB	3.573	2	2800089	2800176	1096	32690
403 AO 10	SB E	3.592	2	82559	81669	1096	32690
405 AO 1	SB	10.382	2	203994	204498	836	32892
405 AO 1	SB E	10.432	2	12604	12504	1018	32819
405 AO 2	SB	10.384	2	210773	211395	836	32892
405 AO 2	SB E	10.428	2	13656	13400	1018	32819
405 AO 3	SB	10.383	2	186040	186618	836	32892
405 AO 3	SB E	10.426	2	12615	12462	1018	32819
405 AO 4	SB	10.393	2	179432	180710	790	32552
405 AO 4	SB E	10.425	2	12137	12067	1018	32819
405 AO 5	SB	3.973	3	893591	893258	519	34929
405 AO 6	SB	4.153	2	682951	688827	1017	32830
405 AO 7	SB	3.888	2	444865	451523	1032	32447
405 AO 8	SB	4.233	2	816058	816926	1168	32838
405 AO 9	SB	3.985	2	812904	810069	840	32378
405 AO 10	SB	10.387	2	321786	323658	836	32892
405 AO 10	SB E	10.430	2	10871	10722	1018	32819
407 AO 1	SB	1.103	2	31011	30972	515	31328
407 AO 2	SB	1.083	3	39862	39763	512	35746
407 AO 3	SB	1.102	3	27556	27616	323	34256
407 AO 4	SB	1.081	3	27038	42327	512	35746
407 AO 5	SB	1.095	3	31926	32218	317	34256
407 AO 6	SB	1.108	2	43088	43332	506	31569
407 AO 7	SB	1.104	3	40020	40548	323	34256
407 AO 8	SB	1.107	3	39586	39782	323	34256
407 AO 9	SB	1.101	2	25461	25589	515	31328
407 AO 10	SB	1.099	2	44321	43944	515	31328
501 AO 1	SB	11.388	2	14464	14511	958	33377
501 AO 1	SB E	11.409	2	2647	2632	775	32894
501 AO 2	SB	11.399	2	12869	12796	1005	33377
501 AO 2	SB E	11.414	2	2381	2370	782	32894
501 AO 3	SB	11.393	2	14917	14920	1005	33377
501 AO 3	SB E	11.418	2	4953	4947	782	33894
501 AO 4	SB	11.395	2	13083	13523	1005	33377
501 AO 4	SB E	11.416	2	2404	2420	782	32894
501 AO 5	SB	11.402	2	16406	16279	1005	33377
501 AO 6	SB	11.392	2	11163	10952	1005	33377
501 AO 7	SB	11.397	2	12033	11973	1005	33377
501 AO 7	SB E	11.419	2	3408	3412	782	33894
501 AO 8	SB	4.208	2	69603	69250	1057	32838
501 AO 9	SB	4.132	2	20100	20344	757	32830
503 AO 1	SB	3.469	2	875857	874004	823	32062
503 AO 1	SB E	3.526	2	19753	19540	1073	31888
503 AO 2	SB	3.465	2	866908	863430	823	32062
503 AO 2	SB F	3.528	2	20284	20467	1073	31888
503 AO 3	SB	3.483	2	886266	887033	1003	32079
503 AO 3	SB F	3.496	2	15011	15160	877	32158

TABLE E.1 CONTINUED

SAMPLE NUMBER			AGE DAYS		OBSERVED C/M	ACTIVITY C/M	BKGD C/M	STD C/M
503 AO 4	SB		3.481	2	970736	974959	1003	32079
503 AO 4	SB	F	3.494	2	15831	16072	877	32158
503 AO 5	SB		3.982	3	847935	849781	519	34929
503 AO 6	SB		3.479	2	829150	829259	999	32079
503 AO 6	SB	E	3.498	2	18245	17983	877	32158
503 AO 7	SB		3.476	2	779113	780420	999	32079
503 AO 7	SB	E	3.488	2	13113	13176	1003	32079
503 AO 8	SB		4.232	3	754341	754347	985	35116
503 AO 9	SB		3.973	2	733733	739354	840	32378
503 AO 10	SB		3.474	2	1037614	1037079	999	32079
503 AO 10	SB	E	3.489	2	12762	12534	1003	32079
505 AO 1	SB		1.462	2	2932971	2934309	2209	31804
505 AO 1	SB	E	1.576	2	27348	27261	771	31940
505 AO 2	SB		1.878	2	2516193	2513675	771	31940
505 AO 2	SB	E	1.885	2	33123	32850	875	31940
505 AO 3	SB		1.421	2	2037486	1995544	1301	31804
505 AO 3	SB	E	1.467	2	27576	27748	1746	31804
505 AO 4	SB		1.453	2	2997610	2993059	2209	31804
505 AO 4	SB	F	1.481	2	28103	27950	1843	31804
505 AO 5	SB		1.993	3	2638714	2646745	420	33867
505 AO 6	SB		1.874	2	2592925	2586228	771	31940
505 AO 6	SB	E	1.888	2	46513	46776	875	31940
505 AO 7	SB		10.411	2	464484	465571	790	32552
505 AO 7	SB	F	10.443	2	13579	13329	1004	33248
505 AO 8	SB		10.406	2	466352	467132	790	32552
505 AO 8	SB	E	10.440	2	11301	11369	1004	33248
505 AO 9	SB		10.408	2	453824	455700	790	32552
505 AO 9	SB	E	10.441	2	19422	19395	1004	33248
509 AO 1	SB		10.318	2	40840	41022	678	33174
509 AO 1	SB	E	10.361	2	3094	3106	810	33081
509 AO 2	SB		10.301	2	10261	10123	670	33842
509 AO 2	SB	F	10.365	2	2503	2465	810	33081
509 AO 3	SB		10.322	2	31379	31035	678	32496
509 AO 4	SB		10.297	2	27863	28184	670	32842
509 AO 4	SB	E	10.343	2	2741	2690	810	33081
509 AO 5	SB		9.977	3	43515	43346	490	34003
509 AO 6	SB		10.296	2	30793	31086	670	32842
509 AO 6	SB	F	10.341	2	2967	2932	810	33081
509 AO 7	SB		10.299	2	33364	33182	670	33842
509 AO 7	SB	E	10.367	2	2922	2846	963	33081
509 AO 8	SB		4.207	3	117925	118369	611	34596
509 AO 9	SB		4.144	2	123723	123859	1017	32830
601 AO 1	SB		3.399	2	50537	50576	827	31858
601 AO 1	SB	E	3.403	2	5146	5199	827	31858
601 AO 2	SB		3.369	2	51316	51634	878	32108
601 AO 2	SB	E	3.401	2	4419	4489	827	31858
601 AO 3	SB		3.367	2	49986	50447	878	32108
601 AO 3	SB	E	3.393	2	5782	5852	828	31858
601 AO 4	SB		3.365	2	58136	58362	878	32108
601 AO 4	SB	E	3.373	2	4346	4201	878	32108
601 AO 5	SB		2.961	3	72361	72016	544	34130
601 AO 6	SB		3.289	2	32176	32643	849	32080
601 AO 6	SB	E	3.362	2	4392	4311	894	32108

TABLE E.1 CONTINUED

SAMPLE NUMBER		AGE DAYS		OBSERVED C/M	ACTIVITY C/M	BKGD C/M	STD C/M
601 AO 7	SB	3.291	2	57211	57207.	849	32080
601 AO 7	SB E	3.348	2	5090	5002	890	32080
601 AO 8	SB	4.235	3	46073	45957	985	35116
601 AO 9	SB	4.114	2	44534	44739	817	32391
603 AO 1	SB	2.148	2	1536870	1537497	1481	33451
603 AO 1	SB E	2.156	2	84480	83900	1481	33451
603 AO 2	SB	2.198	2	1436457	1436306	1417	33243
603 AO 2	SB E	2.219	2	84994	85496	1417	33243
603 AO 3	SB	2.241	2	1412564	1412003	1230	32747
603 AO 3	SB E	2.370	2	53608	53836	1397	33188
603 AO 4	SB	2.224	2	1469682	1468694	1268	32747
603 AO 4	SB E	2.246	2	69804	68550	1214	33188
603 AO 5	SB	9.982	3	282461	281984	465	34003
603 AO 6	SB	10.321	2	271623	272052	678	33174
603 AO 6	SB E	10.380	2	16637	16683	836	32892
603 AO 7	SB	10.332	2	234141	235079	666	33174
603 AO 7	SB E	10.376	2	18101	18196	836	32892
603 AO 8	SB	10.333	2	214016	214184	666	33174
603 AO 8	SB E	10.377	2	18259	18364	836	32892
603 AO 9	SB	10.328	2	216252	214950	666	33174
603 AO 9	SB E	10.374	2	18388	18382	836	32892
605 AO 1	SB	2.322	2	1349454	1349742	1397	33188
605 AO 1	SB E	2.413	2	90281	91162	1402	32619
605 AO 2	SB	10.292	3	235073	234581	419	32959
605 AO 2	SB E	10.364	3	21142	21569	440	33393
605 AO 3	SB	10.294	3	236909	237489	419	32959
605 AO 3	SB E	10.366	3	18961	19304	687	33393
605 AO 4	SB	10.302	3	243215	243995	420	33142
605 AO 4	SB E	10.342	3	19388	18552	440	33393
605 AO 5	SB	10.116	3	250450	251064	406	33435
605 AO 6	SB	10.298	3	218664	219403	420	33142
605 AO 6	SB E	10.369	3	16611	16715	687	33393
605 AO 7	SB	10.300	3	216646	217418	420	33142
605 AO 7	SB E	10.341	3	19655	19572	440	33393
605 AO 8	SB	4.233	2	647263	648682	1057	32838
605 AO 9	SB	4.116	2	670499	673367	817	32391
607 AO 1	SB	10.279	3	17429	17508	369	32959
607 AO 1	SB E	10.307	3	1885	1913	420	33142
607 AO 2	SB	10.281	3	17716	17473	369	32959
607 AO 2	SB E	10.314	3	1667	1707	420	33142
607 AO 3	SB	10.283	3	17613	17487	369	32959
607 AO 3	SB E	10.318	3	1727	1714	420	33142
607 AO 4	SB	10.285	3	14911	17038	419	32959
607 AO 4	SB E	10.320	3	1494	1607	420	33142
607 AO 5	SB	10.119	3	16519	16652	406	33435
607 AO 6	SB	10.290	3	14639	14832	419	32959
607 AO 6	SB E	10.327	3	1736	1785	440	33142
607 AO 7	SB	10.288	3	19795	19648	419	32959
607 AO 7	SB E	10.372	3	1447	1383	420	33142
607 AO 8	SB	4.227	2	50699	50082	1057	32838
607 AO 9	SB	4.121	2	48017	48293	817	32391
703 AO 1	SB	2.064	3	157432	157187	727	35122
703 AO 4	SB	2.077	3	181451	181409	727	35122
703 AO 5	SB	1.985	3	200922	200358	470	33867

TABLE E.1 CONTINUED

SAMPLE NUMBER		AGE DAYS		OBSERVED C/M	ACTIVITY C/M	BKGD C/M	STD C/M
703 AO 7	SB	2.072	3	109523	110205	727	35122
703 AO 8	SB	4.238	2	77352	77640	1168	32838
703 AO 9	SB	4.134	2	72820	73106	757	32830
705 AO 1	SB	2.950	2	221856	222120	687	32603
705 AO 1	SB E	2.981	2	21068	20642	654	32603
705 AO 2	SB	2.953	2	243272	243549	687	32603
705 AO 2	SB E	2.990	2	20555	21051	629	32640
705 AO 3	SB	2.957	2	229942	231290	687	32603
705 AO 3	SB E	3.000	2	22027	21848	629	32640
705 AO 4	SB	2.967	2	194106	194807	710	32603
705 AO 4	SB E	3.072	2	7584	7660	534	32640
705 AO 5	SB	1.978	3	448411	449044	271	33867
705 AO 6	SB	2.970	2	182752	183652	710	32603
705 AO 6	SB E	2.997	2	20328	20175	629	32640
705 AO 7	SB	2.963	2	236345	235985	710	32603
705 AO 7	SB E	3.070	2	14746	14867	634	32640
705 AO 8	SB	4.242	2	163952	164952	1168	32838
705 AO 9	SB	2.960	2	255266	256884	687	32603
705 AO 9	SB E	3.003	2	18614	18860	629	32640
707 AO 1	SB	2.068	3	746031	745338	727	35122
707 AO 3	SB	1.419	2	963904	963703	780	31804
707 AO 3	SB E	1.437	2	44289	44236	790	31804
707 AO 4	SB	2.074	3	680923	680212	727	35122
707 AO 5	SB	1.988	3	828215	828220	470	33867
707 AO 6	SB	1.417	2	1030681	1026212	780	31804
707 AO 6	SB E	1.447	2	43939	43978	790	31804
707 AO 7	SB	4.120	3	390634	390206	511	34596
707 AO 9	SB	1.409	2	1028216	1029710	780	31804
707 AO 9	SB E	1.429	2	51165	51059	790	31804
814 AO 1	SB	11.374	2	8532	8561	987	32887
814 AO 2	SB	11.376	2	10727	10832	987	32887
814 AO 3	SB	11.379	2	15346	15367	987	32887
814 AO 3	SB E	11.408	2	2801	2816	775	32894
814 AO 4	SB	11.382	2	14161	14060	987	32887
814 AO 4	SB E	11.406	2	3613	3626	775	32894
814 AO 5	SB	11.386	2	15678	15656	958	33377
816 AO 1	SB	11.382	3	10402	10440	729	33871
816 AO 1	SB E	11.413	3	2470	2422	479	33200
816 AO 2	SB	11.380	3	10354	10297	729	33871
816 AO 2	SB E	11.415	3	3074	3074	453	33200
816 AO 3	SB	11.390	3	10376	10637	757	33892
816 AO 3	SB E	11.409	3	3852	3627	479	33200
816 AO 4	SB	11.388	3	9558	9346	734	33892
816 AO 4	SB E	11.410	3	5120	5187	479	33200
816 AO 5	SB	11.376	3	15072	15195	781	33871
818 AO 1	SB	11.458	3	8629	8440	477	33318
818 AO 1	SB E	11.489	3	2143	2197	493	33145
818 AO 2	SB	11.451	3	8756	8674	486	33145
818 AO 2	SB E	11.459	3	1660	1687	477	33318
818 AO 3	SB	11.453	3	8462	8463	486	33318
918 AO 3	SB E	11.465	3	1876	1802	493	33145
818 AO 4	SB	11.455	3	9960	9947	477	33318
818 AO 4	SB E	11.467	3	1605	1667	493	33145

TABLE E.1 CONTINUED

SAMPLE NUMBER			AGE DAYS		OBSERVED C/M	ACTIVITY C/M	BKGD C/M	STD C/M
818 AO 5	SB		11.449	3	13820	13928	486	33318
820 AO 1	SB		11.427	3	3203	3211	500	33506
820 AO 2	SB		11.424	3	3285	3221	500	33506
820 AO 3	SB		11.429	3	3226	3204	500	33506
820 AO 4	SB		11.431	3	3067	2998	500	33506
820 AO 5	SB		11.432	3	4207	4221	500	33506
822 AO 1	SB		11.423	2	1570	1582	786	32910
822 AO 2	SB		11.425	2	1311	1326	786	32910
822 AO 3	SB		11.426	2	1538	1524	786	32910
822 AO 4	SB		11.428	2	1432	1441	786	32910
822 AO 5	SB		11.429	2	2004	2014	786	32910
100 IC 1	SB		6.220	2	744	738	701	32638
100 IC 1	SB	E	6.244	2	1930	1853	1508	32823
100 IC 2	SB		6.286	2	808	874	790	32455
100 IC 2	SB	E	6.310	2	912	906	686	32419
100 IC 3	SB		6.288	2	1012	968	790	32455
100 IC 3	SB	E	6.309	2	876	852	686	32419
100 IC 4	SB		6.222	2	12967	13178	701	32638
100 IC 4	SB	E	6.242	2	992	1000	697	32823
100 IC 5	SB		6.230	2	356310	354496	698	32638
100 IC 5	SB	E	6.260	2	5414	5477	1332	33374
100 IC 6	SB		6.290	2	126004	125612	790	32455
100 IC 6	SB	E	6.306	2	3973	3965	657	32419
100 IC 7	SB		6.228	2	35818	36039	698	32638
100 IC 7	SB	E	6.254	2	5428	5522	1508	32823
100 IC 8	SB		6.225	2	1513	1477	701	32638
100 IC 8	SB	E	6.249	2	1627	1631	1508	32823
100 IC 9	SB		6.223	2	29825	29723	701	32638
100 IC 9	SB	E	6.251	2	2820	2198	1508	32823
100 IC 10	SB		6.275	2	5212	5284	620	33374
100 IC 10	SB	E	6.300	2	898	839	657	32419
100 IC 11	SB		6.283	2	790	790	790	32455
100 IC 11	SB	E	6.312	2	990	1005	686	32419
100 IC 12	SB		6.284	2	1029	1041	790	32455
100 IC 12	SB	E	6.308	2	833	846	686	32419
100 IC 13	SB		6.267	2	1586	1691	1586	33374
100 IC 13	SB	E	6.294	2	1000	1025	740	32455
100 IC 14	SB		6.271	2	1835	1664	1586	33374
100 IC 14	SB	E	6.296	2	838	793	740	32455
100 IC 15	SB		6.292	2	1009	975	790	32455
100 IC 15	SB	E	6.302	2	822	827	657	32419
100 IC 16	SB		6.232	2	711	735	698	32638
100 IC 16	SB	E	6.261	2	1773	1723	1332	33374
100 IC 17	SB		6.234	2	720	724	698	32638
100 IC 17	SB	E	6.263	2	1519	1505	1332	33374
100 IC 18	SB		6.279	2	932	951	620	33374
100 IC 18	SB	E	6.304	2	792	747	657	32419
100 IC 19	SB		6.240	2	697	697	697	32823
100 IC 19	SB	E	6.265	2	1740	1689	1332	33374
100 IC 20	SB		6.237	2	6876	6654	697	32823
100 IC 20	SB	E	6.247	2	2012	1993	1508	32823
203 IC 1	SB		5.495	2	7622	7519	958	32531
203 IC 1	SB	E	5.506	2	1331	1373	884	32531
203 IC 2	SB		5.489	2	136196	136641	913	32531

TABLE E.1 CONTINUED

SAMPLE NUMBER		AGE DAYS		OBSERVED ACTIVITY		BKGD	STD
				C/M	C/M	C/M	C/M
203 IC 2	SB E	5.497	2	1636	1625	958	32531
203 IC 3	SB	5.508	2	196843	198322	884	32531
203 IC 3	SB E	5.514	2	5754	5798	884	32531
203 IC 4	SB	5.483	2	409315	409346	913	32531
203 IC 4	SB E	5.504	2	11811	11700	884	32531
203 IC 5	SB	5.502	2	21566	21697	884	32531
203 IC 5	SB E	5.512	2	2510	2354	884	32531
203 IC 6	SB	5.474	2	1213	1194	1023	32866
203 IC 6	SB E	5.481	2	1037	984	913	32531
203 IC 7	SB	5.510	2	984	1034	884	32531
203 IC 7	SB E	5.520	2	1214	1215	931	32531
203 IC 8	SB	5.407	2	912	968	847	32475
203 IC 8	SB E	5.417	2	1040	1119	892	32475
203 IC 9	SB	5.485	2	1864	2024	913	32531
203 IC 9	SB E	5.493	2	1304	1265	958	32531
203 IC 10	SB	5.403	2	931	929	847	32475
203 IC 10	SB E	5.409	2	1037	1088	847	32475
203 IC 11	SB	5.414	2	929	1036	892	32475
203 IC 11	SB E	5.423	2	1092	1150	957	32550
203 IC 12	SB	5.429	2	1057	1027	986	32550
203 IC 12	SB E	5.438	2	1260	1181	986	32550
203 IC 13	SB	5.445	2	2122	2000	938	32866
203 IC 13	SB F	5.454	2	1075	1118	1023	32866
203 IC 14	SB	5.472	2	4127	4041	1023	32866
203 IC 14	SB E	5.487	2	1528	1526	913	32531
203 IC 15	SB	5.436	2	1028	1113	986	32550
203 IC 15	SB E	5.449	2	1056	1100	1023	32866
203 IC 16	SB	5.440	2	1256	1322	986	32550
203 IC 16	SB E	5.447	2	1081	1105	938	32866
203 IC 17	SB	5.404	2	949	974	847	32475
203 IC 17	SB E	5.412	2	1024	1016	847	32475
203 IC 18	SB	5.425	2	1173	1193	957	32550
203 IC 18	SB E	5.434	2	1080	1148	986	32550
203 IC 19	SB	5.467	2	1676	1690	1023	32866
203 IC 19	SB F	5.476	2	979	1025	1023	32866
203 IC 20	SB	5.419	2	1056	1077	892	32475
203 IC 20	SB E	5.427	2	1118	1128	957	32550
507 IC 1	SB	5.363	3	727	708	463	34074
507 IC 1	SB F	5.373	3	1470	1453	463	34074
507 IC 2	SB	5.380	3	348462	348568	493	34064
507 IC 2	SB E	5.396	3	15509	15200	493	34074
507 IC 3	SB	5.398	3	80615	79808	493	34074
507 IC 3	SB F	5.412	3	8962	8931	472	34074
507 IC 4	SB	5.415	3	1449	1400	492	34074
507 IC 4	SB E	5.426	3	2330	2417	523	34064
507 IC 5	SB	5.417	3	1265	1206	492	34074
507 IC 5	SB E	5.438	3	1330	1324	601	34042
507 IC 6	SB	5.419	3	1654	1581	492	34074
507 IC 6	SB E	5.428	3	1174	1242	523	34064
507 IC 7	SB	5.421	3	3843	4081	492	34074
507 IC 7	SB E	5.431	3	1256	1274	523	34064
507 IC 8	SB	5.433	3	653	670	523	34064
507 IC 8	SB E	5.445	3	1072	1096	601	34042
507 IC 9	SB	5.440	3	991	666	601	34042
507 IC 9	SB F	5.447	3	1183	1173	601	34042
507 IC 10	SB	5.443	3	954	904	601	34042
507 IC 10	SB E	5.449	3	2289	2359	601	34042

TABLE E.1 CONTINUED

SAMPLE NUMBER		AGE DAYS		OBSERVED C/M	ACTIVITY C/M	BKGD C/M	STD C/M
507 IC 11	SB	5.468	3	1031	984	654	34162
507 IC 11	SB E	5.497	3	985	1103	715	34479
507 IC 12	SB	5.470	3	874	843	654	34162
507 IC 12	SB E	5.478	3	1108	1108	680	34162
507 IC 13	SB	5.472	3	1033	1010	654	34162
507 IC 13	SB E	5.450	3	1134	1136	680	34162
507 IC 14	SB	5.474	3	868	921	680	34162
507 IC 14	SB E	5.518	3	1278	1318	719	34268
507 IC 15	SB	5.476	3	1072	1099	680	34162
507 IC 15	SB E	5.486	3	1016	1041	868	34479
507 IC 16	SB	5.481	3	1194	1080	680	34162
507 IC 16	SB E	5.495	3	922	789	715	34479
507 IC 17	SB	5.488	3	1012	988	868	34479
507 IC 17	SB E	5.502	3	925	872	715	34479
507 IC 18	SB	5.490	3	727	842	715	34479
507 IC 18	SB E	5.506	3	1000	972	663	34268
507 IC 19	SB	5.499	3	1058	1039	715	34479
507 IC 19	SB E	5.521	3	908	867	719	34302
507 IC 20	SB	5.500	3	3116	3075	715	34479
507 IC 20	SB E	5.510	3	1020	1077	663	34268
100 PC 1	SB	2.004	2	1748040	1744220	1196	32800
100 PC 1	SB E	2.100	2	21041	21049	1075	32834
100 PC 2	SB	1.965	2	1851146	1881150	1031	31940
100 PC 2	SB E	2.009	2	70990	70596	1196	32913
100 PC 3	SB	11.277	3	281544	281855	483	33422
100 PC 4	SB	1.989	2	1937523	1938379	1091	31940
100 PC 4	SB F	2.007	2	59885	59570	1196	32913
100 PC 5	SB	1.441	2	2092358	2093358	790	31804
100 PC 5	SB F	1.497	2	27888	27885	1843	31804
100 PC 6	SB	10.986	3	315394	314317	499	33744
100 PC 7	SB	11.262	3	264505	265636	470	33494
100 PC 7	SB E	11.281	3	5746	5736	483	33422
100 PC 8	SB	11.268	2	214972	214226	768	32780
100 PC 8	SB E	11.310	2	3600	3620	838	32971
100 PC 9	SB	11.258	3	274656	275310	470	33494
100 PC 9	SB E	11.285	3	8373	8166	494	33422
100 PC 10	SB	11.264	2	221588	221910	768	32780
100 PC 10	SB E	11.312	2	4846	4820	838	32971
100 PC 11	SB	11.264	3	253277	253185	481	33494
100 PC 11	SB E	11.305	3	6762	6649	494	33422
100 PC 12	SB	11.273	2	215346	216894	768	32780
100 PC 12	SB E	11.300	2	4632	4690	762	32826
100 PC 14	SB	11.267	3	240044	241583	481	33494
100 PC 15	SB	11.266	2	207369	202514	768	32780
100 PC 15	SB E	11.314	2	4382	4368	838	32971
100 PC 16	SB	11.260	3	269457	269532	470	33494
100 PC 16	SB E	11.279	3	9807	9639	483	33422
100 PC 17	SB	11.269	3	295571	295227	481	33494
100 PC 18	SB	11.271	3	302983	302994	481	33494
100 PC 18	SB E	11.301	3	5375	5356	494	33422
100 PC 19	SB	11.270	2	209241	210737	768	32780
100 PC 19	SB F	11.311	2	5060	5031	838	32971
100 PC 20	SB	11.275	2	251352	250617	768	32780
100 PC 20	SB E	11.302	2	5489	5476	762	32826
100 PC 21	SB	11.273	3	228657	228950	481	33494
100 PC 21	SB E	11.303	3	4872	4896	494	33422
100 PC 22	SB	11.279	2	215719	216264	792	32876

TABLE E.1 CONTINUED

SAMPLE NUMBER		AGE DAYS		OBSERVED C/M	ACTIVITY C/M	BKGD C/M	STD C/M
100 PC 22	SB E	11.303	2	3346	3384	762	32826
100 PC 23	SB	11.261	2	232393	232036	726	32780
100 PC 23	SB E	11.282	2	7287	7320	762	32826
100 PC 24	SB	11.258	2	125942	124019	726	32780
100 PC 24	SB E	11.284	2	7851	7832	762	32826
100 PC 25	SB	4.156	2	976313	975363	1017	32830
203 PC 1	SB	10.476	3	324936	325306	968	34118
203 PC 1	SB E	10.512	3	10899	10598	649	33360
203 PC 2	SB	10.474	3	345734	347184	968	34118
203 PC 2	SB E	10.510	3	14806	15071	649	33360
203 PC 3	SB	10.485	3	334342	334773	691	33360
203 PC 4	SB	10.483	3	306666	307798	593	33360
203 PC 4	SB E	10.505	3	13567	13742	691	33360
203 PC 5	SB	10.472	3	322287	321669	968	34118
203 PC 5	SB E	10.506	3	12231	12001	691	33360
203 PC 6	SB	10.465	3	389122	389896	778	34118
203 PC 7	SB	10.469	3	377759	377065	778	34118
203 PC 7	SB F	10.499	3	7803	7794	691	33360
203 PC 8	SB	1.991	2	1932469	1931588	1010	32013
203 PC 8	SB E	2.113	2	29073	28862	984	32834
203 PC 9	SB	10.463	3	398682	399368	778	34118
203 PC 9	SB E	10.501	3	7160	7329	691	33360
203 PC 10	SB	10.479	3	342331	341761	968	34118
203 PC 10	SB F	10.503	3	6527	6588	691	33360
203 PC 11	SB	2.129	2	1963708	1962291	1481	33451
203 PC 11	SB E	2.152	2	31400	31722	1481	33451
203 PC 12	SB	10.467	3	399936	399126	778	34118
203 PC 12	SB E	10.497	3	10476	10303	691	33360
203 PC 16	SB	2.041	2	1974506	1973503	1522	33845
203 PC 16	SB E	2.059	2	23652	23656	995	31949
203 PC 19	SB	1.983	2	1853325	1854348	1091	31940
203 PC 19	SB E	2.114	2	43192	43562	984	32834
203 PC 21	SB	2.019	2	2169423	2168521	1522	33845
203 PC 21	SB E	2.068	2	38405	37978	995	31949
203 PC 22	SB	2.072	2	2095802	2092981	995	31949
203 PC 22	SB E	2.107	2	27398	26978	984	32834
203 PC 24	SB	4.178	2	1196072	1198187	1020	32838
203 PC 25	SB	10.989	3	329618	328844	499	33744
507 PC 1	SB	2.420	2	1093083	1091105	1915	32619
507 PC 1	SB E	2.452	2	40982	40680	1403	33933
507 PC 2	SB	2.393	2	1064854	1063981	1815	32619
507 PC 2	SB F	2.416	2	41086	41724	1402	32619
507 PC 3	SB	2.424	2	1081364	1081449	1915	32619
507 PC 4	SB	2.102	2	1227515	1228611	1075	32834
507 PC 4	SB E	2.113	2	41733	41681	984	32834
507 PC 5	SB	2.104	2	1229861	1230246	984	32834
507 PC 5	SB E	2.124	2	33571	33879	1481	33451
507 PC 6	SB	10.374	3	197381	196794	684	33568
507 PC 7	SB	3.994	3	596247	554522	559	34594
507 PC 8	SB	1.999	2	1142457	1143565	1010	31940
507 PC 8	SB E	2.135	2	37113	36991	1481	33451
507 PC 9	SB	10.422	3	190216	190078	814	33925
507 PC 9	SB F	10.457	3	12697	13071	761	33579
507 PC 10	SB	10.418	3	181868	180828	614	33573
507 PC 10	SB E	10.455	3	18773	18815	761	33579
507 PC 11	SB	2.083	2	442921	445066	995	31949

TABLE E.1 CONTINUED

SAMPLE NUMBER		AGE DAYS		OBSERVED C/M	ACTIVITY C/M	BKGD C/M	STD C/M
507 PC 11	SB E	2.137	2	22722	23190	1481	33451
507 PC 12	SB	10.384	3	191122	192744	659	33568
507 PC 12	SB E	10.430	3	16168	16261	812	33925
507 PC 14	SB	10.388	3	199384	193639	659	33568
507 PC 15	SB	10.376	3	197674	197535	684	33568
507 PC 15	SB E	10.438	3	19722	19655	1047	33925
507 PC 16	SB	10.378	3	171760	172493	684	33568
507 PC 16	SB E	10.436	3	13345	13300	1047	33925
507 PC 17	SB	10.408	3	196017	184719	614	33573
507 PC 18	SB	10.386	3	199854	199552	659	33568
507 PC 18	SB E	10.428	3	12726	13025	812	33925
507 PC 19	SB	1.994	2	1184634	1181587	1010	31940
507 PC 19	SB E	2.119	2	44787	45074	1481	33451
507 PC 20	SB	10.380	3	181640	181345	659	33568
507 PC 20	SB E	10.434	3	10116	10374	812	33925
507 PC 21	SB	10.396	3	193717	194197	478	33573
507 PC 21	SB E	10.449	3	14420	14631	1093	33579
507 PC 22	SB	10.400	3	182265	183257	478	33573
507 PC 22	SB E	10.453	3	8965	8752	1093	33579
507 PC 23	SB	10.398	3	184852	183888	478	33573
507 PC 23	SB E	10.451	3	12565	12643	1093	33579
507 PC 24	SB	10.383	3	192657	193652	659	33568
507 PC 24	SB E	10.432	3	29111	29121	812	33925
507 PC 25	SB	4.183	3	631080	631697	589	34596
101 OC 1	SB	4.963	2	3347783	3352263	941	32663
101 OC 1	SB E	4.982	2	14797	15121	857	32564
200 OC 1	SB	4.984	2	19451	19673	857	32564
200 OC 1	SB E	5.000	2	1960	1916	1021	32564
301 OC 1	SB	5.113	2	1453449	1454039	1021	32564
307 OC 1	SB	11.309	3	1675	1695	511	33373
401 OC 1	SB	5.870	2	891214	887369	1037	32724
403 OC 1	SB	8.324	2	881768	893461	748	31333
403 OC 1	SB E	8.345	2	35093	35219	786	32229
405 OC 1	SB	5.868	2	391145	392382	1037	32724
405 OC 1	SB E	5.880	2	13490	13422	1037	32724
407 OC 1	SB	8.294	2	3661	3636	739	33359
407 OC 1	SB E	8.342	2	1089	1125	786	32229
503 OC 1	SB	8.305	2	214975	215484	741	33359
503 OC 1	SB E	8.348	2	11311	11470	786	32229
100 PO 1	SB	0.483	3	5084000	5103000	234	34199
100 PO 1	SB E	0.531	3	97156	97500	234	34199
100 PO 2	SB	0.479	3	4826000	4833000	234	34199
203 PO 1	SB	0.466	3	4671000	4716000	234	34199
203 PO 2	SB	0.472	3	5050000	5059000	234	34199
203 PO 2	SB E	0.534	3	101600	101300	234	34199

TABLE E.1 CONTINUED

SAMPLE NUMBER			AGE DAYS		OBSERVED C/M	ACTIVITY C/M	BKGD C/M	STD C/M
507 PO 2	SB		10.424	3	224181	224825	812	33925
507 PO 2	SB	E	10.459	3	16747	16411	761	33579
707 LA 2 5	SB		4.332	2	1114152	1113383	1230	33322
707 LA 2 6	SB		4.381	2	1259792	1258020	1964	34508
707 LA 2 6	SB	E	4.403	2	70095	70389	1661	32295
707 LA 2 7	SB		4.328	2	1431904	1433201	1230	32892
707 LA 2 7	SB	E	4.349	2	71800	71458	1303	34522
707 LA 2 8	SB		4.407	2	957668	956152	1661	32295
707 LA 2 8	SB	E	4.426	2	70781	71003	1458	32428
707 LA 213	SB		4.363	2	1223464	1224228	1303	34522
707 LA 213	SB	E	4.382	2	55404	55452	1964	34508
707 LA 214	SB		4.468	2	1566780	1569383	1579	32428
707 LA 214	SB	E	4.487	2	109367	109771	1579	32428
707 LA 215	SB		4.397	2	1705848	1705764	1661	32295
707 LA 215	SB	E	4.413	2	99303	90955	1661	32295
707 LA 216	SB		5.204	3	992177	987511	562	34086
810 LA 2 2	SB		11.159	2	3046	2971	740	33371
810 LA 2 2	SB	E	11.180	2	1716	1785	740	33371
810 LA 2 4	SB		11.164	2	3211	3133	740	33371
810 LA 2 4	SB	E	11.188	2	1731	1793	740	33371
810 LA 2 6	SB		11.143	2	2527	2510	740	33371
810 LA 2 6	SB	E	11.155	2	1702	1654	740	33371
810 LA 2 8	SB		11.163	2	2759	2664	740	33371
810 LA 2 8	SB	E	11.185	2	1662	1591	740	33371
810 LA 210	SB		11.167	2	3192	3157	740	33371
810 LA 210	SB	E	11.193	2	1723	1721	740	33371
810 LA 212	SB		11.123	2	2398	2311	740	33371
810 LA 212	SB	E	11.133	2	1885	1532	740	33371
810 LA 214	SB		11.118	2	2407	2433	740	33371
810 LA 214	SB	E	11.140	2	1355	1373	740	33371
810 LA 216	SB		11.136	2	2814	2779	740	33371
810 LA 216	SB	E	11.153	2	1674	1524	740	33371
811 LA 2 2	SB		9.099	2	4151	4090	567	33254
811 LA 2 2	SB	E	9.111	2	4822	4674	567	33254
811 LA 2 6	SB		9.109	2	7773	7674	567	33254
811 LA 2 6	SB	E	9.120	2	4208	4230	567	33254
811 LA 2 8	SB		8.992	2	20588	18310	712	33052
811 LA 212	SB		8.972	2	6075	6105	712	33052
811 LA 212	SB	E	8.985	2	1386	1428	712	33052
811 LA 213	SB		8.982	2	5159	5236	712	33052
811 LA 213	SB	E	9.000	2	1671	1690	712	33052
811 LA 214	SB		8.962	2	4516	4333	712	33052
811 LA 214	SB	E	8.976	2	1717	1710	712	33052
811 LA 216	SB		8.946	2	5245	5277	712	33052
811 LA 216	SB	E	8.964	2	1522	1591	712	33052
812 LA 2 2	SB		4.485	3	19924	19666	600	34013
812 LA 2 4	SB		4.516	2	23140	22925	1409	32428
812 LA 2 4	SB	E	4.532	2	6130	5294	1409	32428
812 LA 2 6	SB		4.527	2	26919	26494	1409	32428
812 LA 2 6	SB	E	4.536	2	6024	6044	1318	32533
812 LA 2 8	SB		4.514	2	20209	20496	1409	32428
812 LA 2 8	SB	E	4.533	2	4969	4628	1409	32428
812 LA 210	SB		4.510	2	26348	26788	1409	32428
812 LA 210	SB	E	4.519	2	4978	5017	1409	32428

TABLE E.1 CONTINUED

SAMPLE NUMBER		AGE DAYS	OBSERVED C/M	ACTIVITY C/M	BKGD C/M	STD C/M
812 LA 212	SB	4.495 2	31002	29977	1579	32428
812 LA 212	SB E	4.512 2	4201	4199	1409	32428
812 LA 214	SB	4.482 2	24624	24301	1579	32428
812 LA 214	SB E	4.506 2	10035	9905	1409	32428
812 LA 216	SB	4.483 3	34829	34819	600	35116
813 LA 2 2	SB	2.239 2	654420	657580	1230	32747
813 LA 2 2	SB E	2.259 2	65445	64792	1214	33188
813 LA 2 4	SB	2.236 2	607337	607308	1230	32747
813 LA 2 4	SB E	2.260 2	50985	50619	1214	33188
813 LA 2 6	SB	2.215 2	737368	738739	1417	33243
813 LA 2 6	SB E	2.232 2	57362	58078	1230	32747
813 LA 2 8	SB	2.211 2	715235	711774	1417	33243
813 LA 2 8	SB F	2.233 2	63542	64038	1230	32747
813 LA 210	SB	2.159 2	785597	787382	1481	33451
813 LA 210	SB E	2.193 2	34722	34644	1417	33451
813 LA 212	SB	4.434 3	371997	371010	600	34013
813 LA 214	SB	4.423 2	333259	331843	1661	32295
813 LA 214	SB E	4.431 2	33382	33276	1458	32428
813 LA 216	SB	4.436 3	338457	338460	618	35116
814 LA 2 2	SB	4.929 2	229053	231690	986	32063
814 LA 2 4	SB	3.179 2	357209	358518	817	32975
814 LA 2 4	SB F	3.195 2	22809	22377	642	32975
814 LA 2 6	SB	3.153 2	425011	427978	816	32257
814 LA 2 6	SB E	3.169 2	37730	37457	817	32975
814 LA 2 8	SB	3.166 2	419837	423245	817	32975
814 LA 2 8	SB E	3.181 2	48141	48294	817	32975
814 LA 210	SB	3.136 2	395826	398323	816	32257
814 LA 210	SB E	3.155 2	40465	40628	816	32257
814 LA 212	SB	3.121 2	414706	416700	613	32257
814 LA 212	SB F	3.139 2	23482	23806	816	32257
814 LA 214	SB	3.100 2	452930	455695	613	32257
814 LA 214	SB F	3.112 2	25078	25142	613	32257
814 LA 215	SB	4.227 3	367823	367370	962	34596
815 LA 2 4	SB	3.355 2	305259	304621	906	32108
815 LA 2 4	SB F	3.394 2	25060	25185	828	31859
815 LA 2 6	SB	3.394 2	335021	333061	828	31858
815 LA 2 8	SB	3.416 2	325729	325787	823	32062
815 LA 2 8	SB E	3.432 2	20341	20390	823	32062
815 LA 210	SB	3.318 3	397786	399930	10	34307
815 LA 210	SB F	3.358 2	21192	21135	994	32108
815 LA 212	SB	3.434 2	313943	314911	823	32062
815 LA 212	SB F	3.456 2	25156	25723	823	32062
815 LA 214	SB	3.441 2	334659	335252	823	32062
815 LA 214	SB E	3.485 2	1579	1572	1003	32079
815 LA 216	SB	3.275 2	364087	368310	849	32080
815 LA 216	SB E	3.413 2	17931	17921	823	31859
816 LA 2 2	SB	4.135 3	302732	303940	589	34006
816 LA 2 4	SB	3.602 2	329449	329076	1292	32533
816 LA 2 4	SB E	3.622 2	21412	21497	1292	32533
816 LA 2 6	SB	3.633 2	373343	478318	1277	32725
816 LA 2 6	SB E	3.646 2	44815	45547	1277	32725
816 LA 2 8	SB	3.618 2	343677	395075	1292	32533
816 LA 2 8	SB F	3.628 2	34146	35642	1292	32533
816 LA 210	SB	3.562 2	360735	360792	1072	31888

TABLE E.1 CONTINUED

SAMPLE NUMBER		AGE DAYS	OBSERVED ACTIVITY		BKGD	STD
			C/M	C/M	C/M	C/M
816 LA 210	SB E	3.600 2	19110	18778	1292	32533
816 LA 212	SB	3.625 2	353727	353238	1292	32533
816 LA 212	SB E	3.638 2	50364	50563	1277	32725
816 LA 214	SB	3.641 2	334927	336653	1277	32725
816 LA 214	SB E	3.650 2	44123	44321	1253	32725
816 LA 216	SB	3.608 2	338124	336905	1292	32533
817 LA 2 2	SB	4.063 2	286873	288338	759	32173
817 LA 2 2	SB E	4.094 2	24917	24717	759	32173
817 LA 2 4	SB	3.979 2	320597	320568	840	32378
817 LA 2 4	SB E	3.992 2	28721	28829	800	32399
817 LA 2 6	SB	4.090 2	338792	342866	759	32173
817 LA 2 6	SB E	4.108 2	32017	32193	817	32391
817 LA 2 8	SB	4.133 3	370825	369883	589	34006
817 LA 210	SB	4.110 2	357047	358270	817	32391
817 LA 210	SB E	4.126 2	40411	40592	817	32391
817 LA 212	SB	3.916 2	351996	352144	1032	32447
817 LA 212	SB E	3.949 2	21276	21495	797	32181
817 LA 214	SB	3.893 2	332713	330675	1032	32447
817 LA 214	SB E	3.919 2	14623	14831	1032	32447
817 LA 216	SB	3.935 2	329611	330647	797	32181
817 LA 216	SB E	3.960 2	25278	25244	797	32181
818 LA 2 2	SB	4.969 2	163948	163701	941	32663
818 LA 2 2	SB E	4.989 2	7684	7581	857	32564
818 LA 2 3	SB	5.320 2	151060	150762	830	32564
818 LA 2 3	SB E	5.337 2	26210	26126	830	32564
818 LA 2 6	SB	4.947 2	199595	198902	941	32663
818 LA 2 6	SB E	4.971 2	7290	7395	941	32663
818 LA 2 7	SB	5.299 2	181920	182036	1021	32564
818 LA 2 7	SB E	5.324 2	19048	19049	830	32564
818 LA 210	SB	5.198 3	216962	217771	552	33886
818 LA 214	SB	5.291 2	182279	183126	1021	32564
818 LA 214	SB E	5.318 2	11015	11084	830	32564
818 LA 215	SB	4.987 2	1227[illegible]	123212	857	32564
818 LA 215	SB E	5.185 2	98[illegible]7	9672	868	33947
818 LA 216	SB	7.019 3	152431	152679	790	34504
819 LA 2 2	SB	9.556 3	41630	41735	430	33833
819 LA 2 2	SB E	9.587 3	23986	24165	430	33833
819 LA 2 4	SB	9.186 2	38792	39110	644	33254
819 LA 2 4	SB E	9.199 2	6131	6255	644	33254
819 LA 2 6	SB	9.553 3	47579	47721	430	33833
819 LA 2 6	SB E	9.594 3	12017	12195	430	33842
819 LA 2 8	SB	9.174 2	48334	48531	644	33254
819 LA 2 8	SB E	9.189 2	6794	6846	644	33254
819 LA 210	SB	9.196 2	43906	43551	644	33254
819 LA 210	SB E	9.209 2	10371	10459	644	33254
819 LA 212	SB	9.165 2	55320	55832	644	33254
819 LA 212	SB E	9.175 2	5075	5224	644	33254
819 LA 214	SB	9.551 3	56193	56174	430	33833
819 LA 214	SB E	9.539 3	16926	16708	430	33833
819 LA 216	SB	9.549 3	53427	53906	430	33833
819 LA 216	SB E	9.592 3	9427	9439	430	33833
820 LA 2 2	SB	9.931 2	27138	24869	797	33511
820 LA 2 2	SB E	9.943 2	3880	3892	797	33511
820 LA 2 4	SB	9.74 2	28677	28457	797	33511

TABLE E.1 CONTINUED

SAMPLE NUMBER		AGE DAYS		OBSERVED C/M	ACTIVITY C/M	BKGD C/M	STD C/M
820 LA 2 4	SB E	9.951	2	4270	4322	797	33511
820 LA 2 6	SB	9.920	2	29309	29872	797	33511
820 LA 2 6	SB E	9.938	2	2837	2911	797	33511
820 LA 2 8	SB	9.967	2	29597	25363	797	33511
820 LA 2 8	SB E	9.976	2	4564	4665	797	33511
820 LA 212	SB	9.963	2	27771	27735	797	33511
820 LA 212	SB E	9.972	2	4329	4431	797	33511
820 LA 214	SB	9.946	2	27389	27294	797	33511
820 LA 214	SB E	9.959	2	4689	4666	797	33511
820 LA 216	SB	9.954	2	28454	28090	797	33511
820 LA 216	SB E	9.965	2	3474	3431	797	33511
821 LA 2 2	SB	10.094	2	12363	12586	727	33122
821 LA 2 2	SB E	10.11	2	2043	2050	727	33122
821 LA 2 4	SB	10.096	2	15089	15020	727	33122
821 LA 2 4	SB E	10.107	2	2551	2502	727	33122
821 LA 2 6	SB	10.127	2	12853	12910	586	33122
821 LA 2 6	SB E	10.138	2	3511	3643	586	33122
821 LA 2 8	SB	10.109	2	15930	15755	727	33122
821 LA 2 8	SB E	10.124	2	2893	2776	586	33122
821 LA 210	SB	10.118	2	15025	14377	727	33122
821 LA 210	SB E	10.142	2	4762	4660	586	33122
821 LA 212	SB	10.152	2	15741	15781	586	33122
821 LA 212	SB E	10.167	2	4777	4761	586	33122
821 LA 214	SB	10.144	2	14247	14012	586	33122
821 LA 214	SB E	10.164	2	4025	4088	586	33122
821 LA 216	SB	10.140	2	14321	14024	586	33122
821 LA 216	SB E	10.150	2	4721	4679	586	33122
822 LA 2 2	SB	10.946	2	6757	6815	858	33525
822 LA 2 2	SB E	10.969	2	2562	2573	858	33525
822 LA 2 4	SB	10.978	2	7665	7536	858	33525
822 LA 2 4	SB E	10.996	2	2088	2163	858	33525
822 LA 2 6	SB	10.990	2	6888	6884	858	33525
822 LA 2 6	SB E	11.005	2	2425	2436	858	33525
822 LA 2 8	SB	10.958	2	7307	7203	858	33525
822 LA 2 8	SB E	10.972	2	2334	2244	858	33525
822 LA 210	SB	10.993	2	6810	7042	858	33525
822 LA 210	SB E	11.007	2	2625	2602	858	33525
822 LA 212	SB	10.916	2	8624	8577	1385	33525
822 LA 212	SB E	10.955	2	2696	2787	858	33525
822 LA 214	SB	10.975	2	6808	7021	858	33525
822 LA 214	SB E	10.988	2	1948	1915	858	33525
822 LA 216	SB	10.920	2	7459	7541	1385	33525
822 LA 216	SB E	10.950	2	2055	2088	858	33525
824 LA 2 2	SB	12.017	2	3216	3224	774	32896
824 LA 2 2	SB E	12.032	2	1082	1050	774	32896
824 LA 2 4	SB	12.034	2	3377	3365	774	32896
824 LA 2 4	SB E	12.049	2	1563	1587	774	32896
824 LA 2 6	SB	12.019	2	3369	3281	774	32896
824 LA 2 6	SB E	12.030	2	1131	1247	774	32896
824 LA 2 8	SB	12.036	2	3500	3542	774	32896
824 LA 2 8	SB E	12.051	2	1433	1361	774	32896
824 LA 210	SB	11.978	2	3410	3325	774	32896
824 LA 210	SB E	11.992	2	1308	1284	774	32896
824 LA 212	SB	11.997	2	3958	3975	774	32896
824 LA 212	SB E	12.013	2	1516	1424	774	32896
824 LA 214	SB	11.976	2	3147	3335	774	32896
824 LA 214	SB E	11.993	2	1114	1094	774	32896
824 LA 216	SB	11.995	2	3372	3470	774	32896
824 LA 216	SB E	12.011	2	1225	1316	774	32896

TABLE E.2 4π IONIZATION CHAMBER MEASUREMENTS

SAMPLE NUMBER	SIZE	GRAMS	AGE DAYS	ACTIVITY MA	BKGD MA	STD MA	EVENT
100 IC 1	T	2.5033	6.457	160E-11	10E-11	670E-	9SB05
100 IC 1	7	0.0028	160.000	28E-11	28E-11	665E-	9SB05
100 IC 1	12	0.0051	160.000	28E-11	28E-11	665E-	9SB05
100 IC 1	24	0.0098	160.000	28E-11	28E-11	665E-	9SB05
100 IC 1	42	0.0201	160.000	28E-11	28E-11	665E-	9SB05
100 IC 1	80	0.0749	160.000	28E-11	28E-11	665E-	9SB05
100 IC 1	170	0.3625	160.000	28E-11	28E-11	665E-	9SB05
100 IC 1	325	0.8472	160.000	28E-11	28E-11	665E-	9SB05
100 IC 1	500	1.1195	160.000	28E-11	28E-11	665E-	9SB05
100 IC 2	T	2.5135	6.458	175E-11	10E-11	670E-	9SB05
100 IC 2	7	0.0000	160.000	28E-11	28E-11	665E-	9SB05
100 IC 2	12	0.0000	160.000	28E-11	28E-11	665E-	9SB05
100 IC 2	24	0.0091	160.000	28E-11	28E-11	665E-	9SB05
100 IC 2	42	0.0107	160.000	28E-11	28E-11	665E-	9SB05
100 IC 2	80	0.0514	160.000	28E-11	28E-11	665E-	9SB05
100 IC 2	170	0.4640	160.000	28E-11	28E-11	665E-	9SB05
100 IC 2	325	1.1726	160.000	28E-11	28E-11	665E-	9SB05
100 IC 2	500	0.7423	160.000	28E-11	28E-11	665E-	9SB05
00 IC 3	T	0.1598	6.458	160E-11	10E-11	670E-	9SB05
00 IC 3	7	0.0000	160.000	28E-11	28E-11	665E-	9SB05
100 IC 3	12	0.0000	160.000	28E-11	28E-11	665E-	9SB05
100 IC 3	24	0.0025	160.000	28E-11	28E-11	665E-	9SB05
100 IC 3	42	0.0069	160.000	28E-11	28E-11	665E-	9SB05
100 IC 3	80	0.0064	160.000	28E-11	28E-11	665E-	9SB05
100 IC 3	170	0.0131	160.000	28E-11	28E-11	665E-	9SB05
100 IC 3	325	0.0684	160.000	28E-11	28E-11	665E-	9SB05
100 IC 3	500	0.0289	160.000	28E-11	28E-11	665E-	9SB05
100 IC 4	T	0.2549	6.459	185E- 9	10E-11	670E-	9SB05
100 IC 4	7	0.0000	160.081	28E-11	28E-11	665E-	9SB05
100 IC 4	12	0.0094	160.081	490E-11	28E-11	665E-	9SB05
100 IC 4	24	0.0080	160.084	80E-11	28E-11	665E-	9SB05
100 IC 4	42	0.0071	160.085	45E-11	28E-11	665E-	9SB05
100 IC 4	80	0.0071	160.086	40E-11	28E-11	665E-	9SB05
100 IC 4	170	0.0402	160.087	40E-11	28E-11	665E-	9SB05
100 IC 4	325	0.0959	160.098	28E-11	28E-11	665E-	9SB05
100 IC 4	500	0.0662	160.089	28E-11	28E-11	665E-	9SB05
100 IC 5	T	1.0883	6.459	425E- 8	11E-11	670E-	9SB05
100 IC 5	7	0.0120	160.094	560E-11	30E-11	665E-	9SB05
100 IC 5	12	0.0507	160.097	840E-11	30E-11	665E-	9SB05
100 IC 5	24	0.1802	160.097	660E-10	30E-11	665E-	9SB05
100 IC 5	42	0.1041	160.098	330E-10	30E-11	665E-	9SB05
100 IC 5	80	0.0498	160.099	140E-10	30E-11	665E-	9SB05
100 IC 5	170	0.0708	160.101	435E-11	30E-11	665E-	9SB05
100 IC 5	325	0.1049	160.103	205E-11	30E-11	665E-	9SB05
100 IC 5	500	0.2859	160.105	185E-11	30E-11	665E-	9SB05
100 IC 6	T	1.8340	6.460	152E- 8	11E-11	670E-	9SB05
100 IC 6	7	0.0000	160.109	28E-11	28E-11	665E-	9SB05
100 IC 6	12	0.0037	160.109	50E-11	30E-11	665E-	9SB05
100 IC 6	24	0.0237	160.112	450E-11	30E-11	665E-	9SB05
100 IC 6	42	0.0977	160.112	315E-10	30E-11	665E-	9SB05
100 IC 6	80	0.0244	160.115	395E-11	30E-11	665E-	9SB05
100 IC 6	170	0.2117	160.117	170E-11	30E-11	665E-	9SB05
100 IC 6	325	0.8646	160.119	95E-11	30E-11	665E-	9SB05

TABLE E.2 CONTINUED

SAMPLE NUMBER	SIZE	GRAMS	AGE DAYS	ACTIVITY MA	BKGD MA	STD MA	EVENT
100 IC 6	500	0.5490	160.121	85E-11	30E-11	665E-	9SB05
100 IC 7	T	0.4163	6.461	338E- 9	11E-11	670E-	9SB05
100 IC 7	7	0.0000	160.128	28E-11	28E-11	665E-	9SB05
100 IC 7	12	0.0000	160.128	28E-11	28E-11	665E-	9SB05
100 IC 7	24	0.0016	160.128	30E-11	30E-11	660E-	9SB05
100 IC 7	42	0.0079	160.131	190E-11	30E-11	660E-	9SB05
100 IC 7	80	0.0283	160.133	770E-11	30E-11	660E-	9SB05
100 IC 7	170	0.0722	160.136	140E-11	30E-11	660E-	9SB05
100 IC 7	325	0.1798	160.138	50E-11	30E-11	660E-	9SB05
100 IC 7	500	0.1149	160.140	45E-11	30E-11	660E-	9SB05
100 IC 8	T	0.2019	160.140	100E-10	28E-11	660E-	9SB05
100 IC 8	7	0.0000	160.140	28E-11	28E-11	660E-	9SB05
100 IC 8	12	0.0000	160.140	28E-11	28E-11	660E-	9SB05
100 IC 8	24	0.0012	160.140	30E-11	30E-11	660E-	9SB05
100 IC 8	42	0.0016	160.140	30E-11	30E-11	660E-	9SB05
100 IC 8	80	0.0044	160.140	30E-11	30E-11	660E-	9SB05
100 IC 8	170	0.0411	160.140	30E-11	30E-11	660E-	9SB05
100 IC 8	325	0.0932	160.140	30E-11	30E-11	660E-	9SB05
100 IC 8	500	0.0491	160.140	30E-11	30E-11	660E-	9SB05
100 IC 9	T	0.5786	6.462	325E- 9	11E-11	670E-	9SB05
100 IC 9	7	0.0000	160.147	28E-11	28E-11	660E-	9SB05
100 IC 9	12	0.0000	160.147	28E-11	28E-11	660E-	9SB05
100 IC 9	24	0.0006	160.147	30E-11	30E-11	660E-	9SB05
100 IC 9	42	0.0168	160.151	645E-11	30E-11	660E-	9SB05
100 IC 9	80	0.0181	160.153	410E-11	30E-11	660E-	9SB05
100 IC 9	170	0.0803	160.156	100E-11	30E-11	660E-	9SB05
100 IC 9	325	0.2478	160.158	60E-11	30E-11	660E-	9SB05
100 IC 9	500	0.1980	160.160	50E-11	30E-11	660E-	9SB05
100 IC 10	T	1.1051	6.462	560E-10	42E-11	670E-	9SB05
100 IC 10	7	0.0000	160.172	28E-11	28E-11	665E-	9SB05
100 IC 10	12	0.0032	160.172	30E-11	30E-11	665E-	9SB05
100 IC 10	24	0.0015	160.173	30E-11	30E-11	665E-	9SB05
100 IC 10	42	0.0061	160.175	55E-11	30E-11	665E-	9SB05
100 IC 10	80	0.0153	160.177	130E-11	30E-11	665E-	9SB05
100 IC 10	170	0.1405	160.179	50E-11	30E-11	665E-	9SB05
100 IC 10	325	0.4572	160.180	40E-11	30E-11	665E-	9SB05
100 IC 10	500	0.4417	160.182	38E-11	30E-11	665E-	9SB05
100 IC 11	T	0.7025	6.462	180E-11	28E-11	665E-	9SB05
100 IC 11	7	0.0000	160.000	28E-11	28E-11	665E-	9SB05
100 IC 11	12	0.0000	160.000	28E-11	28E-11	665E-	9SB05
100 IC 11	24	0.0033	160.000	28E-11	28E-11	665E-	9SB05
100 IC 11	42	0.0095	160.000	28E-11	28E-11	665E-	9SB05
100 IC 11	80	0.0179	160.000	28E-11	28E-11	665E-	9SB05
100 IC 11	170	0.1351	160.000	28E-11	28E-11	665E-	9SB05
100 IC 11	325	0.3384	160.000	28E-11	28E-11	665E-	9SB05
100 IC 11	500	0.1775	160.000	28E-11	28E-11	665E-	9SB05
100 IC 12	T	0.3327	6.462	432E-11	42E-11	670E-	9SB05
100 IC 12	7	0.0000	160.000	28E-11	28E-11	665E-	9SB05
100 IC 12	12	0.0000	160.000	28E-11	28E-11	665E-	9SB05
100 IC 12	24	0.0014	160.000	28E-11	28E-11	665E-	9SB05
100 IC 12	42	0.0030	160.000	28E-11	28E-11	665E-	9SB05
100 IC 12	80	[illegible]	[illegible]	[illegible]	28E-11	665E-	9SB05

TABLE E.2 CONTINUED

SAMPLE NUMBER	SIZE	GRAMS	AGE DAYS	ACTIVITY MA	BKGD MA	STD MA	EVENT
100 IC 12	170	0.0429	160.000	28E-11	28E-11	665E-	9S805
100 IC 12	325	0.1518	160.000	28E-11	28E-11	665E-	9S805
100 IC 12	500	0.1120	160.000	28E-11	28E-11	665E-	9S805
100 IC 13	T	0.2803	6.421	210E-11	10E-11	670E-	9S805
100 IC 13	7	0.0000	160.000	28E-11	28E-11	665E-	9S805
100 IC 13	12	0.0000	160.000	28E-11	28E-11	665E-	9S805
100 IC 13	24	0.0007	160.000	28E-11	28E-11	665E-	9S805
100 IC 13	42	0.0032	160.000	28E-11	28E-11	665E-	9S805
100 IC 13	80	0.0048	160.000	28E-11	28E-11	665E-	9S805
100 IC 13	170	0.0348	160.000	28E-11	28E-11	665E-	9S805
100 IC 13	325	0.1076	160.000	28E-11	28E-11	665E-	9S805
100 IC 13	500	0.1057	160.000	28E-11	28E-11	665E-	9S805
100 IC 14	T	0.2274	6.422	228E-11	10E-11	670E-	9S805
100 IC 14	7	0.0000	160.000	28E-11	28E-11	665E-	9S805
100 IC 14	12	0.0012	160.000	28E-11	28E-11	665E-	9S805
100 IC 14	24	0.0020	160.000	28E-11	28E-11	665E-	9S805
100 IC 14	42	0.0031	160.000	28E-11	28E-11	665E-	9S805
100 IC 14	80	0.0021	160.000	28E-11	28E-11	665E-	9S805
100 IC 14	170	0.0173	160.000	28E-11	28E-11	665E-	9S805
100 IC 14	325	0.1070	160.000	28E-11	28E-11	665E-	9S805
100 IC 14	500	0.0740	160.000	28E-11	28E-11	665E-	9S805
100 IC 15	T	0.2740	6.423	170E-11	10E-11	670E-	9S805
100 IC 15	7	0.0000	160.000	28E-11	28E-11	665E-	9S805
100 IC 15	12	0.0000	160.000	28E-11	28E-11	665E-	9S805
100 IC 15	24	0.0017	160.000	28E-11	28E-11	665E-	9S805
100 IC 15	42	0.0023	160.000	28E-11	28E-11	665E-	9S805
100 IC 15	80	0.0096	160.000	28E-11	28E-11	665E-	9S805
100 IC 15	170	0.0277	160.000	28E-11	28E-11	665E-	9S805
100 IC 15	325	0.1109	160.000	28E-11	28E-11	665E-	9S805
100 IC 15	500	0.0977	160.000	28E-11	28E-11	665E-	9S805
100 IC 16	T	0.1657	6.424	240E-11	10E-11	670E-	9S805
100 IC 16	7	0.0000	160.000	28E-11	28E-11	665E-	9S805
100 IC 16	12	0.0000	160.000	28E-11	28E-11	665E-	9S805
100 IC 16	24	0.0022	160.000	28E-11	28E-11	665E-	9S805
100 IC 16	42	0.0018	160.000	28E-11	28E-11	665E-	9S805
100 IC 16	80	0.0020	160.000	28E-11	28E-11	665E-	9S805
100 IC 16	170	0.0247	160.000	28E-11	28E-11	665E-	9S805
100 IC 16	325	0.0688	160.000	28E-11	28E-11	665E-	9S805
100 IC 16	500	0.0438	160.000	28E-11	28E-11	665E-	9S805
100 IC 17	T	0.1150	6.425	200E-11	10E-11	670E-	9S805
100 IC 17	7	0.0000	160.000	28E-11	28E-11	665E-	9S805
100 IC 17	12	0.0000	160.000	28E-11	28E-11	665E-	9S805
100 IC 17	24	0.0012	160.000	28E-11	28E-11	665E-	9S805
100 IC 17	42	0.0011	160.000	28E-11	28E-11	665E-	9S805
100 IC 17	80	0.0026	160.000	28E-11	28E-11	665E-	9S805
100 IC 17	170	0.0136	160.000	28E-11	28E-11	665E-	9S805
100 IC 17	325	0.0926	160.000	28E-11	28E-11	665E-	9S805
100 IC 17	500	0.0276	160.000	28E-11	28E-11	665E-	9S805
100 IC 18	T	0.2058	6.425	150E-11	10E-11	670E-	9S805
100 IC 18	7	0.0000	160.000	28E-11	28E-11	665E-	9S805
100 IC 18	12	0.0010	160.000	28E-11	28E-11	665E-	9S805
100 IC 18	24	0.0030	160.000	28E-11	28E-11	665E-	9S805

TABLE E.2 CONTINUED

SAMPLE NUMBER	SIZE	GRAMS	AGE DAYS	ACTIVITY MA	BKGD MA	STD MA	EVENT
100 IC 18	42	0.0037	160.000	28E-11	28E-11	665E-	9SB05
100 IC 18	80	0.0068	160.000	28E-11	28E-11	665E-	9SB05
100 IC 18	170	0.0195	160.000	28E-11	28E-11	665E-	9SB05
100 IC 18	325	0.0673	160.000	28E-11	28E-11	665E-	9SB05
100 IC 18	500	0.0803	160.000	28E-11	28E-11	665E-	9SB05
100 IC 19	T	0.2462	6.426	135E-11	10E-11	670E-	9SB05
100 IC 19	7	0.0000	160.000	28E-11	28E-11	665E-	9SB05
100 IC 19	12	0.0000	160.000	28E-11	28E-11	665E-	9SB05
100 IC 19	24	0.0027	160.000	28E-11	28E-11	665E-	9SB05
100 IC 19	42	0.0014	160.000	28E-11	28E-11	665E-	9SB05
100 IC 19	80	0.0046	160.000	28E-11	28E-11	665E-	9SB05
100 IC 19	170	0.0193	160.000	28E-11	28E-11	665E-	9SB05
100 IC 19	325	0.0890	160.000	28E-11	28E-11	665E-	9SB05
100 IC 19	500	0.1044	160.000	28E-11	28E-11	665E-	9SB05
100 IC 20	T		28.906	692E- 9	55E-11	700E-	9SB05
100 PC 1	T	3.60	2.075		40E-11	670E-	9SB03
100 PC 1	7	0.0000	2.077	40E-11	40E-11	670E-	9SB03
100 PC 1	12	0.0320	2.077	842E- 9	40E-11	670E-	9SB03
100 PC 1	24	0.2086	2.078	805E- 8	40E-11	670E-	9SB03
100 PC 1	42	0.2140	2.078	895E- 8	40E-11	670E-	9SB03
100 PC 1	80	0.1335	2.078	395E- 8	40E-11	670E-	9SB03
100 PC 1	170	0.5142	2.079	615E- 9	40E-11	670E-	9SB03
100 PC 1	325	1.3705	2.079	475E- 9	40E-11	670E-	9SB03
100 PC 1	500	1.0804	2.080	875E- 9	40E-11	670E-	9SB03
100 PC 5	T	1.25	1.504	187E- 7	50E-11	670E-	9SB03
100 PC 5	7	0.0000	1.503	50E-11	50E-11	670E-	9SB03
100 PC 5	12	0.0528	1.500	275E- 8	50E-11	670E-	9SB03
100 PC 5	24	0.2016	1.503	420E- 8	50E-11	670E-	9SB03
100 PC 5	42	0.2051	1.504	490E- 8	50E-11	670E-	9SB03
100 PC 5	80	0.0674	1.505	450E- 3	50E-11	670E-	9SB03
100 PC 5	170	0.0630	1.506	920E- 9	50E-11	670E-	9SB03
100 PC 5	325	0.2356	1.507	525E- 9	50E-11	670E-	9SB03
100 PC 5	500	0.3880	1.508	935E- 9	50E-11	670E-	9SB03
100 PC 7	T	2.1453	11.365	367E- 8	40E-11	660E-	9SB03
100 PC 8	T	1.9756	11.367	375E- 8	40E-11	660E-	9SB03
100 PC 9	T	0.8995	11.365	355E- 8	40E-11	660E-	9SB03
100 PC 10	T	0.7466	11.367	370E- 8	40E-11	660E-	9SB03
100 PC 11	T	3.4546	11.367	390E- 8	40E-11	660E-	9SB03
100 PC 12	T	2.3380	11.369	380E- 8	40E-11	660E-	9SB03
100 PC 15	T	0.9796	11.368	330E- 8	40E-11	660E-	9SB03
100 PC 16	T	4.7130	11.365	380E- 8	40E-11	660E-	9SB03
100 PC 18	T	2.3486	11.369	415E- 8	40E-11	660E-	9SB03
100 PC 19	T	0.9966	11.367	330E- 8	40E-11	660E-	9SB03

TABLE E.2 CONTINUED

SAMPLE NUMBER	SIZE	GRAMS	AGE DAYS	ACTIVITY MA			BKGD MA	STD MA	EVENT
100 PC 20	T	1.4181	11.366	420E- 8			40E-11	660E-	9SB03
100 PC 21	T	3.8433	11.366	360E- 8			40E-11	660E-	9SB03
100 PC 22	T	4.1325	11.367	375E- 8			40E-11	660E-	9SB03
100 PC 23	T	2.9603	11.365	345E- 8			40E-11	660E-	9SB03
100 PC 24	T	1.5980	11.366	375E- 8			40E-11	660E-	9SB03
100 PCC	7W	0.1395	12.166	660E- 9			40E-11	660E-	9SB03
100 PCC	12W	0.6530	12.167	215E- 9			40E-11	660E-	9SB03
100 PCC	24W	2.9130	12.167	370E- 8			40E-11	660E-	9SB03
100 PCC	42W	3.1705	12.167	142E- 7			40E-11	660E-	9SB03
100 PCC	80W	1.4023	12.168	166E- 7			40E-11	660E-	9SB03
100 PCC	170W	2.4150	12.168	730E- 8			40E-11	660E-	9SB03
100 PCC	325W	8.0200	12.168	915E- 9			40E-11	660E-	9SB03
100 PCC	40W	0.0491	13.098	480E-11	12.171	615E-11	40E-11	655E-	9SB03
100 PCC	30W	0.0402	13.100	410E-11	12.172	540E-11	40E-11	655E-	9SB03
100 PCC	20W	0.0300	13.101	340E-11	12.173	450E-11	40E-11	660E-	9SB03
100 PCC	10W	0.0201	13.102	250E-11	12.175	365E-11	40E-11	660E-	9SB03
100 PCC	5W	0.0123	13.103	190E-11	12.176	310E-11	40E-11	660E-	9SB03
100 PCC	3W	0.0084	13.104	140E-11	12.178	260E-11	40E-11	660E-	9SB03
100 PCC	1W	0.0052	13.105	100E-11	12.880	180E-11	40E-11	660E-	9SB03
100 PO 1	T	1.88						660E-	9SB04
100 PO 1	7	0.000	1.153	050E-11			050E-11	660E-	9SB03
100 PO 1	12	0.267	1.153	178E- 7			050E-11	660E-	9SB03
100 PO 1	24	0.345	1.153	240E- 7			050E-11	660E-	9SB03
100 PO 1	42	0.225	1.154	188E- 7			050E-11	660E-	9SB03
100 PO 1	80	0.0667	1.155	440E- 8			050E-11	660E-	9SB03
100 PO 1	170	0.1774	1.155	640E- 9			050E-11	660E-	9SB03
100 PO 1	325	0.405	1.156	338E- 9			050E-11	660E-	9SB03
100 PO 1	500	0.338	1.156	540E- 9			050E-11	660E-	9SB03
101 AO 1	T	10.2	2.490				40E-11	670E-	9SB01
101 AO 2	T	9.58	2.490				40E-11	670E-	9SB01
101 AO 2	7	0.3265	2.490	890E- 8			040E-11	670E-	9SB01
101 AO 2	12	1.5677	2.489				040E-11	670E-	9SB01
101 AO 2	24	3.0104	2.489				040E-11	670E-	9SB01
101 AO 2	42	1.2761	2.489				040E-11	670E-	9SB01
101 AO 2	80	0.3033	2.488	410E- 8			040E-11	670E-	9SB01
101 AO 2	170	0.4320	2.488	200E- 8			040E-11	670E-	9SB01
101 AO 2	325	0.8790	2.488	124E- 8			040E-11	670E-	9SB01
101 AO 2	500	1.7710	2.487	928E- 9			040E-11	670E-	9SB01
101 AO 3	T	8.2	2.453				40E-11	670E-	9SB01
101 AO 3	7	0.3265	2.453	111E- 7			040E-11	670E-	9SB01
101 AO 3	12	1.2315	2.454				040E-11	670E-	9SB01
101 AO 3	24	1.0330	2.474				040E-11	670E-	9SB01
101 AO 3	42	0.9916	2.474	301E- 7			040E-11	670E-	9SB01
101 AO 3	80	0.1920	2.479	353E- 8			040E-11	670E-	9SB01
101 AO 3	170	0.3265	2.477	192E- 8			040E-11	670E-	9SB01
101 AO 3	325	0.7640	2.477	119E- 8			040E-11	670E-	9SB01
101 AO 3	500	1.4300	2.476	181E- 8			040E-11	670E-	9SB01
101 AO 4	T	12.95	2.483				40E-11	670E-	9SB01

TABLE E.2 CONTINUED

SAMPLE NUMBER	SIZE	GRAMS	AGE DAYS	ACTIVITY MA			BKGD MA	STD MA	EVENT
101 AO 6	T	11.97	2.483				40E-11	670E-	9S801
101 AO 6	7	0.3090	2.483	780E- 8			040E-11	670E-	9S801
101 AO 6	12	1.5690	2.483				040E-11	670E-	9S801
101 AO 6	24	3.2922	2.484				040E-11	670E-	9S801
101 AO 6	42	1.2601	2.485				040E-11	670E-	9S801
101 AO 6	80	0.2730	2.485	508E- 8			040E-11	670E-	9S801
101 AO 6	170	0.4100	2.486	258E- 8			040E-11	670E-	9S801
101 AO 6	325	1.3914	2.486	155E- 8			040E-11	670E-	9S801
101 AO 6	500	3.2903	2.486	240E- 9			040E-11	670E-	9S801
101 AOC 1	7W		11.161	355E- 8			35E-11	655E-	9S801
101 AOC 1	12W		11.161	277E- 7			35E-11	655E-	9S801
101 AOC 1	24W		11.161				35E-11	655E-	9S801
101 AOC 1	42W		11.162	273E- 7			35E-11	655E-	9S801
101 AOC 1	80W		11.164	430E- 8			35E-11	655E-	9S801
101 AOC 1	170W		11.163	195E- 8			35E-11	655E-	9S801
101 AOC 1	325W		11.165	120E- 8			35E-11	655E-	9S801
101 AOC 1	40W	0.0685	14.010	829E-11	12.968	940E-11	42E-11	655E-	9S801
101 AOC 1	30W	0.0636	14.026	731E-11	12.968	868E-11	42E-11	655E-	9S801
101 AOC 1	20W	0.0502	14.027	631E-11	12.968	747E-11	42E-11	655E-	9S801
101 AOC 1	10W	0.0306	14.028	482E-11	12.968	585E-11	42E-11	655E-	9S801
101 AOC 1	5W	0.0172	14.029	363E-11	12.968	448E-11	42E-11	655E-	9S801
101 AOC 1	3W	0.0106	14.029	291E-11	12.968	361E-11	42E-11	655E-	9S801
101 AOC 1	1W	0.0013	14.030	95E-11	12.968	172E-11	42E-11	655E-	9S801
101 OC 1	T	4.90	5.113	141E- 6			40E-11	670E-	9S800
101 OC 1	7	0.344	5.113	220E- 8			040E-11	660E-	9S800
101 OC 1	12	1.342	5.116	153E- 7			040E-11	660E-	9S800
101 OC 1	24	2.228	5.116	247E- 7			040E-11	660E-	9S800
101 OC 1	42	0.693	5.116	904E- 7			040E-11	660E-	9S800
101 OC 1	80	0.061	5.117	735E- 8			040E-11	660E-	9S800
101 OC 1	170	0.052	5.117	330E- 9			040E-11	660E-	9S800
101 OC 1	325	0.082	5.118	215E- 9			040E-11	660E-	9S800
101 OC 1	500	0.075	5.118	250E- 9			040E-11	660E-	9S800
101 OC 1	7W	0.2631	7.215	135E- 8			40E-11	670E-	9S800
101 OC 1	12W	1.2503	7.215	114E- 7			40E-11	670E-	9S800
101 OC 1	24W	2.2403	7.218	197E- 7			40E-11	670E-	9S800
101 OC 1	42W	0.7220	7.218	698E- 8			40E-11	670E-	9S800
101 OC 1	80W	0.0726	7.219	650E- 9			40E-11	670E-	9S800
101 OC 1	170W	0.0491	7.219	305E- 9			40E-11	670E-	9S800
101 OC 1	325W	0.0551	7.220	152E- 9			40E-11	670E-	9S800
200 AO 1	T	1.0008	9.448	305E- 9			40E-11	670E-	9S801
200 AO 2	T	0.6974	9.448	200E- 9			40E-11	660E-	9S801
200 AO 2	7	0.0000	10.194	100E-11			100E-11	660E-	9S801
200 AO 2	12	0.0030	10.194	210E-11			40E-11	660E-	9S801
200 AO 2	24	0.0099	10.195	600E-10			40E-11	660E-	9S801
200 AO 2	42	0.0108	10.195	265E-10			40E-11	660E-	9S801
200 AO 2	80	0.0238	10.195	735E-10			40E-11	660E-	9S801
200 AO 2	170	0.1990	10.196	150E- 9			40E-11	660E-	9S801
200 AO 2	325	0.4338	10.196	485E-10			40E-11	660E-	9S801
200 AO 2	500	0.0572	10.196	845E-10			40E-11	660E-	9S801
200 AO 3	T	0.6550	9.539	180E- 9			40E-11	670E-	9S801

TABLE E.2 CONTINUED

SAMPLE NUMBER	SIZE	GRAMS	AGE DAYS	ACTIVITY MA	BKGD MA	STD MA	EVENT
200 AO 4	T	0.3708	9.541	170E- 9	40E-11	670E- 9	SB01
200 AO 6	T	0.4247	9.448	295E- 9	40E-11	670E- 9	SB01
200 AO 7	T	0.5192	9.408	250E- 9	40E-11	670E- 9	SB01
200 AO 10	T	2.2528	9.539	230E- 9	40E-11	670E- 9	SB01
200 OC 1	T	0.223	5.145	399E- 9	50E-11	660E- 9	SB00
200 OC 1	7	0.000	5.145	50E-11	50E-11	660E- 9	SB00
200 OC 1	12	0.047	5.145	110E- 9	050E-11	660E- 9	SB00
200 OC 1	24	0.034	5.145	270E-10	050E-11	660E- 9	SB00
200 OC 1	42	0.014	5.146	550E-10	050E-11	660E- 9	SB00
200 OC 1	80	0.018	5.147	940E-10	050E-11	660E- 9	SB00
200 OC 1	170	0.0641	5.147	770E-10	050E-11	660E- 9	SB00
200 OC 1	325	0.0800	5.143	140E-10	050E-11	660E- 9	SB00
200 OC 1	500	0.0270	5.144	215E-10	050E-11	660E- 9	SB00
200 OC 1	7W	0.000	7.236	100E-11	100E-11	660E- 9	SB00
200 OC 1	12W	0.0107	7.235	270E-11	40E-11	670E- 9	SB00
200 OC 1	24W	0.0146	7.236	208E-10	40E-11	670E- 9	SB00
200 OC 1	42W	0.0067	7.236	342E-10	40E-11	670E- 9	SB00
200 OC 1	80W	0.0132	7.237	530E-10	40E-11	670E- 9	SB00
200 OC 1	170W	0.0431	7.238	405E-10	40E-11	670E- 9	SB00
200 OC 1	325W	0.0532	7.242	705E-11	40E-11	670E- 9	SB00
201 AO 4	T	3.180	2.418	800E- 7	40E-11	670E- 9	SB01
201 AO 4	7	0.0631	2.416	196E- 8	40E-11	670E- 9	SB01
201 AO 4	12	0.2313	2.417	660E- 8	40E-11	670E- 9	SB01
201 AO 4	24	0.8008	2.418	227E- 7	40E-11	670E- 9	SB01
201 AO 4	42	1.1462	2.418	385E- 7	40E-11	670E- 9	SB01
201 AO 4	80	0.2062	2.419	758E- 8	40E-11	670E- 9	SB01
201 AO 4	170	0.2263	2.419	140E- 8	40E-11	670E- 9	SB01
201 AO 4	325	0.3568	2.420	598E- 9	40E-11	670E- 9	SB01
201 AO 4	500	0.1692	2.420	675E- 9	40E-11	670E- 9	SB01
201 AO 9	T	4.32	2.178		00E-11	665E- 9	SB01
201 AO 9	7	0.2121	2.174	368E- 8	00E-11	665E- 9	SB01
201 AO 9	12	0.2612	2.175	815E- 8	00E-11	665E- 9	SB01
201 AO 9	24	0.9323	2.175	278E- 7	00E-11	665E- 9	SB01
201 AO 9	42	1.1868			00E-11	665E- 9	SB01
201 AO 9	80	0.2014	2.176	770E- 8	00E-11	665E- 9	SB01
201 AO 9	170	0.3777	2.177	123E- 8	00E-11	665E- 9	SB01
201 AO 9	325	0.6862	2.177	658E- 9	00E-11	665E- 9	SB01
201 AO 9	500	0.3813	2.178	918E- 9	00E-11	665E- 9	SB01
201 AO 10	T	5.35	2.263		00E-11	670E- 9	SB01
201 AO 10	7	0.[illegible]322	2.262	867E- 9	80E-11	665E- 9	SB01
201 AO 10	12	0.3092	2.262	905E- 9	80E-11	665E- 9	SB01
201 AO 10	24	1.0120	2.262	287E- 7	80E-11	665E- 9	SB01
201 AO 10	42	1.3357	2.262		80E-11	665E- 9	SB01
201 AO 10	80	0.2835	2.263	878E- 9	80E-11	665E- 9	SB01
201 AO 10	170	0.6114	2.263	140E- 8	80E-11	665E- 9	SB01
201 AO 10	325	1.1510	2.263	773E- 9	80E-11	665E- 9	SB01
201 AO 10	500	0.5360	2.263	103E- 8	80E-11	665E- 9	SB01
201 AOC	T	11.56	4.418		40E-11	668E- 9	SB01
201 AOC	7	0.0497	4.416	500E- 9	040E-11	668E- 9	SB01

TABLE E.2 CONTINUED

SAMPLE NUMBER	SIZE	GRAMS	AGE DAYS	ACTIVITY MA			BKGD MA	STD MA	EVENT
201 AOC	12	0.6453	4.417	820E- 8			040E-11	668E-	9SB01
201 AOC	24	3.0443	4.418				040E-11	668E-	9SB01
201 AOC	42	4.5979	4.419				040E-11	668E-	9SB01
201 AOC	80	0.8178	4.420	145E- 7			040E-11	668E-	9SB01
201 AOC	170	0.6110	4.420	260E- 8			040E-11	668E-	9SB01
201 AOC	325	1.1000	4.420	145E- 8			040E-11	668E-	9SB01
201 AOC	500	0.6910	4.421	130E- 8			040E-11	668E-	9SB01
201 AOC	7W	0.0480	4.489	487E- 9			40E-11	670E-	9SB01
201 AOC	12W	0.6130	4.490	800E- 8			40E-11	670E-	9SB01
201 AOC	24W	2.8766	4.490				40E-11	670E-	9SB01
201 AOC	42W	4.5758	4.490				40E-11	670E-	9SB01
201 AOC	80W	0.8101	4.491	138E- 7			40E-11	670E-	9SB01
201 AOC	170W	0.5507	4.492	250E- 8			40E-11	670E-	9SB01
201 AOC	325W	0.8451	4.493	110E- 8			40E-11	670E-	9SB01
201 AOC	40W	0.0071	5.431	120E-10	5.273	140E-10	40E-11	670E-	9SB01
201 AOC	30W	0.0065	5.435	118E-10	5.274	140E-10	40E-11	670E-	9SB01
201 AOC	20W	0.0059	5.436	98E-10	5.274	115E-10	40E-11	670E-	9SB01
201 AOC	10W	0.0049	5.437	850E-11	5.275	102E-10	40E-11	670E-	9SB01
201 AOC	5W	0.0052	5.438	825E-11	5.275	100E-10	40E-11	670E-	9SB01
201 AOC	3W	0.0052	5.439	740E-11	5.276	92E-11	40E-11	670E-	9SB01
201 AOC	1W	0.0047	5.440	300E-11	5.278	520E-11	40E-11	670E-	9SB01
203 IC 1	T	1.9672	9.361	460E-10			42E-11	670E-	9SB05
203 IC 1	7	0.0112	157.980	32E-11			32E-11	665E-	9SB05
203 IC 1	12	0.0149	157.981	32E-11			32E-11	665E-	9SB05
203 IC 1	24	0.0025	157.982	32E-11			32E-11	665E-	9SB05
203 IC 1	42	0.0153	157.984	130E-11			32E-11	665E-	9SB05
203 IC 1	80	0.0383	157.985	80E-11			32E-11	665E-	9SB05
203 IC 1	170	0.6372	157.988	52E-11			32E-11	665E-	9SB05
203 IC 1	325	0.9587	157.989	40E-11			32E-11	665E-	9SB05
203 IC 1	500	0.1902	157.991	32E-11			32E-11	665E-	9SB05
203 IC 2	T	1.3734	9.362	920E- 9			42E-11	670E-	9SB05
203 IC 2	7	0.0058	158.080	35E-11			35E-11	665E-	9SB05
203 IC 2	12	0.0713	158.081	150E-10			35E-11	665E-	9SB05
203 IC 2	24	0.0635	158.082	190E-10			35E-11	665E-	9SB05
203 IC 2	42	0.0317	158.084	620E-11			35E-11	665E-	9SB05
203 IC 2	80	0.0523	158.087	195E-11			35E-11	665E-	9SB05
203 IC 2	170	0.4343	158.090	105E-11			35E-11	665E-	9SB05
203 IC 2	325	0.6108	158.093	58E-11			35E-11	665E-	9SB05
203 IC 2	500	0.1006	158.094	40E-11			35E-11	665E-	9SB05
203 IC 3	T	0.7210	9.362	142E- 8			42E-11	670E-	9SB05
203 IC 3	7	0.0022	158.133	35E-11			35E-11	665E-	9SB05
203 IC 3	12	0.0000	158.135	35E-11			35E-11	665E-	9SB05
203 IC 3	24	0.0427	158.135	165E-10			35E-11	665E-	9SB05
203 IC 3	42	0.0778	158.136	295E-10			35E-11	665E-	9SB05
203 IC 3	80	0.0378	158.137	120E-10			35E-11	665E-	9SB05
203 IC 3	170	0.0962	158.138	360E-11			35E-11	665E-	9SB05
203 IC 3	325	0.1647	158.140	150E-11			35E-11	665E-	9SB05
203 IC 3	500	0.1357	158.142	80E-11			35E-11	665E-	9SB05
203 IC 4	T	0.4774	9.362	250E- 8			42E-11	670E-	9SB05
203 IC 4	7	0.0000	158.170	35E-11			35E-11	665E-	9SB05
203 IC 4	12	0.0000	158.170	35E-11			35E-11	665E-	9SB05
203 IC 4	24	0.0251	158.170	765E-11			35E-11	665E-	9SB05
203 IC 4	42	0.1361	158.171	950E-10			35E-11	665E-	9SB05

TABLE E.2 CONTINUED

SAMPLE NUMBER	SIZE	GRAMS	AGE DAYS	ACTIVITY MA	BKGD MA	STD MA	EVENT
203 IC 4	80	0.0351	158.172	100E-10	35E-11	665E-	9SB05
203 IC 4	170	0.0493	158.173	440E-11	35E-11	665E-	9SB05
203 IC 4	325	0.1076	158.175	210E-11	35E-11	665E-	9SB05
203 IC 4	500	0.0311	158.177	80E-11	35E-11	665E-	9SB05
203 IC 5	T	0.1505	9.363	145E- 9	42E-11	670E-	9SB05
203 IC 5	7	0.0000	158.198	35E-11	35E-11	665E-	9SB05
203 IC 5	12	0.0000	158.198	35E-11	35E-11	665E-	9SB05
203 IC 5	24	0.0038	158.198	43E-11	35E-11	665E-	9SB05
203 IC 5	42	0.0108	158.199	370E-10	35E-11	665E-	9SB05
203 IC 5	80	0.0129	158.202	400E-11	35E-11	665E-	9SB05
203 IC 5	170	0.0339	158.204	125E-11	35E-11	665E-	9SB05
203 IC 5	325	0.0738	158.204	65E-11	35E-11	665E-	9SB05
203 IC 5	500	0.0196	158.205	50E-11	35E-11	665E-	9SB05
203 IC 6	T	0.2992	9.363	230E-11	42E-11	670E-	9SB05
203 IC 6	7	0.0000	158.947	35E-11	35E-11	670E-	9SB05
203 IC 6	12	0.0000	158.947	35E-11	35E-11	670E-	9SB05
203 IC 6	24	0.0040	158.947	40E-11	40E-11	670E-	9SB05
203 IC 6	42	0.0022	158.948	40E-11	40E-11	670E-	9SB05
203 IC 6	80	0.0038	158.949	40E-11	40E-11	670E-	9SB05
203 IC 6	170	0.0478	158.950	40E-11	40E-11	670E-	9SB05
203 IC 6	325	0.1695	158.951	40E-11	40E-11	670E-	9SB05
203 IC 6	500	0.0532	158.952	40E-11	40E-11	670E-	9SB05
203 IC 7	T	15.8632	9.364	175E-11	42E-11	670E-	9SB05
203 IC 7	7	0.0000	158.952	35E-11	35E-11	670E-	9SB05
203 IC 7	12	0.0383	158.952	40E-11	40E-11	670E-	9SB05
203 IC 7	24	0.0040	158.952	40E-11	40E-11	670E-	9SB05
203 IC 7	42	0.0183	158.952	40E-11	40E-11	670E-	9SB05
203 IC 7	80	0.1524	158.952	40E-11	40E-11	670E-	9SB05
203 IC 7	170	3.4997	158.952	40E-11	40E-11	670E-	9SB05
203 IC 7	325	10.3603	158.952	40E-11	40E-11	670E-	9SB05
203 IC 7	500	1.7825	158.952	40E-11	40E-11	670E-	9SB05
203 IC 8	T	0.2784					SB05
203 IC 8	7	0.0000	158.952	35E-11	35E-11	670E-	9SB05
203 IC 8	12	0.0060	158.952	40E-11	40E-11	670E-	9SB05
203 IC 8	24	0.0024	158.952	40E-11	40E-11	670E-	9SB05
203 IC 8	42	0.0037	158.952	40E-11	40E-11	670E-	9SB05
203 IC 8	80	0.0043	158.952	40E-11	40E-11	670E-	9SB05
203 IC 8	170	0.0280	158.952	40E-11	40E-11	670E-	9SB05
203 IC 8	325	0.1589	158.952	40E-11	40E-11	670E-	9SB05
203 IC 8	500	0.0934	158.952	40E-11	40E-11	670E-	9SB05
203 IC 9	T	0.4432	9.365	225E-11	42E-11	670E-	9SB05
203 IC 9	7	0.0000	158.952	35E-11	35E-11	670E-	9SB05
203 IC 9	12	0.0000	158.952	35E-11	35E-11	670E-	9SB05
203 IC 9	24	0.0052	158.952	40E-11	40E-11	670E-	9SB05
203 IC 9	42	0.0059	158.952	40E-11	40E-11	670E-	9SB05
203 IC 9	80	0.0085	158.952	40E-11	40E-11	670E-	9SB05
203 IC 9	170	0.0662	158.952	40E-11	40E-11	670E-	9SB05
203 IC 9	325	0.2725	158.952	40E-11	40E-11	670E-	9SB05
203 IC 9	500	0.0932	158.952	40E-11	40E-11	670E-	9SB05
203 IC 10	T	1.8607	9.366	170E-11	42E-11	670E-	9SB05
203 IC 10	7	0.0000	158.952	35E-11	35E-11	670E-	9SB05
203 IC 10	12	0.0049	158.952	40E-11	40E-11	670E-	9SB05

TABLE E.2 CONTINUED

SAMPLE NUMBER	SIZE	GRAMS	AGE DAYS	ACTIVITY MA	BKGD MA	STD MA	EVENT
203 IC 10	24	0.0112	158.952	40E-11	40E-11	670E-	9SB05
203 IC 10	42	0.0095	158.952	40E-11	40E-11	670E-	9SB05
203 IC 10	80	0.0172	158.952	40E-11	40E-11	670E-	9SB05
203 IC 10	170	0.2440	158.952	40E-11	40E-11	670E-	9SB05
203 IC 10	325	0.9770	158.952	40E-11	40E-11	670E-	9SB05
203 IC 10	500	0.5905	158.952	40E-11	40E-11	670E-	9SB05
203 IC 11 T		0.6416	9.367	135E-11	42E-11	670E-	9SB05
203 IC 11	7	0.0000	158.952	35E-11	35E-11	670E-	9SB05
203 IC 11	12	0.0000	158.952	35E-11	35E-11	670E-	9SB05
203 IC 11	24	0.0080	158.952	40E-11	40E-11	670E-	9SB05
203 IC 11	42	0.0014	158.952	40E-11	40E-11	670E-	9SB05
203 IC 11	80	0.0050	158.952	40E-11	40E-11	670E-	9SB05
203 IC 11	170	0.1039	158.952	40E-11	40E-11	670E-	9SB05
203 IC 11	325	0.3948	158.952	40E-11	40E-11	670E-	9SB05
203 IC 11	500	0.1371	158.952	40E-11	40E-11	670E-	9SB05
203 IC 12 T		0.1208	9.368	110E-11	42E-11	670E-	9SB05
203 IC 12	7	0.0000	158.952	35E-11	35E-11	670E-	9SB05
203 IC 12	12	0.0000	158.952	35E-11	35E-11	670E-	9SB05
203 IC 12	24	0.0007	158.952	40E-11	40E-11	670E-	9SB05
203 IC 12	42	0.0024	158.952	40E-11	40E-11	670E-	9SB05
203 IC 12	80	0.0056	158.952	40E-11	40E-11	670E-	9SB05
203 IC 12	170	0.0275	158.952	40E-11	40E-11	670E-	9SB05
203 IC 12	325	0.0745	158.952	40E-11	40E-11	670E-	9SB05
203 IC 12	500	0.0175	158.952	40E-11	40E-11	670E-	9SB05
203 IC 13 T		0.6238					S805
203 IC 13	7	0.0000	158.952	35E-11	35E-11	670E-	9SB05
203 IC 13	12	0.0015	158.952	40E-11	40E-11	670E-	9SB05
203 IC 13	24	0.0017	158.952	40E-11	40E-11	670E-	9SB05
203 IC 13	42	0.0018	158.952	40E-11	40E-11	670E-	9SB05
203 IC 13	80	0.0119	158.952	40E-11	40E-11	670E-	9SB05
203 IC 13	170	0.1933	158.952	40E-11	40E-11	670E-	9SB05
203 IC 13	325	0.3543	158.952	40E-11	40E-11	670E-	9SB05
203 IC 13	500	0.0594	158.952	40E-11	40E-11	670E-	9SB05
203 IC 14 T		1.6960					S805
203 IC 14	7	0.0000	158.199	35E-11	35E-11	662E-	9SB05
203 IC 14	12	0.0444	159.189	30E-11	25E-11	662E-	9SB05
203 IC 14	24	0.0140	159.192	30E-11	25E-11	662E-	9SB05
203 IC 14	42	0.0185	159.194	80E-11	25E-11	662E-	9SB05
203 IC 14	80	0.0305	159.197	40E-11	25E-11	662E-	9SB05
203 IC 14	170	0.4195	159.200	35E-11	25E-11	662E-	9SB05
203 IC 14	325	0.9737	159.202	30E-11	25E-11	662E-	9SB05
203 IC 14	500	0.1917	159.204	30E-11	30E-11	662E-	9SB05
203 IC 15 T		0.5161	9.370	110E-11	42E-11	670E-	9SB05
203 IC 15	7	0.0000	158.204	35E-11	35E-11	662E-	9SB05
203 IC 15	12	0.0000	158.204	35E-11	35E-11	662E-	9SB05
203 IC 15	24	0.0059	159.204	30E-11	30E-11	662E-	9SB05
203 IC 15	42	0.0038	159.204	30E-11	30E-11	662E-	9SB05
203 IC 15	80	0.0059	159.204	30E-11	30E-11	662E-	9SB05
203 IC 15	170	0.1598	159.204	30E-11	30E-11	662E-	9SB05
203 IC 15	325	0.2960	159.204	30E-11	30E-11	662E-	9SB05
203 IC 15	500	0.0506	159.204	30E-11	30E-11	662E-	9SB05
203 IC 16 T		0.6273	9.370	90E-11	42E-11	670E-	9SB05

TABLE E.2 CONTINUED

SAMPLE NUMBER	SIZE	GRAMS	AGE DAYS	ACTIVITY MA	BKGD MA	STD MA	EVENT
203 IC 16	7	0.0000	158.204	35E-11	35E-11	662E-	9SB05
203 IC 16	12	0.0000	158.204	35E-11	35E-11	662E-	9SB05
203 IC 16	24	0.0005	159.204	30E-11	30E-11	662E-	9SB05
203 IC 16	42	0.0010	159.204	30E-11	30E-11	662E-	9SB05
203 IC 16	80	0.0073	159.204	30E-11	30E-11	662E-	9SB05
203 IC 16	170	0.1910	159.204	30E-11	30E-11	662E-	9SB05
203 IC 16	325	0.3929	159.204	30E-11	30E-11	662E-	9SB05
203 IC 16	500	0.0372	159.204	30E-11	30E-11	662E-	9SB05
203 IC 17	T	0.9667					SB05
203 IC 17	7	0.0000	158.204	35E-11	35E-11	662E-	9SB05
203 IC 17	12	0.0000	158.204	35E-11	35E-11	662E-	9SB05
203 IC 17	24	0.0041	159.204	30E-11	30E-11	662E-	9SB05
203 IC 17	42	0.0033	159.204	30E-11	30E-11	662E-	9SB05
203 IC 17	80	0.0162	159.204	30E-11	30E-11	662E-	9SB05
203 IC 17	170	0.3214	159.204	30E-11	30E-11	662E-	9SB05
203 IC 17	325	0.5572	159.204	30E-11	30E-11	662E-	9SB05
203 IC 17	500	0.0626	159.204	30E-11	30E-11	662E-	9SB05
203 IC 18	T	1.2260	9.371	160E-11	42E-11	670E-	9SB05
203 IC 18	7	0.0000	158.204	35E-11	35E-11	662E-	9SB05
203 IC 18	12	0.0008	159.204	30E-11	30E-11	662E-	9SB05
203 IC 18	24	0.0027	159.204	30E-11	30E-11	662E-	9SB05
203 IC 18	42	0.0036	159.204	30E-11	30E-11	662E-	9SB05
203 IC 18	80	0.0222	159.204	30E-11	30E-11	662E-	9SB05
203 IC 18	170	0.3978	159.204	30E-11	30E-11	662E-	9SB05
203 IC 18	325	0.6868	159.204	30E-11	30E-11	662E-	9SB05
203 IC 18	500	0.1057	159.204	30E-11	30E-11	662E-	9SB05
203 IC 19	T	1.0808	9.371	120E-11	42E-11	670E-	9SB05
203 IC 19	7	0.0000	158.204	35E-11	35E-11	662E-	9SB05
203 IC 19	12	0.0000	158.204	35E-11	35E-11	662E-	9SB05
203 IC 19	24	0.0040	159.204	30E-11	30E-11	662E-	9SB05
203 IC 19	42	0.0014	159.204	30E-11	30E-11	662E-	9SB05
203 IC 19	80	0.0291	159.204	30E-11	30E-11	662E-	9SB05
203 IC 19	170	0.4312	159.204	30E-11	30E-11	662E-	9SB05
203 IC 19	325	0.5401	159.204	30E-11	30E-11	662E-	9SB05
203 IC 19	500	0.0413	159.204	30E-11	30E-11	662E-	9SB05
203 IC 20	T	1.5843	9.372	100E-11	42E-11	670E-	9SB05
203 IC 20	7	0.0000	158.204	35E-11	35E-11	662E-	9SB05
203 IC 20	12	0.0000	158.204	35E-11	35E-11	662E-	9SB05
203 IC 20	24	0.0005	159.204	30E-11	30E-11	662E-	9SB05
203 IC 20	42	0.0123	159.204	30E-11	30E-11	662E-	9SB05
203 IC 20	80	0.0574	159.204	30E-11	30E-11	662E-	9SB05
203 IC 20	170	0.6549	159.204	30E-11	30E-11	662E-	9SB05
203 IC 20	325	0.7785	159.204	30E-11	30E-11	662E-	9SB05
203 IC 20	500	0.0791	159.204	30E-11	30E-11	662E-	9SB05
203 PC 1	T	1.3501	10.503	440E- 8	48E-11	670E-	9SB03
203 PC 2	T	1.3131	10.503	450E- 8	48E-11	670E-	9SB03
203 PC 4	T	0.9789	10.505	415E- 8	48E-11	670E-	9SB03
203 PC 5	T	1.0308	10.505	420E- 8	48E-11	670E-	9SB03
203 PC 7	T	1.2812	10.504	530E- 8	48E-11	670E-	9SB03

TABLE E.2 CONTINUED

SAMPLE NUMBER	SIZE	GRAMS	AGE DAYS	ACTIVITY MA	BKGD MA	STD MA	EVENT
203 PC 9 T		1.1148	10.506	488E- 8	48E-11	670E- 9	SB03
203 PC 10 T		1.1505	10.502	468E- 8	48E-11	670E- 9	SB03
203 PC 12 T		1.1641	10.504	515E- 8	48E-11	670E- 9	SB03
203 PC 16 T		1.6	2.083	171E- 7	40E-11	670E- 9	SB03
203 PC 16	7	0.0000	2.083	40E-11	40E-11	670E- 9	SB03
203 PC 16	12	0.0399	2.084	190E- 8	40E-11	670E- 9	SB03
203 PC 16	24	0.1893	2.085	715E- 8	40E-11	670E- 9	SB03
203 PC 16	42	0.3960	2.085	530E- 8	40E-11	670E- 9	SB03
203 PC 16	80	0.0545	2.086	170E- 8	40E-11	670E- 9	SB03
203 PC 16	170	0.2498	2.087	490E- 9	40E-11	670E- 9	SB03
203 PC 16	325	0.4341	2.089	285E- 9	40E-11	670E- 9	SB03
203 PC 16	500	0.1261	2.089	240E- 9	40E-11	670E- 9	SB03
203 PCC	T	9.3835	12.283	153E- 7	48E-11	660E- 9	SB03
203 PCC	7W	0.1075	12.283	590E- 9	38E-11	660E- 9	SB03
203 PCC	12W	0.5007	12.284	240E- 8	38E-11	660E- 9	SB03
203 PCC	24W	1.3646	12.284	665E- 8	38E-11	660E- 9	SB03
203 PCC	42W	2.9582	12.285	167E- 8	38E-11	660E- 9	SB03
203 PCC	80W	0.5005	12.285	260E- 8	38E-11	660E- 9	SB03
203 PCC	170W	0.7674	12.286	885E- 9	38E-11	660E- 9	SB03
203 PCC	325W	1.9786	12.287	468E- 9	38E-11	660E- 9	SB03
203 PCC	500W		12.287	425E- 9	38E-11	660E- 9	SB03
203 PO 2 T		1.25	9.158	829E- 8	40E-11	655E- 9	SB04
203 PO 2	7	0.0000	9.160	40E-11	40E-11	655E- 9	SB04
203 PO 2	12	0.204	9.160	150E- 8	040E-11	655E- 9	SB04
203 PO 2	24	0.358	9.161	266E- 8	040E-11	655E- 9	SB04
203 PO 2	42	0.470	9.162	379E- 8	040E-11	655E- 9	SB04
203 PO 2	80	0.0345	9.163	265E- 9	040E-11	655E- 9	SB04
203 PO 2	170	0.0345	9.164	510E-10	040E-11	655E- 9	SB04
203 PO 2	325	0.0966	9.164	240E-10	040E-11	655E- 9	SB04
203 PO 2	500	0.0498	9.166	130E-10	040E-11	655E- 9	SB04
300 AO 7 T		0.3008	9.448	595E-10	40E-11	670E- 9	SB01
301 AO 1 T		2.0990	9.447	132E- 7	65E-11	670E- 9	SB01
301 AO 2 T		2.1013	9.447	132E- 7	65E-11	670E- 9	SB01
301 AO 3 T		2.1261	9.410	150E- 7	65E-11	670E- 9	SB01
301 AO 4 T		1.9004	9.447	122E- 7	65E-11	670E- 9	SB01
301 AO 6 T		2.0681	9.446	130E- 7	65E-11	670E- 9	SB01
301 AO 7 T		2.2010	9.409	155E- 7	65E-11	670E- 9	SB01
301 AO 8 T		2.2057	9.409	152E- 7	65E-11	670E- 9	SB01
301 AO 9 T		2.3968	9.410	155E- 7	65E-11	670E- 9	SB01
301 AO 10 T		3.0986	9.411	172E- 7	65E-11	670E- 9	SB01
301 AOC	T	20.24	11.167		35E-11	655E- 9	SB01
301 AOC	7W	0.071	11.167	695E-11	035E-11	655E- 9	SB01

TABLE E.2 CONTINUED

SAMPLE NUMBER	SIZE	GRAMS	AGE DAYS	ACTIVITY MA			BKGD MA	STD MA	EVENT
301 AOC	12W	0.295	11.169	130E- 8			035E-11	655E-	9SB01
301 AOC	24W	4.621	11.169	257E- 7			035E-11	655E-	9SB01
301 AOC	42W	10.096	11.170				035E-11	655E-	9SB01
301 AOC	80W	2.152	11.170	132E- 7			035E-11	655E-	9SB01
301 AOC	170W	1.005	11.171	380E- 8			035E-11	655E-	9SB01
301 AOC	325W	1.260	11.172	197E- 8			035E-11	655E-	9SB01
301 AOC	40W		11.205	920E-11			35E-11	660E-	9SB01
301 AOC	30W		11.207	800E-11			35E-11	660E-	9SB01
301 AOC	20W		11.208	680E-11			35E-11	660E-	9SB01
301 AOC	10W		11.209	535E-11			35E-11	660E-	9SB01
301 AOC	5W		11.212	490E-11			35E-11	660E-	9SB01
301 AOC	3W		11.213	400E-11			35E-11	660E-	9SB01
301 AOC	1W		11.214	215E-11			35E-11	660E-	9SB01
301 OC 1	T	1.19							SB00
301 OC 1	7	[illegible]	5.153	100E-11			100E-11	660E-	9SB00
301 OC 1	12	0.130	5.153	151E- 9			050E-11	660E-	9SB00
301 OC 1	24	0.496	5.153	645E- 8			050E-11	660E-	9SB00
301 OC 1	42	0.491	5.154	713E- 8			050E-11	660E-	9SB00
301 OC 1	80	0.057	5.154	107E- 8			050E-11	660E-	9SB00
301 OC 1	170	0.013	5.154	112E- 9			050E-11	660E-	9SB00
301 OC 1	325	0.0120	5.154	442E-10			50E-11	660E-	9SB00
301 OC 1	500	0.004	5.154	139E-10			50E-11	660E-	9SB00
301 OC 1	7W	[illegible]	5.153	100E-11			100E-11	660E-	9SB00
301 OC 1	12W	0.1028	7.067	920E- 9			40E-11	670E-	9SB00
301 OC 1	24W	0.4747	7.067	462E- 8			40E-11	670E-	9SB00
301 OC 1	42W	0.5072	7.067	545E- 8			40E-11	670E-	9SB00
301 OC 1	80W	0.0632	7.067	875E- 9			40E-11	670E-	9SB00
301 OC 1	170W	0.0267	7.077	100E- 9			40E-11	670E-	9SB00
301 OC 1	325W	[illegible]	7.077	448E-10			40E-11	670E-	9SB00
301 OC 1	500W				8.044	640E-10	040E-11	670E-	9SB00
303 AOC	T	14.1[illegible]	4.388				40E-11	670E-	9SB01
303 AOC	7	[illegible]	4.388	100E-11			100E-11	670E-	9SB01
303 AOC	12	0.1943	4.388	180E- 8			40E-11	670E-	9SB01
303 AOC	24	2.1836	4.390				40E-11	670E-	9SB01
303 AOC	42	7.1501	4.391				40E-11	670E-	9SB01
303 AOC	80	1.7262	4.392	227E- 7			40E-11	670E-	9SB01
303 AOC	170	0.5668	4.392	513E- 8			40E-11	670E-	9SB01
303 AOC	325	1.1021	4.393	240E- 8			40E-11	670E-	9SB01
303 AOC	500	1.0376	4.393	270E- 8			40E-11	670E-	9SB01
303 AOC	7W	[illegible]	4.388	100E-11			100E-11	670E-	9SB01
303 AOC	12W	0.1623	4.496	115E- 8			50E-11	670E-	9SB01
303 AOC	24W	[illegible]	4.497				50E-11	670E-	9SB01
303 AOC	42W	7.0169	4.498				50E-11	670E-	9SB01
303 AOC	80W	1.7073	4.498	261E- 7			50E-11	670E-	9SB01
303 AOC	170W	0.5666	4.499	405E- 8			50E-11	670E-	9SB01
303 AOC	325W	0.8733	4.500	210E- 8			50E-11	670E-	9SB01
303 AOC	40W	[illegible]74	5.442	290E-10	5.267	232E-10	40E-11	670E-	9SB01
303 AOC	30W	[illegible]75	5.443	190E-10	5.268	218E-10	40E-11	670E-	9SB01
303 AOC	20W	[illegible]48	5.443	170E-10	5.268	190E-10	40E-11	670E-	9SB01
303 AOC	10W	[illegible]42	5.445	150E-10	5.269	170E-10	40E-11	670E-	9SB01
303 AOC	5W	[illegible]47	5.445	140E-10	5.269	160E-10	40E-11	670E-	9SB01
303 AOC	3W	[illegible]34	5.446	128E-10	5.270	150E-10	40E-11	670E-	9SB01
303 AOC	1W	[illegible]26	5.447	435E-11	5.270	818E-11	40E-11	670E-	9SB01

TABLE E.2 CONTINUED

SAMPLE NUMBER	SIZE	GRAMS	AGE DAYS	ACTIVITY MA	BKGD MA	STD MA	EVENT
305 AO 3	T	1.40	1.421		40E-11	670E- 9	SB01
305 AO 3	7	0.0000	1.420	100E-11	100E-11	670E- 9	SB01
305 AO 3	12	0.0335	1.420	545E- 9	40E-11	670E- 9	SB01
305 AO 3	24	0.2195	1.421	124E- 7	40E-11	670E- 9	SB01
305 AO 3	42	0.7485	1.421		40E-11	670E- 9	SB01
305 AO 3	80	0.1385	1.422	710E- 8	40E-11	670E- 9	SB01
305 AO 3	170	0.0888	1.422	270E- 8	40E-11	670E- 9	SB01
305 AO 3	325	0.1025	1.422	140E- 8	40E-11	670E- 9	SB01
305 AO 3	500	0.0528	1.422	715E- 9	40E-11	670E- 9	SB01
305 AO 4	T	1.55	1.396		20E-11	670E- 9	SB01
305 AO 4	7	0.0245	1.394	108E- 8	20E-10	670E- 9	SB01
305 AO 4	12	0.0667	1.395	310E- 9	20E-10	670E- 9	SB01
305 AO 4	24	0.3065	1.396	600E- 9	20E-10	670E- 9	SB01
305 AO 4	42	0.7198	1.396		20E-10	670E- 9	SB01
305 AO 4	80	0.1363	1.397	720E- 8	20E-10	670E- 9	SB01
305 AO 4	170	0.1329	1.398	330E- 8	20E-10	670E- 9	SB01
305 AO 4	325	0.1391	1.399	230E- 8	20E-10	670E- 9	SB01
305 AO 4	500	0.0839	1.399	195E- 8	20E-10	670E- 9	SB01
305 AO 6	T	1.35	1.380		20E-10	670E- 9	SB01
305 AO 6	7	0.0140	1.380	610E-10	40E-11	670E- 9	SB01
305 AO 6	12	0.0100	1.381	725E-10	40E-11	670E- 9	SB01
305 AO 6	24	0.2985	1.381	165E- 7	40E-11	670E- 9	SB01
305 AO 6	42	0.7610	1.381		40E-11	670E- 9	SB01
305 AO 6	80	0.0895	1.383	525E- 8	40E-11	670E- 9	SB01
305 AO 6	170	0.0794	1.384	205E- 8	40E-11	670E- 9	SB01
305 AO 6	325	0.0060	1.385	100E- 8	40E-11	670E- 9	SB01
305 AO 6	500	0.0435	1.385	400E- 9	40E-11	670E- 9	SB01
305 AO 7	T	1.4565	10.464	780E- 8	40E-11	670E- 9	SB01
305 AO 10	T	2.2189	10.465	111E- 7	40E-11	670E- 9	SB01
305 AOC	T	3.675	13.198	133E- 7	40E-11	670E- 9	SB01
305 AOC	7	0.000	13.196	100E-11	100E-11	670E- 9	SB01
305 AOC	12	0.078	13.196	210E- 9	40E-11	670E- 9	SB01
305 AOC	24	0.633	13.198	327E- 8	40E-11	670E- 9	SB01
305 AOC	42	1.71[illegible]	13.198	682E- 8	40E-11	670E- 9	SB01
305 AOC	80	0.280	13.199	120E- 9	40E-11	670E- 9	SB01
305 AOC	170	0.245	13.199	382E- 9	40E-11	670E- 9	SB01
305 AOC	325	0.36[illegible]	13.200	190E- 9	40E-11	670E- 9	SB01
305 AOC	500	0.349	13.200	275E- 9	40E-11	670E- 9	SB01
305 OC 1	T	1.8560	5.200	111E- 7	40E-11	670E- 9	SB00
305 OC 1	7	0.0000	5.200	100E-11	100E-11	670E- 9	SB00
305 OC 1	12	0.0576	5.200	873E- 9	40E-11	670E- 9	SB00
305 OC 1	24	0.3376	5.200	410E- 9	40E-11	670E- 9	SB00
305 OC 1	42	0.3091	5.200	596E- 8	40E-11	670E- 9	SB00
305 OC 1	80	0.0216	5.201	223E-10	40E-11	670E- 9	SB00
305 OC 1	170	0.0231	5.201	533E-10	40E-11	670E- 9	SB00
305 OC 1	325	0.0394	5.202	422E-10	40E-11	670E- 9	SB00
305 OC 1	500	0.0129	5.203	370E-10	40E-11	670E- 9	SB00
305 OC 1	7*	0.0000	5.200	100E-11	100E-11	670E- 9	SB00
305 OC 1	12*	0.0426	7.222	542E- 9	40E-11	670E- 9	SB00
305 OC 1	24*	0.3154	7.222	275E- 8	40E-11	670E- 9	SB00
305 OC 1	42*	0.416[illegible]	7.223	442E- 8	40E-11	670E- 9	SB00

TABLE E.2 CONTINUED

SAMPLE NUMBER	SIZE	GRAMS	AGE DAYS	ACTIVITY MA			BKGD MA	STD MA	EVENT
305 OC 1	80W	0.0204	7.223	182E- 9			40E-11	670E- 9	S800
305 OC 1	170W	0.0225	7.224	572E-10			40E-11	670E- 9	S800
305 OC 1	325W	0.0294	7.225	275E-10			40E-11	670E- 9	S800
305 OC 1	500W	1.0097			7.973	635E-10	60E-11	665E- 9	S800
400 AO 1	T	0.1049	9.559	60E- 9					S801
401 AO 1	T	1.9130	9.576	845E- 8			42E-11	670E- 9	S801
401 AO 2	T	1.8433	9.577	840E- 8			42E-11	670E- 9	S801
401 AO 3	T	1.6883	9.577	825E- 8			42E-11	670E- 9	S801
401 AO 4	T	1.8287	9.578	855E- 8			42E-11	670E- 9	S801
401 AO 6	T	1.8308	9.579	875E- 8			42E-11	670E- 9	S801
401 AO 7	T	1.9596	9.579	865E- 8			42E-11	670E- 9	S801
401 AO 10	T	2.2973	9.580	890E- 8			42E-11	670E- 9	S801
401 AOC	T	12.36							S801
401 AOC	7W	0.0983	11.130	170E-10			40E-11	660E- 9	S801
401 AOC	12W	0.2163	11.131	805E-10			40E-11	660E- 9	S801
401 AOC	24W	0.2383	11.131	430E- 9			40E-11	660E- 9	S801
401 AOC	42W	4.8245	11.132	267E- 7			40E-11	660E- 9	S801
401 AOC	80W	2.3038	11.132	152E- 7			40E-11	660E- 9	S801
401 AOC	170W	0.8283	11.132	140E- 8			40E-11	660E- 9	S801
401 AOC	325W	1.6908	11.132	645E- 9			40E-11	660E- 9	S801
401 AOC	500W				11.132	200E- 8	40E-11	660E- 9	S801
401 OC 1	T	0.7750	6.001	955E- 8			40E-11	670E- 9	S800
401 OC 1	7	0.0000	6.001	100E-11			100E-11	670E- 9	S800
401 OC 1	12	0.0000	6.001	100E-11			100E-11	670E- 9	S800
401 OC 1	24	0.0410	6.001	530E- 9			40E-11	670E- 9	S800
401 OC 1	42	0.5042	6.001	633E- 8			40E-11	670E- 9	S800
401 OC 1	80	0.1569	6.001	255E- 8			40E-11	670E- 9	S800
401 OC 1	170	0.0270	6.002	100E- 9			40E-11	670E- 9	S800
401 OC 1	325	0.0235	6.002	283E-10			40E-11	670E- 9	S800
401 OC 1	500	0.0028	6.002	130E-10			40E-11	670E- 9	S800
401 OC 1	7W	0.0000	7.127	100E-11			100E-11	670E- 9	S800
401 OC 1	12W	0.0000	7.127	100E-11			100E-11	670E- 9	S800
401 OC 1	24W	0.0361	7.127	375E- 9			40E-11	665E- 9	S800
401 OC 1	42W	0.4904	7.128	412E- 8			40E-11	665E- 9	S800
401 OC 1	80W	0.1615	7.129	218E- 8			40E-11	665E- 9	S800
401 OC 1	170W	0.0298	7.129	935E-10			40E-11	665E- 9	S800
401 OC 1	325W	0.0254	7.130	265E-10			40E-11	665E- 9	S800
401 OC 1	500W	0.0318	8.012	335E-10	8.012	335E-10	40E-11	665E- 9	S800
403 AO 3	T	1.88	1.987				40E-11	670E- 9	S801
403 AO 3	7	0.0000	1.986	40E-11			40E-11	670E- 9	S801
403 AO 3	12	0.0033	1.986	95E-10			40E-11	670E- 9	S801
403 AO 3	24	0.0374	1.986	618E- 9			40E-11	670E- 9	S801
403 AO 3	42	0.5946	1.987	232E- 7			40E-11	670E- 9	S801
403 AO 3	80	0.7897	1.987				40E-11	670E- 9	S801
403 AO 3	170	0.1218	1.987	330E- 8			40E-11	670E- 9	S801
403 AO 3	325	0.1663	1.988	652E- 9			40E-11	670E- 9	S801

TABLE E.2 CONTINUED

SAMPLE NUMBER	SIZE	GRAMS	AGE DAYS	ACTIVITY MA			BKGD MA	STD MA	EVENT
403 AO 3	500	0.1121	1.989	953E- 9			40E-11	670E-	9S801
403 AO 4	T	1.8398	2.005				00E-11	670E-	9S801
403 AO 4	7	0.0076	2.002	141E-10			00E-11	670E-	9S801
403 AO 4	12	0.0120	2.003	341E-10			00E-11	670E-	9S801
403 AO 4	24	0.0220	2.004	335E- 9			00E-11	670E-	9S801
403 AO 4	42	0.6231	2.005	243E- 7			00E-11	670E-	9S801
403 AO 4	80	0.8232	2.006				00E-11	670E-	9S801
403 AO 4	170	0.1268	2.007	345E- 8			00E-11	670E-	9S801
403 AO 4	325	0.1437	2.008	100E- 8			00E-11	670E-	9S801
403 AO 4	500	0.0814	2.009	770E- 9			00E-11	670E-	9S801
403 AOC	T	12.50	3.620				40E-11	670E-	9S801
403 AOC	7	0.0250	3.620	310E-10			40E-11	670E-	9S801
403 AOC	12	0.0716	3.620	516E-10			40E-11	670E-	9S801
403 AOC	24	0.3710	3.621	110E- 8			40E-11	670E-	9S801
403 AOC	42	3.1503	3.621				40E-11	670E-	9S801
403 AOC	80	4.3325	3.621				40E-11	670E-	9S801
403 AOC	170	0.7117	3.622	740E- 8			40E-11	670E-	9S801
403 AOC	325	0.9596	3.622	265E- 8			40E-11	670E-	9S801
403 AOC	500	0.8306	3.623	445E- 8			40E-11	670E-	9S801
403 AOC	7W	0.016	4.214	242E-10			40E-11	670E-	9S801
403 AOC	12W	0.049	4.214	345E-10			040E-11	670E-	9S801
403 AOC	24W	0.129	4.215	685E- 9			040E-11	670E-	9S801
403 AOC	42W	2.830	4.215				40E-11	670E-	9S801
403 AOC	80W	4.075	4.215				040E-11	670E-	9S801
403 AOC	170W	0.555	4.216	538E- 8			040E-11	670E-	9S801
403 AOC	325W	0.609	4.217	100E- 8			040E-11	670E-	9S801
403 AOC	40W	0.0046	5.166	390E-10	4.263	638E-10	040E-11	670E-	9S801
403 AOC	30W	0.0049	5.166	353E-10	4.263	605E-10	040E-11	670E-	9S801
403 AOC	20W	0.0040	5.166	348E-10	4.263	595E-10	040E-11	670E-	9S801
403 AOC	10W	0.0030	5.166	313E-10	4.263	545E-10	040E-11	670E-	9S801
403 AOC	5W	0.0017	5.169	225E-10	4.263	455E-10	40E-11	670E-	9S801
403 AOC	3W	0.0020	5.169	175E-10	4.263	390E-10	40E-11	670E-	9S801
403 AOC	1W	0.0012	5.169	95E- 1	4.920	165E-10	40E-11	670E-	9S801
403 OC 1	T	1.1575	8.402	155E- 8			40E-11	672E-	9S800
403 OC 1	7W	0.0000	9.999	100E-11			100E-11	670E-	9S800
403 OC 1	12W	0.[illegible]	9.999	100E-11			100E-11	670E-	9S800
403 OC 1	24W	0.0742	9.999	135E- 9			040E-11	670E-	9S800
403 OC 1	42W	0.3184	9.999	770E- 9			040E-11	670E-	9S800
403 OC 1	80W	0.4730	10.020	350E- 9			040E-11	670E-	9S800
403 OC 1	170W	0.1926	10.030	720E-11			040E-11	670E-	9S800
403 OC 1	325W	0.1020	10.040	500E-11			040E-11	670E-	9S800
403 OC 1	500W	[illegible]	10.064	120E-11	9.979	270E- 9	040E-11	670E-	9S800
405 AO 1	T	0.7631	10.434	360E- 8			40E-11	660E-	9S801
405 AO 2	T	0.7472	10.435	350E- 8			40E-11	660E-	9S801
405 AO 3	T	0.7740	10.436	345E- 8			40E-11	660E-	9S801
405 AO 4	T	0.7387	10.437	360E- 8			40E-11	660E-	9S801
405 AO 10	T	2.3776	10.435	448E- 8			40E-11	660E-	9S801
405 AOC	T	5.401	11.334	157E- 7			40E-11	670E-	9S801

TABLE E.2 CONTINUED

SAMPLE NUMBER	SIZE	GRAMS	AGE DAYS	ACTIVITY MA			BKGD MA	STD MA	EVENT
405 AOC	7W	0.0040	11.383	105E-11			40E-11	670E-	9S801
405 AOC	12W	0.0240	11.384	100E-10			40E-11	670E-	9S801
405 AOC	24W	0.0680	11.384	280E-10			40E-11	670E-	9S801
405 AOC	42W	0.8292	11.385	490E- 8			40E-11	670E-	9S801
405 AOC	80W	1.5458	11.385	900E- 8			40E-11	670E-	9S801
405 AOC	170W	0.8446	11.385	820E- 9			40E-11	670E-	9S801
405 AOC	325W	1.0309	11.386	335E- 9			40E-11	670E-	9S801
405 AOC	500W				11.387	755E- 9	40E-11	670E-	9S801
405 OC 1	T	0.52	5.921	451E- 8			40E-11	665E-	9S800
405 OC 1	7	0.0000	5.923	040E-11			40E-11	665E-	9S800
405 OC 1	12	0.0000	5.923	040E-11			40E-11	665E-	9S800
405 OC 1	24	0.010	5.922	950E-10			40E-11	665E-	9S800
405 OC 1	42	0.173	5.921	220E- 8			40E-11	665E-	9S800
405 OC 1	80	0.180	5.921	213E- 8			40E-11	665E-	9S800
405 OC 1	170	0.021	5.920	340E-10			40E-11	665E-	9S800
405 OC 1	325	0.060	5.920	260E-10			40E-11	665E-	9S800
405 OC 1	500	0.014	5.919	255E-10			40E-11	665E-	9S800
405 OC 1	7W	0.0000	7.134	040E-11			40E-11	665E-	9S800
405 OC 1	12W	0.0000	7.134	040E-11			40E-11	665E-	9S800
405 OC 1	24W	0.0054	7.135	405E-10			40E-11	665E-	9S800
405 OC 1	42W	0.1562	7.135	170E- 8			40E-11	665E-	9S800
405 OC 1	80W	0.1710	7.135	172E- 8			40E-11	665E-	9S800
405 OC 1	170W	0.0642	7.136	378E-10			40E-11	665E-	9S800
405 OC 1	325W	0.0510	7.136	192E-10			40E-11	665E-	9S800
405 OC 1	500W	0.0722			9.988	540E-10	40E-11	665E-	9S800
407 OC 1	T	0.1778	8.402	840E- 8			40E-11	672E-	9S800
407 OC 1	7W	0.0000	9.992	040E-11			040E-11	665E-	9S800
407 OC 1	12W	0.0000	9.992	040E-11			040E-11	665E-	9S800
407 OC 1	24W	0.0223	9.993	815E-10			040E-11	665E-	9S800
407 OC 1	42W	0.0982	9.994	250E- 8			040E-11	665E-	9S800
407 OC 1	80W	0.0410	9.994	438E- 9			040E-11	665E-	9S800
407 OC 1	170W	0.0103	9.995	270E- 9			040E-11	665E-	9S800
407 OC 1	325W	0.0118	9.995	305E-10			040E-11	665E-	9S800
407 OC 1	500W	0.0010	9.997	340E-11	9.997	337E-10	040E-11	665E-	9S800
501 AO 1	T	0.2034	11.425	220E- 9			40E-11	660E-	9S801
501 AO 2	T	0.1965	11.425	201E- 9			40E-11	660E-	9S801
501 AO 3	T	0.0363	11.426	302E-10			40E-11	660E-	9S801
501 AO 4	T	0.1644	11.426	150E- 9			40E-11	660E-	9S801
501 AO 7	T	0.1672	11.427	133E- 9			40E-11	660E-	9S801
501 AOC	T	0.838	12.318	693E- 9			38E-11	660E-	9S801
501 AOC	7W	0.0007	12.317	100E-11			038E-11	660E-	9S801
501 AOC	12W	0.0106	12.318	110E-11			038E-11	660E-	9S801
501 AOC	24W	0.0199	12.318	120E-10			038E-11	660E-	9S801
501 AOC	42W	0.0266	12.319	250E-10			038E-11	660E-	9S801
501 AOC	80W	0.3827	12.320	490E- 9			038E-11	660E-	9S801
501 AOC	170W	0.1084	12.321	685E-10			038E-11	660E-	9S801
501 AOC	325W	0.2291	12.321	495E-10			038E-11	660E-	9S801
501 AOC	500W				12.321	480E-10	038E-11	660E-	9S801

TABLE E.2 CONTINUED

SAMPLE NUMBER	SIZE	GRAMS	AGE DAYS	ACTIVITY MA			BKGD MA	STD MA	EVENT
503 AOC	T	6.394	3.552				45E-11	670E-	9S801
503 AOC	7	0.0811	3.551	272E-10			45E-11	670E-	9S801
503 AOC	12	0.0495	3.552	230E-10			45E-11	670E-	9S801
503 AOC	24	0.1161	3.553	130E- 9			45E-11	670E-	9S801
503 AOC	42	0.5298	3.554	860E- 8			45E-11	670E-	9S801
503 AOC	80	2.6105	3.555				45E-11	670E-	9S801
503 AOC	170	1.0362	3.556	240E- 8			45E-11	670E-	9S801
503 AOC	325	1.0338	3.556	125E- 8			45E-11	670E-	9S801
503 AOC	500	0.9365	3.557	150E- 8			45E-11	670E-	9S801
503 AOC	7W	0.010	4.219	155E-10			040E-11	670E-	9S801
503 AOC	12W	0.041	4.219	380E-10			040E-11	670E-	9S801
503 AOC	24W	0.108	4.220	206E- 9			40E-11	670E-	9S801
503 AOC	42W	0.504	4.220	552E- 8			040E-11	670E-	9S801
503 AOC	80W	2.579	4.220				040E-11	670E-	9S801
503 AOC	170W	0.902	4.221	185E- 8			040E-11	670E-	9S801
503 AOC	325W	0.747	4.221	585E- 9			040E-11	670E-	9S801
503 AOC	40W	0.0050	5.168	148E-10	4.229	243E-10	040E-11	670E-	9S801
503 AOC	30W	0.0044	5.167	148E-10	4.229	240E-10	040E-11	670E-	9S801
503 AOC	20W	0.0031	5.166	138E-10	4.229	230E-10	040E-11	670E-	9S801
503 AOC	10W	0.0021	5.165	120E-10	4.230	218E-10	040E-11	670E-	9S801
503 AOC	5W	0.0011	5.164	94E-10	4.230	180E-10	040E-11	670E-	9S801
503 AOC	3W	0.0013	5.163	670E-11	4.231	160E-10	040E-11	670E-	9S801
503 AOC	1W	0.0016	5.162	575E-11	4.231	92E-10	040E-11	670E-	9S801
503 OC 1	T	0.3674	8.403	265E- 8			40E-11	672E-	9S800
503 OC 1	7W	0.0030	9.985	050E-11			050E-11	665E-	9S800
503 OC 1	12W	0.0000	9.985	050E-11			050E-11	665E-	9S800
503 OC 1	24W	0.0377	9.985	480E-11			050E-11	665E-	9S800
503 OC 1	42W	0.0544	9.986	342E- 9			050E-11	665E-	9S800
503 OC 1	80W	0.1870	9.986	190E- 8			050E-11	665E-	9S800
503 OC 1	170W	0.0313	9.986	450E-10			050E-11	665E-	9S800
503 OC 1	325W	0.0507	9.987	132E-10			050E-11	665E-	9S800
503 OC 1	500W	0.0080	9.989	370E-11	9.989	540E-10	050E-11	665E-	9S800
505 AO 2	7	0.0000	2.019	040E-11			40E-11	670E-	9S801
505 AO 2	12	0.0011	2.017	65E-11			40E-11	670E-	9S801
505 AO 2	24	0.0039	2.019	93E-10			40E-11	670E-	9S801
505 AO 2	42	0.0453	2.020	180E- 8			40E-11	670E-	9S801
505 AO 2	80	0.5438	2.021	870E- 8			40E-11	670E-	9S801
505 AO 2	170	0.1929	2.021	190E- 8			40E-11	670E-	9S801
505 AO 2	325	0.5500	2.022	40E- 8			40E-11	670E-	9S801
505 AO 2	500	0.3675	2.022	785E- 9			40E-11	670E-	9S801
505 AO 3	T	1.8	1.510				40E-11	670E-	9S801
505 AO 3	7	0.0000	1.510	040E-11			040E-11	670E-	9S801
505 AO 3	12	0.0000	1.510	040E-11			040E-11	670E-	9S801
505 AO 3	24	0.0061	1.510	130E-10			040E-11	670E-	9S801
505 AO 3	42	0.0906	1.510	325E- 8			040E-11	670E-	9S801
505 AO 3	80	0.5125	1.510				040E-11	670E-	9S801
505 AO 3	170	0.1730	1.510	808E- 8			040E-11	670E-	9S801
505 AO 3	325	0.4105	1.510	155E- 8			040E-11	670E-	9S801
505 AO 3	500	0.4980	1.510	218E-08			040E-11	670E-	9S801
505 AO 6	T	1.75	1.932	399E- 7			00E-11	670E-	9S801
505 AO 6	7	0.0173	1.932	340E-11			10E-10	670E-	9S801
505 AO 6	12	0.0059	1.932	253E-11			10E-10	670E-	9S801
505 AO 6	24	0.0056	1.931	445E-11			10E-10	670E-	9S801

TABLE E.2 CONTINUED

SAMPLE NUMBER	SIZE	GRAMS	AGE DAYS	ACTIVITY MA		BKGD MA	STD MA	EVENT
505 AO 6	42	0.0897	1.931	255E- 8		10E-10	670E-	9SB01
505 AO 6	80	0.5565	1.930	280E- 7		10E-10	670E-	9SB01
505 AO 6	170	0.2098	1.930	640E- 8		10E-10	670E-	9SB01
505 AO 6	325	0.3406	1.930	880E- 9		10E-10	670E-	9SB01
505 AO 6	500	0.5001	1.930	210E- 8		10E-10	670E-	9SB01
505 AO 7	T	1.6546	10.468	625E- 8		40E-11	660E-	9SB01
505 AO 8	T	1.7600	10.468	630E- 8		40E-11	660E-	9SB01
505 AO 9	T	1.5789	10.469	580E- 8		40E-11	660E-	9SB01
505 AOC	T	3.20	13.189	153E- 7		60E-11	655E-	9SB01
505 AOC	7W	0.0000	13.188	060E-11		060E-11	665E-	9SB01
505 AOC	12W	0.008	13.188	193E-10		060E-11	665E-	9SB01
505 AOC	24W	0.005	13.188	145E-10		060E-11	665E-	9SB01
505 AOC	42W	0.127	13.189	589E- 9		060E-11	665E-	9SB01
505 AOC	80W	1.536	13.190	111E- 7		060E-11	665E-	9SB01
505 AOC	170W	0.486	13.190	230E- 8		060E-11	665E-	9SB01
505 AOC	325W	0.701	13.191	199E- 9		060E-11	665E-	9SB01
505 AOC	500W				13.192 112E- 8	060E-11	665E-	9SB01
507 IC 1	T	0.2676	9.347	200E-11		40E-11	665E-	9SB05
507 IC 1	7	0.0000	164.989	28E-11		28E-11	665E-	9SB05
507 IC 1	12	0.0033	164.989	28E-11		28E-11	665E-	9SB05
507 IC 1	24	0.0018	164.989	28E-11		28E-11	665E-	9SB05
507 IC 1	42	0.0028	164.989	28E-11		28E-11	665E-	9SB05
507 IC 1	80	0.0158	164.989	28E-11		28E-11	665E-	9SB05
507 IC 1	170	0.0893	164.989	28E-11		28E-11	665E-	9SB05
507 IC 1	325	0.1049	164.989	28E-11		28E-11	665E-	9SB05
507 IC 1	500	0.0418	164.989	28E-11		28E-11	665E-	9SB05
507 IC 2	T	0.3725	9.347	220E- 8		40E-11	665E-	9SB05
507 IC 2	7	0.0000	164.989	28E-11		28E-11	665E-	9SB05
507 IC 2	12	0.0000	164.989	28E-11		28E-11	665E-	9SB05
507 IC 2	24	0.0009	164.989	28E-11		28E-11	665E-	9SB05
507 IC 2	42	0.0054	164.991	120E-11		28E-11	665E-	9SB05
507 IC 2	80	0.1826	164.992	810E-10		28E-11	665E-	9SB05
507 IC 2	170	0.0786	164.993	215E-10		28E-11	665E-	9SB05
507 IC 2	325	0.0444	164.995	110E-11		28E-11	665E-	9SB05
507 IC 2	500	0.0163	164.997	50E-11		28E-11	665E-	9SB05
507 IC 3	T	0.0844	9.348	555E- 9		40E-11	665E-	9SB05
507 IC 3	7	0.0000	165.000	30E-11		30E-11	665E-	9SB05
507 IC 3	12	0.0022	165.000	30E-11		30E-11	665E-	9SB05
507 IC 3	24	0.0019	165.002	30E-11		30E-11	665E-	9SB05
507 IC 3	42	0.0021	165.003	30E-11		30E-11	665E-	9SB05
507 IC 3	80	0.0298	165.003	125E-10		30E-11	665E-	9SB 5
507 IC 3	170	0.0316	165.004	120E-10		30E-11	665E-	9SB05
507 IC 3	325	0.0129	165.006	70E-11		30E-11	665E-	9SB05
507 IC 3	500	0.0058	165.007	30E-11		30E-11	665E-	9SB05
507 IC 4	T	0.0710	9.348	330E-11		40E-11	665E-	9SB05
507 IC 4	7	0.0000	165.007	30E-11		30E-11	665E-	9SB05
507 IC 4	12	0.0000	165.007	30E-11		30E-11	665E-	9SB05
507 IC 4	24	0.0013	165.007	30E-11		30E-11	665E-	9SB05
507 IC 4	42	0.0015	165.007	30E-11		30E-11	665E-	9SB05
507 IC 4	80	0.0029	165.007	30E-11		30E-11	665E-	9SB05

TABLE E.2 CONTINUED

SAMPLE NUMBER	SIZE	GRAMS	AGE DAYS	ACTIVITY MA	BKGD MA	STD MA	EVENT
507 IC 4	170	0.0159	165.007	30E-11	30E-11	665E-	9S805
507 IC 4	325	0.0329	165.007	30E-11	30E-11	665E-	9S805
507 IC 4	500	0.0123	165.007	30E-11	30E-11	665E-	9S805
507 IC 5	T	0.0203	9.349	280E-11	40E-11	665E-	9S805
507 IC 5	7	0.0000	165.007	30E-11	30E-11	665E-	9S805
507 IC 5	12	0.0000	165.007	30E-11	30E-11	665E-	9S805
507 IC 5	24	0.0009	165.007	30E-11	30E-11	665E-	9S805
507 IC 5	42	0.0009	165.007	30E-11	30E-11	665E-	9S805
507 IC 5	80	0.0026	165.007	30E-11	30E-11	665E-	9S805
507 IC 5	170	0.0076	165.007	30E-11	30E-11	665E-	9S805
507 IC 5	325	0.0067	165.007	30E-11	30E-11	665E-	9S805
507 IC 5	500	0.0003	165.007	30E-11	30E-11	665E-	9S805
507 IC 6	T	0.0342	9.351	610E-11	40E-11	665E-	9S805
507 IC 6	7	0.0000	165.007	30E-11	30E-11	665E-	9S805
507 IC 6	12	0.0000	165.007	30E-11	30E-11	665E-	9S805
507 IC 6	24	0.0005	165.007	30E-11	30E-11	665E-	9S805
507 IC 6	42	0.0012	165.007	30E-11	30E-11	665E-	9S805
507 IC 6	80	0.0032	165.007	30E-11	30E-11	665E-	9S805
507 IC 6	170	0.0117	165.007	30E-11	30E-11	665E-	9S805
507 IC 6	325	0.0127	165.007	30E-11	30E-11	665E-	9S805
507 IC 6	500	0.0017	165.007	30E-11	30E-11	665E-	9S805
507 IC 7	T	0.0950	9.351	150E-10	40E-11	665E-	9S805
507 IC 7	7	0.0003	165.007	30E-11	30E-11	665E-	9S805
507 IC 7	12	0.0009	165.087	30E-11	30E-11	665E-	9S805
507 IC 7	24	0.0005	165.089	30E-11	30E-11	665E-	9S805
507 IC 7	42	0.0020	165.091	30E-11	30E-11	665E-	9S805
507 IC 7	80	0.0130	165.092	65E-11	30E-11	665E-	9S805
507 IC 7	170	0.0569	165.094	52E-11	30E-11	665E-	9S805
507 IC 7	325	0.0156	165.095	30E-11	30E-11	665E-	9S805
507 IC 7	500	0.0010	165.097	30E-11	30E-11	665E-	9S805
507 IC 8	T	0.0395	9.352	60E-11	40E-11	665E-	9S805
507 IC 8	7	0.0000	165.097	30E-11	30E-11	665E-	9S805
507 IC 8	12	0.0000	165.097	30E-11	30E-11	665E-	9S805
507 IC 8	24	0.0011	165.097	30E-11	30E-11	665E-	9S805
507 IC 8	42	0.0007	165.097	30E-11	30E-11	665E-	9S805
507 IC 8	80	0.0076	165.097	30E-11	30E-11	665E-	9S805
507 IC 8	170	0.0170	165.097	30E-11	30E-11	665E-	9S805
507 IC 8	325	0.0111	165.097	30E-11	30E-11	665E-	9S805
507 IC 8	500	0.0010	165.097	30E-11	30E-11	665E-	9S805
507 IC 9	T	0.0392	9.353	60E-11	40E-11	665E-	9S805
507 IC 9	7	0.0000	165.097	30E-11	30E-11	665E-	9S805
507 IC 9	12	0.0000	165.097	30E-11	30E-11	665E-	9S805
507 IC 9	24	0.0011	165.097	30E-11	30E-11	665E-	9S805
507 IC 9	42	0.0015	165.097	30E-11	30E-11	665E-	9S805
507 IC 9	80	0.0100	165.097	30E-11	30E-11	665E-	9S805
507 IC 9	170	0.0226	165.097	30E-11	30E-11	665E-	9S805
507 IC 9	325	0.0067	165.097	30E-11	30E-11	665E-	9S805
507 IC 9	500	0.0011	165.097	30E-11	30E-11	665E-	9S805
507 IC 10	T	0.0475	9.354	310E-11	40E-11	665E-	9S805
507 IC 10	7	0.0000	165.097	30E-11	30E-11	665E-	9S805
507 IC 10	12	0.0000	165.097	30E-11	30E-11	665E-	9S805
507 IC 10	24	0.0009	165.097	30E-11	30E-11	665E-	9S805

TABLE E.2 CONTINUED

SAMPLE NUMBER	SIZE	GRAMS	AGE DAYS	ACTIVITY MA	BKGD MA	STD MA	EVENT
507 IC 10	42	0.0010	165.097	30E-11	30E-11	665E-	9S805
507 IC 10	80	0.0024	165.097	30E-11	30E-11	665E-	9S805
507 IC 10	170	0.0198	165.097	30E-11	30E-11	665E-	9S805
507 IC 10	325	0.0229	165.097	30E-11	30E-11	665E-	9S805
507 IC 10	500	0.0048	165.097	30E-11	30E-11	665E-	9S805
507 IC 11 T		0.0594	9.354	160E-11	40E-11	665E-	9S805
507 IC 11	7	0.0000	165.097	30E-11	30E-11	665E-	9S805
507 IC 11	12	0.0000	165.097	30E-11	30E-11	665E-	9S805
507 IC 11	24	0.0000	165.097	30E-11	30E-11	665E-	9S805
507 IC 11	42	0.0007	165.097	30E-11	30E-11	665E-	9S805
507 IC 11	80	0.0099	165.097	30E-11	30E-11	665E-	9S805
507 IC 11	170	0.0234	165.097	30E-11	30E-11	665E-	9S805
507 IC 11	325	0.0190	165.097	30E-11	30E-11	665E-	9S805
507 IC 11	500	0.0025	165.097	30E-11	30E-11	665E-	9S805
507 IC 12 T		0.0388	9.354	135E-11	40E-11	665E-	9S805
507 IC 12	7	0.0000	165.097	30E-11	30E-11	665E-	9S805
507 IC 12	12	0.0000	165.097	30E-11	30E-11	665E-	9S805
507 IC 12	24	0.0005	165.097	30E-11	30E-11	665E-	9S805
507 IC 12	42	0.0022	165.097	30E-11	30E-11	665E-	9S805
507 IC 12	80	0.0079	165.097	30E-11	30E-11	665E-	9S805
507 IC 12	170	0.0186	165.097	30E-11	30E-11	665E-	9S805
507 IC 12	325	0.0101	165.097	30E-11	30E-11	665E-	9S805
507 IC 12	500	0.0009	165.097	30E-11	30E-11	665E-	9S805
507 IC 13 T		0.0810	9.355	105E-11	40E-11	665E-	9S805
507 IC 13	7	0.0000	165.097	30E-11	30E-11	665E-	9S805
507 IC 13	12	0.0000	165.097	30E-11	30E-11	665E-	9S805
507 IC 13	24	0.0002	165.097	30E-11	30E-11	665E-	9S805
507 IC 13	42	0.0022	165.097	30E-11	30E-11	665E-	9S805
507 IC 13	80	0.0140	165.097	30E-11	30E-11	665E-	9S805
507 IC 13	170	0.0431	165.097	30E-11	30E-11	665E-	9S805
507 IC 13	325	0.0213	165.097	30E-11	30E-11	665E-	9S805
507 IC 13	500	0.0013	165.097	30E-11	30E-11	665E-	9S805
507 IC 14 T		0.0772	9.355	95E-11	40E-11	665E-	9S805
507 IC 15 T		0.0520	9.356	80E-11	40E-11	665E-	9S805
507 IC 15	7	0.0000	165.097	30E-11	30E-11	665E-	9S805
507 IC 15	12	0.0005	165.097	30E-11	30E-11	665E-	9S805
507 IC 15	24	0.0009	165.097	30E-11	30E-11	665E-	9S805
507 IC 15	42	0.0015	165.097	30E-11	30E-11	665E-	9S805
507 IC 15	80	0.0052	165.097	30E-11	30E-11	665E-	9S805
507 IC 15	170	0.0215	165.097	30E-11	30E-11	665E-	9S805
507 IC 15	325	0.0155	165.097	30E-11	30E-11	665E-	9S805
507 IC 15	500	0.0074	165.097	30E-11	30E-11	665E-	9S805
507 IC 16 T		0.0449	9.356	80E-11	40E-11	665E-	9S805
507 IC 16	7	0.0000	165.097	30E-11	30E-11	665E-	9S805
507 IC 16	12	0.0000	165.097	30E-11	30E-11	665E-	9S805
507 IC 16	24	0.0024	165.097	30E-11	30E-11	665E-	9S805
507 IC 16	42	0.0042	165.097	30E-11	30E-11	665E-	9S805
507 IC 16	80	0.0054	165.097	30E-11	30E-11	665E-	9S805
507 IC 16	170	0.0139	165.097	30E-11	30E-11	665E-	9S805
507 IC 16	325	0.0134	165.097	30E-11	30E-11	665E-	9S805
507 IC 16	500	0.0032	165.097	30E-11	30E-11	665E-	9S805

TABLE E.2 CONTINUED

SAMPLE NUMBER	SIZE	GRAMS	AGE DAYS	ACTIVITY MA	BKGD MA	STD MA	EVENT
507 IC 17 T		0.0340	9.357	100E-11	40E-11	665E-	9SB05
507 IC 17	7	0.0000	165.097	30E-11	30E-11	665E-	9SB05
507 IC 17	12	0.0000	165.097	30E-11	30E-11	665E-	9SB05
507 IC 17	24	0.0008	165.097	30E-11	30E-11	665E-	9SB05
507 IC 17	42	0.0015	165.097	30E-11	30E-11	665E-	9SB05
507 IC 17	80	0.0035	165.097	30E-11	30E-11	665E-	9SB05
507 IC 17	170	0.0120	165.097	30E-11	30E-11	665E-	9SB05
507 IC 17	325	0.0106	165.097	30E-11	30E-11	665E-	9SB05
507 IC 17	500	0.0028	165.097	30E-11	30E-11	665E-	9SB05
507 IC 18 T		2.0178	9.357	105E-11	40E-11	665E-	9SB05
507 IC 18	7	0.0000	165.097	30E-11	30E-11	665E-	9SB05
507 IC 18	12	0.0002	165.097	30E-11	30E-11	665E-	9SB05
507 IC 18	24	0.0000	165.097	30E-11	30E-11	665E-	9SB05
507 IC 18	42	0.0007	165.097	30E-11	30E-11	665E-	9SB05
507 IC 18	80	0.0023	165.097	30E-11	30E-11	665E-	9SB05
507 IC 18	170	0.0055	165.097	30E-11	30E-11	665E-	9SB05
507 IC 18	325	0.0056	165.097	30E-11	30E-11	665E-	9SB05
507 IC 18	500	0.0014	165.097	30E-11	30E-11	665E-	9SB05
507 IC 19 T		0.0666	9.358	115E-11	40E-11	665E-	9SB05
507 IC 19	7	0.0000	165.097	30E-11	30E-11	665E-	9SB05
507 IC 19	12	0.0325	165.097	30E-11	30E-11	665E-	9SB05
507 IC 19	24	0.0002	165.097	30E-11	30E-11	665E-	9SB05
507 IC 19	42	0.0010	165.097	30E-11	30E-11	665E-	9SB05
507 IC 19	80	0.0061	165.097	30E-11	30E-11	665E-	9SB05
507 IC 19	170	0.0130	165.097	30E-11	30E-11	665E-	9SB05
507 IC 19	325	0.0113	165.097	30E-11	30E-11	665E-	9SB05
507 IC 19	500	0.0021	165.097	30E-11	30E-11	665E-	9SB05
507 IC 20 T		0.1746	9.358	165E-10	40E-11	665E-	9SB05
507 IC 20	7	0.000[illegible]	165.097	30E-11	30E-11	665E-	9SB05
507 IC 20	12	0.0007	165.164	25E-11	25E-11	665E-	9SB05
507 IC 20	24	0.0064	165.165	25E-11	25E-11	665E-	9SB05
507 IC 20	42	0.0044	165.166	25E-11	25E-11	665E-	9SB05
507 IC 20	80	0.0401	165.168	82E-11	25E-11	665E-	9SB05
507 IC 20	170	0.0713	165.170	42E-11	25E-11	665E-	9SB05
507 IC 20	325	0.0341	165.171	25E-11	25E-11	665E-	9SB05
507 IC 20	500	0.0102	165.173	25E-11	25E-11	665E-	9SB05
507 PC 2 T		0.408[illegible]	10.476	280E- 9	40E-11	660E-	9 SB03
507 PC 4 T		0.5	2.131	157E- 7	40E-11	670E-	9SB03
507 PC 4	7	[illegible]	2.142	40E-11	40E-11	670E-	9SB03
507 PC 4	12	[illegible]	2.142	40E-11	40E-11	670E-	9SB03
507 PC 4	24	0.[illegible]16	2.129	170E-11	40E-11	670E-	9SB03
507 PC 4	42	[illegible]	2.131	330E- 9	40E-11	670E-	9SB03
507 PC 4	80	[illegible]	2.133	100E- 7	40E-11	670E-	9SB03
507 PC 4	170	0.1271	2.134	33[illegible]E- 9	40E-11	670E-	9SB03
507 PC 4	325	0.0749	2.134	240E- 9	40E-11	670E-	9SB03
507 PC 4	500	[illegible] 265	2.134	180E- 9	40E-11	670E-	9SB03
507 PC 5 T		[illegible].55	2.142	1[illegible]0E- 9	40E-11	670E-	9SB03
507 PC 5	7	[illegible]	2.146	[illegible]E-11	40E-11	670E-	9SB03
507 PC 5	12	[illegible]	2.146	20[illegible]E-11	40E-11	670E-	9SB03
507 PC 5	24	[illegible] 25	2.147	410E-11	40E-11	670E-	9SB03
507 PC 5	42	[illegible]	2.148	325E- 9	40E-11	670E-	9SB03
507 PC 5	80	[illegible]	2.148	452E- 9	40E-11	670E-	9SB03

TABLE E.2 CONTINUED

SAMPLE NUMBER	SIZE	GRAMS	AGE DAYS	ACTIVITY MA			BKGD MA	STD MA	EVENT
507 PC 5	170	0.1405	2.149	258E- 8			40E-11	670E-	9S803
507 PC 5	325	0.0919	2.149	208E- 9			40E-11	670E-	9S803
507 PC 5	500	0.0500	2.150	685E-10			40E-11	670E-	9S803
507 PC 8	T		13.053	385E-11			40E-11	655E-	9S803
507 PC 9	T	0.3602	10.476	242E- 8			40E-11	660E-	9S803
507 PC 10	T	0.3670	10.477	240E- 8			40E-11	660E-	9S803
507 PC 12	T	0.3394	10.473	220E- 8			40E-11	660E-	9S803
507 PC 15	T	0.1231	10.475	715E- 9			40E-11	660E-	9S803
507 PC 16	T	0.3699	10.473	250E- 8			40E-11	660E-	9S803
507 PC 18	T	0.4916	10.472	265E- 8			40E-11	660E-	9S803
507 PC 19	T		13.058	265E-10			40E-11	655E-	9S803
507 PC 20	T	0.3650	10.474	255E- 8			40E-11	660E-	9S803
507 PC 21	T	0.3541	10.478	170E- 8			40E-11	660E-	9S803
507 PC 22	T	0.4971	10.478	260E- 8			40E-11	660E-	9S803
507 PC 23	T	0.3951	10.479	230E- 8			40E-11	660E-	9S803
507 PC 24	T	0.3296	10.475	195E- 8			40E-11	660E-	9S803
507 PCC	7W	0.0000	12.989	048E-11			48E-11	655E-	9S803
507 PCC	12W	0.008	12.989	430E-11			48E-11	655E-	9S803
507 PCC	24W	0.016	12.990	129E-10			48E-11	655E-	9S803
507 PCC	42W	0.106	12.991	432E- 9			48E-11	655E-	9S803
507 PCC	80W	2.157	12.992	140E- 7			48E-11	655E-	9S803
507 PCC	170W	1.188	12.992	460E- 8			48E-11	655E-	9S803
507 PCC	325W	0.473	12.993	270E- 9			48E-11	655E-	9S803
507 PCC	500W				12.993	502E- 9	48E-11	655E-	9S803
509 AO 1	T	0.7194	10.377	480E- 9			40E-11	660E-	9S801
509 AO 2	T	0.6585	10.378	440E- 9			40E-11	660E-	9S801
509 AO 3	T	0.7032	10.381	550E- 9			40E-11	660E-	9S801
509 AO 4	T	0.6196	10.380	450E- 9			40E-11	660E-	9S801
509 AO 6	T	0.8252	10.379	190E- 8			40E-11	660E-	9S801
509 AO 7	T	0.8615	10.376	480E- 9			40E-11	660E-	9S801
509 AOC	T	4.387	11.920	347E- 8			50E-11	665E-	9S801
509 AOC	7W	0.092	11.918	425E-11			050E-11	665E-	9S801
509 AOC	12W	0.047	11.918	100E-10			050E-11	665E-	9S801
509 AOC	24W	0.043	11.920	140E-10			050E-11	665E-	9S801
509 AOC	42W	0.065	11.920	360E-10			050E-11	665E-	9S801
509 AOC	80W	1.201	11.922	190E- 8			050E-11	665E-	9S801
509 AOC	170W	1.869	11.922	130E- 8			050E-11	665E-	9S801

TABLE E.2 CONTINUED

SAMPLE NUMBER	SIZE	GRAMS	AGE DAYS	ACTIVITY MA			BKGD MA	STD MA	EVENT
603 AOC	12W	0.0484	11.376	495E-11			40E-11	665E- 9	S801
603 AOC	24W	0.0158	11.377	137E-10			40E-11	665E- 9	S801
603 AOC	42W	0.0383	11.378	155E- 9			40E-11	665E- 9	S801
603 AOC	80W	0.7246	11.378	555E- 8			40E-11	665E- 9	S801
603 AOC	170W	0.5846	11.379	450E- 8			40E-11	665E- 9	S801
603 AOC	325W	0.4026	11.379	185E- 9			40E-11	665E- 9	S801
603 AOC	500W				11.380	620E- 9	40E-11	665E- 9	S801
605 AO 1	T	0.4412	2.409	147E- 7			40E-11	670E- 9	S801
605 AO 1	7	0.0000	2.409	040E-11			040E-11	670E- 9	S801
605 AO 1	12	0.0000	2.409	040E-11			040E-11	670E- 9	S801
605 AO 1	24	0.0000	2.409	040E-11			040E-11	670E- 9	S801
605 AO 1	42	0.0000	2.409	040E-11			040E-11	670E- 9	S801
605 AO 1	80	0.1449	2.409	663E- 8			040E-11	670E- 9	S801
605 AO 1	170	0.1894	2.409	740E- 8			40E-11	670E- 9	S801
605 AO 1	325	0.0555	2.409	438E- 9			40E-11	670E- 9	S801
605 AO 1	500	0.0315	2.410	190E- 9			40E-11	670E- 9	S801
605 AO 2	T	0.4397	10.371	280E- 8			40E-11	660E- 9	S801
605 AO 3	T	0.4692	10.373	280E- 8			40E-11	660E -9	
605 AO 4	T	0.5240	10.372	295E- 8			40E-11	660E- 9	S801
605 AO 6	T	0.5101	10.374	290E- 8			40E-11	660E- 9	S801
605 AO 7	T	0.5176	10.375	145E- 8			40E-11	660E- 9	S801
605 AOC	T	2.461	11.396	135E- 7			40E-11	660E- 9	S801
605 AOC	7W	0.0000	11.390	40E-11			40E-11	660E- 9	S801
605 AOC	12W	0.0371	11.390	250E-10			40E-11	660E- 9	S801
605 AOC	24W	0.0383	11.390	670E-10			40E-11	660E- 9	S801
605 AOC	42W	0.0556	11.395	190E- 9			40E-11	660E- 9	S801
605 AOC	80W	0.7331	11.396	470E- 8			40E-11	660E- 9	S801
605 AOC	170W	0.9204	11.396	530E- 8			40E-11	660E- 9	S801
605 AOC	325W	0.2434	11.397	230E- 9			40E-11	660E- 9	S801
605 AOC	500W				11.397	520E- 9	40E-11	660E- 9	S801
607 AO 1	T	0.6565	10.385	220E- 9			40E-11	660E- 9	S801
607 AO 2	T	0.2563	10.385	240E- 9			40E-11	660E- 9	S801
607 AO 3	T	0.2489	10.382	215E- 9			40E-11	660E- 9	S801
607 AO 4	T	0.5685	10.384	230E- 9			40E-11	660E- 9	S801
607 AO 6	T	0.3233	10.386	215E- 9			40E-11	660E- 9	S801
607 AO 7	T	0.6257	10.383	260E- 9			40E-11	660E- 9	S801
705 AOC	T	3.528	3.142	239E- 7			50E-11	670E- 9	S801
705 AOC	7	0.017	3.139	160E-11			50E-11	670E- 9	S801
705 AOC	12	0.008	3.139	620E-11			50E-11	670E- 9	S801
705 AOC	24	0.022	3.141	650E-11			50E-11	670E- 9	S801
705 AOC	42	0.024	3.141	302E-10			50E-11	670E- 9	S801
705 AOC	80	0.285	3.142	270E- 8			50E-11	670E- 9	S801
705 AOC	170	0.958	3.142	125E- 7			50E-11	670E- 9	S801
705 AOC	325	1.202	3.143	766E- 8			50E-11	670E- 9	S801

TABLE E.2 CONTINUED

SAMPLE NUMBER	SIZE	GRAMS	AGE DAYS	ACTIVITY MA			BKGD MA	STD MA	EVENT
705 AOC	500	1.012	3.143	748E- 9			50E-11	670E- 9	S801
705 AOC	7W	0.011	4.184	143E-11			50E-11	670E- 9	S801
705 AOC	12W	0.001	4.184	50E-11			50E-11	670E- 9	S801
705 AOC	24W	0.015	4.185	145E-10			50E-11	670E- 9	S801
705 AOC	42W	0.021	4.186	122E- 9			50E-11	670E- 9	S801
705 AOC	80W	0.211	4.187	168E- 8			50E-11	670E- 9	S801
705 AOC	170W	0.643	4.187	630E- 8			50E-11	670E- 9	S801
705 AOC	325W	0.589	4.187	300E- 9			50E-11	670E- 9	S801
705 AOC	40W		6.113	455E-11	4.188	738E-11	50E-11	670E- 9	S801
705 AOC	30W		6.119	360E-11	4.190	717E-11	50E-11	670E- 9	S801
705 AOC	20W		6.120	422E-11	4.192	692E-11	50E-11	670E- 9	S801
705 AOC	10W		6.121	370E-11	4.194	630E-11	50E-11	670E- 9	S801
705 AOC	5W		6.123	293E-11	4.196	535E-11	50E-11	670E- 9	S801
705 AOC	3W		6.124	242E-11	4.251	455E-11	50E-11	670E- 9	S801
705 AOC	1W		6.125	185E-11	4.950	335E-11	50E-11	670E- 9	S801
707 AO 3	T	0.3	1.464	122E- 7			40E-11	670E- 9	S801
707 AO 3	7	0.0000	1.464	40E-11			40E-11	670E- 9	S801
707 AO 3	12	0.0000	1.464	40E-11			40E-11	670E- 9	S801
707 AO 3	24	0.0046	1.462	100E-10			40E-11	670E- 9	S801
707 AO 3	42	0.0036	1.463	235E-10			40E-11	670E- 9	S801
707 AO 3	80	0.0159	1.463	615E- 9			40E-11	670E- 9	S801
707 AO 3	170	0.1474	1.464	107E- 7			40E-11	670E- 9	S801
707 AO 3	325	0.0955	1.465	505E- 9			40E-11	670E- 9	S801
707 AO 3	500	0.0618	1.466	362E- 9			40E-11	670E- 9	S801
707 AO 9	7	0.0000	1.440	40E-11			40E-11	670E- 9	S801
707 AO 9	12	0.0000	1.440	40E-11			40E-11	670E- 9	S801
707 AO 9	24	0.0000	1.440	40E-11			40E-11	670E- 9	S801
707 AO 9	42	0.0046	1.439	380E-10			40E-11	670E- 9	S801
707 AO 9	80	0.0273	1.440	690E- 9			40E-11	670E- 9	S801
707 AO 9	170	0.1443	1.440	105E- 7			40E-11	670E- 9	S801
707 AO 9	325	0.0956	1.441	510E- 9			40E-11	670E- 9	S801
707 AO 9	500	0.1373	1.441	780E-09	1.441	780E-09	40E-11	670E- 9	S801
707 LAC	T	10.664							S802
707 LAC	7W	0.0000	11.150	45E-11			45E-11	655E- 9	S802
707 LAC	12W	0.024	11.150	115E-10			45E-11	655E- 9	S802
707 LAC	24W	0.041	11.150	255E-10			45E-11	655E- 9	S802
707 LAC	42W	0.112	11.151	150E- 9			45E-11	655E- 9	S802
707 LAC	80W	0.628	11.152	160E- 8			45E-11	655E- 9	S802
707 LAC	170W	4.114	11.154	197E- 7			45E-11	655E- 9	S802
707 LAC	325W	5.307							S802
707 LAC	40W	0.1216	14.005	235E-10	11.928	315E-10	45E-11	665E- 9	S802
707 LAC	30W	0.1026	14.019	230E-11	11.929	300E-10	45E-11	665E- 9	S802
707 LAC	20W	0.0619	14.020	223E-10	11.931	295E-10	45E-11	665E- 9	S802
707 LAC	10W	0.0442	14.021	183E-10	11.932	250E-10	45E-11	665E- 9	S802
707 LAC	5W	0.0309	14.022	151E-10	11.933	205E-10	45E-11	665E- 9	S802
707 LAC	3W	0.0190	14.022	980E-11	11.934	140E-10	45E-11	665E- 9	S802
707 LAC	1W	0.0030	14.024	296E-11	11.935	50E-10	45E-11	665E- 9	S802
801 LAC	T	76.4							S802
801 LAC	7W	0.0000	15.006	40E-11			40E-11	670E- 9	S802
801 LAC	12W	0.1211	15.006	70E-11			40E-11	670E- 9	S802
801 LAC	24W	0.1763	15.007	65E-11			40E-11	670E- 9	S802
801 LAC	42W	0.6075	15.007	120E-11			40E-11	670E- 9	S802
801 LAC	80W	4.9734	15.008	230E-11			40E-11	670E- 9	S802

TABLE E.2 CONTINUED

SAMPLE NUMBER	SIZE	GRAMS	AGE DAYS	ACTIVITY MA			BKGD MA	STD MA	EVENT
801 LAC	170W	25.4018	15.010	670E-11			40E-11	670E- 9	S802
801 LAC	325W	24.7778	15.011	785E-11			40E-11	670E- 9	S802
801 LAC	500W				15.014	112E-10	40E-11	670E- 9	S802
811 LAC	T	120.8							S802
811 LAC	7W	0.0043	14.988	60E-11			40E-11	670E- 9	S802
811 LAC	12W	0.0041	14.988	50E-11			40E-11	670E- 9	S802
811 LAC	24W	0.0383	14.989	165E-11			40E-11	670E- 9	S802
811 LAC	42W	0.1998	14.989	230E-11			40E-11	670E- 9	S802
811 LAC	80W	7.4917	14.989	615E-10			40E-11	670E- 9	S802
811 LAC	170W	36.3965	14.989	110E- 9			40E-11	670E- 9	S802
811 LAC	325W	37.7642	14.991	435E-10			40E-11	670E- 9	S802
811 LAC	40W	0.1137	15.980	40E-11			40E-11	670E- 9	S802
811 LAC	30W	0.0900	15.980	40E-11			40E-11	670E- 9	S802
811 LAC	20W	0.0369	15.980	40E-11			40E-11	670E- 9	S802
811 LAC	10W	0.0180	15.980	40E-11			40E-11	670E- 9	S802
811 LAC	5W	0.0140	15.980	40E-11			40E-11	670E- 9	S802
811 LAC	3W	0.0114	15.980	40E-11			40E-11	670E- 9	S802
811 LAC	1W	0.0034	15.980	40E-11			40E-11	670E- 9	S802
812 LAC	T	38.75							S802
812 LAC	7W	0.0000							S802
812 LAC	12W	0.0233							S802
812 LAC	24W	0.0449							S802
812 LAC	42W	0.1569							S802
812 LAC	80W	1.4346							S802
812 LAC	170W	7.5928							S802
812 LAC	325W	12.5352							S802
812 LAC	40W	0.0424	10.162	160E-11	9.943	195E-11	40E-11	665E- 9	S802
812 LAC	30W	0.0356	10.164	160E-11	9.945	180E-11	40E-11	665E- 9	S802
812 LAC	20W	0.0215	10.165	155E-11	9.947	168E-11	40E-11	665E- 9	S802
812 LAC	10W	0.0103	10.166	140E-11	9.949	157E-11	40E-11	665E- 9	S802
812 LAC	5W	0.0053	10.169	115E-11	9.951	128E-11	40E-11	665E- 9	S802
812 LAC	3W	0.0034	10.170	90E-11	9.953	109E-11	40E-11	665E- 9	S802
813 LAC	T	18.50							S802
813 LAC	7	0.0000	00.000	40E-11			40E-11	670E- 9	S802
813 LAC	12	0.0460	2.501	640E- 9			40E-11	670E- 9	S802
813 LAC	24	0.0341	2.501	385E- 9			40E-11	670E- 9	S802
813 LAC	42	0.1120	2.501	320E- 9			40E-11	670E- 9	S802
813 LAC	80	0.4965	2.501	270E- 8			40E-11	670E- 9	S802
813 LAC	170	3.5672	2.501	134E- 7			40E-11	670E- 9	S802
813 LAC	325	8.4350	2.501	105E- 7			40E-11	670E- 9	S802
813 LAC	500	5.6493	2.503	338E- 8			40E-11	670E- 9	S802
814 AO 3	T	0.7108	11.422	185E- 9			40E-11	660E- 9	S801
814 AO 4	T	0.2746	11.422	145E- 9			40E-11	660E- 9	S801
814 AOC	T	0.9354	11.423	330E- 9			040E-11	670E- 9	S801
814 AOC	7W	0.0000	11.423	40E-11			040E-11	670E- 9	S801
814 AOC	12W	0.0000	11.423	40E-11			040E-11	670E- 9	S801
814 AOC	24W	0.0173	17.886	615E-10			40E-11	660E- 9	S801
814 AOC	42W	0.0093	12.888	830E-11			40E-11	660E- 9	S801
814 AOC	80W	0.0265	12.888	200E-10			40E-11	660E- 9	S801
814 AOC	170W	0.1985	12.898	158E- 9			40E-11	660E- 9	S801
814 AOC	325W	0.5914	12.889	125E- 9			40E-11	660E- 9	S801
814 AOC	500W				12.889	460E-10	40E-11	660E- 9	S801

TABLE E.2 CONTINUED

SAMPLE NUMBER	SIZE	GRAMS	AGE DAYS	ACTIVITY MA			BKGD MA	STD MA	EVENT
814 LAC	T	33.3634							SB02
814 LAC	7W	0.0385	8.467	580E-11			40E-11	670E- 9	SB02
814 LAC	12W	0.0261	8.468	470E-11			40E-11	670E- 9	SB02
814 LAC	24W	0.0416	8.468	95E-10			40E-11	670E- 9	SB02
814 LAC	42W	0.1080	8.468	520E-10			40E-11	670E- 9	SB02
814 LAC	80W	0.4393	8.468	345E- 9			40E-11	670E- 9	SB02
814 LAC	170W	2.6863	8.468	285E- 8			40E-11	670E- 9	SB02
814 LAC	325W	8.7204	8.471	215E- 8			40E-11	670E- 9	SB02
814 LAC	40W	0.0207	14.007	190E-11	13.066	190E-11	45E-11	665E- 9	SB02
814 LAC	30W	0.0114			13.067	160E-11	55E-11	655E- 9	SB02
814 LAC	20W	0.0033			13.068	130E-11	55E-11	655E- 9	SB02
814 LAC	10W	0.0009			13.069	100E-11	55E-11	655E- 9	SB02
814 LAC	5W	0.0003			13.069	81E-11	55E-11	655E- 9	SB02
814 LAC	3W	0.0002			13.070	72E-11	55E-11	655E- 9	SB02
814 LAC	1W	0.0002			13.070	70E-11	55E-11	655E- 9	SB02
815 LAC	T	38.2288							SB02
815 LAC	7W	0.0000	6.114	40E-11			40E-11	670E- 9	SB02
815 LAC	12W	0.0552	6.114	258E-10			40E-11	670E- 9	SB02
815 LAC	24W	0.0799	6.115	325E-10			40E-11	670E- 9	SB02
815 LAC	42W	0.1671	6.115	642E-10			40E-11	670E- 9	SB02
815 LAC	80W	0.9301	6.115	300E- 9			40E-11	670E- 9	SB02
815 LAC	170W	5.7093	6.116	305E- 8			40E-11	670E- 9	SB02
815 LAC	325W	10.9323	6.116	257E- 8			40E-11	670E- 9	SB02
815 LAC	40W	0.0388	7.080	120E-10	6.169	160E-10	40E-11	670E- 9	SB02
815 LAC	30W	[illegible]	7.080	110E-10	6.170	149E-10	40E-11	670E- 9	SB02
815 LAC	20W	0.0172	7.080	98E-10	6.170	135E-10	40E-11	670E- 9	SB02
815 LAC	10W	0.0073	7.081	80E-10	6.171	118E-10	40E-11	670E- 9	SB02
815 LAC	5W	0.0072	7.082	575E-11	6.171	95E-10	40E-11	670E- 9	SB02
815 LAC	3W	0.002[illegible]	7.084	425E-11	6.172	80E-10	40E-11	670E- 9	SB02
815 LAC	1W	0.0002	7.085	265E-11	6.172	500E-11	40E-11	670E- 9	SB02
816 AO 1	T	0.488[illegible]	11.423	100E- 9			40E-11	670E- 9	SB01
816 AO 2	T	0.4949	11.423	100E- 9			40E-11	670E- 9	SB01
816 AO 3	T	0.3334	11.424	910E-10			40E-11	670E- 9	SB01
816 AO 4	T	0.3223	11.424	748E-10			40E-11	670E- 9	SB01
816 AOC	T	1.3163	11.423	291E- 9			040E-11	670E- 9	SB01
816 AOC	7W	0.00[illegible]	12.893	40E-11			40E-11	660E- 9	SB01
816 AOC	12W	0.0[illegible]	12.893	40E-11			40E-11	660E- 9	SB01
816 AOC	24W	0.0067	12.893	150E-11			40E-11	660E- 9	SB01
816 AOC	42W	0.0145	12.895	710E-11			40E-11	660E- 9	SB01
816 AOC	80W	0.[illegible]773	12.897	830E-11			40E-11	660E- 9	SB01
816 AOC	170W	0.43[illegible]7	12.897	112E- 9			40E-11	660E- 9	SB01
816 AOC	325W	0.5615	12.898	10[illegible]E- 9			40E-11	660E- 9	SB01
816 AOC	500W				12.898	325E-10	40E-11	660E- 9	SB01
816 LAC	T	43.0					40E-11	660E- 9	SB02
816 LAC	7W	0.0[illegible]54	6.489	125E-11			45E-11	670E- 9	SB02
816 LAC	12W	0.1068	6.[illegible]	470E-11			45E-11	670E- 9	SB02
816 LAC	24W	0.1272	6.491	245E-10			45E-11	670E- 9	SB02
816 LAC	42W	0.1990	6.492	195E-10			45E-11	670E- 9	SB02
816 LAC	80W	1.32[illegible]3	6.492	115E- 9			45E-11	670E- 9	SB02
816 LAC	170W	0.7393	6.493	175E- 8			45E-11	670E- 9	SB02
816 LAC	325W	11.5926	6.493	2[illegible]E- 8			45E-11	670E- 9	SB02
816 LAC	40W	0.[illegible]52[illegible]	[illegible].172	[illegible]	9.957	120E-10	40E-11	670E- 9	SB02

TABLE E.2 CONTINUED

SAMPLE NUMBER	SIZE	GRAMS	AGE DAYS	ACTIVITY MA			BKGD MA	STD MA	EVENT
816 LAC	30W	0.0454	10.175	95E-10	9.958	109E-10	40E-11	670E-	9SB02
816 LAC	20W	0.0363	10.177	80E-10	9.959	96E-10	40E-11	670E-	9SB02
816 LAC	10W	0.0173	10.177	70E-10	9.964	805E-11	40E-11	670E-	9SB02
816 LAC	5W	0.0079	10.179	495E-11	9.971	540E-11	40E-11	670E-	9SB02
817 LAC	T	64.35					40E-11	660E-	9SB02
817 LAC	7W	0.1313					40E-11	660E-	9SB02
817 LAC	12W	0.4011					40E-11	660E-	9SB02
817 LAC	24W	0.6480					40E-11	660E-	9SB02
817 LAC	42W	0.8352					40E-11	660E-	9SB02
817 LAC	80W	5.9264					40E-11	660E-	9SB02
817 LAC	170W	15.5161					40E-11	660E-	9SB02
817 LAC	325W	16.4221					40E-11	660E-	9SB02
817 LAC	40W	0.1549	10.182	120E-10	9.931	132E-10	40E-11	665E-	9SB02
817 LAC	30W	0.0441	10.185	105E-10	9.932	119E-10	40E-11	665E-	9SS02
817 LAC	20W	0.0241	10.186	890E-11	9.933	100E-10	40E-11	665E-	9SB02
817 LAC	10W	0.0088	10.189	680E-11	9.934	75E-10	40E-11	665E-	9SB02
817 LAC	5W	0.0033	10.189	360E-11	9.936	448E-11	40E-11	665E-	9SB02
817 LAC	3W	0.0011	10.190	280E-11	9.940	392E-11	40E-11	665E-	9SB02
818 AO 1	T	0.5153	11.467	102E- 9			40E-11	670E-	9SB01
818 AO 2	T	0.7303	11.467	112E- 9			40E-11	670E-	9SB01
818 AO 3	T	0.5106	11.468	108E- 9			40E-11	670E-	9SB01
818 AO 4	T	0.7783	11.468	140E- 9			40E-11	670E-	9SB01
818 AOC	T	2.5375	11.467	462E- 9			040E-11	670E-	9SB01
818 AOC	7W	0.1509	12.326	155E-11			40E-11	670E-	9SB01
818 AOC	12W	0.0469	12.326	160E-11			40E-11	670E-	9SB01
818 AOC	24W	0.0366	12.326	450E-11			40E-11	670E-	9SB01
818 AOC	42W	0.0638	12.326	105E-10			40E-11	670E-	9SB01
818 AOC	80W	0.2674	12.326	158E-10			40E-11	670E-	9SB01
818 AOC	170W	0.5547	12.326	135E- 9			40E-11	670E-	9SB01
818 AOC	325W	0.7237	12.329	165E- 9			40E-11	670E-	9SB01
818 AOC	500W				12.329	100E- 9	40E-11	670E-	9SB01
818 LAC	7W	0.0000	0.000	40E-11			40E-11	670E-	9SB02
818 LAC	12W	0.027	11.149	115E-10			45E-11	655E-	9SB02
818 LAC	24W	0.085	11.147	700E-11			45E-11	655E-	9SB02
818 LAC	42W	0.233	11.146	110E-10			45E-11	655E-	9SB02
818 LAC	80W	1.670	11.145	715E-10			45E-11	655E-	9SB02
818 LAC	170W	10.129	11.145	110E- 8			45E-11	655E-	9SB02
818 LAC	325W	23.944	11.144	175E- 8			45E-11	655E-	9SB02
818 LAC	40W	0.0624	14.008	297E-11	11.939	470E-11	45E-11	665E-	9SB02
818 LAC	30W	0.0494	14.033	268E-11	11.941	415E-11	45E-11	665E-	9SB02
818 LAC	20W	0.0218	14.034	210E-11	11.944	335E-11	45E-11	665E-	9SB02
818 LAC	10W	0.0014	14.035	155E-11	11.948	265E-11	45E-11	665E-	9SB02
818 LAC	5W	0.0024	14.036	130E-11	11.951	220E-11	45E-11	665E-	9SB02
818 LAC	3W	0.0057	14.036	108E-11	11.954	210E-11	45E-11	665E-	9SB02
818 LAC	1W	0.0016	14.037	70E-11	11.959	165E-11	45E-11	665E-	9SB02
819 LAC	7W	0.0373	15.040	230E-11			40E-11	670E-	9SB02
819 LAC	12W	0.0301	15.040	195E-11			40E-11	670E-	9SB02
819 LAC	24W	0.0595	15.041	400E-11			40E-11	670E-	9SB02
819 LAC	42W	0.1418	15.043	960E-11			40E-11	670E-	9SB02
819 LAC	80W	0.6965	15.043	290E-10			40E-11	670E-	9SB02

TABLE E.2 CONTINUED

SAMPLE NUMBER	SIZE	GRAMS	AGE DAYS	ACTIVITY MA			BKGD MA	STD MA	EVENT
819 LAC	170W	4.2560	15.043	535E- 9			40E-11	670E- 9	S802
819 LAC	325W	10.5492	15.044	625E- 9			40E-11	670E- 9	S802
819 LAC	40W	0.0668	13.967	305E-11	13.966	345E-11	40E-11	670E- 9	S802
819 LAC	30W	0.0551	13.967	255E-11	13.967	295E-11	40E-11	665E- 9	S802
819 LAC	20W	0.0331							S802
819 LAC	10W	0.0173							S802
819 LAC	5W	0.0106							S802
819 LAC	3W	0.0000							S802
819 LAC	1W	0.0025							S802
820 LAC	T	41.2							S802
820 LAC	7W	0.0134	13.059	105E-11			40E-11	655E- 9	S802
820 LAC	12W	0.0557	13.060	420E-10			40E-11	655E- 9	S802
820 LAC	24W	0.1045	13.061	190E-10			40E-11	655E- 9	S802
820 LAC	42W	0.1943	13.062	120E-10			40E-11	655E- 9	S802
820 LAC	80W	1.0395	13.063	270E-10			40E-11	655E- 9	S802
820 LAC	170W	5.2453	13.063	385E- 9			40E-11	655E- 9	S802
820 LAC	325W	12.2344	13.064	558E- 9			40E-11	655E- 9	S802
820 LAC	40W	0.0679	14.985	265E-11	13.979	300E-11	40E-11	665E- 9	S802
820 LAC	30W	0.0538					40E-11	665E- 9	S802
820 LAC	20W	0.0324					40E-11	665E- 9	S802
820 LAC	10W	0.0170					40E-11	665E- 9	S802
820 LAC	5W	0.0098					40E-11	665E- 9	S802
820 LAC	3W	0.0067					40E-11	665E- 9	S802
820 LAC	1W	0.0005					40E-11	665E- 9	S802
821 LAC	T	37.4	13.076						S802
821 LAC	7W	0.0000	0.000	40E-11			40E-11	670E- 9	S802
821 LAC	12W	0.0443	13.077	65E-11			40E-11	655E- 9	S802
821 LAC	24W	0.0816	13.078	185E-11			40E-11	655E- 9	S802
821 LAC	42W	0.1644	13.078	280E-11			40E-11	655E- 9	S802
821 LAC	80W	0.5462	13.079	740E-11			40E-11	655E- 9	S802
821 LAC	170W	2.7803	13.080	112E- 9			40E-11	655E- 9	S802
821 LAC	325W	5.2724	13.081	270E- 9			40E-11	655E- 9	S802
821 LAC	40W				13.958	95E-11	40E-11	665E- 9	S802
821 LAC	30W		14.983	145E-11	13.960	155E-11	40E-11	665E- 9	S802
821 LAC	20W				13.960	130E-11	40E-11	665E- 9	S802
821 LAC	10W				13.961	120E-11	40E-11	665E- 9	S802
821 LAC	5W				13.962	100E-11	40E-11	665E- 9	S802
821 LAC	3W	.			13.963	80E-11	40E-11	665E- 9	S802
821 LAC	1W				13.964	55E-11	40E-11	665E- 9	S802
822 LAC	T	20.00					40E-11	670E- 9	S802
822 LAC	7W	0.5355	15.023	45E-11			40E-11	670E- 9	S802
822 LAC	12W	0.3189	15.024	225E-11			40E-11	670E- 9	S802
822 LAC	24W	0.2429	15.026	185E-11			40E-11	670E- 9	S802
822 LAC	42W	0.2628	15.027	435E-11			40E-11	670E- 9	S802
822 LAC	80W	0.5072	15.028	695E-11			40E-11	670E- 9	S802
822 LAC	170W	2.2888	15.029	645E-10			40E-11	670E- 9	S802
822 LAC	325W	5.3182	15.029	125E- 9			40E-11	670E- 9	S802
822 LAC	500W				15.031	143E- 9	40E-11	670E- 9	S802
824 LAC	T	17.2					40E-11	670E- 9	S802
824 LAC	7	0.0000	0.000	40E-11			40E-11	670E- 9	S802
824 LAC	12	0.0282	15.016	30E-11			40E-11	670E- 9	S802
824 LAC	24	0.1261	15.016	70E-11			40E-11	670E- 9	S802
824 LAC	42	0.3222	15.017	135E-11			40E-11	670E- 9	S802
824 LAC	80	0.6758	15.019	500E-11			40E-11	670E- 9	S802
824 LAC	170	2.1749	15.019	335E-10			40E-11	670E- 9	S802
824 LAC	325	3.6552	15.020	600E-10			40E-11	670E- 9	S802
824 LAC	500	0.0	15.021	722E-10	15.021	722E-10	40E-11	670E- 9	S802

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