

MATERIALS LICENSE

Amendment No. 42

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 36, 39, 40, and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations, and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

OFFICIAL RECORD COPY

Licensee

1. Department of the Army
U.S. Army Communications -
Electronics Command AMSEL-SF-RER

2. Fort Monmouth, New Jersey 07703-5024

In accordance with the letter dated
September 4, 1996,
3. License Number 29-01022-06 is amended in
its entirety to read as follows:

4. Expiration Date February 28, 2005

5. Docket or
Reference No. 030-05248

6. Byproduct, Source, and/or
Special Nuclear Material7. Chemical and/or Physical
Form8. Maximum Amount that Licensee
May Possess at Any One Time
Under This License

A. Any byproduct material with
atomic numbers 1 through 83

A. Any

A. Not to exceed 1 curie
per radionuclide
and 10 curies total

B. Any byproduct material with
atomic numbers 84 through
95

B. Any

B. Not to exceed 1
millicurie total

C. Cesium 137

C. Sealed sources

C. [] curies

D. Cobalt 60

D. Sealed sources

D. [] curies

E. Strontium 90

E. Sealed sources

E. 5 curies

F. Hydrogen 3

F. Accelerator targets

F. 30 curies

G. Uranium (Natural or
Depleted)

G. Any

G. 5 kilograms

H. Thorium (Natural)

H. Any

H. 10 kilograms

I. Americium 241

I. Any

I. 1 millicurie

J. Plutonium 238

J. Sealed sources

J. 10 microcuries

K. Polonium 210

K. Any

K. 10 microcuries

L. Californium 252

L. Sealed source

L. curie

M. Cesium 137

M. Sealed sources (J.L.
Shepherd Model 6810)

M. [] curies

9. Authorized use

A. through L. Research and development as defined in 10 CFR 30.4; for training and instrument calibrations; analysis of test samples as a service for other persons as defined in 10 CFR 20.1003(a)(11).

M. For use in a J.L. Shepherd Model 81-14Q calibrator.

CONDITIONS

10. Licensed material may be used only at the licensee's facilities located at the U.S. Army Communications - Electronics Command, Fort Monmouth, New Jersey.

Information in this record was deleted
in accordance with the Freedom of Information
Act, exemptions 2
FOIA- 06-0238

ML 10

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License Number

29-01022-06

Docket or Reference Number

030-05248

Amendment No. 42

11. A. Licensed material shall be used by, or under the supervision of, individuals designated in writing by the Radiation Safety Committee, Joseph M. Santarsiero, Chairman.
- B. The Radiation Safety Officer for this license is Joseph M. Santarsiero.
12. Licensed material shall not be used in or on human beings.
13. A. Sealed sources and detector cells containing licensed material shall be tested for leakage and/or contamination at intervals not to exceed six months or at such other intervals as are specified by the certificate of registration referred to in 10 CFR 32.210, not to exceed three years.
- B. Notwithstanding Paragraph A of this Condition, sealed sources designed to emit alpha particles shall be tested for leakage and/or contamination at intervals not to exceed three months.
- C. In the absence of a certificate from a transferor indicating that a leak test has been made within six months prior to the transfer, a sealed source or detector cell received from another person shall not be put into use until tested.
- D. Each sealed source fabricated by the licensee shall be inspected and tested for construction defects, leakage, and contamination prior to any use or transfer as a sealed source.
- E. Sealed sources and detector cells need not be leak tested if:
- (i) they contain only hydrogen-3; or
 - (ii) they contain only a radioactive gas; or
 - (iii) the half-life of the isotope is 30 days or less; or
 - (iv) they contain not more than 100 microcuries of beta and/or gamma emitting material or not more than 10 microcuries of alpha emitting material; or
 - (v) they are not designed to emit alpha particles, are in storage, and are not being used. However, when they are removed from storage for use or transfer to another person, and have not been tested within the required leak test interval, they shall be tested before use or transfer. No sealed source or detector cell shall be stored for a period of more than 10 years without being tested for leakage and/or contamination.

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License Number

29-01022-06

Docket or Reference Number

030-05248

Amendment No. 42

- F. The test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. If the test reveals the presence of 0.005 microcurie or more of removable contamination, a report shall be filed with the U.S. Nuclear Regulatory Commission and the source or detector cell shall be removed immediately from service and decontaminated, repaired, or disposed of in accordance with Commission regulations. The report shall be filed within five days of the date the leak test result is known with the U.S. Nuclear Regulatory Commission, Region I, ATTN: Chief, Nuclear Materials Safety Branch, 475 Allendale Road, King of Prussia, Pennsylvania 19406. The report shall specify the source or detector cell involved, the test results, and corrective action taken.
- G. The licensee is authorized to collect leak test samples for analysis by the licensee. Alternatively, tests for leakage and/or contamination may be performed by persons specifically licensed by the Commission or an Agreement State to perform such services.
14. Sealed sources or detector cells containing licensed material shall not be opened or sources removed from source holders by the licensee.
15. The licensee shall not acquire licensed material in a sealed source or device unless the source or device has been registered with the U.S. Nuclear Regulatory Commission pursuant to 10 CFR 32.210 or equivalent regulations of an Agreement State.
16. The licensee shall conduct a physical inventory every six months to account for all sealed sources and devices containing licensed material received and possessed under the license.
17. The licensee shall not use licensed material in field applications where activity is released except as provided otherwise by specific condition of this license.
18. This license does not authorize commercial distribution of licensed material.
19. The licensee is authorized to transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License Number

29-01022-06

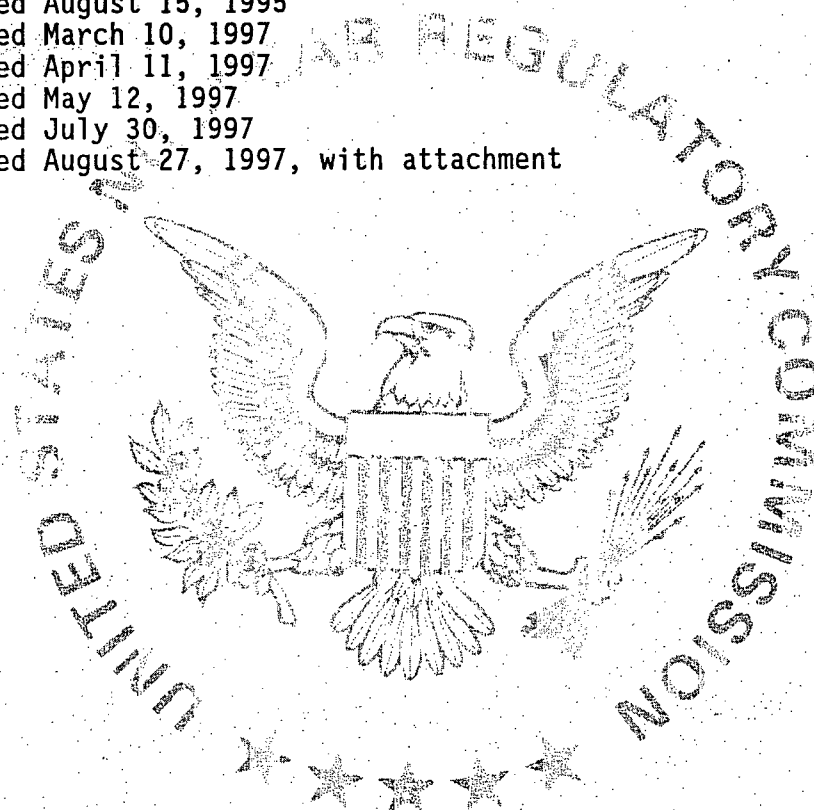
Docket or Reference Number

030-05248

Amendment No. 42

20. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents, including any enclosures, listed below. The Nuclear Regulatory Commission's regulations shall govern unless the statements, representations, and procedures in the licensee's application and correspondence are more restrictive than the regulations.

- A. Letter dated February 15, 1995
- B. Letter dated March 15, 1995
- C. Letter dated May 19, 1995
- D. Letter dated August 15, 1995
- E. Letter dated March 10, 1997
- F. Letter dated April 11, 1997
- G. Letter dated May 12, 1997
- H. Letter dated July 30, 1997
- I. Letter dated August 27, 1997, with attachment



For the U.S. Nuclear Regulatory Commission

Original Signed By:

Steve W. Shaffer

By

Nuclear Materials Safety Branch
Region I

King of Prussia, Pennsylvania 19406

Date

SEP 30 1997

SEP 30 1997

Steven A. Horne, Chief
CECOM Safety Office
US Army
Communications-Electronics Command
Fort Monmouth, New Jersey 07703-5024

Dear Mr. Horne:

This refers to your license amendment request. Enclosed with this letter is the amended license. The areas 1 and 1A of the Evans area may be released for unrestricted use.

Please review the enclosed document carefully and be sure that you understand and fully implement all the conditions incorporated into the amended license. If there are any errors or questions, please notify the U.S. Nuclear Regulatory Commission, Region I Office, Licensing Assistance Team, (610) 337-5093 or 5239, so that we can provide appropriate corrections and answers.

Thank you for your cooperation.

Sincerely,

Original Signed By:

Steve W. Shaffer
Decommissioning & Laboratory Branch
Division of Nuclear Materials Safety

License No. 29-01022-06
Docket No. 030-05248
Control No. 123817

Enclosure:
Amendment No. 42

cc (with enclosure):
Jill Lipoti, Ph.D., Assistant Director
Radiation Protection Programs
State of New Jersey
Department of Environmental Protection
P.O. Box 415
Trenton, New Jersey 08625-0415

OFFICIAL RECORD COPY **ML 10**

DOCUMENT NAME: C:\DECON\FTMONMOU\ONE&ONEA.COV

To receive a copy of this document, indicate in the box: "C" = Copy w/o attach/encl "E" = Copy w/ attach/encl "N" = No copy

OFFICE	DNMS/RI	N	DNMS/RI				
NAME	Shaffer <i>8213</i>		Bellamy <i>nm</i>				
DATE	09/15/97		09/16/97		09/ /97		09/ /97

OFFICIAL RECORD COPY



DEPARTMENT OF THE ARMY

HEADQUARTERS, US ARMY COMMUNICATIONS-ELECTRONICS COMMAND

AND FORT MONMOUTH

FORT MONMOUTH, NEW JERSEY 07703-5000

REPLY TO
ATTENTION OF

July 30, 1997

030-05248
030-029741

U.S. Nuclear Regulatory Commission
Region I, DNMS
Attention: Mr. Steven W. Shaffer
475 Allendale Road
King of Prussia, PA 19406-1415

This refers to U.S. Nuclear Regulatory Commission (NRC)
License Numbers 29-01022-06 and 29-01022-14 and to our
Radiological Characterization Plan dated 6 September 1996.

The U.S. Army Communications-Electronics Command (CECOM)
requests that you grant unrestricted release to the portion of
Fort Monmouth, New Jersey, Subpost Camp Evans identified at the
radiological survey report, specifically to that property outside
the primary security fence which has no historical record of
radioactive material use.

Base Realignment and Closure (BRAC), Army Execution Plan,
BRAC 93, Public Law 101-510, requires the closure of Camp Evans
property and its release from U.S. Army control. To facilitate
timely completion of this plan, continuous radiological surveys
are in progress. The surveys began with the portion of Camp
Evans with no history of radioactive material use. Surveys are
in progress where radioactive material use has been terminated
and all controlled material has been removed. Our radiological
survey report covers the portion of Camp Evans not involved in
research involving radioactive material. The remainder of Camp
Evans is currently being surveyed or will be surveyed as
radioactive material is removed from the site.

We are requesting expeditious processing of this request for
unrestricted release of this property so that we can begin the
transfer of property from US Army control as soon as possible.

Our Point of Contact is Mr. Joseph M. Santarsiero,
Directorate of Safety Risk Management, (DSRM) Radiation
Protection Officer, CECOM, or Mr. David E. Craig, IceSolv,

123817

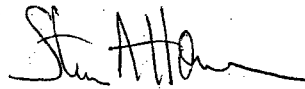
OFFICIAL RECORD COPY

ML 10

JUL 31 1997

Inc., contracted to the CECOM DSRM, Facsimile on (732) 542-7161 or Voice on (732) 427-4427/3112.

Sincerely,



Steven A. Horne
Director, Safety
Risk Management

Enclosure

Copies Furnished:

State of New Jersey, Department of Environmental Protection,
Bureau of Environmental Radiation, 25 Arctic Parkway, Ewing, NJ
08625-0415 (w/encl)

Commander, U.S. Army Materiel Command, ATTN: AMCSF and AMCSO,
5001 Eisenhower Avenue, Alexandria, VA 22333-0001 (w/o encl)

Commander, Army Environmental Center, ATTN: SSIM-AEC-ERO,
Aberdeen Proving Ground, MD 21010-5401 (w/encl)

Commander, U.S. Army Communications-Electronics Command, ATTN:
AMSEL-DCS, (w/o encl), AMSEL-DE-BR, (w/ encl), Fort Monmouth,
N.J. 07703

16 July 1997

US Army Communications-Electronics Command (CECOM)
ATTN: AMSEL-RER-SF Richard Lovell
CECOM Directorate of Safety Risk Management
Ft. Monmouth, NJ 07703-5024

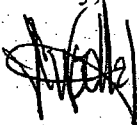
SUBJECT: Contract DAAB07-95-D-H008; Delivery Order 008
Camp Evans Area , Ft Monmouth Site 1/1a Characterization Report

Dear Mr. Lovell:

Attached please find six copies of the Camp Evans Area , Ft Monmouth Site 1/1a Characterization Report. It contains full Data Summaries in a format suitable for Directorate of Safety Risk Management and the NRC use. It concludes that there were no significant anomalies found with respect to the background levels which were established at the outset of Camp Evans field measurements and recommends unrestricted release of the referenced areas.

If there are any questions please contact the undersigned at (909)530-9026 of Mr. David Craig at the Evans area at (908)427-5591.

Sincerely,



JIM WOOLLEY
Health Physics Program Manager

cc (without attachments)

MTC: Larry Singer, Larry Doelker
CECOM Contracts: Dave Concilio/Cherie Bray
IceSolv: David Craig

123817

OFFICIAL RECORD COPY

ML 10

JUL 31 1997

**Health Physics Contract
DAAB07-95-D-H008
Radiological Survey Report
US Army Evans Area, Fort Monmouth
Sites 1 & 1a**

Radiological Survey Report
US Army Evans Area, Fort Monmouth
Wall Township, New Jersey
Prepared July 1997

**RADIOLOGICAL STATUS SURVEY OF FARM HOUSE AREA, SEWAGE
TREATMENT PLANT, RESIDENTS AND ASSOCIATED BUILDINGS**
August 1996 - July 1997

EXECUTIVE SUMMARY
RADIOLOGICAL STATUS SURVEY OF FARM HOUSE AREA, SEWAGE TREATMENT
PLANT, RESIDENTS AND ASSOCIATED BUILDINGS AT EVANS AREA, FORT
MONMOUTH, NEW JERSEY

Conducted
August 1996 to June 1997

1. Purpose. To ascertain the current radiological status of the section of Fort Monmouth, Camp Evans' open land and buildings surveyed. This report is provided for submission to the US Nuclear Regulatory Commission (NRC) and New Jersey Department of Environmental Protection (NJDEP); in support of the US Army Communications and Electronics Command's (CECOM) request for unrestricted release for public use, of the section of Camp Evans surveyed.

2. Area Surveyed. The section of Camp Evans covered by this report is located outside the primary security fence that encloses the research test range and building complex. The section of Camp Evans surveyed is approximately one hundred ten acres in size. The surveyed area is bounded by (Starting on the north boundary and progressing clockwise) New Jersey State Highway 18, Brighton Avenue, the Shark River Inlet, north fence line of the Satellite Communications Compound, Marconi Road, Monmouth Boulevard, Taft Street, Washington Street, Coolidge Street (approximately 100 meters), northeast to Laurel Gully Brook (property boundary, west) and back to NJ State Highway 18. Appendix C contains site location maps.

3. Summary of Results. All of the radioactivity in the surveyed area was background radiation. No radioactive materials used by the US Army were detected in the buildings or open areas of this section of Camp Evans. Field scanning detected isolated points where gamma readings were five microR per hour higher than the general area background. Analysis of soil samples collected from these elevated gamma reading points showed the elevated dose rate was due to variance in background radiation. Alpha, beta and gamma surface scans in buildings also detected isolated points higher than the general background. Further evaluation of these points revealed only background radiation. None of the buildings or land required decontamination. It is the conclusion of this report that only background radiation is present within the area surveyed.

4. Recommendation. Recommend a request for unrestricted release for public use of this property, with this report as supporting documentation, be submitted to the NRC and NJDEP.

REPORT

RADIOLOGICAL STATUS SURVEY OF FARM HOUSE AREA, SEWAGE TREATMENT PLANT, RESIDENTS AND ASSOCIATED BUILDINGS AT, FORT MONMOUTH, CAMP EVANS, NEW JERSEY

Conducted
August 1996 - June 1997

1. REFERENCES. Attachment A.

2. AUTHORITY. Base Realignment and Closure (BRAC), Army Execution Plan, BRAC 93, (Public Law 101-510) requires the closure of the Camp Evans property and its release from US Army control. US Nuclear Regulatory Licenses Numbers 29-01022-06 and 29-01022-14 authorize use of radioactive material at Camp Evans. Title 10, Code of Federal Regulations, Part 30 requires a licensee to provide proof that either, no residual radioactive material remains on the site or any radioactive material remaining at the site will not adversely affect the public health or safety. Surveys were conducted under Modern Technologies Corporation's, US Government Omnibus Contract, DAAB07-95-H0008. The survey was performed for CECOM, Directorate of Safety Risk Management, Fort Monmouth Radiation Protection Officer.

3. PURPOSE. This survey determined the current radiological status of the portion of Fort Monmouth, Camp Evans' open land and buildings surveyed. This report is provided for submission to the US Nuclear Regulatory Commission (NRC) and New Jersey Department of Environmental Protection (NJDEP); in support of the US Army Communications and Electronics Command's request for unrestricted release for public use, of the portion of Camp Evans surveyed.

4. GENERAL.

a. Camp Evans is located approximately 10 miles south of Fort Monmouth's main post, in Wall Township, NJ. The property is two hundred ten acres in size.

b. The section of Camp Evans surveyed is approximately one hundred ten acres in size. The surveyed area is bounded by (Starting on the north boundary and progressing clockwise) New Jersey State Highway 18, Brighton Avenue, the Shark River Inlet, north fence line of the Satellite Communications Compound, Marconi Road, Monmouth Boulevard, Taft Street, Washington Street, Coolidge Street (approximately 100 meters), northeast to Laurel Gully Brook (property boundary, west) and back to NJ State Highway 18. Appendix C contains site location maps. None of the surveyed area is contained in the main building and test range

area. The property surveyed is unfenced with the exception of two areas. The two fenced areas enclose about two to three acres. One fence surrounds the abandoned Camp Evans Sewage Treatment Plant and the second is a small compound of two buildings on the bank of the shark river inlet.

c. The radiological historical review of Camp Evans determined that the area covered by this report contained residents, administrative, utility and sewage treatment plant (STP) buildings. There is no evidence that the area was ever used for work involving radioactive material. The open land area and all buildings in this area with the exception of the STP control building and residence were classified and surveyed as unaffected areas. The STP control building, residence, their garages and yards were classified as non-impacted locations and no survey procedures were performed.

d. The remainder of Camp Evans, approximately one hundred acres, will be surveyed as tenants vacate the property. The areas remaining to be surveyed are the satellite communications complex on Marconi Road and the main building complex and test field area.

e. All survey field work, sample collection, preparation and analysis were performed by contracted personnel under the direction of Mr. David Craig, IceSolv, Inc., Health Physics Consultant to CECOM, DSRM. Mr. Joseph Santarsiero, the Fort Monmouth Radiation Protection Officer was CECOM command's overseer for the project.

f. The field work was supervised by Mr. Craig Miller, IceSolv, Inc.. Field team leaders, conducting the surveys, were all radiation safety specialists with diverse training and experience in radiological health and safety. The experience and training of the field work supervisor and survey team leaders meets or exceeds the requirements in ANSI 3.1 for a Senior Radiation Technician.

g. Sample analyses were performed at Camp Evans in the CECOM DSRM Radiation Analysis Laboratory supervised by Mr. Brian McKee, M. H. Chew & Associates, Inc., Laboratory Supervisor. Laboratory technicians completed site specific procedure, laboratory practices and occupational health and safety training provided at Camp Evans.

h. Field and laboratory operations were performed using written operating procedures for guidance. Detailed documentation of surveys and laboratory results are on file and available for review at Camp Evans. The soil samples and wipes collected during the survey are archived and will not be disposed

of until written releases has been granted by the US NRC and NJ DEP.

i. The NRC requires records of site burial or releases of radioactive material be submitted with a request for unrestricted property release. For the property covered by this report no site burial or release of radioactive material occurred.

j. List of abbreviations is found in Appendix B.

5. BACKGROUND.

a. Chronology.

(1) The use of radioactive material for research and development of electronic equipment has been on going at Camp Evans since the 1950s. A radiation safety program was instituted in the 1950s to oversee use of radioactive material at Fort Monmouth. The radiation safety program has operated continuously since the 1950s. The radiation safety program is executed by the Fort Monmouth Radiation Protection Officer and his technical staff. A radiation control committee (RCC), appointed by the Commander Fort Monmouth, oversees the program. This committee meets quarterly to reviewed the radiation safety program's execution. The RCC reviews and approves any new use or changes in the use of radioactive material by researchers. Radiation safety program records going back to the 1950s were used to develop the radiological history of Camp Evans. These documents indicate the R&D operations involving radioactive material were conducted in the portion of Camp Evans that is within the primary security fences.

(2) In 1995 a history of the use, storage and disposal of radioactive material at Camp Evans was compiled by CECOM DSRM personnel. The radioactive material use history of Camp Evans was compiled from radiation program records and interviews with past and current Camp Evans employees. The historical review indicates that the likelihood of any use of radioactive material in the area surveyed is minimal. The open land and buildings in this area were classified as either unaffected or non-impacted.

(3) The area surveyed contains twelve buildings. With the exception of two family residences all of the buildings have been vacant since the 1970s. One of the family residence was occupied until 1995 and the other is currently occupied.

(4) The CECOM DSRM began planning and preparation for performing radiological termination surveys at Camp Evans in 1994. Planning was completed in 1995 and funding for the surveys was completed in June 1996.

(5) In April 1996 a memorandum for record was submitted to the CECOM RCC; the memorandum identified the area to be surveyed as an area in which no controlled radioactive sources were present. The memorandum then requested that no radioactive material be introduced into the area in the future so the radiological survey report would be a final status product. The memorandum was accepted by the RCC and plans for performing the survey were developed.

(6) In August 1996 survey teams began to prepare the property for survey. Surveys began in August and continued through November as weather permitted. Field surveys were stopped for the winter then started again in April. Surveys were completed in June 1997.

(7) Laboratory analysis and data reviews were completed in June 1997.

(8) Mr. Steve Shaffer, NRC project officer, visited the site in September 1996 and was briefed on the scope of the project.

(9) Mr. Shaffer returned to Camp Evans in April and June 1997. On these visits he collected samples from the STP area and Zone 1A, sub-zone 1 for NRC laboratory analysis.

b. Site Condition at Time of Termination Survey.

(1) All of the buildings in the area are vacant, with one exception. The occupied building is a US Army family housing residents, post identification number (PIN) 9002.

(2) The two residence, paved roads and parking lot surfaces in the area are maintained by the US Army. All other structures and the major portion of the open land area have not been maintained for several years. The structures are in poor repair and the land is wooded or covered with dense second growth brush.

(3) The STP complex is in poor repair. The STP has been out of service since the 1970s. The process tanks have two to three feet of rain or ground water standing in them. All of the process tank roofs have collapsed into the tanks. The process control building, PIN 9080, is flooded with seepage ground water in the below grade levels and the entrance level floors are hazardous with only the concrete portion safe to walk on.

(4) The basement of building PIN 9004, located on the Shark River inlet, is totally flooded with ground water.

(5) The remaining buildings with the exception of the residence and garages have been vandalized and are in general poor repair.

c. Identifying Potential Contaminants.

(1) The area and structures covered by this report are classified as either unaffected or non-impacted. US Nuclear Regulatory Licenses Numbers 29-01022-06 (Broad scope) and 29-01022-14 (Calibration and night vision equipment) authorized use of radioactive material at Camp Evans. However, there is no historical evidence of the use of radioactive material for research in the areas covered by this report. There is a possibility that US military equipment (compasses, Night Vision Equipment, Chemical Agent Alarms, etc.) that contained radioactive components could have been used in the area. This equipment is constructed for military field use and the radioactive material in it is protected from damage under field conditions. Therefore, the possibility of any contamination in this area is remote.

(2) Documented disposal of small quantities of radioactive material into sewage systems was an acceptable practice in the 1950s and 1960s; however, historical records do not indicate that it was practiced at Camp Evans. With the exception of building 9045 and 9401 at Camp Evans no records of radioactive material releases into drains was found during the historical review. Building 9045 and 9401 drains collect in holding tanks prior to release. These holding tanks are sampled and analyzed for the presence of radioactive isotopes prior to discharge, the release log for these tanks does not show any release of radioactive material. It also appears the STP was biologically and chemically cleaned before it was abandoned. Considering the present condition and historical information available the STP was classified as unaffected.

(3) The open land areas were surveyed to detect gamma, and gross alpha or beta radiation. Since there was no evidence of any use of tritium in outdoor areas soil samples were not tested for tritium.

(4) Buildings were surveyed to detect fixed gamma, alpha and beta. Wipes were taken in all unaffected structures to detect gross alpha, beta and tritium.

(5) Survey release limits (values above background) used for this report are listed in table 1. These values are at or below NRC release guideline values. Release limits lower than NRC guidelines were taken from US Army Regulation (AR) 385-11,

Table 4-3, Radioactive Contamination Guides, 1 May 1980. The limits take from AR-385-11 are those listed as maximum levels of contamination acceptable in uncontrolled areas.

Table 1
Survey Release Limits

Isotope	Physical state	Release Limit*
Tritium	Removable, wipe	100 dpm/100 cm ²
	Fixed	Not measured.
Gross Alpha	Removable, wipe	20 dpm/100 cm ²
	Fixed, direct reading	100 dpm/100 cm ²
Gross Beta	Removable, wipe	100 dpm/100 cm ²
	Fixed, direct reading	5000 dpm/100 cm ²
Gamma	Fixed, at 1 meter from surface (soil or structure)	5 microR/hr
Tritium	Soil, Not Sampled	Not measured.
Gross Alpha	Soil, lab analysis	5 pCi/gm
Gross Beta	Soil, Lab analysis	20 pCi/gm
Gamma activity	Soil, Lab analysis	5 pCi/gm

* Activity/reading above background.

6. RADIATION SURVEYS AND RESULTS.

a. Instrument/Equipment.

(1) Field survey instrument identification numbers, backgrounds and parameters use for each survey are listed on the "Field Technical Support Data" sheets in Appendix C. All field instruments were calibrated and maintained in accordance with US Army TMDE schedules for "ACTIVE" instruments.

(2) The efficiency for instrument and probe combinations was determined using a source traceable to the National Institute of Standards and Technology (NIST). Survey results are reported in dpm/100 cm² or microR/hr as appropriate. All direct field survey results are corrected for background. Alpha and beta survey Instrument LLDs were determined by the following formula:

$$LLD (dpm/100cm^2) = \frac{4.65 \sqrt{\frac{R_b (cpm)}{2\tau (min)}}}{\epsilon (cpm / dpm) \times P_a / 100cm^2}$$

WHERE:

LLD Lower Limit of Detection
R_b Background rate
t Instrument time constant
e Efficiency
P_a Detector area

b. Survey Methods.

Unaffected Buildings

(1) There are twelve buildings in the area surveyed. Seven of the buildings were classified as unaffected. These buildings are PIN 9111, 9113, 9126, 9127, 9087, 9004, 9005. In these buildings a minimum of ten percent of the floor surface was scanned to detect and mark points where gamma, alpha or beta radiation was noticeably higher than background. Following the scan a minimum of thirty sample points were selected in buildings with floor area greater than thirty square meters. Smaller buildings had one sample point assigned per square meter of floor surface. The thirty sample points included any points marked during the scan and randomly selected points spread across the area. At each sample point a fixed alpha, beta, and gamma reading was recorded and two wipes were taken, one for gross alpha and beta and a second for tritium.

(2) Sodium Iodide one inch scintillation detectors were used for fixed and scanning gamma dose rate measurements. Scanning was performed with the detector within ten centimeters of the surface being checked and fixed readings were taken one meter above each sample point. Gamma dose rate survey instruments used were calibrated from five to five hundred microR per hour.

(3) Gas flow proportional or scintillation alpha and beta probes were used for surface area scanning. The detector's probe was kept within 1 centimeter of the floor surface during scanning. The scan rate was less than one half probe width per second. The majority of scanning was performed with gas flow proportional detectors that simultaneously detected alpha and beta radiation. These dual channel detectors were used with audio speakers monitoring for changes in alpha activity while meter deflection was observed for beta activity changes. The area scanning objective was a minimum ten percent floor surface coverage; this was achieved in all buildings surveyed.

(4) A tritium wipe was taken at each sample point. The sampling method was a dampened metircel filter wiped over one hundred square centimeters of the floor surface.

(5) A gross alpha and beta wipe was taken at each sample point. The wipes were cloth NUCONs. One hundred square centimeters of floor surface was wiped.

Non-impacted buildings. PIN 9002, 9003, 9080, 9202, 9206 were not surveyed. PIN 9080 was the process control center for the STP. This service building had a dedicated purpose that did not involve the use of radioactive material. PINs 9002, 9003, 9202 and 9206 are family residents and garages with no involvement with radioactive material.

Unaffected open areas. The open field areas with the exception of the property associated with the family residents were surveyed as unaffected. The area surveyed as unaffected is approximately one hundred ten acres in size.

(1) A gamma dose rate surface scan that covered approximately four percent of the area was performed prior to sample collection. Any location with a reading one and one half times the survey background value was marked for sampling.

(2) The large open area west of Marconi road was gridded in a twenty-five meter equilateral triangle pattern. The corners of the triangles were marked for measurements and sample collection. This pattern produced a sample density of one sample per five hundred forty one square meters. At grid points located on paved road or parking lot surfaces no physical samples were collected. At the paved sample points a one meter gamma dose rate measurement was taken. The paved sample points gamma dose rates appear in the report with no other sample data listed. At unpaved sample points a one meter gamma dose rate measurement was taken and a soil sample was collected for laboratory analysis.

(3) The area surrounding buildings, PIN 9004, 9005 and STP grounds were surveyed separately as unaffected areas with a minimum of thirty random sample locations being selected in each area.

Non-impacted land. The residents yards and undeveloped (wooded) property adjacent to the yards was not surveyed.

c. Laboratory counting. Complete laboratory records for calibration, quality assurance checks, backgrounds, etc. are available for inspection at the CECOM DSRM radiological counting laboratory.

(1) Tritium wipes were counted using a liquid scintillation counting system calibrated with tritium standards traceable to NIST. Daily quality assurance tests and background

counts validated the counting systems performance before, during and after each sample run.

(2) Gross alpha and beta wipes were counted in a low background gas flow proportional counting system. The source used to determine the alpha detection efficiency of the system was americium-241. The source used to determine beta detection efficiency was strontium-90. All sources used for efficiency determinations are traceable to the NIST. Daily quality assurance tests and background counts validated the counting systems performance before, during and after each sample run.

(3) Soil samples were analyzed for gamma emitters, gross alpha and beta activity. Gamma spectroscopy analysis was performed using a Canberra Genie System with a 40% intrinsic GeLi detector. Alpha and beta samples were prepared for analysis by chemically digesting two grams of soil, the supernatant of the digestion was transferred to and evaporated on a planchet. Prepared planchets were counted on a low background alpha/beta gas flow proportional counter. Daily quality assurance tests and background counts validated the counting systems performance before, during and after each sample run.

d. Field Survey Results

(1) Building gamma dose rate and gross alpha and beta surface area scanning and fixed readings detected no activity distinguishable from background radiation. Scan and fixed alpha and beta readings in some building rest rooms were elevated above the general area background. However, evaluation of construction material (ceramic tile) used for walls and floors revealed that these materials were the source of the elevated readings. Survey results for each building are included in Appendix C, SURVEY DATA.

(2) Zone 1, open area surface gamma dose rate, scanning detected eight points with dose rate one and one half times greater than the background rate. These points were marked and soil samples collected, processed and analyzed for gamma emitters, gross alpha and beta activity. The analysis determined that all activity present was natural background radiation.

(3) Zone 1A open area surface gamma dose rate scanning detected an area approximately thirty meters by ten meters (300 square meters) that was at least one and one half times the background rate. This area, located 20 meters south of building, PIN 9005 was designated zone 1A, sub-zone 1 and multiple sample points were selected based on gamma surface dose rate measurements. Surface and sub-surface soil samples were

collected for analysis for gamma and gross alpha and beta activity. The analysis determined that all activity present was natural background radiation.

e. Laboratory analysis results. A review of the counting results showed no removable contamination present in the buildings surveyed. Soil sample results, including the points selected during the surface gamma scan all showed only naturally occurring isotopes and fallout concentrations of Cesium 137 (typically $2.0-9.0E-1$ picoCurie per gram). Appendix C contains the compiled survey results.

7. SURVEY RESULTS (APPENDIX C) ORGANIZATION.

a. Raw data reduced for report. Field survey and laboratory raw data compiled on each sample point was reviewed and organized for presentation. Each building or area report starts with a survey map, followed by the survey results report and field technical data support sheets. The report data was converted into appropriate units of activity to match release criteria. Field readings for alpha, beta and gamma radiation have the daily field background subtracted. Laboratory results have only the counting system "blank" background subtracted.

(1) The reports field survey readings have all been adjusted for background. Backgrounds for gamma, alpha and beta were measured daily. The backgrounds were measured in a known clean area, physically similar to the survey area.

(2) Laboratory results from all counting systems have only had the counting system background subtracted. Count results of wipes taken to detect removable contamination are reported in disintegrations per minute per one hundred centimeters square after subtracting counting system background. Soil sample gross alpha and beta results need to be compared to the CWA gross alpha and beta results. The CWA gross alpha and beta results are non-impacted area results and their average value should be subtracted from survey area results before the results are compared to release guidelines.

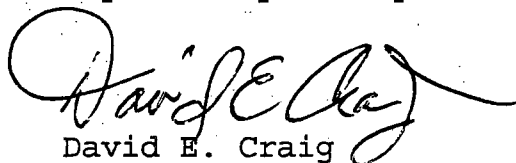
(b) Laboratory results background consideration. A multiple sample background for soils was collected at Fort Monmouth, Charles Wood Area (CWA) during the same time period that soil samples were being collected at Camp Evans. The CWA has no history of radioactive material use and is located approximately 10 miles from Camp Evans. The results of the CWA samples are included in the report to show the range of typical background values for soil from a non-impacted area.

(c) Gamma isotopes and sum activity reported. All gamma activity detected is listed by isotope symbol and number. The activity report has not been background corrected, the report lists the total activity detected in the soil sample with only counting system background subtracted. The CWA background data is reported in the same manner, with only counting system background subtracted. All zone 1, 1a and sub-zone 1a1 soil samples were compared to the CWA background soil samples. Data comparison graphs are include in APPENDIX D. Comparison shows that the activity levels and distribution are similar for the survey area and the background area. These graphs also show the single highest sample analyzed occurred in the open field background area at Charles Wood Area.

8. CONCLUSION. The evaluation of the radiological survey readings and laboratory analysis results indicated that radiation in the area surveyed is all attributed to background. The surveyed area does not contain any radiation contamination and satisfies both the NRC's and NJ DEP's uncontrolled release criteria.

9. RECOMMENDATION. A request for uncontrolled release of the area surveyed should be submitted to the NRC. A copy of this report should be submitted with the request to document that survey planning and actions were taken at the site to ensure the area is not contaminated and satisfies the criteria for unrestricted release.

Report Prepared by:

A handwritten signature in black ink, appearing to read "David E. Craig". The signature is fluid and cursive, with a large loop at the beginning and a long, sweeping tail.

David E. Craig
Health Physics Consultant
IceSolv, Inc.

APPENDIX A

REFERENCES

1. NUREG/CR-5849, Manual for Conducting Radiological Surveys in Support of License Termination, Draft Report for Comment, June 1992.
2. Industrial Radiation Historical Data Review No. 27-83-3888-95, U.S. Army Evans Area, Fort Monmouth, Wall Township, New Jersey, 12-14 June 1995; U.S. Army Center for Health Promotion and preventive Medicine (Provisional), Aberdeen Proving Ground, Maryland.
3. AR 385-11, Ionizing Radiation Protection (Licensing, control, Transportation, Disposal, and Radiation Safety), 1 May 1980.
4. Title 10, Code of Federal Regulations (CFR), Part 20, Standards for Protection Against Radiation.
5. US Nuclear Regulatory License Number 29-01022-06.
6. US Nuclear Regulatory License Number 29-01022-14.
7. Radiological Characterization Plan, Camp Evans, Fort Monmouth, 20 August 1996.

APPENDIX B

ABBREVIATIONS

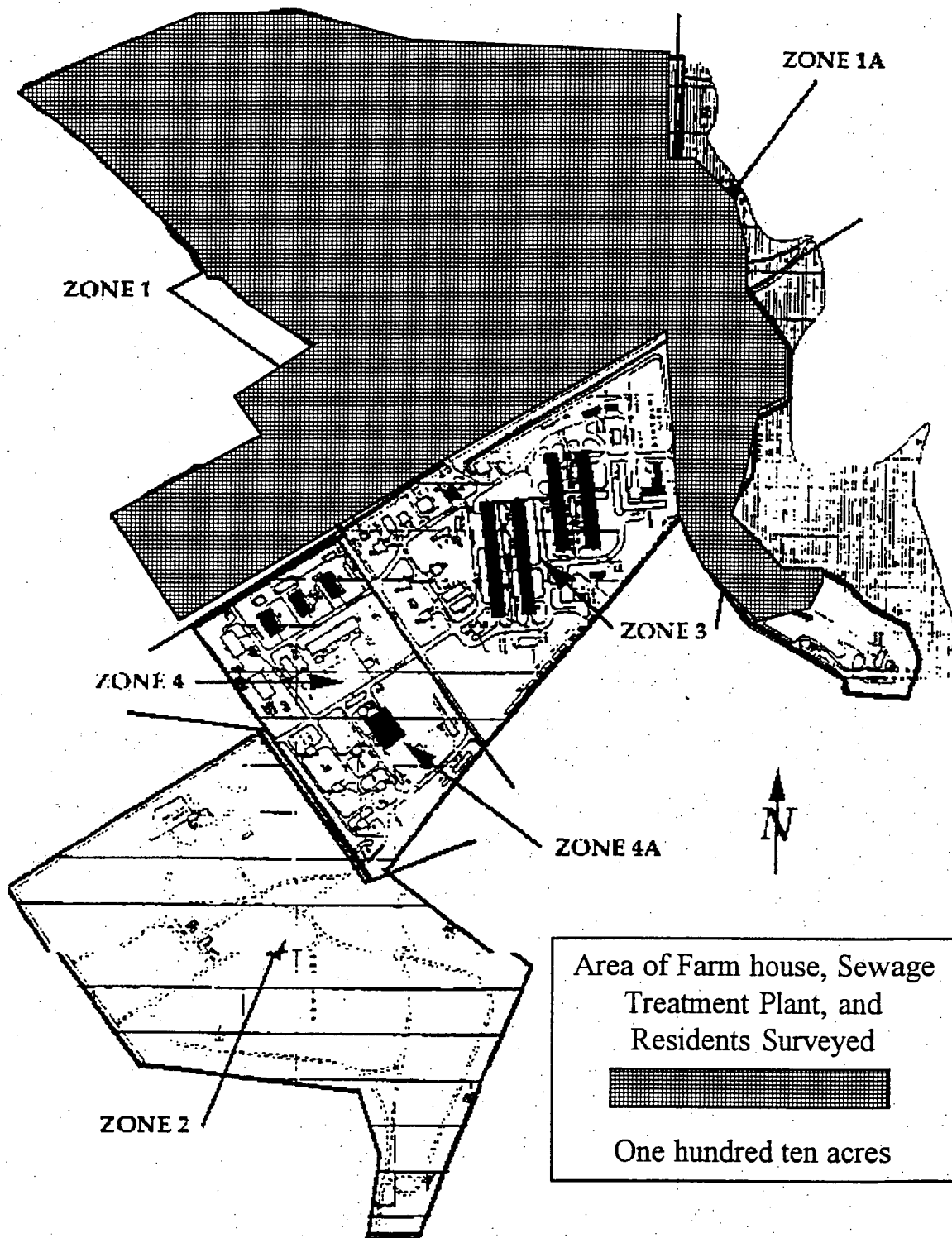
CECOM	US Army Communications-Electronics Command
cpm	counts per minute
dpm	disintegration per minute
DSRM	Directorate of Safety Risk Management
LLD	Lower Limit of Detection
milli	1/1,000
micro	1/1,000,000
NIST	National Institute of Standards and Testing
NJDEP	New Jersey Department of Environmental Protection
NRC	Nuclear Regulatory Commission
PIN	Post Identification Number
R	Roentgen
rem	Roentgen Equivalent Man
STP	Sewage Treatment Plant
TMDE	US Army Test Measurement and Diagnostic Equipment Activity

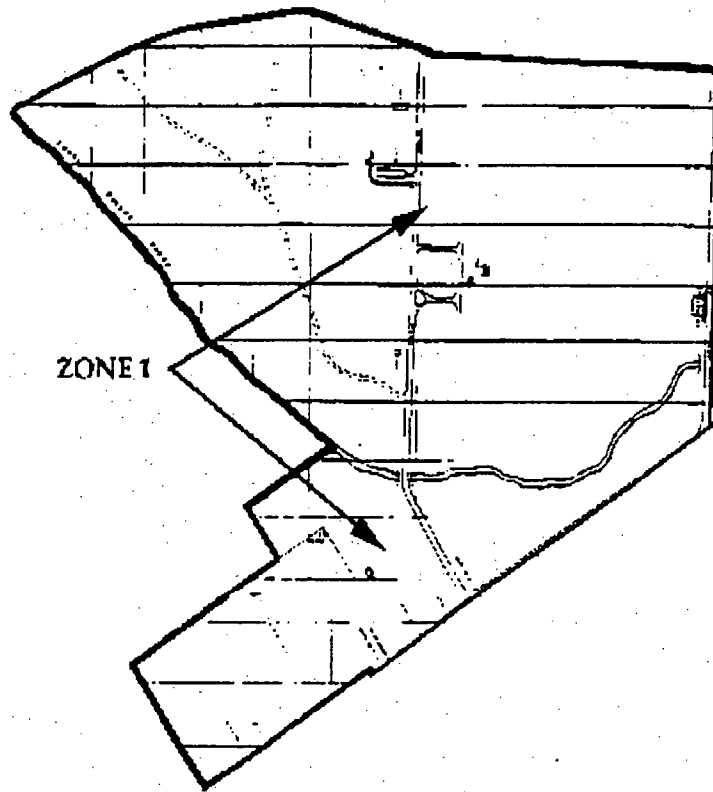
APPENDIX C

SURVEY DATA

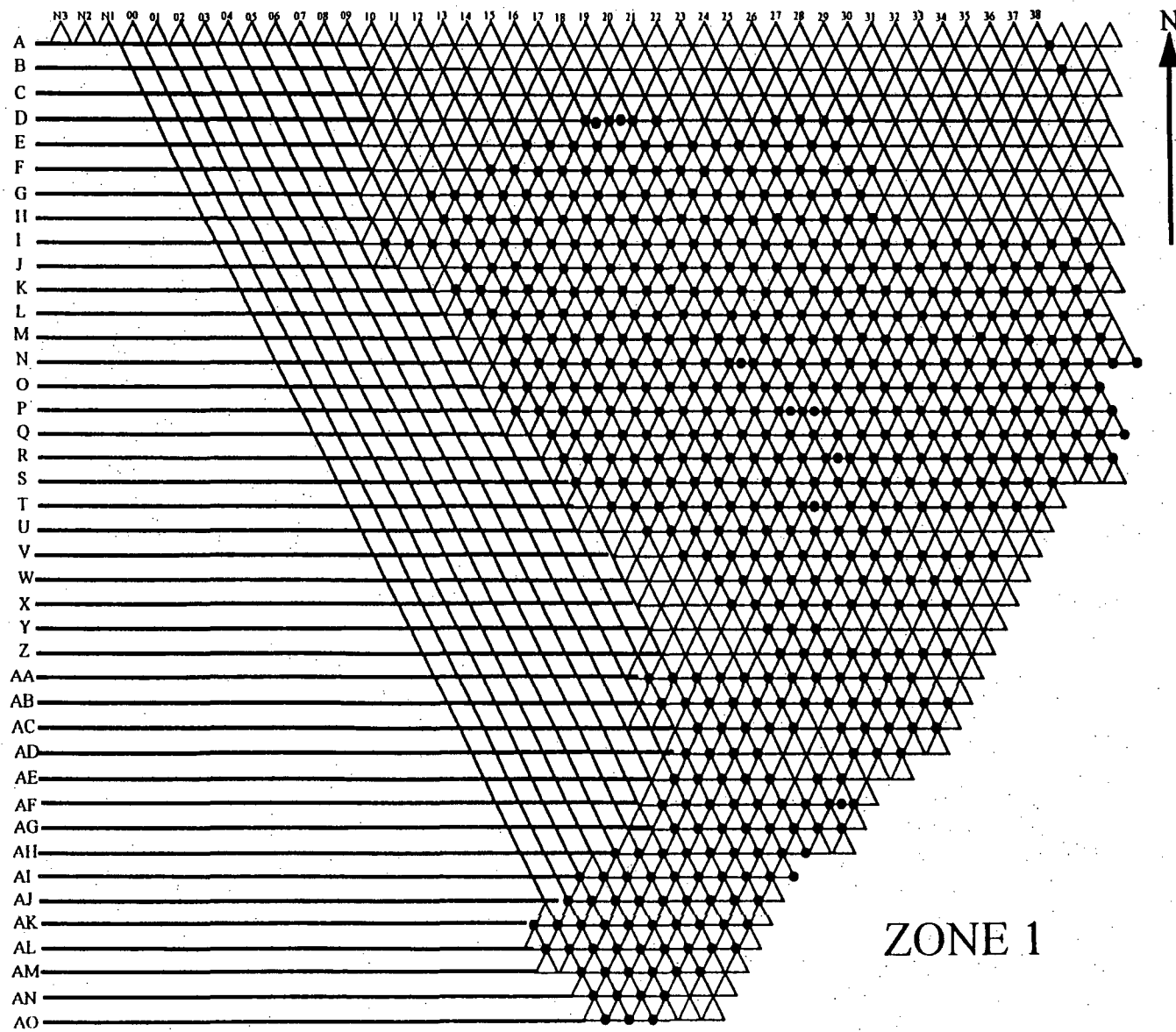
SURVEY MAPS SURVEY DATA REPORTS FIELD TECHNICAL SUPPORT DATA

1. Survey area map.
2. Zone 1, Farm house area map.
3. Zone 1, Grid map.
4. Radiological Survey Data Report, Zone 1, Soil (132 pages).
5. Field Technical Support Data, Zone 1, Soil (2 pages).
6. Zone 1, Farm house area building location map.
7. Building 9111 map.
8. Radiological Survey Data Report, building 9111 (2 pages).
9. Laboratory and Field Technical Support Data, building 9111 (2 pages).
10. Radiological Survey Data Report, building 9113 (2 pages).
11. Laboratory and Field Technical Support Data, building 9113 (2 pages).
12. Radiological Survey Data Report, building 9126 (2 pages).
13. Laboratory and Field Technical Support Data, building 9126 (2 pages).
14. Radiological Survey Data Report, building 9127 (1 page).
15. Laboratory and Field Technical Support Data, building 9127 (2 pages).
16. Radiological Survey Data Report, building 9087 (2 pages).
17. Laboratory and Field Technical Support Data, building 9087 (2 pages).
18. Map Zone 1A.
19. Sample point map zone 1A, sub zone NA.
20. Radiological Survey Data Report, zone 1A, sub zone NA, Soil (9 pages).
21. Field Technical Support Data, zone 1A, sub zone NA (1 page).
22. Sample point map zone 1A, sub zone 1.
23. Radiological Survey Data Report, zone 1A, sub zone 1 (7 pages).
24. Field Technical Support Data, zone 1A, sub zone 1 (1 page).
25. Sample point map zone 1A, sub zone SWTP.
26. Radiological Survey Data Report, zone 1A, sub zone SWTP (9 pages).
27. Field Technical Support Data, zone 1A, sub zone SWTP (1 page).
28. Building 9004 map.
29. Radiological Survey Data Report, building 9004 (2 pages).
30. Laboratory and Field Technical Support Data, building 9004 (2 pages).
31. Building 9005 map.
32. Radiological Survey Data Report, building 9005 (2 pages).
33. Laboratory and Field Technical Support Data, building 9005 (2 pages).
34. Radiological Survey Data Reports, Flooded tanks, buildings, zone 1A (3 pages).
35. Map Charles Wood Area, R1, Open field background survey.
36. Radiological Survey Data Report, CWA, R1 (24 pages).
37. Field Technical Support Data, CWA, R1 (1 page).
38. Map Charles Wood Area, R2, Woods background survey.
39. Radiological Survey Data Report, CWA, R2 (21 pages).
37. Field Technical Support Data, CWA, R2 (1 page).





Zone 1, Farm house
area



△ Denotes 25x25x25 meters

(Map is not to scale)

ZONE 1

10-Jul-97

RADIOLOGICAL SURVEY DATA REPORT

LOCATION

SOIL

ZONE: 1

SUBZONE: N/A

All field data in this report are background corrected; all lab data are gross values.

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
A38	-3	-0.207	2.051	3.598	0.719	Sum	6.716E+00
						CS-137	2.495E-01
						K-40	4.896E+00
						RA-226	6.092E-01
						TH-232	8.263E-01
						U-235	1.354E-01
AA08	-1	1.723	1.365	2.848	0.870	Sum	5.209E+00
						CS-137	3.673E-01
						K-40	2.956E+00
						RA-226	8.845E-01
						TH-232	8.061E-01
						U-235	1.950E-01
AA09	-2	2.346	2.366	2.738	0.836	Sum	4.162E+00
						CS-137	5.288E-01
						K-40	2.356E+00
						RA-226	4.065E-01
						TH-232	4.354E-01
						U-235	4.353E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
AA10	-3	1.688	2.341	1.173	0.832	Sum	2.444E+00
						CS-137	2.527E-01
						K-40	1.044E+00
						RA-226	5.578E-01
						TH-232	4.887E-01
						U-235	1.004E-01
AA11	-3	-0.150	1.660	1.178	0.836	Sum	4.302E+00
						CS-137	3.047E-01
						K-40	2.559E+00
						RA-226	5.929E-01
						TH-232	6.373E-01
						U-235	2.077E-01
AA12	-3	-0.714	1.980	2.081	0.865	Sum	2.805E+00
						CS-137	1.486E-01
						K-40	1.509E+00
						RA-226	5.616E-01
						TH-232	4.784E-01
						U-235	1.076E-01
AA13	-3	2.107	2.125	1.214	0.861	Sum	1.731E+00
						CS-137	1.382E-01
						K-40	5.846E-01
						RA-226	5.789E-01
						TH-232	3.498E-01
						U-235	7.983E-02

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
AA14	-1	0.690	1.531	0.574	0.865	Sum	4.791E+00
						CS-137	3.435E-01
						K-40	3.103E+00
						RA-226	5.943E-01
						TH-232	6.528E-01
						U-235	9.787E-02
AA15	-2					Sum	
AA16	-1	-0.743	2.060	4.572	0.848	Sum	9.205E+00
						CS-137	1.194E+00
						K-40	6.147E+00
						RA-226	9.736E-01
						TH-232	7.399E-01
						U-235	1.510E-01
AA17	-1	-0.580	0.919	1.184	0.840	Sum	4.877E+00
						CS-137	4.031E-01
						K-40	3.506E+00
						RA-226	4.446E-01
						TH-232	4.699E-01
						U-235	5.376E-02
AA18	-2	-0.661	1.048	1.973	0.865	Sum	4.142E+00
						CS-137	4.581E-01
						K-40	2.545E+00
						RA-226	5.466E-01
						TH-232	4.780E-01
						U-235	1.145E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
AA19	-1	1.440	1.141	0.348	0.840	Sum	4.232E+00
						CS-137	1.536E-01
						K-40	2.498E+00
						RA-226	7.319E-01
						TH-232	7.112E-01
						U-235	1.370E-01
AB08	0	0.540	1.214	5.179	0.820	Sum	7.228E+00
						CE-144	2.557E-01
						CS-137	7.119E-01
						K-40	4.494E+00
						RA-226	7.487E-01
						TH-232	8.752E-01
						U-235	1.423E-01
AB09	-1	4.719	1.698	1.181	0.816	Sum	7.402E+00
						CS-137	4.066E-01
						K-40	5.195E+00
						RA-226	8.374E-01
						TH-232	8.215E-01
						U-235	1.411E-01
AB10	-3	0.833	0.750	1.564	0.792	Sum	4.155E+00
						CS-137	4.692E-01
						K-40	2.325E+00
						RA-226	6.473E-01
						TH-232	5.914E-01
						U-235	1.222E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
AB11	-3	-0.468	0.843	1.952	0.781	Sum	5.304E+00
						CS-137	5.647E-01
						K-40	3.485E+00
						RA-226	5.963E-01
						TH-232	5.619E-01
						U-235	9.604E-02
AB12	-2	1.650	0.928	3.189	0.808	Sum	5.070E+00
						CS-137	7.688E-01
						K-40	2.944E+00
						RA-226	6.270E-01
						TH-232	6.596E-01
						U-235	7.011E-02
AB13	0	3.479	0.728	1.181	0.816	Sum	3.758E+00
						CS-137	9.830E-02
						K-40	2.465E+00
						RA-226	5.356E-01
						TH-232	4.434E-01
						U-235	2.159E-01
AB14	1	1.778	1.230	3.885	0.820	Sum	1.029E+01
						CS-137	1.027E+00
						K-40	7.115E+00
						RA-226	1.035E+00
						TH-232	8.680E-01
						U-235	2.470E-01
AB15	-1					Sum	

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
AB16	2	2.700	1.868	4.100	0.820	Sum	1.048E+01
						CS-137	5.606E-01
						K-40	7.637E+00
						RA-226	1.070E+00
						TH-232	1.066E+00
						U-235	1.499E-01
AB17	0	4.429	1.811	5.316	0.808	Sum	9.927E+00
						CS-137	9.745E-01
						K-40	6.789E+00
						RA-226	9.563E-01
						TH-232	9.487E-01
						U-235	2.585E-01
AB18	-1	3.113	1.273	5.314	0.824	Sum	9.220E+00
						CS-137	6.715E-01
						K-40	6.777E+00
						RA-226	8.190E-01
						TH-232	7.916E-01
						U-235	1.611E-01
AB19	1	3.209	1.519	3.839	0.788	Sum	8.546E+00
						AM-241	8.067E-02
						CS-137	4.217E-01
						K-40	5.827E+00
						RA-226	1.063E+00
						TH-232	9.771E-01
						U-235	1.769E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
AB20	0	2.598	0.935	4.565	0.788	Sum	7.098E+00
						CS-137	4.659E-01
						K-40	4.769E+00
						RA-226	8.847E-01
						TH-232	8.472E-01
						U-235	1.316E-01
AC09	-1	2.166	2.184	3.659	0.857	Sum	9.073E+00
						CS-137	1.809E-01
						K-40	6.580E+00
						RA-226	9.262E-01
						TH-232	1.238E+00
						U-235	1.479E-01
AC10	-4	4.877	2.705	3.483	0.840	Sum	4.411E+00
						CS-137	4.708E-01
						K-40	2.986E+00
						RA-226	4.203E-01
						TH-232	4.758E-01
						U-235	5.796E-02
AC11	-1	-0.125	1.389	2.567	0.848	Sum	4.570E+00
						CS-137	6.174E-01
						K-40	2.744E+00
						RA-226	5.121E-01
						TH-232	5.924E-01
						U-235	1.042E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
AC12	0	1.355	1.879	3.784	0.861	Sum	9.433E+00
						CS-137	3.619E-01
						K-40	6.944E+00
						RA-226	9.454E-01
						TH-232	8.691E-01
						U-235	3.124E-01
AC13	1	0.769	1.707	4.794	0.832	Sum	1.055E+01
						AM-241	8.450E-02
						CS-137	1.001E+00
						K-40	7.368E+00
						RA-226	1.054E+00
						TH-232	8.424E-01
						U-235	2.028E-01
AC15	0	0.824	0.548	2.303	0.372	Sum	7.723E+00
						CS-137	2.783E-01
						K-40	5.962E+00
						RA-226	8.145E-01
						TH-232	6.686E-01
AC16	0	2.219	1.448	2.218	0.836	Sum	7.481E+00
						CS-137	2.602E-01
						K-40	5.611E+00
						RA-226	7.272E-01
						TH-232	7.620E-01
						U-235	1.211E-01
AC17	0					Sum	

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
AC18	-1	1.101	1.527	2.045	0.808	Sum	5.307E+00
						CS-137	1.019E-01
						K-40	3.855E+00
						RA-226	5.841E-01
						TH-232	6.464E-01
						U-235	1.191E-01
AC19	-2					Sum	
AD08	-2	2.318	3.214	11.774	0.828	Sum	1.084E+01
						CS-137	3.411E+00
						K-40	5.834E+00
						RA-226	5.975E-01
						TH-232	7.923E-01
						U-235	2.087E-01
AD09	-3					Sum	
AD10	-2					Sum	
AD11	0	0.278	1.542	2.251	0.848	Sum	8.473E+00
						CS-137	2.922E-01
						K-40	6.550E+00
						RA-226	7.974E-01
						TH-232	6.986E-01
						U-235	1.348E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
AD15	-1	0.286	1.588	2.727	0.865	Sum	8.188E+00
						CS-137	2.991E-01
						K-40	5.973E+00
						RA-226	8.366E-01
						TH-232	9.257E-01
						U-235	1.537E-01
AD16	2	2.089	1.363	3.248	0.861	Sum	9.670E+00
						CS-137	4.854E-01
						K-40	6.300E+00
						RA-226	1.268E+00
						TH-232	1.237E+00
						U-235	3.798E-01
AD17	-1					Sum	
AE07	-3	0.846	1.877	18.117	0.865	Sum	6.246E+00
						CS-137	3.246E+00
						K-40	2.281E+00
						RA-226	3.025E-01
						TH-232	3.292E-01
						U-235	8.740E-02
AE08	-3	7.490	3.196	7.104	0.848	Sum	4.309E+00
						CS-137	7.149E-01
						K-40	2.564E+00
						RA-226	4.004E-01
						TH-232	5.063E-01
						U-235	1.235E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
AE09	-3	0.215	1.191	4.962	0.861	Sum	2.508E+00
						CS-137	5.757E-01
						K-40	1.499E+00
						RA-226	1.557E-01
						TH-232	2.462E-01
						U-235	3.181E-02
AE10	-3					Sum	
AE11	-2					Sum	
AE13	-1	3.694	1.576	1.829	0.848	Sum	4.961E+00
						CS-137	2.660E-01
						K-40	3.694E+00
						RA-226	3.765E-01
						TH-232	5.168E-01
						U-235	1.079E-01
AE14	1	1.547	2.145	1.749	0.861	Sum	9.469E+00
						CS-137	2.886E-01
						K-40	7.190E+00
						RA-226	9.339E-01
						TH-232	9.279E-01
						U-235	1.288E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
G20	3	1.933	1.367	3.007	0.652	Sum	9.267E+00
						CS-137	7.132E-01
						K-40	6.051E+00
						RA-226	1.193E+00
						TH-232	1.201E+00
						U-235	1.085E-01
G21	1	-0.523	1.294	2.685	0.652	Sum	1.150E+01
						CS-137	5.021E-01
						K-40	8.059E+00
						RA-226	1.216E+00
						TH-232	1.387E+00
						U-235	3.379E-01
G22	0	2.218	1.996	2.697	0.630	Sum	7.973E+00
						CS-137	1.980E-01
						K-40	6.079E+00
						RA-226	7.395E-01
						TH-232	8.782E-01
						U-235	7.805E-02
G23	0					Sum	
G24	2	0.841	1.665	4.210	0.639	Sum	8.945E+00
						CS-137	3.613E-01
						K-40	5.524E+00
						RA-226	1.162E+00
						TH-232	1.031E+00
						U-235	8.670E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
AF06	-3	8.522	4.111	2.632	0.870	Sum	4.927E+00
						CS-137	1.784E-01
						K-40	3.483E+00
						RA-226	5.379E-01
						TH-232	5.987E-01
						U-235	1.287E-01
AF07	-4					Sum	
AF08	-3	3.464	2.745	8.040	0.805	Sum	6.931E+00
						CS-137	1.137E+00
						K-40	5.072E+00
						RA-226	3.284E-01
						TH-232	2.773E-01
						U-235	1.162E-01
AF09	-3					Sum	
AF10	-3					Sum	
AF11	-2					Sum	

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
AF12	2	3.472	1.675	4.126	0.865	Sum	1.092E+01
						CS-137	4.467E-01
						K-40	8.278E+00
						RA-226	1.088E+00
						TH-232	9.039E-01
						U-235	2.082E-01
AF13	0	6.732	3.734	2.357	0.812	Sum	3.485E+00
						CS-137	3.509E-01
						K-40	1.696E+00
						RA-226	5.448E-01
						TH-232	5.917E-01
						U-235	3.013E-01
AF13A	5	0.889	0.896	0.243	0.836	Sum	1.240E+01
						CS-137	5.742E-01
						K-40	8.495E+00
						RA-226	1.534E+00
						TH-232	1.537E+00
						U-235	2.643E-01
AF14	1	0.634	1.406	3.445	0.857	Sum	8.863E+00
						CS-137	2.505E-01
						K-40	6.334E+00
						RA-226	1.015E+00
						TH-232	1.034E+00
						U-235	2.297E-01

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
AG04	-2	0.714	1.584	2.571	0.816	Sum	3.956E+00
						CS-137	3.273E-01
						K-40	2.546E+00
						RA-226	5.068E-01
						TH-232	4.677E-01
						U-235	1.081E-01
AG05	-3	3.625	2.366	2.070	0.861	Sum	8.334E+00
						CS-137	1.474E-01
						K-40	6.309E+00
						RA-226	8.117E-01
						TH-232	8.978E-01
						U-235	1.678E-01
AG06	-3	3.545	1.710	0.778	0.852	Sum	3.332E+00
						CS-137	1.362E-01
						K-40	2.111E+00
						RA-226	5.029E-01
						TH-232	4.746E-01
						U-235	1.069E-01
AG07	-2					Sum	
AG08	-2					Sum	
AG09	-2					Sum	

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
AG10	-1					Sum	
AG11	-2					Sum	
AG12	1	1.121	1.555	3.622	0.848	Sum	9.656E+00
						CS-137	7.194E-01
						K-40	6.811E+00
						RA-226	9.534E-01
						TH-232	1.023E+00
						U-235	1.496E-01
AG13	-2					Sum	
AH03	-2	3.945	2.218	8.261	0.785	Sum	9.407E+00
						CS-137	4.815E+00
						K-40	3.368E+00
						RA-226	5.269E-01
						TH-232	5.968E-01
						U-235	1.000E-01
AH04	-3					Sum	

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
AH05	-3	4.350	1.779	7.022	0.785	Sum	8.139E+00
						CS-137	7.546E-01
						K-40	6.510E+00
						RA-226	3.723E-01
						TH-232	3.767E-01
						U-235	1.255E-01
AH06	-3					Sum	
AH07	-3					Sum	
AH08	-3					Sum	
AH09	-3					Sum	
AH10	-3					Sum	
AH11	-1					Sum	
AI01	-2	5.469	2.236	3.914	0.804	Sum	4.494E+00
						CS-137	4.245E-01
						K-40	2.813E+00
						RA-226	5.727E-01
						TH-232	5.810E-01
						U-235	1.031E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
AI02	-3	1.380	1.774	7.158	0.824	Sum	4.595E+00
						CS-137	1.758E+00
						K-40	2.148E+00
						RA-226	3.659E-01
						TH-232	3.232E-01
AI03	-2	7.494	2.408	8.417	0.820	Sum	5.526E+00
						CS-137	1.263E+00
						K-40	3.345E+00
						RA-226	3.355E-01
						TH-232	4.814E-01
						U-235	1.015E-01
AI04	-2					Sum	
AI05	-2					Sum	
AI06	-2					Sum	
AI07	-1					Sum	
AI08	-2					Sum	
AI09	-2					Sum	

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
AI10	-1					Sum	
AJ00	-2	6.963	3.862	4.134	0.824	Sum	3.735E+00
						CS-137	2.569E-01
						K-40	2.255E+00
						RA-226	5.282E-01
						TH-232	5.773E-01
						U-235	1.173E-01
AJ01	-3	3.914	2.554	3.695	0.865	Sum	4.897E+00
						CS-137	2.701E-01
						K-40	3.166E+00
						RA-226	6.052E-01
						TH-232	6.687E-01
						U-235	1.871E-01
AJ02	-2					Sum	
AJ03	-2					Sum	
AJ04	-3					Sum	
AJ05	-2					Sum	
AJ06	-2					Sum	

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
AJ07	-2					Sum	
AJ08	0					Sum	
AK00	-3	5.870	3.256	6.154	0.820	Sum	4.828E+00
						CS-137	1.167E+00
						K-40	2.690E+00
						RA-226	3.430E-01
						TH-232	5.298E-01
						U-235	9.816E-02
AK01	-2					Sum	
AK02	-2					Sum	
AK03	-3					Sum	
AK04	-2					Sum	
AK05	-2					Sum	
AK06	-2					Sum	

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
AK07	-2					Sum	
AKN1	-2	2.521	1.997	4.318	0.840	Sum	5.276E+00
						CS-137	1.477E+00
						K-40	2.754E+00
						RA-226	4.216E-01
						TH-232	4.343E-01
						U-235	1.894E-01
AKN2	-2	0.990	1.373	3.339	0.857	Sum	3.837E+00
						AM-241	3.907E-02
						CS-137	4.630E-01
						K-40	2.376E+00
						RA-226	3.864E-01
						TH-232	4.941E-01
						U-235	7.876E-02
AL00	-2					Sum	
AL01	-2					Sum	
AL02	-2					Sum	
AL03	-2					Sum	

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
AL04	-2					Sum	
AL05	0					Sum	
AL06	-3					Sum	
ALN1	-2					Sum	
ALN2	-1	-0.606	1.680	4.511	0.857	Sum	8.253E+00
						CS-137	1.138E-01
						K-40	6.978E+00
						RA-226	5.927E-01
						TH-232	5.232E-01
						U-235	4.565E-02
AM00	-2					Sum	
AM01	-2					Sum	
AM02	-3					Sum	
AM03	-1					Sum	

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
AM04	-3					Sum	
AMN1	-1					Sum	
AN00	-1					Sum	
AN01	-2					Sum	
AN02	0					Sum	
ANN1	-2					Sum	
AO00	-2					Sum	
AO01	-2					Sum	
AON1	-1					Sum	

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
B38	-2	2.089	1.880	1.297	0.730	Sum	8.717E+00
						CS-137	6.664E-01
						K-40	6.004E+00
						RA-226	1.125E+00
						TH-232	7.502E-01
						U-235	1.716E-01
D17	0	-0.759	1.073	0.473	0.723	Sum	8.468E+00
						CS-137	2.203E-01
						K-40	6.071E+00
						RA-226	1.188E+00
						TH-232	8.738E-01
						U-235	1.154E-01
D17A	5	1.783	1.038	0.540	0.679	Sum	1.428E+01
						CS-137	4.316E-01
						K-40	8.746E+00
						RA-226	1.768E+00
						RU-106	1.122E+00
						TH-232	1.871E+00
						U-235	3.431E-01
D18	5	0.392	1.940	1.413	0.737	Sum	7.974E+00
						CS-137	1.660E-01
						K-40	5.987E+00
						RA-226	8.982E-01
						TH-232	8.139E-01
						U-235	1.093E-01

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
D18A	7	-0.106	1.050	-0.033	0.716	Sum	1.544E+01
						CS-137	3.852E-01
						K-40	1.082E+01
						RA-226	2.224E+00
						TH-232	1.835E+00
						U-235	1.793E-01
D19	3	-0.511	1.265	2.846	0.733	Sum	9.371E+00
						CS-137	6.800E-01
						K-40	6.442E+00
						RA-226	1.057E+00
						TH-232	9.841E-01
						U-235	2.077E-01
D20	2	-1.392	1.968	4.880	0.730	Sum	1.166E+01
						CS-137	1.893E+00
						K-40	7.040E+00
						RA-226	1.304E+00
						TH-232	1.209E+00
						U-235	2.124E-01
D25	1	3.772	0.888	4.046	0.632	Sum	7.021E+00
						CS-137	3.140E-01
						K-40	4.554E+00
						RA-226	9.190E-01
						TH-232	9.276E-01
						U-235	3.064E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
D26	2	1.176	0.871	4.553	0.648	Sum	8.871E+00
						CS-137	3.873E-01
						K-40	6.154E+00
						RA-226	9.947E-01
						TH-232	1.165E+00
						U-235	1.700E-01
D27	2	1.725	0.893	3.536	0.668	Sum	8.417E+00
						CS-137	4.453E-01
						K-40	5.481E+00
						RA-226	1.050E+00
						TH-232	1.272E+00
						U-235	1.692E-01
D28	0	0.812	0.323	3.701	0.641	Sum	8.589E+00
						CE-144	2.170E-01
						CS-137	9.739E-01
						K-40	5.239E+00
						RA-226	1.100E+00
						TH-232	9.300E-01
						U-235	1.286E-01
E14	1	0.252	1.245	1.103	0.737	Sum	6.336E+00
						CS-137	1.430E-01
						K-40	4.634E+00
						RA-226	7.412E-01
						TH-232	6.599E-01
						U-235	1.579E-01

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
E15	1	-0.650	0.918	2.640	0.733	Sum	6.771E+00
						CS-137	5.418E-01
						K-40	4.782E+00
						RA-226	7.473E-01
						TH-232	5.080E-01
						U-235	1.916E-01
E16	2	0.144	0.715	0.451	0.689	Sum	8.166E+00
						CS-137	3.205E-01
						K-40	5.928E+00
						RA-226	8.106E-01
						TH-232	1.032E+00
						U-235	7.453E-02
E17	3	0.375	0.742	2.123	0.699	Sum	1.100E+01
						CS-137	6.356E-01
						K-40	6.918E+00
						RA-226	1.495E+00
						TH-232	1.692E+00
						U-235	2.554E-01
E18	3	4.602	1.980	3.324	0.748	Sum	8.235E+00
						CS-137	1.804E-01
						K-40	5.578E+00
						NB-94	3.505E-02
						RA-226	1.125E+00
						TH-232	1.118E+00
						U-235	1.981E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
E19	2	0.277	1.372	1.874	0.679	Sum	6.055E+00
						CS-137	8.137E-02
						K-40	4.449E+00
						RA-226	7.088E-01
						TH-232	6.446E-01
						U-235	1.717E-01
E20	2	0.568	1.125	1.955	0.709	Sum	7.302E+00
						CS-137	7.203E-01
						K-40	5.039E+00
						RA-226	6.341E-01
						TH-232	7.593E-01
						U-235	1.497E-01
E21	3	0.266	1.318	2.023	0.733	Sum	8.225E+00
						CE-144	5.898E-01
						CS-137	5.962E-01
						K-40	4.932E+00
						RA-226	8.889E-01
						TH-232	8.698E-01
						U-235	3.478E-01
E22	2	0.422	2.087	3.395	0.741	Sum	1.016E+01
						CS-137	5.978E-01
						K-40	7.121E+00
						RA-226	1.061E+00
						TH-232	1.264E+00
						U-235	1.205E-01

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
E23	1	3.662	3.295	4.390	0.734	Sum	7.620E+00
						CS-137	5.330E-01
						K-40	5.257E+00
						RA-226	8.373E-01
						TH-232	8.087E-01
						U-235	1.845E-01
E24	-2					Sum	
E25	1	4.580	4.121	4.163	0.712	Sum	5.077E+00
						CS-137	5.690E-01
						K-40	3.392E+00
						RA-226	5.622E-01
						TH-232	4.493E-01
						U-235	1.047E-01
E26	1	0.879	1.740	2.033	0.737	Sum	7.782E+00
						CS-137	5.903E-01
						K-40	5.354E+00
						RA-226	6.498E-01
						TH-232	9.301E-01
						U-235	2.578E-01
E27	1	0.209	1.034	2.055	0.709	Sum	7.553E+00
						CS-137	8.794E-02
						K-40	5.485E+00
						RA-226	8.021E-01
						TH-232	1.041E+00
						U-235	1.371E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
F12	0	0.870	0.783	0.368	0.716	Sum	5.640E+00
						CS-137	2.054E-01
						K-40	4.124E+00
						RA-226	5.410E-01
						TH-232	4.470E-01
						U-235	3.223E-01
F13	1.5	1.792	0.714	2.539	0.654	Sum	8.955E+00
						CS-137	2.824E-01
						K-40	6.221E+00
						RA-226	1.186E+00
						TH-232	1.044E+00
						U-235	2.212E-01
F14	1	2.328	0.548	2.424	0.651	Sum	6.992E+00
						CS-137	3.569E-01
						K-40	5.061E+00
						RA-226	7.523E-01
						TH-232	6.839E-01
						U-235	1.382E-01
F15	2	1.616	0.644	4.265	0.635	Sum	9.349E+00
						CS-137	4.066E-01
						K-40	6.749E+00
						RA-226	9.418E-01
						TH-232	1.121E+00
						U-235	1.304E-01

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
F16	3	3.791	0.785	3.225	0.609	Sum	8.746E+00
						CS-137	4.339E-01
						K-40	5.974E+00
						RA-226	1.131E+00
						TH-232	9.856E-01
						U-235	2.218E-01
F17	3.5	0.143	0.742	3.600	0.641	Sum	8.574E+00
						AM-241	2.097E-01
						CS-137	5.142E-01
						K-40	5.480E+00
						RA-226	1.025E+00
						TH-232	1.166E+00
						U-235	1.789E-01
F18	0	1.710	1.266	4.773	0.664	Sum	2.743E+00
						CS-137	9.836E-02
						K-40	1.670E+00
						RA-226	5.314E-01
						TH-232	3.801E-01
						U-235	6.325E-02
F19	0	6.282	1.302	5.400	0.664	Sum	5.184E+00
						CS-137	2.613E-01
						K-40	3.230E+00
						RA-226	8.710E-01
						TH-232	7.347E-01
						U-235	8.731E-02

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
F20	3	5.886	1.089	4.242	0.617	Sum	8.388E+00
						CS-137	4.499E-01
						K-40	5.756E+00
						RA-226	1.017E+00
						TH-232	1.029E+00
						U-235	1.364E-01
F21	2	3.022	0.824	4.289	0.654	Sum	1.006E+01
						CS-137	5.190E-01
						K-40	7.297E+00
						RA-226	8.448E-01
						TH-232	1.198E+00
						U-235	1.963E-01
F22	2	1.711	0.886	4.961	0.648	Sum	8.584E+00
						CS-137	3.667E-01
						K-40	6.046E+00
						RA-226	1.030E+00
						TH-232	1.013E+00
						U-235	1.279E-01
F23	2	2.274	0.620	3.141	0.651	Sum	7.171E+00
						CS-137	1.490E-01
						K-40	4.945E+00
						RA-226	8.863E-01
						TH-232	9.749E-01
						U-235	2.156E-01

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
F24	2	4.395	0.813	2.603	0.645	Sum	8.161E+00
						CS-137	3.296E-01
						K-40	5.948E+00
						RA-226	8.632E-01
						TH-232	8.153E-01
						U-235	2.052E-01
F25	2	7.129	0.998	6.395	0.638	Sum	9.944E+00
						CS-134	3.746E-02
						CS-137	2.733E-01
						K-40	6.895E+00
						RA-226	1.358E+00
						TH-232	1.217E+00
						U-235	1.634E-01
F26	0	2.797	1.115	1.985	0.641	Sum	5.593E+00
						CS-137	2.708E-01
						K-40	3.722E+00
						RA-226	7.454E-01
						TH-232	6.862E-01
						U-235	1.688E-01
F27	1	2.582	1.338	2.862	0.658	Sum	8.287E+00
						CS-137	4.358E-01
						K-40	5.824E+00
						RA-226	8.606E-01
						TH-232	1.026E+00
						U-235	1.402E-01

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
F28	0	2.926	0.798	3.956	0.668	Sum	7.153E+00
						CS-137	3.306E-01
						K-40	4.857E+00
						RA-226	9.393E-01
						TH-232	8.359E-01
						U-235	1.904E-01
G09	4	2.270	1.176	4.883	0.651	Sum	6.660E+00
						CS-137	4.934E-01
						K-40	4.371E+00
						RA-226	8.471E-01
						TH-232	8.363E-01
						U-235	1.122E-01
G10	6	7.183	1.094	5.088	0.651	Sum	8.902E+00
						CS-137	3.528E-01
						K-40	6.700E+00
						RA-226	8.100E-01
						TH-232	8.449E-01
						U-235	1.941E-01
G11	2	4.686	0.971	4.598	0.654	Sum	7.463E+00
						CS-137	3.476E-01
						K-40	4.772E+00
						RA-226	1.044E+00
						TH-232	1.126E+00
						U-235	1.737E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
G12	2	0.996	0.737	3.398	0.641	Sum	7.569E+00
						CS-137	3.153E-01
						K-40	5.397E+00
						RA-226	8.767E-01
						TH-232	8.014E-01
						U-235	1.787E-01
G13	2	2.708	1.165	4.316	0.639	Sum	7.102E+00
						CS-137	5.405E-01
						K-40	4.526E+00
						RA-226	1.020E+00
						TH-232	8.456E-01
						U-235	1.697E-01
G14	2	-0.424	1.048	3.184	0.624	Sum	7.399E+00
						CS-137	4.948E-01
						K-40	5.275E+00
						RA-226	1.026E+00
						TH-232	6.027E-01
G15	2	1.331	0.775	3.630	0.630	Sum	9.748E+00
						CS-137	7.640E-01
						K-40	7.167E+00
						RA-226	8.097E-01
						TH-232	1.007E+00

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
G16	2	3.460	1.317	4.253	0.646	Sum	8.188E+00
						CS-137	3.508E-01
						K-40	5.847E+00
						RA-226	1.077E+00
						TH-232	7.577E-01
						U-235	1.557E-01
G17	3	0.698	1.381	3.597	0.643	Sum	8.790E+00
						CS-137	5.796E-01
						K-40	6.105E+00
						RA-226	1.122E+00
						TH-232	8.266E-01
						U-235	1.568E-01
G18	2	2.075	1.867	3.698	0.624	Sum	1.028E+01
						CS-137	5.176E-01
						K-40	7.196E+00
						RA-226	1.148E+00
						TH-232	1.222E+00
						U-235	1.927E-01
G19	2	1.109	0.998	2.270	0.627	Sum	8.264E+00
						CS-137	4.406E-01
						K-40	5.399E+00
						RA-226	8.368E-01
						TH-232	1.373E+00
						U-235	2.149E-01

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
G20	3	1.933	1.367	3.007	0.652	Sum	9.267E+00
						CS-137	7.132E-01
						K-40	6.051E+00
						RA-226	1.193E+00
						TH-232	1.201E+00
						U-235	1.085E-01
G21	1	-0.523	1.294	2.685	0.652	Sum	1.150E+01
						CS-137	5.021E-01
						K-40	8.059E+00
						RA-226	1.216E+00
						TH-232	1.387E+00
						U-235	3.379E-01
G22	0	2.218	1.996	2.697	0.630	Sum	7.973E+00
						CS-137	1.980E-01
						K-40	6.079E+00
						RA-226	7.395E-01
						TH-232	8.782E-01
						U-235	7.805E-02
G23	0					Sum	
G24	2	0.841	1.665	4.210	0.639	Sum	8.945E+00
						CS-137	3.613E-01
						K-40	5.524E+00
						RA-226	1.162E+00
						TH-232	1.031E+00
						U-235	8.670E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
G25	0	3.139	1.195	4.316	0.639	Sum	1.005E+01
						CS-137	7.320E-01
						K-40	6.357E+00
						RA-226	1.145E+00
						TH-232	1.375E+00
						U-235	4.374E-01
G26	0	1.369	1.232	4.231	0.627	Sum	7.979E+00
						CS-137	3.977E-01
						K-40	5.607E+00
						RA-226	1.004E+00
						TH-232	8.401E-01
						U-235	1.300E-01
G27	0	1.812	1.281	4.337	0.643	Sum	6.696E+00
						CS-137	2.403E-01
						K-40	4.770E+00
						RA-226	8.462E-01
						TH-232	7.162E-01
						U-235	1.232E-01
H09	1	3.419	1.692	2.945	0.662	Sum	7.997E+00
						CS-137	3.387E-01
						K-40	5.394E+00
						RA-226	1.191E+00
						TH-232	8.199E-01
						U-235	2.536E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
H10	2	3.007	1.751	3.759	0.652	Sum	9.438E+00
						CS-137	4.518E-01
						K-40	6.557E+00
						RA-226	1.095E+00
						TH-232	1.103E+00
						U-235	2.311E-01
H11	3	0.787	0.974	2.244	0.649	Sum	6.371E+00
						CS-137	2.457E-01
						K-40	4.003E+00
						RA-226	1.073E+00
						TH-232	8.140E-01
						U-235	2.355E-01
H12	4	2.162	1.259	2.210	0.639	Sum	7.528E+00
						CS-137	4.017E-01
						K-40	5.062E+00
						RA-226	9.820E-01
						TH-232	8.526E-01
						U-235	2.294E-01
H13	3	2.962	1.274	5.027	0.636	Sum	8.193E+00
						CS-134	6.202E-01
						CS-137	5.720E-01
						K-40	4.657E+00
						RA-226	1.044E+00
						TH-232	1.167E+00
						U-235	1.326E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
H14	4	1.287	1.158	4.085	0.636	Sum	7.314E+00
						CS-137	5.220E-01
						K-40	4.912E+00
						RA-226	9.266E-01
						TH-232	8.105E-01
						U-235	1.434E-01
H15	3	-0.134	1.323	4.940	0.652	Sum	7.444E+00
						CS-137	6.124E-01
						K-40	4.592E+00
						RA-226	1.151E+00
						TH-232	9.697E-01
						U-235	1.190E-01
H16	3	2.976	1.473	5.342	0.636	Sum	1.059E+01
						CS-137	3.409E-01
						K-40	7.054E+00
						RA-226	1.435E+00
						TH-232	1.517E+00
						U-235	2.464E-01
H17	3	0.340	1.681	4.609	0.636	Sum	7.952E+00
						CS-137	2.716E-01
						K-40	5.455E+00
						RA-226	1.181E+00
						TH-232	8.894E-01
						U-235	1.554E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
H18	3	1.251	1.548	3.456	0.636	Sum	9.390E+00
						CS-137	2.575E-01
						K-40	6.446E+00
						RA-226	1.260E+00
						TH-232	1.298E+00
						U-235	1.283E-01
H19	4	5.458	1.863	2.489	0.630	Sum	1.048E+01
						CE-144	5.324E-01
						CS-137	2.630E-01
						K-40	6.701E+00
						RA-226	1.172E+00
						TH-232	1.100E+00
						U-235	7.085E-01
H20	1	2.962	1.466	3.335	0.633	Sum	8.487E+00
						CS-137	4.989E-01
						K-40	6.176E+00
						RA-226	7.852E-01
						TH-232	1.027E+00
H21	0	1.923	1.730	4.151	0.615	Sum	8.534E+00
						CS-137	2.265E-01
						K-40	6.182E+00
						RA-226	9.764E-01
						TH-232	9.741E-01
						U-235	1.749E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
H22	3	4.112	1.769	2.304	0.636	Sum	9.325E+00
						CS-137	7.198E-01
						K-40	6.242E+00
						RA-226	1.164E+00
						TH-232	1.000E+00
						U-235	1.989E-01
H23	2	1.917	0.949	3.679	0.621	Sum	8.097E+00
						CS-137	3.193E-01
						K-40	5.415E+00
						RA-226	9.841E-01
						TH-232	1.232E+00
						U-235	1.469E-01
H24	2	3.199	1.863	4.725	0.624	Sum	9.981E+00
						CS-137	4.169E-01
						K-40	7.056E+00
						RA-226	1.029E+00
						TH-232	1.295E+00
						U-235	1.843E-01
H25	2	7.728	1.866	7.395	0.624	Sum	8.180E+00
						CS-137	3.189E-01
						K-40	5.923E+00
						RA-226	9.308E-01
						TH-232	8.609E-01
						U-235	1.463E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
H26	2	0.250	1.236	3.597	0.643	Sum	8.690E+00
						CS-137	5.751E-01
						K-40	6.354E+00
						RA-226	7.911E-01
						TH-232	8.128E-01
						U-235	1.566E-01
H27	2	0.829	1.641	2.697	0.630	Sum	8.786E+00
						AM-241	3.389E-01
						CS-137	2.147E-01
						K-40	5.956E+00
						RA-226	9.746E-01
						TH-232	1.107E+00
						U-235	1.947E-01
H28	1	2.745	1.598	2.922	0.612	Sum	9.387E+00
						CS-134	5.919E-02
						CS-137	2.571E-01
						K-40	6.829E+00
						RA-226	1.094E+00
						TH-232	9.688E-01
						U-235	1.789E-01
I06	0	3.901	2.758	5.635	0.646	Sum	1.176E+01
						CS-137	4.873E-01
						K-40	8.781E+00
						RA-226	1.131E+00
						TH-232	1.119E+00
						U-235	2.430E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μR/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
I07	0	2.032	1.183	3.847	0.615	Sum	6.422E+00
						CS-137	4.199E-01
						K-40	4.039E+00
						RA-226	8.738E-01
						TH-232	9.404E-01
						U-235	1.490E-01
I08	1.5	2.328	1.002	2.890	0.627	Sum	5.609E+00
						CS-137	2.534E-01
						K-40	3.338E+00
						RA-226	8.934E-01
						TH-232	1.008E+00
						U-235	1.164E-01
I09	1	0.311	1.541	3.335	0.633	Sum	2.336E+00
						CS-137	5.449E-01
						RA-226	8.042E-01
						TH-232	8.418E-01
						U-235	1.455E-01
I10	3	0.831	1.646	4.482	0.633	Sum	8.607E+00
						BA-133	4.069E-02
						CE-144	3.684E-01
						CS-137	6.889E-01
						K-40	5.401E+00
						RA-226	1.011E+00
						TH-232	9.520E-01
						U-235	1.453E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
I11	2	0.642	1.272	4.555	0.615	Sum	8.609E+00
						CS-137	4.294E-01
						K-40	5.986E+00
						RA-226	1.010E+00
						TH-232	1.008E+00
						U-235	1.753E-01
I12	2	1.098	1.359	3.123	0.612	Sum	7.137E+00
						CS-137	3.996E-01
						K-40	4.662E+00
						RA-226	9.962E-01
						TH-232	9.174E-01
						U-235	1.622E-01
I13	2.5	1.757	2.174	3.648	0.633	Sum	6.367E+00
						CS-137	7.806E-02
						K-40	3.865E+00
						RA-226	1.013E+00
						TH-232	1.259E+00
						U-235	1.523E-01
I14	2	-1.449	1.434	4.460	0.630	Sum	9.042E+00
						CS-137	2.672E-01
						K-40	6.716E+00
						RA-226	9.291E-01
						TH-232	9.752E-01
						U-235	1.543E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
I15	2	0.747	1.480	2.433	0.643	Sum	6.697E+00
						CS-137	1.223E-01
						K-40	4.640E+00
						RA-226	9.075E-01
						TH-232	8.520E-01
						U-235	1.749E-01
I16	4	3.416	1.470	3.903	0.624	Sum	8.344E+00
						K-40	5.146E+00
						RA-226	1.248E+00
						TH-232	1.234E+00
						U-235	7.161E-01
I17	2.5	2.418	1.709	2.964	0.621	Sum	6.316E+00
						AM-241	3.637E-01
						CS-137	2.200E-01
						K-40	3.268E+00
						RA-226	1.008E+00
						TH-232	1.105E+00
						U-235	3.517E-01
I18	3.5	5.635	1.923	4.572	0.646	Sum	1.029E+01
						CS-137	7.068E-01
						K-40	7.347E+00
						RA-226	1.140E+00
						TH-232	9.222E-01
						U-235	1.761E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
I19	1	1.076	2.129	2.773	0.624	Sum	7.479E+00
						K-40	5.597E+00
						RA-226	8.494E-01
						TH-232	8.542E-01
						U-235	1.787E-01
I20	-1	4.795	1.483	4.231	0.643	Sum	6.123E+00
						CS-137	3.953E-01
						K-40	4.252E+00
						RA-226	6.609E-01
						TH-232	6.919E-01
						U-235	1.226E-01
I21	-1	2.726	1.587	6.911	0.646	Sum	7.780E+00
						CS-137	1.741E-01
						K-40	7.319E+00
						RA-226	2.301E-01
						U-235	5.683E-02
I22	0					Sum	
I23	2	3.273	1.620	5.649	0.624	Sum	7.375E+00
						CS-137	3.439E-01
						K-40	5.324E+00
						RA-226	7.395E-01
						TH-232	8.290E-01
						U-235	1.382E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
I24	2	0.696	1.379	2.000	0.639	Sum	7.775E+00
						CS-137	2.803E-01
						K-40	5.346E+00
						RA-226	9.705E-01
						TH-232	1.055E+00
						U-235	1.235E-01
I25	3	2.141	1.246	3.544	0.652	Sum	1.020E+01
						CS-137	5.639E-01
						K-40	6.422E+00
						RA-226	1.059E+00
						RU-106	7.419E-01
						TH-232	1.255E+00
						U-235	1.556E-01
I26	1.5	3.812	1.886	4.167	0.649	Sum	9.860E+00
						CS-137	6.822E-01
						K-40	6.913E+00
						RA-226	1.124E+00
						TH-232	1.141E+00
I27	2	3.308	1.259	1.840	0.621	Sum	5.952E+00
						CS-137	3.040E-01
						K-40	3.879E+00
						RA-226	9.893E-01
						TH-232	6.239E-01
						U-235	1.560E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
I28	1	1.732	1.224	4.273	0.633	Sum	7.650E+00
						CE-144	3.452E-01
						CS-137	4.845E-01
						K-40	5.361E+00
						RA-226	7.023E-01
						TH-232	6.707E-01
						U-235	8.582E-02
I29	-1	2.574	1.498	4.399	0.636	Sum	6.808E+00
						CS-137	5.421E-01
						K-40	4.243E+00
						RA-226	8.685E-01
						TH-232	8.784E-01
						U-235	2.761E-01
I30	0	5.496	1.554	5.568	0.615	Sum	6.102E+00
						CS-137	5.737E-01
						K-40	3.822E+00
						RA-226	8.432E-01
						TH-232	7.035E-01
						U-235	1.595E-01
I31	1	2.944	1.005	4.654	0.643	Sum	8.929E+00
						CS-137	3.892E-01
						K-40	5.822E+00
						RA-226	1.300E+00
						TH-232	1.256E+00
						U-235	1.618E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
I32	1	0.718	0.888	2.828	0.636	Sum	5.026E+00
						CS-137	3.596E-01
						K-40	2.835E+00
						RA-226	8.586E-01
						TH-232	8.427E-01
						U-235	1.299E-01
I33	0	-0.330	0.818	3.526	0.649	Sum	5.886E+00
						CS-137	5.284E-01
						K-40	3.479E+00
						RA-226	7.933E-01
						TH-232	9.391E-01
						U-235	1.462E-01
I34	0	0.918	0.826	2.978	0.624	Sum	7.219E+00
						CS-137	4.620E-01
						K-40	5.057E+00
						RA-226	7.361E-01
						TH-232	7.876E-01
						U-235	1.763E-01
I35	0	0.997	1.234	4.781	0.618	Sum	7.057E+00
						CS-137	6.374E-01
						K-40	4.135E+00
						RA-226	1.022E+00
						TH-232	8.494E-01
						U-235	4.136E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
J09	0	0.832	1.030	4.997	0.646	Sum	6.191E+00
						CS-137	7.057E-01
						K-40	3.623E+00
						RA-226	8.309E-01
						TH-232	9.068E-01
						U-235	1.242E-01
J10	2	-0.113	1.120	2.964	0.621	Sum	7.947E+00
						CE-144	4.181E-01
						CS-137	4.827E-01
						K-40	4.944E+00
						RA-226	1.039E+00
						TH-232	9.231E-01
						U-235	1.400E-01
J11	0	3.194	1.375	4.126	0.643	Sum	7.604E+00
						CS-137	2.904E-01
						K-40	4.777E+00
						RA-226	9.385E-01
						TH-232	8.583E-01
						U-235	7.401E-01
J12	3	3.873	1.666	4.758	0.615	Sum	7.555E+00
						CS-137	3.770E-01
						K-40	5.078E+00
						RA-226	9.261E-01
						TH-232	1.023E+00
						U-235	1.508E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
J13	3	1.153	1.427	6.494	0.636	Sum	6.269E+00
						CS-137	5.443E-01
						K-40	3.814E+00
						RA-226	1.156E+00
						TH-232	5.934E-01
						U-235	1.610E-01
J14	0	2.798	1.065	3.941	0.630	Sum	6.575E+00
						CS-137	8.816E-02
						K-40	4.177E+00
						RA-226	8.746E-01
						RU-106	3.098E-01
						TH-232	9.747E-01
						U-235	1.510E-01
J15	4	1.798	1.271	4.460	0.630	Sum	8.494E+00
						CS-137	2.362E-01
						K-40	5.858E+00
						RA-226	1.027E+00
						TH-232	1.006E+00
						U-235	3.673E-01
J16	2	2.338	1.361	4.724	0.624	Sum	7.363E+00
						CS-137	2.914E-01
						K-40	4.907E+00
						RA-226	1.070E+00
						TH-232	9.341E-01
						U-235	1.602E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
J17	2	-0.586	1.450	3.740	0.649	Sum	8.553E+00
						CS-137	3.273E-01
						K-40	5.999E+00
						RA-226	1.034E+00
						TH-232	1.040E+00
						U-235	1.526E-01
J18	3	2.712	1.579	5.028	0.636	Sum	9.406E+00
						CS-137	5.421E-01
						K-40	6.493E+00
						RA-226	1.165E+00
						TH-232	1.081E+00
						U-235	1.251E-01
J19	1	7.381	2.519	3.319	0.630	Sum	8.725E+00
						K-40	6.811E+00
						RA-226	7.486E-01
						TH-232	1.040E+00
						U-235	1.257E-01
J20	2	1.480	1.332	5.078	0.643	Sum	3.949E+00
						CS-137	1.290E+00
						K-40	1.887E+00
						RA-226	2.674E-01
						TH-232	5.049E-01

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
J21	0	5.606	1.734	3.544	0.633	Sum	6.869E+00
						AM-241	2.513E-01
						CS-137	2.317E-01
						K-40	4.456E+00
						RA-226	9.740E-01
						TH-232	7.888E-01
						U-235	1.672E-01
J22	0	1.433	1.289	3.385	0.643	Sum	6.810E+00
						CS-137	2.414E-01
						K-40	4.635E+00
						RA-226	9.820E-01
						TH-232	8.553E-01
						U-235	9.679E-02
J23	2	2.087	1.877	2.501	0.633	Sum	8.621E+00
						CS-137	2.072E-01
						K-40	6.884E+00
						RA-226	7.925E-01
						TH-232	7.375E-01
J24	3	0.910	1.209	4.569	0.615	Sum	7.800E+00
						CS-137	4.284E-01
						K-40	5.477E+00
						RA-226	8.829E-01
						TH-232	8.938E-01
						U-235	1.177E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
J25	3	2.189	0.727	2.263	0.642	Sum	8.260E+00
						CS-137	3.954E-01
						K-40	5.764E+00
						RA-226	1.029E+00
						TH-232	8.797E-01
						U-235	1.915E-01
J26	0	1.692	1.124	3.352	0.612	Sum	9.771E+00
						CS-137	4.312E-01
						K-40	7.048E+00
						RA-226	9.753E-01
						TH-232	1.154E+00
						U-235	1.628E-01
J27	-2	1.677	0.891	2.640	0.658	Sum	8.684E+00
						CS-137	2.935E-01
						K-40	5.514E+00
						RA-226	1.312E+00
						TH-232	1.260E+00
						U-235	3.045E-01
J28	-1	4.623	1.536	4.791	0.618	Sum	5.308E+00
						CS-137	4.163E-01
						K-40	3.586E+00
						RA-226	6.610E-01
						TH-232	6.448E-01

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
J29	0	1.522	0.809	5.344	0.624	Sum	5.629E+00
						CS-137	9.320E-01
						K-40	3.163E+00
						RA-226	8.013E-01
						TH-232	5.790E-01
						U-235	1.535E-01
J30	-1	1.347	0.511	3.603	0.639	Sum	3.860E-01
						CS-137	3.860E-01
J31	-1	1.476	0.654	3.944	0.661	Sum	2.294E+00
						CS-137	6.179E-01
						RA-226	8.947E-01
						TH-232	5.477E-01
						U-235	2.339E-01
J32	1	1.340	0.594	1.854	0.645	Sum	5.200E+00
						CS-137	3.373E-01
						K-40	2.841E+00
						RA-226	1.012E+00
						TH-232	8.432E-01
						U-235	1.665E-01
J33	0	0.882	0.586	3.113	0.645	Sum	4.662E+00
						CS-137	2.915E-01
						K-40	2.603E+00
						RA-226	7.778E-01
						TH-232	8.549E-01
						U-235	1.350E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
J34	-1	1.280	0.680	2.668	0.615	Sum	7.526E+00
						CS-137	4.069E-01
						K-40	5.438E+00
						RA-226	8.210E-01
						TH-232	7.627E-01
						U-235	9.753E-02
J35	-1	1.677	0.743	2.472	0.642	Sum	7.135E+00
						CS-137	1.017E+00
						K-40	4.153E+00
						RA-226	1.061E+00
						TH-232	7.440E-01
						U-235	1.603E-01
K08	1	1.636	0.725	2.654	0.661	Sum	6.733E+00
						CS-137	3.430E-01
						K-40	4.737E+00
						RA-226	7.704E-01
						TH-232	8.255E-01
						U-235	5.711E-02
K09	0	1.398	0.929	4.713	0.621	Sum	7.038E+00
						BA-133	6.152E-02
						CS-137	5.987E-01
						K-40	4.566E+00
						RA-226	8.957E-01
						TH-232	9.159E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
K10	0	4.150	1.103	3.999	0.636	Sum	8.277E+00
						CS-137	2.653E-01
						K-40	5.687E+00
						RA-226	1.028E+00
						TH-232	1.149E+00
						U-235	1.473E-01
K11	1	1.570	1.043	3.945	0.661	Sum	9.312E+00
						CS-137	4.730E-01
						K-40	6.874E+00
						RA-226	9.274E-01
						TH-232	9.698E-01
						U-235	6.775E-02
K12	3	4.939	1.010	4.206	0.636	Sum	8.057E+00
						CS-137	2.914E-01
						K-40	5.810E+00
						RA-226	9.804E-01
						TH-232	8.045E-01
						U-235	1.706E-01
K13	3	3.949	0.875	4.906	0.633	Sum	8.250E+00
						CS-137	2.119E-01
						K-40	5.832E+00
						RA-226	1.021E+00
						TH-232	1.047E+00
						U-235	1.378E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
K14	2	2.255	0.856	3.743	0.645	Sum	7.783E+00
						CS-137	2.822E-01
						K-40	5.512E+00
						RA-226	8.947E-01
						TH-232	9.232E-01
						U-235	1.713E-01
K15	3	1.555	0.826	5.422	0.645	Sum	7.172E+00
						CS-137	5.707E-01
						K-40	4.354E+00
						RA-226	9.387E-01
						TH-232	1.088E+00
						U-235	2.205E-01
K16	3	4.521	1.092	5.547	0.624	Sum	7.721E+00
						CS-137	4.308E-01
						K-40	5.199E+00
						RA-226	1.066E+00
						TH-232	8.147E-01
						U-235	2.108E-01
K17	4	2.974	0.988	2.854	0.658	Sum	9.060E+00
						CS-137	2.926E-01
						K-40	6.718E+00
						RA-226	9.639E-01
						TH-232	8.997E-01
						U-235	1.855E-01

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
K18	2	1.080	0.957	3.097	0.621	Sum	8.439E+00
						CS-137	6.507E-01
						K-40	5.803E+00
						RA-226	1.043E+00
						TH-232	7.926E-01
						U-235	1.495E-01
K19	3	1.332	0.708	3.373	0.655	Sum	5.027E+00
						CS-137	4.117E-01
						K-40	3.160E+00
						RA-226	7.960E-01
						TH-232	5.499E-01
						U-235	1.099E-01
K20	2	3.590	0.954	3.275	0.636	Sum	2.724E+00
						CS-137	8.882E-02
						K-40	1.632E+00
						RA-226	4.958E-01
						TH-232	4.362E-01
						U-235	7.146E-02
K21	0	0.503	0.669	2.922	0.626	Sum	2.797E+00
						CS-137	1.191E-01
						K-40	1.795E+00
						RA-226	4.781E-01
						TH-232	4.046E-01

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
K22	1	5.298	1.174	3.514	0.661	Sum	8.924E+00
						CS-137	5.236E-01
						K-40	5.961E+00
						RA-226	1.176E+00
						TH-232	1.174E+00
						U-235	8.927E-02
K23	2	2.874	0.955	3.876	0.668	Sum	7.013E+00
						CS-137	4.185E-01
						K-40	4.660E+00
						RA-226	9.782E-01
						TH-232	7.631E-01
						U-235	1.931E-01
K24	3	1.582	1.051	4.613	0.664	Sum	1.031E+01
						CS-137	5.236E-01
						K-40	7.128E+00
						RA-226	1.194E+00
						TH-232	1.233E+00
						U-235	2.312E-01
K25	0	2.045	1.359	3.208	0.665	Sum	9.753E+00
						CS-137	5.943E-01
						K-40	6.859E+00
						RA-226	1.241E+00
						TH-232	9.239E-01
						U-235	1.346E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
K26	-2	2.510	1.991	9.094	0.616	Sum	7.850E+00
						CS-137	1.623E+00
						K-40	4.678E+00
						RA-226	6.673E-01
						TH-232	7.232E-01
						U-235	1.581E-01
K27	1	1.559	2.298	6.216	0.616	Sum	8.983E+00
						CS-137	4.204E-01
						K-40	6.354E+00
						RA-226	1.008E+00
						TH-232	1.040E+00
						U-235	1.607E-01
K28	0	3.910	1.833	7.421	0.610	Sum	6.962E+00
						CS-137	6.938E-01
						K-40	4.476E+00
						RA-226	6.593E-01
						TH-232	9.715E-01
						U-235	1.615E-01
K29	-2	0.145	1.491	6.536	0.616	Sum	5.497E+00
						CS-137	7.645E-01
						K-40	3.358E+00
						RA-226	6.347E-01
						TH-232	5.577E-01
						U-235	1.823E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
K30	-2	0.122	1.259	4.880	0.622	Sum	6.691E+00
						CS-137	4.130E-01
						K-40	3.861E+00
						RA-226	1.005E+00
						RU-106	4.913E-01
						TH-232	7.514E-01
						U-235	1.693E-01
K31	0	1.206	1.244	5.364	0.616	Sum	4.961E+00
						CS-137	8.267E-01
						K-40	2.695E+00
						RA-226	6.413E-01
						TH-232	7.342E-01
						U-235	6.404E-02
K32	0	0.110	1.132	4.133	0.592	Sum	4.162E+00
						CS-137	3.242E-01
						K-40	2.000E+00
						RA-226	8.591E-01
						TH-232	8.677E-01
						U-235	1.115E-01
K33	1	0.149	1.539	4.565	0.595	Sum	6.901E+00
						CS-137	5.731E-01
						K-40	4.773E+00
						RA-226	6.683E-01
						TH-232	7.753E-01
						U-235	1.109E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
K34	1	1.060	1.094	2.320	0.628	Sum	8.237E+00
						BA-133	5.813E-02
						CS-137	6.592E-01
						K-40	5.382E+00
						RA-226	8.979E-01
						TH-232	1.100E+00
						U-235	1.401E-01
L08	1	3.106	1.032	5.897	0.618	Sum	5.723E+00
						CS-137	4.871E-01
						K-40	3.172E+00
						RA-226	1.116E+00
						TH-232	8.326E-01
						U-235	1.156E-01
L09	1	3.129	1.040	3.316	0.664	Sum	6.838E+00
						CS-137	4.213E-01
						K-40	4.232E+00
						RA-226	1.089E+00
						TH-232	9.773E-01
						U-235	1.187E-01
L10	2	1.449	0.963	3.362	0.633	Sum	9.093E+00
						CS-137	6.148E-01
						K-40	6.345E+00
						RA-226	1.097E+00
						TH-232	8.995E-01
						U-235	1.364E-01

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
L11	2.5	0.752	0.999	4.879	0.671	Sum	7.985E+00
						CS-137	3.709E-01
						K-40	5.286E+00
						RA-226	9.594E-01
						TH-232	1.209E+00
						U-235	1.596E-01
L12	3	2.598	1.151	6.187	0.648	Sum	9.380E+00
						CS-137	9.484E-01
						K-40	6.080E+00
						RA-226	1.180E+00
						TH-232	1.099E+00
						U-235	7.241E-02
L13	3	2.379	1.054	2.190	0.651	Sum	7.263E+00
						CS-137	3.589E-01
						K-40	4.783E+00
						RA-226	9.720E-01
						TH-232	8.344E-01
						U-235	3.144E-01
L14	3	3.372	0.996	5.046	0.664	Sum	9.869E+00
						CS-137	2.701E-01
						K-40	7.298E+00
						RA-226	1.097E+00
						TH-232	1.077E+00
						U-235	1.265E-01

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
L15	2	0.784	0.695	4.288	0.633	Sum	8.656E+00
						CS-137	3.986E-01
						K-40	5.511E+00
						RA-226	9.465E-01
						RU-106	6.170E-01
						TH-232	1.005E+00
						U-235	1.779E-01
L16	3	1.577	0.838	3.568	0.633	Sum	9.123E+00
						CS-137	1.565E-01
						K-40	6.827E+00
						RA-226	1.061E+00
						TH-232	9.162E-01
						U-235	1.618E-01
L17	3	3.910	1.155	3.250	0.651	Sum	8.292E+00
						CS-137	3.011E-01
						K-40	5.665E+00
						RA-226	1.167E+00
						TH-232	1.010E+00
						U-235	1.492E-01
L18	2	3.695	1.228	5.823	0.655	Sum	8.504E+00
						CS-137	5.122E-01
						K-40	5.330E+00
						RA-226	1.048E+00
						RU-106	4.960E-01
						TH-232	1.050E+00
						U-235	6.780E-02

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
L19	1	1.772	0.942	2.551	0.636	Sum	8.195E+00
						CS-137	3.788E-01
						K-40	5.822E+00
						RA-226	1.089E+00
						TH-232	9.048E-01
L20	1	6.062	1.465	5.184	0.655	Sum	9.200E+00
						CS-137	3.795E-01
						K-40	6.501E+00
						RA-226	1.187E+00
						TH-232	9.837E-01
						U-235	1.486E-01
L21	2	3.357	1.275	6.355	0.655	Sum	7.653E+00
						CS-137	3.574E-01
						K-40	5.082E+00
						RA-226	9.428E-01
						TH-232	1.069E+00
						U-235	2.018E-01
L22	2	3.137	1.191	2.976	0.661	Sum	7.989E+00
						CS-137	4.320E-01
						K-40	5.313E+00
						RA-226	1.143E+00
						TH-232	9.241E-01
						U-235	1.766E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
L23	2	2.617	1.159	3.640	0.664	Sum	1.100E+01
						CS-137	6.284E-01
						K-40	7.505E+00
						RA-226	1.470E+00
						TH-232	1.244E+00
						U-235	1.532E-01
L24	3	2.128	0.808	5.020	0.661	Sum	8.154E+00
						CS-137	2.882E-01
						K-40	5.798E+00
						RA-226	9.657E-01
						TH-232	8.558E-01
						U-235	2.467E-01
L25	4	4.888	0.999	3.837	0.661	Sum	1.153E+01
						CS-137	3.835E-01
						K-40	7.884E+00
						RA-226	1.729E+00
						TH-232	1.285E+00
						U-235	2.467E-01
L26	2	0.806	0.681	2.275	0.685	Sum	8.313E+00
						CS-137	3.825E-01
						K-40	5.426E+00
						RA-226	1.181E+00
						TH-232	1.091E+00
						U-235	2.322E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
L27	0	1.394	0.857	2.209	0.665	Sum	7.725E+00
						CS-137	1.079E-01
						K-40	3.876E+00
						RA-226	7.343E-01
						RU-106	2.209E+00
						TH-232	6.902E-01
						U-235	1.077E-01
L28	0	1.300	0.628	1.830	0.678	Sum	6.138E+00
						CS-137	1.426E-01
						K-40	3.825E+00
						RA-226	1.057E+00
						TH-232	1.004E+00
						U-235	1.095E-01
L29	-1	1.175	0.568	3.112	0.682	Sum	7.147E+00
						CS-137	3.742E-01
						K-40	4.789E+00
						RA-226	1.073E+00
						TH-232	8.422E-01
						U-235	6.838E-02
L30	-1	0.624	0.527	1.342	0.699	Sum	3.067E+00
						CS-137	4.196E-01
						K-40	1.286E+00
						RA-226	6.427E-01
						TH-232	7.185E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
L31	0	1.041	0.503	1.830	0.678	Sum	6.154E+00
						K-40	4.898E+00
						RA-226	3.510E-02
						TH-232	1.042E+00
						U-235	1.790E-01
L32	0	1.028	0.496	2.309	0.695	Sum	5.764E+00
						CS-137	3.908E-01
						K-40	3.697E+00
						RA-226	8.073E-01
						TH-232	7.257E-01
						U-235	1.428E-01
L33	0	0.794	0.488	0.462	0.685	Sum	5.510E+00
						CS-137	2.747E-01
						K-40	3.307E+00
						RA-226	9.123E-01
						TH-232	9.167E-01
						U-235	9.949E-02
L34	-2	1.037	0.637	1.761	0.652	Sum	4.013E+00
						CS-137	4.086E-01
						K-40	2.523E+00
						RA-226	4.519E-01
						TH-232	5.186E-01
						U-235	1.105E-01

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
M09	0	0.000	0.806	3.689	0.636	Sum	6.344E+00
						CS-137	5.485E-01
						K-40	3.816E+00
						RA-226	9.595E-01
						TH-232	9.125E-01
						U-235	1.071E-01
M10	0	2.751	0.812	4.063	0.630	Sum	6.136E+00
						CS-137	2.369E-01
						K-40	4.058E+00
						RA-226	8.835E-01
						TH-232	7.861E-01
						U-235	1.714E-01
M11	1	2.328	0.884	2.680	0.642	Sum	8.592E+00
						CS-137	1.234E-01
						K-40	6.331E+00
						RA-226	1.072E+00
						TH-232	8.657E-01
						U-235	2.002E-01
M12	3	4.197	1.014	3.068	0.615	Sum	6.835E+00
						AM-241	1.481E-01
						CS-137	4.730E-01
						K-40	3.736E+00
						RA-226	1.219E+00
						TH-232	1.142E+00
						U-235	1.167E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
M13	2	2.528	0.840	3.692	0.655	Sum	9.188E+00
						CS-137	2.284E-01
						K-40	6.776E+00
						RA-226	9.536E-01
						TH-232	1.006E+00
						U-235	2.235E-01
M14	2	3.070	0.907	2.448	0.636	Sum	7.653E+00
						CS-137	3.315E-01
						K-40	4.877E+00
						RA-226	1.136E+00
						TH-232	9.327E-01
						U-235	3.763E-01
M15	2	8.388	1.311	3.619	0.624	Sum	9.254E+00
						CS-137	5.834E-01
						K-40	6.203E+00
						RA-226	1.189E+00
						TH-232	1.099E+00
						U-235	1.797E-01
M16	3	5.980	1.223	5.445	0.624	Sum	7.545E+00
						CS-137	2.951E-01
						K-40	5.287E+00
						RA-226	8.948E-01
						TH-232	9.317E-01
						U-235	1.363E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
M17	2	0.508	0.940	3.948	0.635	Sum	7.798E+00
						CS-137	1.733E-01
						K-40	5.926E+00
						RA-226	8.324E-01
						TH-232	7.426E-01
						U-235	1.232E-01
M18	0	1.171	0.866	4.619	0.625	Sum	2.830E+00
						CS-137	4.798E-01
						K-40	8.684E-01
						RA-226	7.170E-01
						TH-232	6.232E-01
						U-235	1.419E-01
M19	2	4.575	1.209	4.034	0.632	Sum	7.283E+00
						CS-137	4.200E-01
						K-40	5.021E+00
						RA-226	7.144E-01
						TH-232	9.737E-01
						U-235	1.539E-01
M20	1	1.475	1.091	4.326	0.613	Sum	7.837E+00
						CS-137	5.759E-01
						K-40	5.486E+00
						RA-226	9.952E-01
						TH-232	6.455E-01
						U-235	1.341E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
M21	2	1.876	0.868	4.515	0.625	Sum	9.846E+00
						CS-137	4.412E-01
						K-40	5.754E+00
						RA-226	8.770E-01
						TH-232	8.301E-01
						U-235	1.944E+00
M22	0	3.469	1.351	6.064	0.613	Sum	7.759E+00
						CS-137	3.121E-01
						K-40	5.282E+00
						RA-226	9.441E-01
						TH-232	1.048E+00
						U-235	1.731E-01
M23	3	4.261	0.927	4.538	0.628	Sum	8.312E+00
						CS-137	5.301E-01
						K-40	5.557E+00
						RA-226	1.083E+00
						TH-232	9.667E-01
						U-235	1.753E-01
M24	2	1.657	0.943	3.419	0.635	Sum	8.866E+00
						CS-137	3.923E-01
						K-40	6.451E+00
						RA-226	9.308E-01
						TH-232	9.588E-01
						U-235	1.328E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
M25	2	1.356	0.772	4.652	0.644	Sum	7.930E+00
						CS-137	3.020E-01
						K-40	5.594E+00
						RA-226	1.177E+00
						TH-232	5.784E-01
						U-235	2.790E-01
M26	1	3.429	1.015	2.561	0.632	Sum	5.901E+00
						K-40	4.502E+00
						RA-226	5.177E-01
						TH-232	8.815E-01
M27	1	0.924	0.977	3.416	0.654	Sum	6.275E+00
						K-40	4.348E+00
						RA-226	7.290E-01
						TH-232	9.677E-01
						U-235	2.306E-01
M28	0	3.040	0.662	2.161	0.638	Sum	3.252E+00
						CE-144	4.670E-01
						K-40	1.934E+00
						RA-226	4.024E-01
						TH-232	3.595E-01
						U-235	8.933E-02

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
M29	0	0.640	1.702	5.832	0.535	Sum	1.835E+01
						CS-137	4.617E-01
						K-40	1.533E+01
						RA-226	1.129E+00
						TH-232	1.111E+00
						U-235	3.191E-01
M30	0	3.195	1.244	4.842	0.641	Sum	6.200E+00
						CS-137	7.358E-01
						K-40	3.762E+00
						RA-226	8.372E-01
						TH-232	6.769E-01
						U-235	1.885E-01
M31	0	3.793	1.754	3.941	0.651	Sum	9.223E+00
						CS-137	6.297E-01
						K-40	6.347E+00
						RA-226	1.042E+00
						TH-232	1.049E+00
						U-235	1.548E-01
M32	-1	4.018	1.189	4.160	0.635	Sum	6.983E+00
						CS-137	3.827E-01
						K-40	4.213E+00
						RA-226	1.076E+00
						TH-232	1.097E+00
						U-235	2.141E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
M33	0	3.382	0.807	3.330	0.638	Sum	4.843E+00
						AM-241	1.047E-01
						CS-137	5.403E-01
						K-40	2.526E+00
						RA-226	7.299E-01
						TH-232	7.507E-01
						U-235	1.916E-01
M34	0	1.059	0.784	4.371	0.635	Sum	6.976E+00
						CS-137	7.976E-01
						K-40	3.383E+00
						RA-226	1.242E+00
						TH-232	1.333E+00
						U-235	2.208E-01
N09	1	1.735	1.118	3.570	0.619	Sum	6.399E+00
						CS-137	5.939E-01
						K-40	4.043E+00
						RA-226	7.646E-01
						TH-232	8.619E-01
						U-235	1.354E-01
N10	1	0.801	1.181	4.255	0.610	Sum	7.339E+00
						CS-137	1.706E-01
						K-40	5.486E+00
						RA-226	8.286E-01
						TH-232	7.216E-01
						U-235	1.322E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
N11	2	2.244	1.052	4.277	0.613	Sum	9.330E+00
						CS-137	7.170E-01
						K-40	6.296E+00
						RA-226	9.437E-01
						TH-232	9.231E-01
						U-235	4.499E-01
N12	2	0.888	1.309	3.258	0.601	Sum	9.354E+00
						CS-137	1.161E-01
						K-40	6.873E+00
						RA-226	1.287E+00
						TH-232	9.253E-01
						U-235	1.523E-01
N13	3	1.446	1.148	3.911	0.622	Sum	6.884E+00
						K-40	4.658E+00
						RA-226	1.059E+00
						TH-232	9.723E-01
						U-235	1.948E-01
N14	2	0.992	1.461	5.683	0.616	Sum	9.291E+00
						CS-137	4.108E-01
						K-40	6.619E+00
						RA-226	1.029E+00
						TH-232	1.051E+00
						U-235	1.813E-01

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
N15	3	2.412	1.309	3.322	0.613	Sum	6.870E+00
						CS-137	8.803E-02
						K-40	4.777E+00
						RA-226	9.701E-01
						TH-232	8.491E-01
						U-235	1.855E-01
N16	2	1.864	1.012	3.465	0.601	Sum	7.174E+00
						CS-137	2.110E-01
						K-40	5.138E+00
						RA-226	8.892E-01
						TH-232	8.192E-01
						U-235	1.167E-01
N17	1	0.518	1.337	4.444	0.607	Sum	8.311E+00
						CS-137	4.990E-01
						K-40	5.683E+00
						RA-226	9.470E-01
						RU-106	2.389E-01
						TH-232	8.050E-01
						U-235	1.386E-01
N18	3	3.662	1.717	4.897	0.598	Sum	9.053E+00
						CS-137	1.890E-01
						K-40	6.730E+00
						RA-226	8.522E-01
						TH-232	1.074E+00
						U-235	2.079E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
N18A	6	4.364	1.324	7.430	0.628	Sum	1.920E+01
						CS-137	5.337E-01
						K-40	1.259E+01
						RA-226	2.727E+00
						TH-232	2.824E+00
						U-235	5.276E-01
N19	2	1.021	1.504	3.638	0.595	Sum	7.978E+00
						CS-137	3.691E-01
						K-40	5.659E+00
						RA-226	9.369E-01
						TH-232	8.736E-01
						U-235	1.397E-01
N20	2	3.162	2.038	2.621	0.598	Sum	8.763E+00
						CS-137	2.765E-01
						K-40	6.313E+00
						RA-226	1.096E+00
						TH-232	9.534E-01
						U-235	1.244E-01
N21	1	0.963	1.418	4.736	0.604	Sum	8.477E+00
						CS-137	5.184E-01
						K-40	5.458E+00
						RA-226	9.580E-01
						RU-106	3.741E-01
						TH-232	1.006E+00
						U-235	1.620E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
N22	1	0.917	1.351	2.686	0.613	Sum	6.898E+00
						CS-137	3.340E-01
						K-40	4.725E+00
						RA-226	9.145E-01
						TH-232	7.628E-01
						U-235	1.619E-01
N23	2	5.053	1.861	6.863	0.598	Sum	6.233E+00
						CS-137	6.209E-01
						K-40	4.196E+00
						RA-226	6.657E-01
						TH-232	6.333E-01
						U-235	1.171E-01
N24	2	0.109	1.125	2.741	0.625	Sum	8.373E+00
						CS-137	5.412E-01
						K-40	5.741E+00
						RA-226	1.004E+00
						TH-232	9.313E-01
						U-235	1.554E-01
N25	1	0.500	1.289	3.480	0.622	Sum	7.136E+00
						CS-137	4.216E-01
						K-40	4.700E+00
						RA-226	1.050E+00
						TH-232	9.646E-01

123817

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
N26	1	1.425	0.918	2.878	0.631	Sum	5.806E+00
						CS-137	3.610E-02
						K-40	3.360E+00
						RA-226	9.936E-01
						TH-232	1.220E+00
						U-235	1.959E-01
N27	1	0.939	0.969	1.674	0.592	Sum	3.741E+00
						K-40	2.516E+00
						RA-226	5.449E-01
						TH-232	5.795E-01
						U-235	1.011E-01
N28	2	3.468	0.894	2.820	0.619	Sum	6.943E+00
						K-40	5.361E+00
						RA-226	7.181E-01
						TH-232	7.469E-01
						U-235	1.174E-01
N29	0	0.107	1.100	3.395	0.607	Sum	4.740E+00
						CS-137	1.499E-01
						K-40	3.047E+00
						RA-226	7.060E-01
						TH-232	6.582E-01
						U-235	1.792E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
N30	-1	-0.202	1.040	4.030	0.592	Sum	5.313E+00
						CS-137	4.961E-01
						K-40	3.197E+00
						RA-226	7.060E-01
						TH-232	7.325E-01
						U-235	1.815E-01
N31	0	1.236	0.981	4.173	0.598	Sum	5.039E+00
						CS-137	4.472E-01
						K-40	2.841E+00
						RA-226	8.725E-01
						TH-232	7.028E-01
						U-235	1.756E-01
N32	0	1.306	0.842	5.173	0.631	Sum	5.428E+00
						CS-137	5.805E-01
						K-40	2.931E+00
						RA-226	8.277E-01
						TH-232	8.930E-01
						U-235	1.958E-01
N33	-1	1.945	0.802	4.277	0.628	Sum	4.327E+00
						CS-137	2.191E-01
						K-40	2.400E+00
						RA-226	7.416E-01
						TH-232	8.073E-01
						U-235	1.594E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
N34	0	3.553	1.078	6.003	0.616	Sum	3.723E+00
						CS-137	4.256E-01
						K-40	1.475E+00
						RA-226	8.276E-01
						TH-232	8.170E-01
						U-235	1.783E-01
N35	-2					Sum	
O08	1	2.082	0.612	2.219	0.668	Sum	6.104E+00
						CS-137	2.417E-01
						K-40	3.995E+00
						RA-226	9.169E-01
						TH-232	7.542E-01
						U-235	1.962E-01
O09	0	0.828	0.699	3.661	0.685	Sum	5.154E+00
						CS-137	3.705E-01
						K-40	2.911E+00
						RA-226	9.147E-01
						TH-232	7.997E-01
						U-235	1.582E-01
O10	1	1.697	0.574	1.955	0.685	Sum	7.841E+00
						CS-137	7.328E-02
						K-40	5.800E+00
						RA-226	8.929E-01
						TH-232	8.392E-01
						U-235	2.352E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
O11	2	1.868	0.902	2.557	0.675	Sum	7.167E+00
						CS-137	1.590E-01
						K-40	4.646E+00
						RA-226	1.056E+00
						TH-232	1.081E+00
						U-235	2.246E-01
O12	2	2.286	0.594	1.572	0.659	Sum	8.484E+00
						CS-137	2.248E-01
						K-40	5.921E+00
						RA-226	1.090E+00
						TH-232	1.094E+00
						U-235	1.537E-01
O13	4	1.898	0.755	0.675	0.685	Sum	1.042E+01
						CS-137	2.450E-01
						K-40	7.541E+00
						RA-226	1.130E+00
						TH-232	1.211E+00
						U-235	2.894E-01
O14	3	2.110	0.620	2.219	0.668	Sum	8.238E+00
						CS-137	2.733E-01
						K-40	5.370E+00
						RA-226	1.143E+00
						TH-232	1.266E+00
						U-235	1.854E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
O15	1	4.389	0.848	3.691	0.652	Sum	7.199E+00
						BA-133	4.611E-02
						CS-137	5.295E-01
						K-40	4.595E+00
						RA-226	9.364E-01
						TH-232	9.611E-01
						U-235	1.310E-01
O16	2	0.112	0.826	3.613	0.632	Sum	8.558E+00
						CS-137	4.554E-01
						K-40	6.086E+00
						RA-226	9.546E-01
						TH-232	9.104E-01
						U-235	1.516E-01
O17	1	1.507	0.858	4.308	0.641	Sum	6.884E+00
						CS-137	3.187E-01
						K-40	4.927E+00
						RA-226	7.358E-01
						TH-232	6.856E-01
						U-235	2.170E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
O18	1	4.296	0.795	2.920	0.641	Sum	6.490E+00
						CE-144	1.410E-01
						CS-137	3.121E-01
						K-40	4.057E+00
						RA-226	6.729E-01
						RU-106	1.871E-01
						TH-232	8.773E-01
						U-235	2.427E-01
O19	-0.5	2.424	1.121	4.136	0.648	Sum	4.023E+00
						CS-137	1.582E-01
						K-40	2.507E+00
						RA-226	5.451E-01
						TH-232	7.138E-01
						U-235	9.845E-02
O20	-1	2.193	0.737	3.297	0.632	Sum	5.704E+00
						CS-137	1.993E-01
						K-40	3.852E+00
						RA-226	8.006E-01
						TH-232	7.399E-01
						U-235	1.122E-01
O21	3	1.116	0.826	2.920	0.641	Sum	7.430E+00
						CS-137	3.454E-01
						K-40	5.106E+00
						RA-226	7.248E-01
						TH-232	7.777E-01
						U-235	4.765E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
O22	2	2.276	0.886	4.028	0.648	Sum	7.867E+00
						CS-137	4.742E-01
						K-40	5.324E+00
						RA-226	8.784E-01
						TH-232	1.015E+00
						U-235	1.757E-01
O23	2	2.694	0.906	4.455	0.632	Sum	9.787E+00
						CS-137	5.640E-01
						K-40	6.750E+00
						RA-226	7.198E-01
						TH-232	1.484E+00
						U-235	2.690E-01
O24	3	3.026	0.896	4.371	0.635	Sum	8.029E+00
						K-40	5.849E+00
						RA-226	8.784E-01
						TH-232	1.175E+00
						U-235	1.263E-01
O25	2	3.031	1.019	4.308	0.641	Sum	7.171E+00
						CS-137	3.676E-01
						K-40	5.181E+00
						RA-226	8.941E-01
						TH-232	7.279E-01

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
O26	2	2.395	0.633	4.223	0.628	Sum	7.802E+00
						CS-137	7.677E-01
						K-40	4.985E+00
						RA-226	9.318E-01
						TH-232	9.552E-01
						U-235	1.621E-01
O27	1	1.326	0.754	4.629	0.641	Sum	6.042E+00
						CS-137	3.362E-01
						K-40	3.942E+00
						RA-226	6.216E-01
						TH-232	8.833E-01
						U-235	2.586E-01
O28	3	3.199	0.845	7.873	0.644	Sum	5.994E+00
						CS-137	8.895E-01
						K-40	3.389E+00
						RA-226	8.413E-01
						TH-232	7.230E-01
						U-235	1.509E-01
O29	0	0.662	0.700	2.820	0.619	Sum	4.799E+00
						CS-137	1.729E-01
						K-40	2.725E+00
						RA-226	7.975E-01
						TH-232	7.903E-01
						U-235	3.128E-01

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
O30	0	2.306	0.776	5.957	0.635	Sum	4.558E+00
						CS-137	6.054E-01
						K-40	2.139E+00
						RA-226	7.948E-01
						TH-232	1.019E+00
O31	0	1.359	0.628	3.962	0.605	Sum	5.149E+00
						CE-144	1.476E-01
						CS-137	5.744E-01
						K-40	2.774E+00
						RA-226	7.925E-01
						TH-232	7.520E-01
						U-235	1.086E-01
O32	0	2.711	0.716	4.411	0.625	Sum	6.416E+00
						CS-137	6.103E-01
						K-40	4.109E+00
						RA-226	7.577E-01
						TH-232	7.262E-01
						U-235	2.124E-01
O33	-2	3.126	1.051	3.070	0.607	Sum	7.545E+00
						K-40	7.009E+00
						RA-226	3.801E-01
						U-235	1.555E-01

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
P08	0	3.785	1.055	4.472	0.625	Sum	5.432E+00
						CS-137	1.690E-01
						K-40	3.191E+00
						RA-226	9.962E-01
						TH-232	8.347E-01
						U-235	2.408E-01
P09	1	1.836	0.996	3.803	0.622	Sum	6.816E+00
						CS-137	3.047E-01
						K-40	4.387E+00
						RA-226	1.072E+00
						TH-232	7.884E-01
						U-235	2.637E-01
P10	2	-0.285	1.468	5.522	0.610	Sum	8.295E+00
						CS-137	5.112E-01
						K-40	5.699E+00
						RA-226	1.039E+00
						TH-232	8.854E-01
						U-235	1.607E-01
P11	3	3.568	1.082	4.423	0.604	Sum	8.020E+00
						CS-137	4.909E-01
						K-40	4.990E+00
						RA-226	1.156E+00
						TH-232	1.121E+00
						U-235	2.618E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
P12	4	2.673	1.451	2.700	0.616	Sum	8.337E+00
						CS-137	1.809E-01
						K-40	5.398E+00
						RA-226	1.389E+00
						TH-232	1.190E+00
						U-235	1.791E-01
P13	3	4.452	1.351	2.593	0.616	Sum	9.947E+00
						CS-137	7.311E-02
						K-40	7.436E+00
						RA-226	1.216E+00
						TH-232	1.222E+00
P14	3	2.694	0.992	2.619	0.622	Sum	4.892E+00
						CS-137	9.037E-02
						K-40	2.653E+00
						RA-226	9.521E-01
						TH-232	1.006E+00
						U-235	1.910E-01
P15	3	0.964	1.420	3.123	0.595	Sum	9.174E+00
						CS-137	6.310E-01
						K-40	6.542E+00
						RA-226	1.027E+00
						TH-232	8.065E-01
						U-235	1.671E-01
P16	-3					Sum	

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
P17	-3					Sum	
P18	-2					Sum	
P19	0	5.340	1.777	3.432	0.595	Sum	1.406E+01
						CS-137	3.199E-01
						K-40	8.740E+00
						RA-226	1.706E+00
						RU-106	1.445E+00
						TH-232	1.559E+00
						U-235	2.870E-01
P19A	9	2.360	0.965	5.520	0.654	Sum	1.389E+01
						CS-137	5.849E-01
						K-40	8.895E+00
						RA-226	1.937E+00
						TH-232	2.123E+00
						U-235	3.452E-01
P20	4	2.706	0.869	4.287	0.670	Sum	6.662E+00
						CS-137	3.466E-01
						K-40	4.112E+00
						RA-226	1.006E+00
						TH-232	1.069E+00
						U-235	1.284E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
P20A	9	2.806	0.814	3.580	0.621	Sum	1.267E+01
						CS-137	2.909E-01
						K-40	8.277E+00
						RA-226	1.960E+00
						TH-232	1.747E+00
						U-235	3.981E-01
P21	5	2.049	0.838	3.837	0.647	Sum	8.488E+00
						CS-137	1.983E-01
						K-40	5.737E+00
						RA-226	1.281E+00
						TH-232	9.906E-01
						U-235	2.807E-01
P22	2	0.392	0.882	4.566	0.680	Sum	6.870E+00
						CS-137	3.298E-01
						K-40	4.552E+00
						RA-226	1.050E+00
						TH-232	8.256E-01
						U-235	1.127E-01
P23	3	0.363	0.816	3.265	0.677	Sum	7.190E+00
						CS-137	1.249E-01
						K-40	4.921E+00
						RA-226	9.656E-01
						TH-232	1.043E+00
						U-235	1.351E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
P24	2	2.383	0.858	4.097	0.673	Sum	7.797E+00
						CS-137	3.623E-01
						K-40	5.129E+00
						RA-226	1.094E+00
						TH-232	1.109E+00
						U-235	1.030E-01
P25	2	2.040	0.734	4.182	0.670	Sum	7.685E+00
						CS-137	3.867E-01
						K-40	5.050E+00
						RA-226	1.049E+00
						TH-232	9.688E-01
						U-235	2.310E-01
P26	-1	1.498	0.710	5.698	0.651	Sum	5.591E+00
						CS-137	5.412E-01
						K-40	3.431E+00
						RA-226	7.063E-01
						TH-232	6.880E-01
						U-235	2.244E-01
P27	0	0.921	0.637	2.530	0.626	Sum	5.728E+00
						K-40	4.150E+00
						RA-226	5.240E-01
						TH-232	8.540E-01
						U-235	1.999E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
P28	0	1.440	0.682	4.454	0.663	Sum	5.749E+00
						CS-137	4.482E-01
						K-40	3.639E+00
						RA-226	9.615E-01
						TH-232	7.007E-01
P29	0	0.298	0.669	4.621	0.629	Sum	4.447E+00
						CS-137	5.609E-01
						K-40	1.994E+00
						RA-226	6.521E-01
						RU-106	5.345E-01
						TH-232	6.009E-01
						U-235	1.042E-01
P30	0	1.207	0.679	5.315	0.680	Sum	1.419E+00
						CS-137	6.136E-01
						RA-226	6.564E-01
						TH-232	1.495E-01
P31	-2	1.389	0.781	4.814	0.670	Sum	4.724E+00
						CS-137	4.948E-01
						K-40	3.267E+00
						RA-226	6.782E-01
						U-235	2.837E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
P32	-2	0.370	0.832	4.051	0.684	Sum	7.023E+00
						CS-137	5.891E-01
						K-40	4.443E+00
						RA-226	7.413E-01
						TH-232	1.099E+00
						U-235	1.507E-01
P33	-2	-0.146	0.658	2.201	0.677	Sum	3.391E+00
						CS-137	4.800E-02
						K-40	2.051E+00
						RA-226	5.889E-01
						RU-106	2.522E-01
						TH-232	3.510E-01
						U-235	1.002E-01
Q09	1	2.244	0.755	2.924	0.619	Sum	6.551E+00
						CS-137	2.763E-01
						K-40	4.268E+00
						RA-226	1.106E+00
						TH-232	7.443E-01
						U-235	1.560E-01
Q10	0	1.133	0.838	4.770	0.632	Sum	5.971E+00
						CS-137	5.425E-01
						K-40	3.857E+00
						RA-226	6.757E-01
						TH-232	7.438E-01
						U-235	1.523E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
Q11	2	1.626	1.203	5.879	0.579	Sum	1.060E+01
						CS-137	5.729E-01
						K-40	7.473E+00
						RA-226	1.206E+00
						TH-232	1.114E+00
						U-235	2.300E-01
Q12	3	2.451	0.824	4.081	0.590	Sum	9.664E+00
						CS-137	6.161E-01
						K-40	6.589E+00
						RA-226	1.141E+00
						TH-232	1.113E+00
						U-235	2.054E-01
Q13	2	3.937	1.165	5.755	0.587	Sum	9.396E+00
						CS-137	6.321E-01
						K-40	6.227E+00
						RA-226	1.169E+00
						TH-232	1.184E+00
						U-235	1.835E-01
Q14	1	2.312	0.900	3.462	0.576	Sum	6.313E+00
						CS-137	7.952E-02
						K-40	4.003E+00
						RA-226	1.097E+00
						TH-232	1.002E+00
						U-235	1.316E-01

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
Q15	2	2.516	0.745	4.500	0.576	Sum	7.093E+00
						CS-137	4.867E-01
						K-40	4.484E+00
						RA-226	1.048E+00
						TH-232	9.568E-01
						U-235	1.178E-01
Q16	2	1.691	0.962	3.655	0.590	Sum	7.326E+00
						CS-137	2.902E-01
						K-40	5.240E+00
						RA-226	8.472E-01
						TH-232	8.124E-01
						U-235	1.361E-01
Q17	2	1.212	0.690	3.494	0.599	Sum	5.834E+00
						CS-137	3.607E-01
						K-40	3.744E+00
						RA-226	7.803E-01
						TH-232	8.492E-01
						U-235	1.001E-01
Q18	3	3.293	0.870	4.673	0.584	Sum	7.447E+00
						CS-137	2.591E-01
						K-40	5.147E+00
						RA-226	8.626E-01
						TH-232	1.041E+00
						U-235	1.375E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
Q19	3	2.616	1.019	4.789	0.573	Sum	8.959E+00
						CS-137	4.376E-01
						K-40	6.122E+00
						RA-226	1.087E+00
						TH-232	1.107E+00
						U-235	2.058E-01
Q20	2	5.174	1.126	2.670	0.584	Sum	7.761E+00
						CS-137	3.680E-01
						K-40	5.578E+00
						RA-226	8.027E-01
						TH-232	8.506E-01
						U-235	1.612E-01
Q21	3	1.127	0.834	4.708	0.576	Sum	8.106E+00
						CS-137	6.847E-01
						K-40	5.334E+00
						RA-226	9.544E-01
						TH-232	1.005E+00
						U-235	1.279E-01
Q22	2	0.465	0.860	3.213	0.587	Sum	8.663E+00
						CS-137	4.551E-01
						K-40	6.061E+00
						RA-226	9.944E-01
						TH-232	8.168E-01
						U-235	3.356E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
Q23	3	3.164	0.755	4.743	0.593	Sum	6.871E+00
						CS-137	3.549E-01
						K-40	4.599E+00
						RA-226	9.526E-01
						TH-232	8.358E-01
						U-235	1.286E-01
Q24	2	2.808	0.831	5.007	0.552	Sum	9.267E+00
						CS-137	5.593E-01
						K-40	6.660E+00
						RA-226	1.054E+00
						TH-232	8.064E-01
						U-235	1.877E-01
Q25	1	1.347	0.996	2.544	0.557	Sum	7.122E+00
						CS-137	6.334E-01
						K-40	4.546E+00
						RA-226	8.185E-01
						TH-232	9.501E-01
						U-235	1.741E-01
Q26	1	2.094	0.968	3.829	0.584	Sum	9.167E+00
						AM-241	2.783E-01
						CS-137	6.900E-01
						K-40	6.469E+00
						RA-226	6.662E-01
						TH-232	8.461E-01
						U-235	2.179E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
Q27	1	4.031	0.806	5.099	0.573	Sum	6.507E+00
						CS-137	8.544E-01
						K-40	4.202E+00
						RA-226	7.667E-01
						TH-232	5.384E-01
						U-235	1.453E-01
Q28	1	2.132	0.830	5.920	0.593	Sum	4.498E+00
						CS-137	6.695E-01
						K-40	2.234E+00
						RA-226	7.566E-01
						TH-232	7.574E-01
						U-235	8.005E-02
Q29	1	1.849	0.720	4.418	0.579	Sum	2.142E+00
						CS-137	9.291E-01
						RA-226	7.019E-01
						TH-232	5.113E-01
Q30	0	0.093	0.690	2.775	0.584	Sum	4.500E+00
						CS-137	2.347E-01
						K-40	2.698E+00
						RA-226	7.771E-01
						TH-232	6.856E-01
						U-235	1.042E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
Q31	-1	0.078	0.580	1.845	0.590	Sum	4.074E+00
						K-40	2.603E+00
						RA-226	7.806E-01
						TH-232	5.668E-01
						U-235	1.236E-01
Q32	-3	0.881	0.651	2.565	0.584	Sum	4.739E+00
						CS-137	2.525E-01
						K-40	3.519E+00
						RA-226	8.323E-01
						U-235	1.351E-01
Q33	-3					Sum	
R09	0	0.729	0.771	2.561	0.632	Sum	6.414E+00
						CS-137	2.836E-01
						K-40	4.380E+00
						RA-226	8.240E-01
						TH-232	8.053E-01
						U-235	1.210E-01
R10	2	1.309	0.510	3.192	0.631	Sum	5.886E+00
						CS-137	1.679E-01
						K-40	3.891E+00
						RA-226	7.809E-01
						TH-232	9.305E-01
						U-235	1.158E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
R11	-1	2.682	0.902	3.780	0.593	Sum	5.486E+00
						AM-241	4.811E-02
						CS-137	3.876E-01
						K-40	3.391E+00
						RA-226	8.253E-01
						TH-232	6.778E-01
						U-235	1.558E-01
R12	1	4.034	0.694	3.403	0.602	Sum	7.800E+00
						CS-137	4.432E-01
						K-40	5.286E+00
						RA-226	9.591E-01
						TH-232	9.479E-01
						U-235	1.635E-01
R13	2	3.301	0.977	4.663	0.570	Sum	7.547E+00
						CS-137	4.154E-01
						K-40	4.916E+00
						RA-226	9.593E-01
						TH-232	9.774E-01
						U-235	2.792E-01
R14	2	3.760	0.752	3.031	0.593	Sum	3.683E+00
						CS-137	9.514E-02
						K-40	2.042E+00
						RA-226	7.475E-01
						TH-232	6.827E-01
						U-235	1.153E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μR/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
R15	2	2.072	0.958	3.969	0.559	Sum	7.834E+00
						CS-137	6.377E-01
						K-40	5.397E+00
						RA-226	7.187E-01
						TH-232	1.035E+00
						U-235	4.523E-02
R16	2	0.567	1.049	3.046	0.576	Sum	8.185E+00
						CS-137	1.757E-01
						K-40	6.151E+00
						RA-226	8.866E-01
						TH-232	7.812E-01
						U-235	1.905E-01
R17	1					Sum	
R18	-1					Sum	
R19	2	2.088	1.544	2.670	0.584	Sum	6.504E+00
						CS-137	2.630E-01
						K-40	4.247E+00
						RA-226	9.019E-01
						TH-232	8.767E-01
						U-235	2.152E-01

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
R20	3	1.913	0.424	1.715	0.343	Sum	1.227E+01
						AM-241	1.551E-01
						CS-137	1.713E-01
						K-40	8.697E+00
						RA-226	1.438E+00
						TH-232	1.580E+00
						U-235	2.246E-01
R20A	4	2.030	0.450	2.691	0.349	Sum	1.227E+01
						CS-137	1.968E-01
						K-40	7.863E+00
						RA-226	1.989E+00
						TH-232	1.865E+00
						U-235	3.526E-01
R21	4	0.486	0.898	2.122	0.579	Sum	8.030E+00
						CS-137	1.893E-01
						K-40	5.194E+00
						RA-226	1.170E+00
						TH-232	1.300E+00
						U-235	1.762E-01
R22	1	1.725	0.982	3.780	0.593	Sum	7.281E+00
						CS-137	4.209E-01
						K-40	4.984E+00
						RA-226	9.402E-01
						TH-232	7.908E-01
						U-235	1.454E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
R23	2	2.608	0.877	2.832	0.554	Sum	6.600E+00
						CS-137	4.656E-02
						K-40	4.675E+00
						RA-226	8.950E-01
						TH-232	8.634E-01
						U-235	1.204E-01
R24	3	0.411	0.761	4.822	0.565	Sum	5.261E+00
						CS-137	4.219E-01
						K-40	3.144E+00
						RA-226	7.376E-01
						TH-232	8.740E-01
						U-235	8.301E-02
R25	1	2.727	0.651	3.309	0.567	Sum	5.334E+00
						CS-137	1.058E-01
						K-40	3.093E+00
						RA-226	9.128E-01
						RU-106	2.651E-01
						TH-232	8.066E-01
						U-235	1.512E-01
R26	3	1.071	0.792	2.910	0.590	Sum	4.975E+00
						CS-137	1.114E-01
						K-40	3.040E+00
						RA-226	8.483E-01
						TH-232	8.364E-01
						U-235	1.389E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
R27	2	3.696	0.804	4.251	0.584	Sum	4.904E+00
						CS-137	3.438E-01
						K-40	3.072E+00
						RA-226	7.361E-01
						TH-232	6.640E-01
						U-235	8.765E-02
R28	0	0.095	0.700	2.710	0.593	Sum	1.385E+00
						CS-137	3.827E-01
						RA-226	5.875E-01
						TH-232	4.148E-01
R29	0	0.941	0.696	5.331	0.587	Sum	4.413E+00
						CS-137	7.181E-01
						K-40	2.185E+00
						RA-226	7.161E-01
						TH-232	6.839E-01
						U-235	1.102E-01
R30	-2	0.503	0.931	4.014	0.596	Sum	5.795E+00
						CS-137	8.139E-01
						K-40	3.820E+00
						RA-226	6.107E-01
						TH-232	4.417E-01
						U-235	1.084E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
R31	-2	1.178	0.872	2.459	0.584	Sum	5.324E+00
						CE-144	1.617E-01
						CS-137	4.948E-01
						K-40	3.303E+00
						RA-226	5.314E-01
						TH-232	6.829E-01
						U-235	1.498E-01
R32	-3	2.335	0.785	2.091	0.570	Sum	4.605E+00
						CS-137	6.728E-01
						K-40	2.442E+00
						RA-226	6.124E-01
						TH-232	7.512E-01
						U-235	1.269E-01
S09	3	0.893	0.803	3.655	0.670	Sum	5.640E+00
						CS-137	2.873E-01
						K-40	3.078E+00
						RA-226	1.091E+00
						TH-232	7.697E-01
						U-235	4.136E-01
S10	1	1.642	0.923	4.650	0.677	Sum	6.268E+00
						CS-137	5.084E-01
						K-40	4.059E+00
						RA-226	8.532E-01
						TH-232	7.119E-01
						U-235	1.360E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
S11	0	0.929	0.836	3.233	0.670	Sum	5.210E+00
						CS-137	3.457E-01
						K-40	2.985E+00
						RA-226	9.003E-01
						TH-232	8.757E-01
						U-235	1.028E-01
S12	0	0.170	1.533	7.518	0.667	Sum	9.843E+00
						CS-137	1.950E+00
						K-40	5.837E+00
						RA-226	9.791E-01
						TH-232	9.076E-01
						U-235	1.689E-01
S13	2	1.460	1.010	5.447	0.670	Sum	8.040E+00
						CS-137	5.276E-01
						K-40	5.314E+00
						RA-226	1.003E+00
						TH-232	9.901E-01
						U-235	2.056E-01
S14	-1	1.008	0.567	2.434	0.654	Sum	2.699E+00
						CS-137	2.292E-01
						K-40	1.410E+00
						RA-226	4.874E-01
						TH-232	4.380E-01
						U-235	1.349E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
S15	-1	2.076	0.603	3.705	0.660	Sum	4.936E+00
						CS-137	6.108E-02
						K-40	3.067E+00
						RA-226	8.298E-01
						TH-232	8.422E-01
						U-235	1.362E-01
S16	2	1.339	0.753	4.393	0.670	Sum	6.682E+00
						CS-137	2.605E-01
						K-40	4.605E+00
						RA-226	9.118E-01
						TH-232	6.950E-01
						U-235	2.096E-01
S17	2	2.076	0.849	3.991	0.673	Sum	6.419E+00
						CS-137	2.880E-01
						K-40	4.245E+00
						RA-226	8.397E-01
						TH-232	8.606E-01
						U-235	1.859E-01
S18	2	2.121	0.763	3.273	0.657	Sum	6.883E+00
						CS-137	3.177E-01
						K-40	4.789E+00
						RA-226	8.629E-01
						TH-232	7.858E-01
						U-235	1.277E-01

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
S19	3	0.892	0.948	4.675	0.683	Sum	7.350E+00
						CS-137	3.771E-01
						K-40	4.707E+00
						RA-226	1.003E+00
						TH-232	1.069E+00
						U-235	1.943E-01
S20	2	0.854	0.907	2.305	0.654	Sum	6.245E+00
						CS-137	7.446E-02
						K-40	4.233E+00
						RA-226	8.118E-01
						TH-232	9.963E-01
						U-235	1.294E-01
S21	3	2.170	1.318	4.076	0.686	Sum	1.308E+01
						CS-137	8.566E-01
						K-40	8.820E+00
						RA-226	1.564E+00
						TH-232	1.584E+00
						U-235	2.594E-01
S22	3	1.133	1.204	2.534	0.690	Sum	8.356E+00
						CS-137	6.302E-01
						K-40	5.608E+00
						RA-226	9.970E-01
						RU-106	1.656E-01
						TH-232	8.173E-01
						U-235	1.384E-01

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
S23	1	2.803	0.917	3.113	0.680	Sum	5.777E+00
						CS-137	1.312E-01
						K-40	4.062E+00
						RA-226	7.894E-01
						TH-232	6.969E-01
						U-235	9.746E-02
S24	2	0.428	0.729	0.986	0.700	Sum	5.662E+00
						K-40	4.160E+00
						RA-226	8.560E-01
						TH-232	6.461E-01
S25	3	3.806	1.245	3.926	0.697	Sum	5.559E+00
						CS-137	1.696E-01
						K-40	3.678E+00
						RA-226	8.403E-01
						TH-232	7.026E-01
						U-235	1.690E-01
S26	0	0.496	0.844	3.716	0.697	Sum	5.214E+00
						CS-137	1.764E-01
						K-40	3.388E+00
						RA-226	8.156E-01
						TH-232	6.488E-01
						U-235	1.848E-01
S27	0	0.738	0.785	2.266	0.704	Sum	1.473E+00
						CS-137	2.298E-01
						RA-226	5.368E-01
						TH-232	7.062E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
S28	0	1.504	0.752	3.009	0.704	Sum	3.997E+00
						CS-137	5.522E-02
						K-40	2.416E+00
						RA-226	6.371E-01
						TH-232	7.620E-01
						U-235	1.269E-01
S29	1	1.017	0.786	2.281	0.676	Sum	1.605E+00
						RA-226	7.882E-01
						TH-232	6.604E-01
						U-235	1.565E-01
T10	0	1.855	1.056	5.332	0.599	Sum	6.786E+00
						CS-137	4.003E-01
						K-40	4.731E+00
						RA-226	8.927E-01
						TH-232	7.087E-01
						U-235	5.330E-02
T11	0	0.989	0.685	6.608	0.785	Sum	5.283E+00
						CS-137	3.253E-01
						K-40	3.453E+00
						RA-226	7.825E-01
						TH-232	5.921E-01
						U-235	1.304E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
T12	2	0.447	1.006	5.268	0.770	Sum	6.045E+00
						CS-137	3.792E-01
						K-40	3.779E+00
						RA-226	8.817E-01
						TH-232	8.414E-01
						U-235	1.638E-01
T13	2	4.291	1.755	5.180	0.820	Sum	1.185E+01
						CS-137	9.098E-01
						K-40	8.842E+00
						RA-226	8.311E-01
						TH-232	1.022E+00
						U-235	2.425E-01
T14	0	2.207	1.241	3.036	0.824	Sum	9.357E+00
						BA-133	3.223E-02
						CS-137	6.192E-01
						K-40	6.798E+00
						RA-226	9.644E-01
						TH-232	8.437E-01
						U-235	9.902E-02
T15	2	6.382	1.435	4.761	0.804	Sum	8.113E+00
						CS-137	4.440E-01
						K-40	5.696E+00
						RA-226	9.438E-01
						TH-232	9.166E-01
						U-235	1.122E-01

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
T16	2	2.891	1.369	3.758	0.816	Sum	6.592E+00
						BA-133	2.925E-02
						CS-137	2.588E-01
						K-40	4.412E+00
						RA-226	9.386E-01
						TH-232	8.145E-01
						U-235	1.388E-01
T17	-2					Sum	
T18	3	4.734	1.065	2.948	0.800	Sum	5.001E+00
						CS-137	1.815E-01
						K-40	3.111E+00
						RA-226	7.699E-01
						TH-232	7.484E-01
						U-235	1.906E-01
T18A	11	1.277	0.718	3.961	0.792	Sum	6.484E+00
						CS-137	1.381E-01
						K-40	4.557E+00
						RA-226	9.096E-01
						TH-232	7.653E-01
						U-235	1.145E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
T19	2	1.737	0.977	2.805	0.820	Sum	6.929E+00
						CS-137	3.504E-01
						K-40	4.465E+00
						RA-226	1.055E+00
						TH-232	9.110E-01
						U-235	1.479E-01
T20	3	0.363	0.816	2.507	0.828	Sum	7.947E+00
						K-40	6.144E+00
						RA-226	8.548E-01
						TH-232	7.478E-01
						U-235	2.002E-01
T21	3	1.886	1.060	3.667	0.796	Sum	7.826E+00
						CS-137	2.664E-01
						K-40	5.651E+00
						RA-226	9.381E-01
						TH-232	8.302E-01
						U-235	1.401E-01
T22	2	0.639	0.821	2.126	0.808	Sum	5.671E+00
						CS-137	1.153E-01
						K-40	4.091E+00
						RA-226	7.025E-01
						TH-232	6.819E-01
						U-235	8.011E-02

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
T23	2	0.655	0.842	3.098	0.812	Sum	5.587E+00
						CS-137	1.595E-01
						K-40	3.803E+00
						RA-226	7.813E-01
						TH-232	7.296E-01
						U-235	1.133E-01
T24	1	0.353	0.795	1.410	0.824	Sum	5.630E+00
						CS-134	2.217E-02
						CS-137	4.547E-02
						K-40	3.852E+00
						RA-226	8.558E-01
						TH-232	7.091E-01
						U-235	1.452E-01
T25	3	1.035	0.717	1.564	0.792	Sum	5.145E+00
						CS-137	1.295E-01
						K-40	3.551E+00
						RA-226	7.395E-01
						TH-232	5.917E-01
						U-235	1.333E-01
T26	0	1.271	0.715	1.913	0.808	Sum	4.400E+00
						CS-137	1.171E-01
						K-40	2.691E+00
						RA-226	7.575E-01
						TH-232	7.060E-01
						U-235	1.283E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
T27	2	1.029	0.712	1.595	0.808	Sum	3.856E+00
						CS-137	3.534E-01
						K-40	2.471E+00
						RA-226	9.456E-01
						U-235	8.562E-02
T28	-1	1.604	0.759	3.597	0.828	Sum	8.753E+00
						CS-137	2.855E-01
						K-40	6.261E+00
						RA-226	1.098E+00
						TH-232	9.236E-01
						U-235	1.844E-01
U11	0	0.393	0.726	3.652	0.573	Sum	5.423E+00
						CS-137	5.720E-01
						K-40	2.842E+00
						RA-226	9.970E-01
						TH-232	8.810E-01
						U-235	1.315E-01
U12	0	4.009	0.957	3.428	0.570	Sum	6.428E+00
						CS-137	3.520E-01
						K-40	4.195E+00
						RA-226	1.015E+00
						TH-232	8.663E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
U13	2	1.678	0.795	2.309	0.763	Sum	7.318E+00
						CS-137	4.655E-01
						K-40	4.913E+00
						RA-226	7.953E-01
						TH-232	9.866E-01
						U-235	1.579E-01
U14	-2	2.757	1.305	3.933	0.808	Sum	2.054E+00
						CS-137	5.012E-01
						RA-226	8.183E-01
						TH-232	6.120E-01
						U-235	1.221E-01
U15	2	1.681	0.945	4.640	0.820	Sum	7.874E+00
						CS-137	6.663E-01
						K-40	4.996E+00
						RA-226	1.142E+00
						TH-232	8.638E-01
						U-235	2.061E-01
U16	2	2.062	1.159	4.571	0.808	Sum	6.904E+00
						CS-137	6.160E-01
						K-40	4.462E+00
						RA-226	8.542E-01
						TH-232	8.687E-01
						U-235	1.035E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
U17	2	0.656	0.843	2.545	0.773	Sum	8.395E+00
						CS-137	3.939E-01
						K-40	6.146E+00
						RA-226	9.047E-01
						TH-232	8.252E-01
						U-235	1.249E-01
U18	-1	3.236	1.165	3.753	0.792	Sum	6.381E+00
						CS-137	1.092E-01
						K-40	4.510E+00
						RA-226	6.678E-01
						TH-232	7.630E-01
						U-235	3.305E-01
U19	0	2.575	1.053	2.148	0.777	Sum	6.720E+00
						CS-137	4.713E-01
						K-40	4.386E+00
						RA-226	7.287E-01
						TH-232	8.391E-01
						U-235	2.948E-01
U20	0	1.827	1.027	4.091	0.777	Sum	5.552E+00
						CS-137	7.684E-01
						K-40	3.312E+00
						RA-226	6.275E-01
						TH-232	7.077E-01
						U-235	1.365E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
U21	0	1.403	0.971	4.211	0.800	Sum	9.323E+00
						CS-137	6.231E-01
						K-40	6.583E+00
						RA-226	9.631E-01
						TH-232	9.681E-01
						U-235	1.855E-01
V12	-2	2.007	0.722	3.336	0.792	Sum	5.523E+00
						CS-137	6.816E-01
						K-40	2.952E+00
						RA-226	8.055E-01
						TH-232	8.288E-01
						U-235	2.551E-01
V13	1	0.109	0.980	4.400	0.796	Sum	8.245E+00
						CS-137	6.531E-01
						K-40	5.945E+00
						RA-226	7.975E-01
						TH-232	7.280E-01
						U-235	1.215E-01
V14	1	1.734	0.975	4.980	0.788	Sum	5.086E+00
						CS-137	4.363E-01
						K-40	3.158E+00
						RA-226	7.177E-01
						TH-232	6.646E-01
						U-235	1.095E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
V15	2	3.808	1.223	3.687	0.824	Sum	6.891E+00
						CS-137	4.799E-01
						K-40	4.727E+00
						RA-226	8.447E-01
						TH-232	7.149E-01
						U-235	1.244E-01
V16	-1					Sum	
V17	0	2.105	0.861	4.170	0.792	Sum	5.251E+00
						CS-137	6.075E-01
						K-40	3.249E+00
						RA-226	6.313E-01
						TH-232	6.317E-01
						U-235	1.317E-01
V18	2	2.584	0.830	3.650	0.816	Sum	6.165E+00
						CS-137	3.621E-01
						K-40	3.762E+00
						RA-226	1.031E+00
						TH-232	8.983E-01
						U-235	1.115E-01
V19	2	0.336	0.757	4.358	0.808	Sum	6.242E+00
						CS-137	8.885E-01
						K-40	3.633E+00
						RA-226	8.487E-01
						TH-232	7.767E-01
						U-235	9.503E-02

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
V20	0	0.090	0.811	4.252	0.808	Sum	1.888E+00
						CS-137	5.422E-01
						RA-226	6.097E-01
						TH-232	5.425E-01
						U-235	1.933E-01
V21	0	1.408	1.267	5.133	0.796	Sum	6.259E+00
						CS-137	4.030E-01
						K-40	4.115E+00
						RA-226	8.533E-01
						TH-232	7.643E-01
						U-235	1.235E-01
V22	0	-0.267	1.203	2.684	0.816	Sum	6.605E+00
						CS-137	5.187E-01
						K-40	4.547E+00
						RA-226	7.984E-01
						TH-232	6.166E-01
						U-235	1.239E-01
V23	0	0.900	0.809	2.128	0.770	Sum	3.852E+00
						CS-137	7.177E-01
						K-40	1.514E+00
						RA-226	8.193E-01
						TH-232	6.617E-01
						U-235	1.396E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
V24	2	-0.203	0.913	1.781	0.796	Sum	5.976E+00
						CS-137	2.828E-01
						K-40	3.704E+00
						RA-226	1.034E+00
						TH-232	8.222E-01
						U-235	1.332E-01
V25	2	1.166	0.807	2.819	0.824	Sum	6.017E+00
						AM-241	6.492E-02
						CS-137	4.179E-01
						K-40	3.751E+00
						RA-226	9.132E-01
						TH-232	7.036E-01
						U-235	1.666E-01
W13	-1	0.711	0.756	3.254	0.711	Sum	5.426E+00
						CS-137	9.702E-02
						K-40	3.403E+00
						RA-226	8.960E-01
						TH-232	8.782E-01
						U-235	1.515E-01
W14	1	2.437	1.219	3.753	0.704	Sum	9.409E+00
						CS-137	6.685E-01
						K-40	6.399E+00
						RA-226	9.059E-01
						RU-106	4.518E-01
						TH-232	8.680E-01
						U-235	1.156E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
W15	3	3.598	0.956	4.765	0.667	Sum	4.655E+00
						CS-137	3.547E-01
						K-40	1.844E+00
						RA-226	8.659E-01
						TH-232	1.347E+00
						U-235	2.434E-01
W16	0	6.603	3.303	4.303	0.673	Sum	9.751E+00
						CS-137	4.213E-01
						K-40	7.112E+00
						RA-226	1.024E+00
						TH-232	1.042E+00
						U-235	1.513E-01
W17	0	3.790	0.921	3.747	0.683	Sum	5.335E+00
						CS-137	5.139E-01
						K-40	3.110E+00
						RA-226	7.525E-01
						RU-106	2.308E-01
						TH-232	6.233E-01
						U-235	1.048E-01
W18	0	0.257	1.092	3.907	0.693	Sum	4.388E+00
						CS-137	5.644E-01
						K-40	2.554E+00
						RA-226	5.981E-01
						TH-232	5.792E-01
						U-235	9.187E-02

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
W19	0	3.703	1.211	2.064	0.707	Sum	5.141E+00
						CS-137	3.495E-01
						K-40	3.503E+00
						RA-226	5.615E-01
						TH-232	6.396E-01
						U-235	8.734E-02
W20	1	2.215	0.819	4.778	0.683	Sum	5.618E+00
						CS-137	4.872E-01
						K-40	3.827E+00
						RA-226	5.829E-01
						TH-232	5.929E-01
						U-235	1.281E-01
W21	0	1.339	0.670	3.965	0.704	Sum	2.123E+00
						AM-241	2.395E-01
						CS-137	2.863E-01
						RA-226	5.584E-01
						TH-232	5.779E-01
						U-235	4.613E-01
W22	0	0.999	0.772	4.542	0.711	Sum	5.011E+00
						CS-137	4.560E-01
						K-40	3.224E+00
						RA-226	7.150E-01
						TH-232	4.984E-01
						U-235	1.177E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
W23	1	2.118	0.783	3.898	0.711	Sum	4.902E+00
						CS-137	5.895E-01
						K-40	2.508E+00
						RA-226	9.297E-01
						TH-232	8.743E-01
X13	-2	-0.265	1.194	5.965	0.824	Sum	8.433E+00
						CS-137	8.140E-01
						K-40	5.327E+00
						RA-226	1.058E+00
						TH-232	1.022E+00
						U-235	2.121E-01
X14	2	0.284	2.557	6.906	0.820	Sum	1.393E+01
						CS-137	1.384E+00
						K-40	1.016E+01
						RA-226	1.157E+00
						TH-232	1.040E+00
						U-235	1.901E-01
X15	-2					Sum	
X16	1	0.803	1.032	2.750	0.804	Sum	6.564E+00
						CS-137	1.697E-01
						K-40	4.759E+00
						RA-226	8.195E-01
						TH-232	6.295E-01
						U-235	1.861E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
X17	1	1.292	0.894	3.023	0.792	Sum	8.403E+00
						CS-137	3.053E-01
						K-40	5.876E+00
						RA-226	8.532E-01
						TH-232	7.960E-01
						U-235	5.721E-01
X18	0	-0.211	0.951	2.445	0.808	Sum	5.797E+00
						CS-137	8.882E-01
						K-40	2.910E+00
						RA-226	8.652E-01
						TH-232	9.688E-01
						U-235	1.645E-01
X19	0	0.384	0.864	2.603	0.824	Sum	5.503E+00
						CS-137	2.935E-01
						K-40	3.567E+00
						RA-226	7.599E-01
						TH-232	7.675E-01
						U-235	1.150E-01
X20	-1	2.439	0.645	1.602	0.812	Sum	2.710E+00
						CS-137	8.499E-02
						K-40	1.130E+00
						RA-226	6.989E-01
						TH-232	6.714E-01
						U-235	1.249E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
X21	-1	0.876	1.215	2.903	0.824	Sum	5.363E+00
						CS-137	4.431E-01
						K-40	3.430E+00
						RA-226	7.366E-01
						TH-232	6.353E-01
						U-235	1.183E-01
X22	-2	1.904	1.509	2.778	0.848	Sum	7.075E+00
						CS-137	6.708E-01
						K-40	4.519E+00
						RA-226	1.070E+00
						TH-232	6.713E-01
						U-235	1.443E-01
Y14	0	0.609	1.352	2.251	0.848	Sum	7.448E+00
						CS-137	3.431E-01
						K-40	5.095E+00
						RA-226	1.036E+00
						TH-232	8.082E-01
						U-235	1.654E-01
Y15	0	1.076	1.493	3.552	0.857	Sum	6.506E+00
						CS-137	4.950E-01
						K-40	4.393E+00
						RA-226	7.548E-01
						TH-232	7.754E-01
						U-235	8.779E-02

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
Y16	0	0.212	1.178	1.505	0.844	Sum	5.054E+00
						CS-137	2.723E-01
						K-40	3.052E+00
						RA-226	8.098E-01
						TH-232	8.038E-01
						U-235	1.165E-01
Z14	-1	1.267	1.757	4.105	0.861	Sum	6.949E+00
						CS-137	4.833E-01
						K-40	4.797E+00
						RA-226	7.292E-01
						TH-232	7.987E-01
						U-235	1.404E-01
Z15	-3					Sum	
Z16	1	-0.080	0.888	1.112	0.865	Sum	5.809E+00
						CS-137	2.972E-01
						K-40	3.533E+00
						RA-226	8.548E-01
						TH-232	9.368E-01
						U-235	1.875E-01
Z17	-2	-0.083	0.919	3.141	0.861	Sum	5.845E+00
						CS-137	3.933E-01
						K-40	3.789E+00
						RA-226	8.305E-01
						TH-232	7.197E-01
						U-235	1.130E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
Z18	-2	1.244	0.690	0.143	0.865	Sum	3.674E+00
						CS-137	3.955E-01
						K-40	1.754E+00
						RA-226	9.015E-01
						TH-232	5.222E-01
						U-235	1.012E-01
Z19	-2	0.139	0.773	1.308	0.852	Sum	4.300E+00
						CS-137	2.569E-01
						K-40	2.708E+00
						RA-226	6.854E-01
						TH-232	5.327E-01
						U-235	1.167E-01
Z20	-2	1.496	0.830	2.606	0.861	Sum	5.209E+00
						CS-137	2.790E-01
						K-40	3.205E+00
						RA-226	9.276E-01
						TH-232	6.925E-01
						U-235	1.045E-01
Z21	-1	1.364	1.081	3.772	0.812	Sum	3.980E+00
						CS-137	6.214E-01
						K-40	2.242E+00
						RA-226	6.156E-01
						TH-232	4.165E-01
						U-235	8.469E-02

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
		Alpha		Beta		Gamma (Sum)	
Minimum	-4	-1.449	0.323	-0.033	0.343	3.860E-01	
Maximum	11	8.522	4.121	18.117	0.870	1.920E+01	
Average	1	2.019	1.181	3.699	0.682	7.108E+00	

10-Jul-97

FIELD TECHNICAL SUPPORT DATA

LOCATION

SOIL

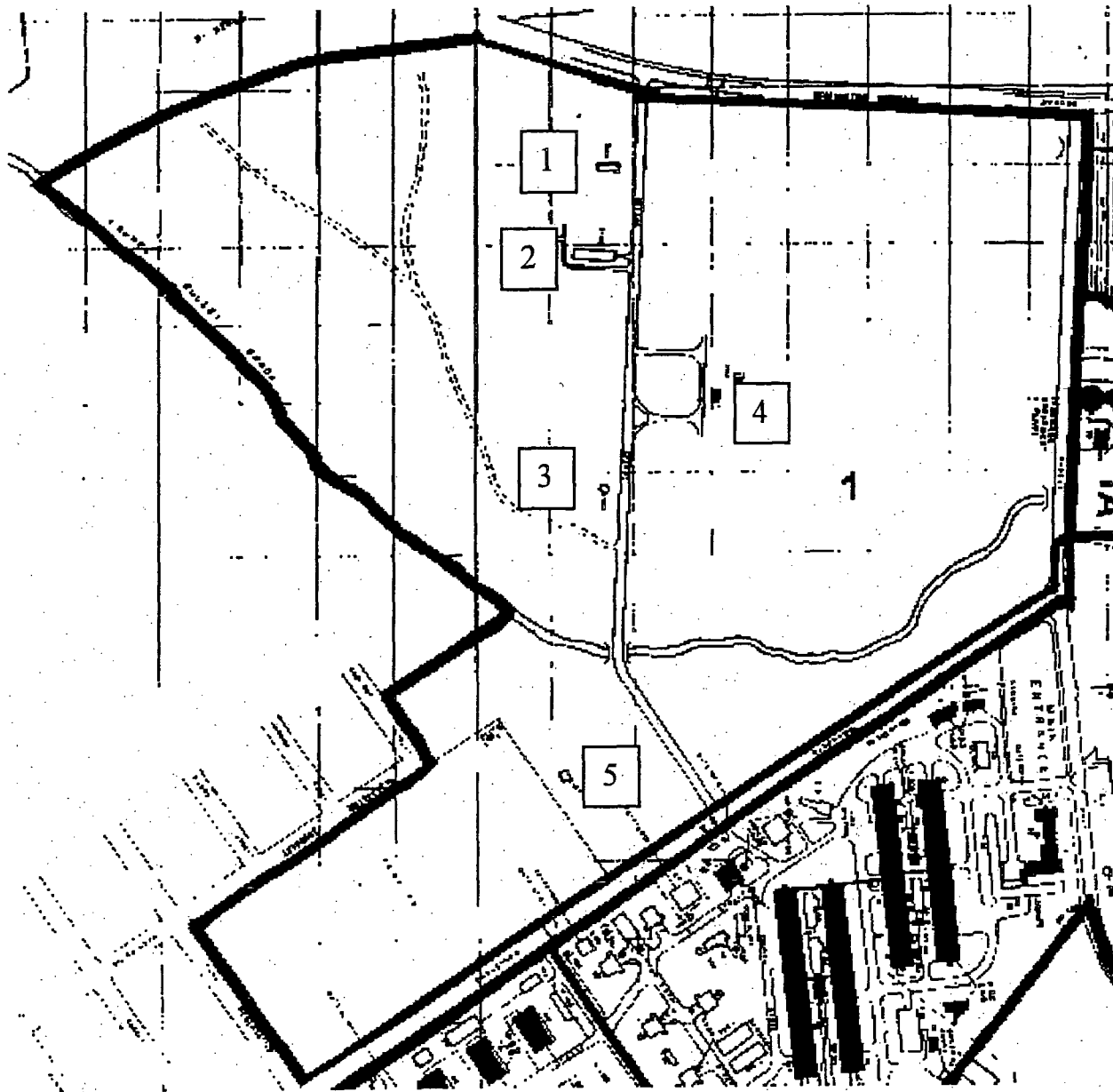
ZONE: 1

SUBZONE: N/A

FIELD SURVEY

GRIDS	LEAD TECH	SURVEY DATE	INST #	PROBE #	ALPHA			BETA			GAMMA	PROBE AREA
					BKG	MDA (dpm/100cm ²)	EFF. %	BKG	MDA (dpm/100cm ²)	EFF. %	BKG (μR/hr)	
E14 - E21	CONNOLLY	21-Aug-96	127410								8	N/A
E22 - F28	CONNOLLY	22-Aug-96	127410								8	N/A
G09 - G20	MILLER	23-Aug-96	131265								8	N/A
I06 - I28	CONNOLLY	23-Aug-96	127410								8	N/A
H09 - H26	GATES	23-Aug-96	131280								8	N/A
G21 - K28	MILLER	26-Aug-96	131265								8	N/A
I29 - L24	CONNOLLY	26-Aug-96	127410								8	N/A
J09 - J21	GATES	26-Aug-96	131280								8	N/A
K29 - N18A	FINCHUM	27-Aug-96	131265								8	N/A
L25 - O19	CONNOLLY	27-Aug-96	127410								8	N/A
J22 - M34	GATES	27-Aug-96	131280								8	N/A
N19 - R14	FINCHUM	28-Aug-96	131265								8	N/A
O20 - Q14	CONNOLLY	28-Aug-96	127410								8	N/A
P08 - P29	GATES	28-Aug-96	131280								8	N/A
Q15 - Q30	CONNOLLY	29-Aug-96	127410								8	N/A
R15 - R32	FINCHUM	29-Aug-96	131265								8	N/A
A38 - S29	GATES	29-Aug-96	131280								8	N/A
ALN2 - AL06	FINCHUM	30-Aug-96	131265								8	N/A

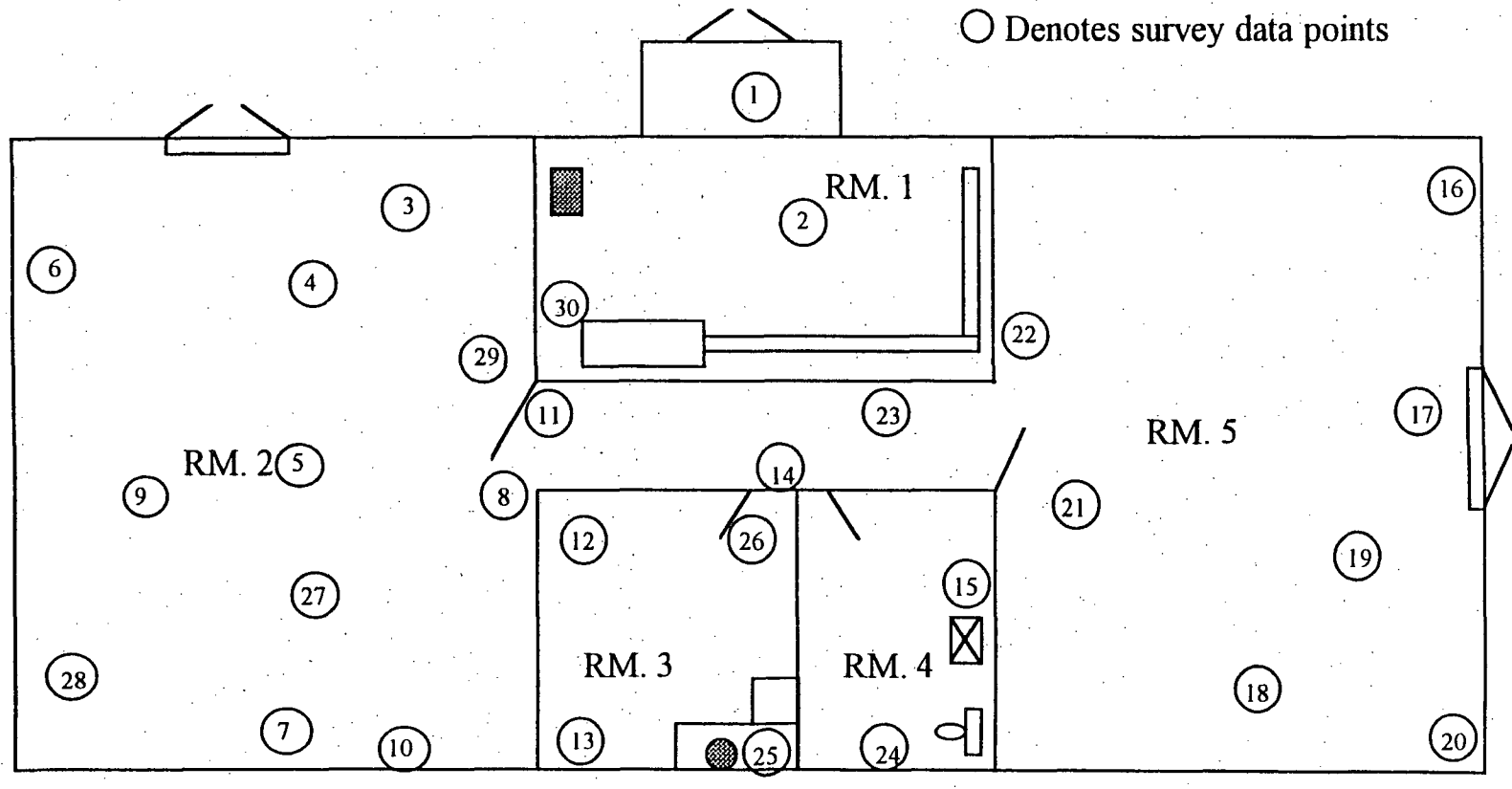
GRIDS	LEAD TECH	SURVEY DATE	INST #	PROBE #	ALPHA			BETA			GAMMA	PROBE AREA
					BKG	MDA (dpm/100cm ²)	EFF. %	BKG	MDA (dpm/100cm ²)	EFF. %	BKG (μR/hr)	
T10 - T28	GATES	30-Aug-96	131280								8	N/A
Q31 - AF10	CONNOLLY	30-Aug-96	127410								8	N/A
AJ00 - AO01	MILLER	03-Sep-96	131265								8	N/A
AF11 - AH11	CONNOLLY	03-Sep-96	127410								8	N/A
U11 - U21	GATES	03-Sep-96	131280								8	N/A
AI01 - AI10	FINCHUM	04-Sep-96	131265								8	N/A
V12 - V17	GATES	04-Sep-96	131280								8	N/A
V18 - V25	GATES	05-Sep-96	131280								8	N/A
AD08 - AD17	FINCHUM	05-Sep-96	131265								8	N/A
W13 - W23	GATES	09-Sep-96	131280								8	N/A
X13 - Y16	GATES	10-Sep-96	131280								8	N/A
AA10 - AA16	CONNOLLY	11-Sep-96	127410								8	N/A
AB11 - Z21	GATES	11-Sep-96	131280								8	N/A
AA08 - AA19	CONNOLLY	12-Sep-96	127410								8	N/A
AB08 - AB10	GATES	12-Sep-96	131280								8	N/A
D17 - D20	GATES	16-Sep-96	131280								8	N/A
AE14 - AF14	CONNOLLY	03-Oct-96	127410								8	N/A
AC09 - AC19	GATES	03-Oct-96	131280								8	N/A



Building locations in Farmhouse Area

- | | |
|---------|---------|
| 1. 9111 | 4. 9127 |
| 2. 9113 | 5. 9087 |
| 3. 9126 | |

Bldg.9111



Not to scale

08-Jul-97

RADIOLOGICAL SURVEY DATA REPORT

LOCATION

ZONE: 1 SUBZONE: N/A

BUILDING: 9111 ROOM: ALL

All data on this report is background corrected. Negative values in the report are calculated activities that were below measured background.

Grids	GAMMA Field (μ R/hr)	ALPHA		BETA		LSC
		Lab dpm/100cm ²	Field dpm/100cm ²	Lab dpm/100cm ²	Field dpm/100cm ²	Lab dpm/100cm ²
R01	-1	0.522	0.0	-0.425	150.6	-4.09
R02	-1	-0.851	5.6	-0.425	43.0	0.50
R03	0	0.247	0.0	-0.637	-21.5	-0.54
R04	0	-0.577	0.0	0.425	38.7	-6.15
R05	0	-0.027	2.8	0.637	-60.2	-2.00
R06	0	-0.577	-2.8	0.212	-17.2	0.00
R07	0	-0.577	-2.8	0.637	107.6	-1.91
R08	0	-0.577	2.8	-0.637	12.9	0.00
R09	1	-0.851	-2.8	0.425	25.8	-9.10
R10	0	-0.302	5.6	0.000	-318.4	-7.20
R11	0	-0.577	2.8	0.637	-99.0	-3.43
R12	-1	-1.126	0.0	-0.212	-262.5	-9.90
R13	-1	-0.851	0.0	-0.425	-129.1	-0.97
R14	-2	-1.126	0.0	0.212	-154.9	-5.37
R15	-1	-0.302	0.0	0.000	-279.7	3.80
R16	-1	-0.851	-2.8	0.212	-176.4	-8.23
R17	-1	-0.851	-2.8	0.212	-51.6	-1.51
R18	-1	-0.302	2.8	-0.425	-12.9	-7.58

Grids	GAMMA	ALPHA		BETA		LSC
	Field ($\mu\text{R/hr}$)	Lab dpm/100cm ²	Field dpm/100cm ²	Lab dpm/100cm ²	Field dpm/100cm ²	Lab dpm/100cm ²
R19	-1	-0.577	0.0	-2.123	-124.8	-8.12
R20	0	-0.027	0.0	-1.061	-47.3	-3.57
R21	0	-0.851	0.0	-0.637	12.9	-9.35
R22	0	-0.851	0.0	-2.123	-176.4	0.96
R23	-1	-0.851	-2.8	-0.425	-180.7	-3.93
R24	-1	-0.302	2.8	-0.212	-223.8	4.20
R25	-1	0.247	0.0	1.274	-176.4	-10.22
R26	-1	-0.851	-2.8	0.637	-107.6	-0.94
R27	0	-0.302	0.0	-0.849	38.7	0.99
R28	0	-0.577	2.8	-0.637	-25.8	1.54
R29	0	0.522	-2.8	-1.698	-146.3	-5.09
R30	-1	-0.302	2.8	0.849	0.0	-2.11

08-Jul-97

LABORATORY TECHNICAL SUPPORT DATA

LOCATION

ZONE: 1 SUBZONE: N/A
BUILDING: 9111 ROOM: ALL

COUNTING LAB

GRIDS	PROCESSED DATE	ALPHA			BETA			LSC
		BKG	MDA (dpm/100cm ²)	EFF. %	BKG	MDA (dpm/100cm ²)	EFF. %	BKG (cpm)
R01 - R30	10-Jan-97	1.126 dpm/100cm ² (0.410 cpm)	2.618	36.4	4.670 dpm/100cm ² (2.200 cpm)	3.935	47.1	
R01 - R30	02-Dec-96							16.40

08-Jul-97

FIELD TECHNICAL SUPPORT DATA

LOCATION

ZONE:	1	SUBZONE:	N/A
BUILDING:	9111	ROOM:	ALL

FIELD SURVEY

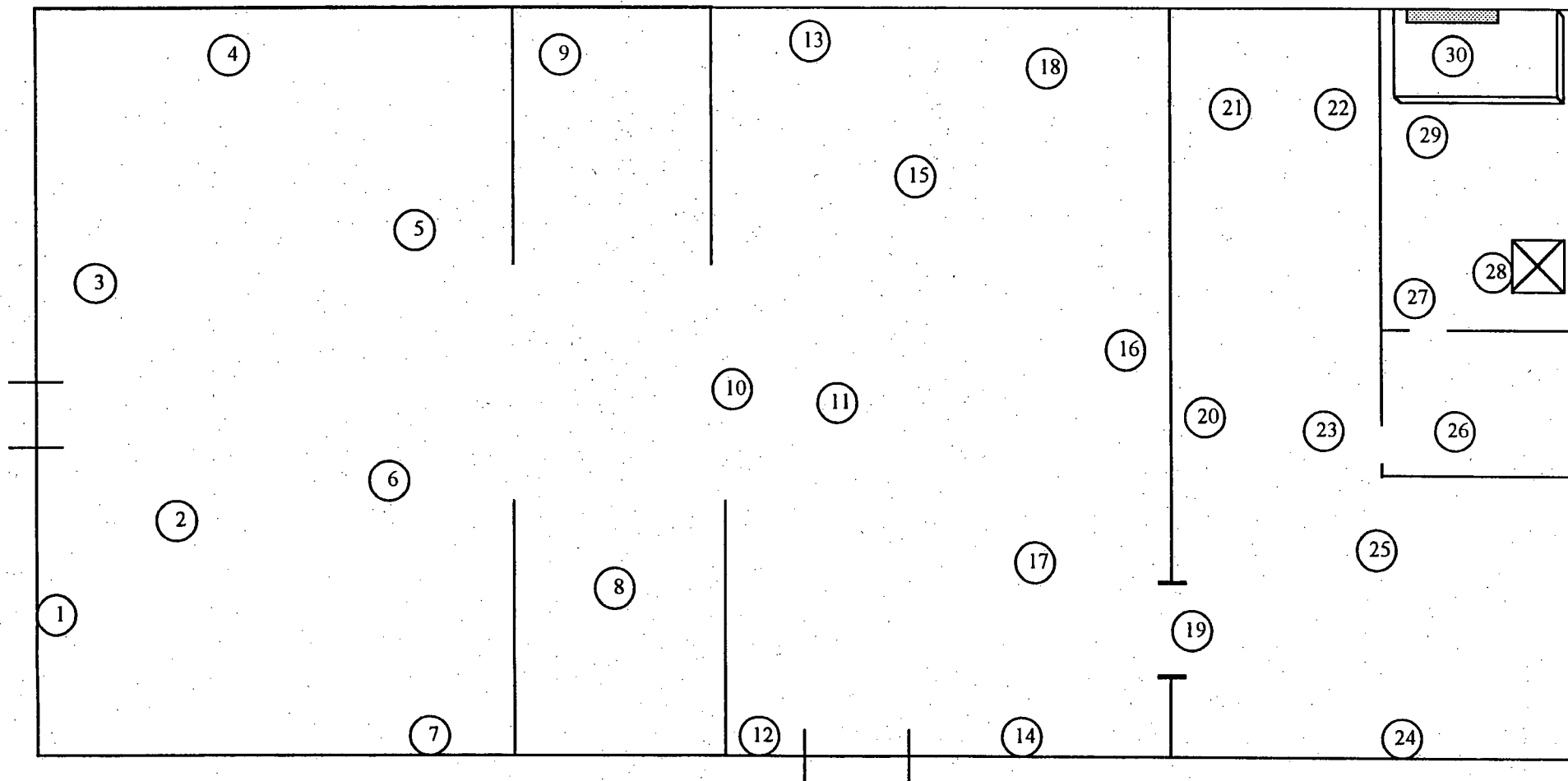
GRIDS	LEAD TECH	SURVEY DATE	INST #	PROBE #	ALPHA			BETA			GAMMA	PROBE AREA
					BKG	MDA	EFF.	BKG	MDA	EFF.	BKG	
					(dpm/100cm ²)	(dpm/100cm ²)	%	(dpm/100cm ²)	(dpm/100cm ²)	%	(μR/hr)	
R01 - R30	CONNOLLY	24-Feb-97	133661	139658	3 dpm/100cm ² (1 cpm)	17	35.49	1312 dpm/100cm ² (305 cpm)	282	23.24		100 cm ²
R01 - R30	FINCHUM	18-Feb-97	131265								6	N/A

BLDG. 9113

○ Denotes data survey points

Not to scale

N



08-Jul-97

RADIOLOGICAL SURVEY DATA REPORT

LOCATION

ZONE:	1	SUBZONE:	N/A
BUILDING:	9113	ROOM:	ALL

All data on this report is background corrected. Negative values in the report are calculated activities that were below measured background.

Grids	GAMMA	ALPHA		BETA		LSC
	Field (μ R/hr)	Lab dpm/100cm ²	Field dpm/100cm ²	Lab dpm/100cm ²	Field dpm/100cm ²	Lab dpm/100cm ²
R01	-3	0.825	2.8	-2.782	-378.7	1.68
R02	-3	0.275	0.0	-4.066	-262.5	-4.94
R03	-4	0.000	0.0	-3.638	-568.0	-7.34
R04	-3	0.550	2.8	-4.066	-391.6	-11.83
R05	-3	0.000	2.8	-3.852	-327.0	4.51
R06	-4	0.275	0.0	-1.926	-167.8	-1.93
R07	-3	0.000	0.0	-5.137	-387.3	9.00
R08	-3	0.275	0.0	-3.424	-215.1	-6.72
R09	-3	0.000	2.8	-5.137	-426.0	-5.43
R10	-3	0.550	-2.8	-4.494	-120.5	-10.74
R11	-3	0.825	2.8	-3.852	-142.0	-1.97
R12	-3	0.550	2.8	-3.424	-176.4	-2.59
R13	-3	0.550	5.6	-2.996	-202.2	-1.45
R14	-3	0.275	-2.8	-5.137	-193.6	-1.93
R15	-3	0.275	-2.8	-5.351	-215.1	1.51
R16	-3	0.825	0.0	-3.638	-331.3	9.01
R17	-3	0.000	0.0	-3.210	-51.6	0.83
R18	-3	0.000	-2.8	-3.638	-120.5	-14.58

Grids	GAMMA Field (μ R/hr)	ALPHA		BETA		LSC
		Lab dpm/100cm ²	Field dpm/100cm ²	Lab dpm/100cm ²	Field dpm/100cm ²	Lab dpm/100cm ²
R19	-4	0.275	0.0	-3.852	-309.8	-8.45
R20	-3	0.550	5.6	-4.280	-331.3	7.26
R21	-3	0.275	0.0	-2.782	-150.6	-5.82
R22	-3	0.550	-2.8	-2.782	-215.1	-4.41
R23	-3	0.275	2.8	-2.996	-120.5	6.74
R24	-3	0.275	8.5	-2.354	-292.6	-1.17
R25	-3	0.275	2.8	-2.354	-90.4	-3.00
R26	-3	0.550	0.0	-1.926	-223.8	-4.91
R27	-4	0.000	0.0	-5.351	-111.9	-9.76
R28	-4	0.550	0.0	-2.782	202.2	-7.78
R29	-3	0.275	-2.8	-2.996	-335.6	-12.16
R30	-3	2.200	2.8	-2.140	-206.5	-5.38

08-Jul-97

LABORATORY TECHNICAL SUPPORT DATA

LOCATION

ZONE: 1 SUBZONE: N/A
BUILDING: 9113 ROOM: ALL

COUNTING LAB

GRIDS	PROCESSED DATE	ALPHA			BETA			LSC
		BKG	MDA (dpm/100cm ²)	EFF. %	BKG	MDA (dpm/100cm ²)	EFF. %	BKG (cpm)
R01 - R30	09-Jan-97	0.000 dpm/100cm ² (0.000 cpm)	2.023	36.4	7.919 dpm/100cm ² (3.700 cpm)	6.642	46.7	
R01 - R30	02-Dec-96							14.70

08-Jul-97

FIELD TECHNICAL SUPPORT DATA

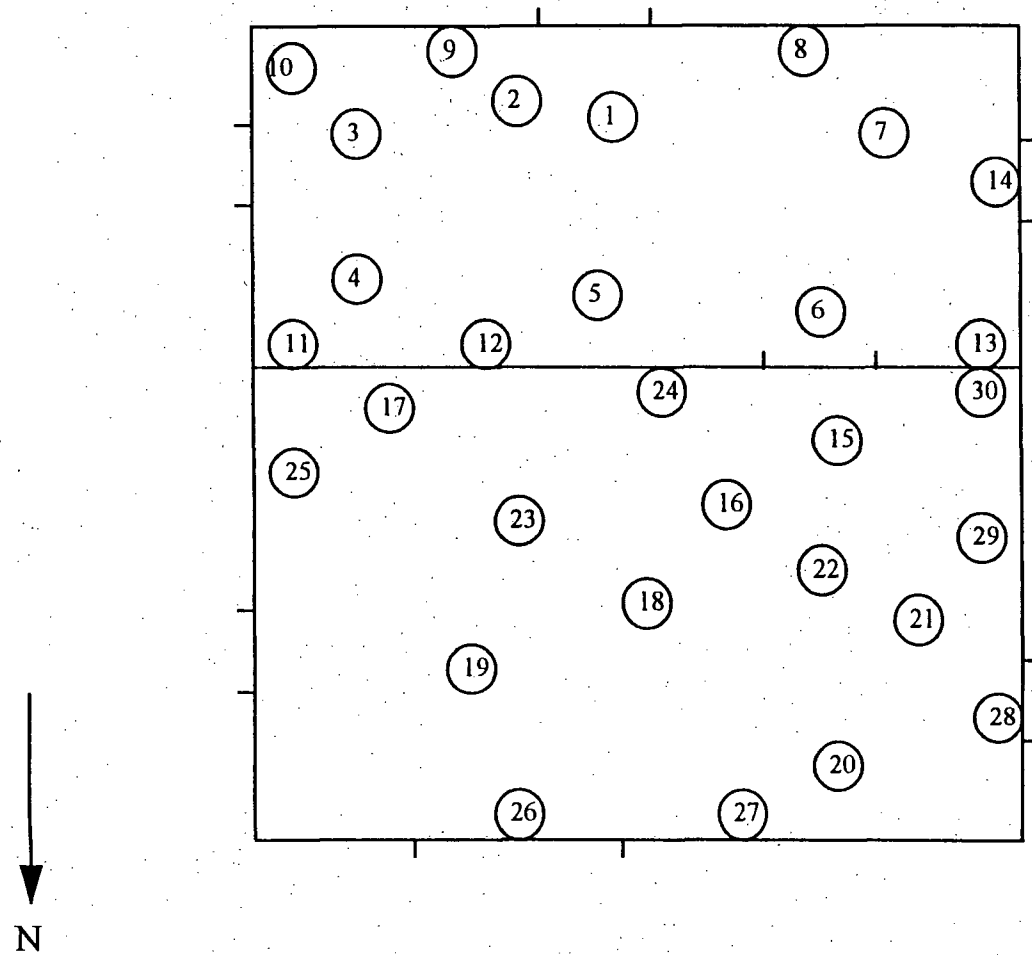
LOCATION

ZONE:	1	SUBZONE:	N/A
BUILDING:	9113	ROOM:	ALL

FIELD SURVEY

GRIDS	LEAD TECH	SURVEY DATE	INST #	PROBE #	ALPHA			BETA			GAMMA	PROBE AREA
					BKG	MDA	EFF.	BKG	MDA	EFF.	BKG	
					(dpm/100cm ²)		%	(dpm/100cm ²)		%	(μR/hr)	
R01 - R30	CONNOLLY	24-Feb-97	133661	139658	3 dpm/100cm ² (1 cpm)	17	35.49	1312 dpm/100cm ² (305 cpm)	282	23.24		100 cm ²
R01 - R30	CONNOLLY	18-Feb-97	127410								7	N/A

BLDG 9126



Not to scale

08-Jul-97

RADIOLOGICAL SURVEY DATA REPORT

LOCATION

ZONE: 1 SUBZONE: N/A
 BUILDING: 9126 ROOM: ALL

All data on this report is background corrected. Negative values in the report are calculated activities that were below measured background.

Grids	GAMMA	ALPHA		BETA		LSC
	Field (μ R/hr)	Lab dpm/100cm ²	Field dpm/100cm ²	Lab dpm/100cm ²	Field dpm/100cm ²	Lab dpm/100cm ²
R01	0	0.247	0.0	0.213	60.2	-27.64
R02	1	0.522	-2.8	1.913	-210.8	-20.22
R03	1	0.247	0.0	2.551	0.0	-43.72
R04	0	0.522	2.8	2.338	-90.4	-26.66
R05	0	0.247	0.0	0.638	43.0	-14.01
R06	0	-0.302	8.5	-1.276	77.5	-40.29
R07	0	-0.577	0.0	0.425	-86.1	-33.81
R08	0	-0.852	2.8	-0.850	-361.4	-18.57
R09	0	-0.302	2.8	-0.425	-365.7	-12.86
R10	0	-1.127	-2.8	-0.850	-271.1	-7.39
R11	0	0.522	0.0	-0.213	-339.9	0.99
R12	1	-0.577	-2.8	0.213	-395.9	-3.27
R13	0	-0.302	0.0	0.000	-318.4	-5.33
R14	1	-0.302	0.0	-1.276	-348.5	-9.83
R15	0	-0.577	0.0	2.976	172.1	-21.75
R16	1	-0.302	-2.8	-0.213	-172.1	-59.87
R17	0	-1.127	0.0	-1.701	159.2	-39.80
R18	0	-0.852	0.0	-1.701	-133.4	-19.81

Grids	GAMMA	ALPHA		BETA		LSC
	Field (μ R/hr)	Lab dpm/100cm ²	Field dpm/100cm ²	Lab dpm/100cm ²	Field dpm/100cm ²	Lab dpm/100cm ²
R19	1	-0.577	-2.8	1.488	-8.6	-33.44
R20	0	-0.302	0.0	2.338	-77.5	-21.56
R21	0	0.797	0.0	0.425	-193.6	-29.50
R22	1	-0.302	-2.8	0.638	-133.4	-32.48
R23	-1	-0.577	-2.8	-0.638	-460.4	-7.54
R24	0	-0.577	0.0	-1.063	-365.7	-9.17
R25	0	-0.577	2.8	0.000	-327.0	-0.97
R26	0	-1.127	0.0	0.000	-335.6	-6.50
R27	1	-0.027	2.8	-0.425	-438.9	-0.99
R28	0	-0.852	0.0	-1.276	-318.4	-10.25
R29	0	-0.852	-2.8	-0.213	-266.8	-18.35
R30	0	-0.577	0.0	-2.338	-378.7	-6.50

08-Jul-97

FIELD TECHNICAL SUPPORT DATA

LOCATION

ZONE: 1 SUBZONE: N/A
BUILDING: 9126 ROOM: ALL

FIELD SURVEY

GRIDS	LEAD TECH	SURVEY DATE	INST #	PROBE #	ALPHA			BETA			GAMMA	PROBE AREA
					BKG	MDA	EFF.	BKG	MDA	EFF.	BKG	
					(dpm/100cm ²)	(dpm/100cm ²)	%	(dpm/100cm ²)	(dpm/100cm ²)	%	(μR/hr)	
R01 - R30	CONNOLLY	24-Feb-97	133661	139658	3 dpm/100cm ² (1 cpm)	17	35.49	1312 dpm/100cm ² (305 cpm)	282	23.24		100 cm ²
R01 - R30	GATES	18-Feb-97	131280								4	N/A

08-Jul-97

LABORATORY TECHNICAL SUPPORT DATA

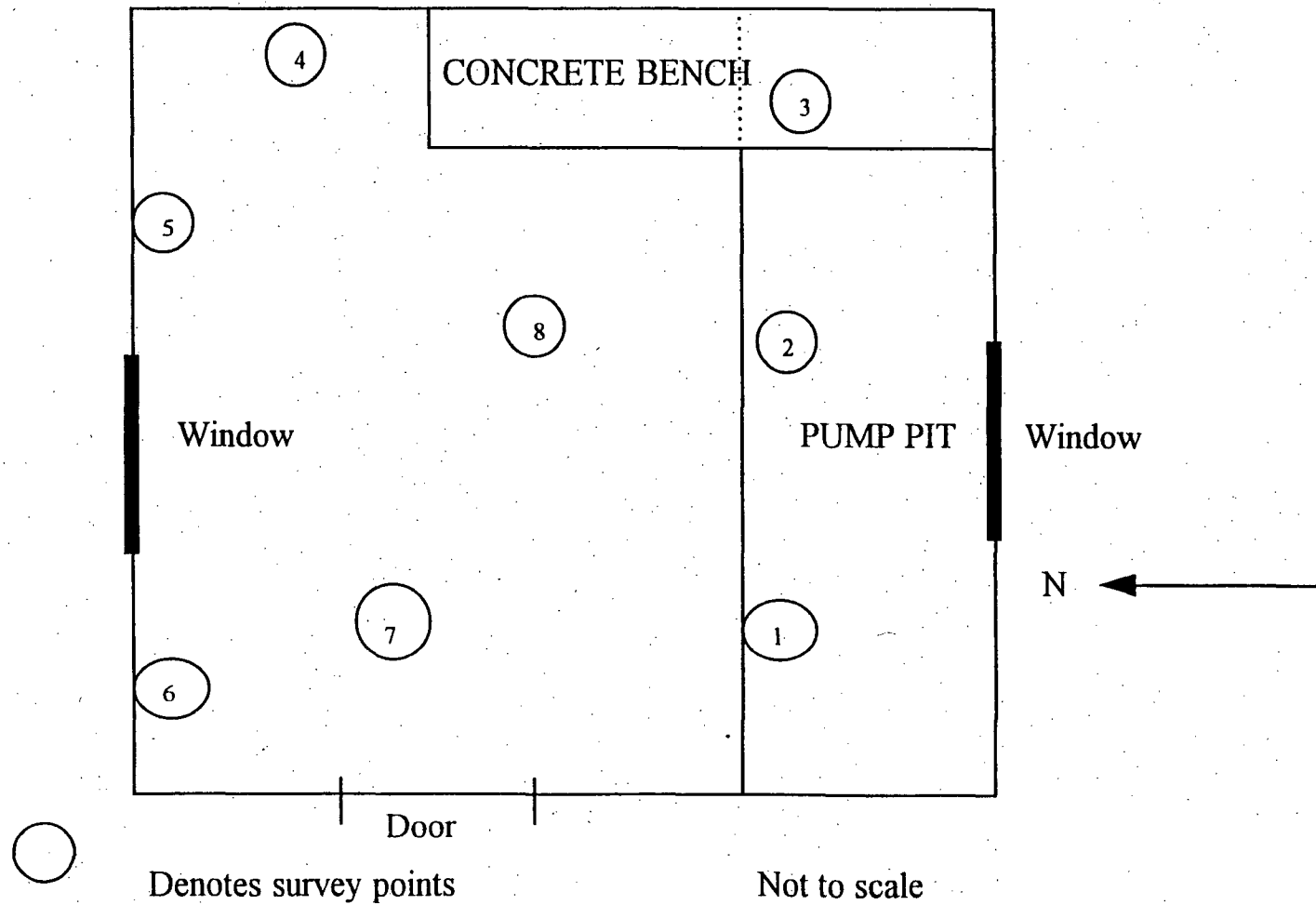
LOCATION

ZONE:	1	SUBZONE:	N/A
BUILDING:	9126	ROOM:	ALL

COUNTING LAB

GRIDS	PROCESSED DATE	ALPHA			BETA			LSC
		BKG	MDA (dpm/100cm ²)	EFF. %	BKG	MDA (dpm/100cm ²)	EFF. %	BKG (cpm)
R01 - R30	14-Jan-97	1.127 dpm/100cm ² (0.410 cpm)	2.620	36.4	4.677 dpm/100cm ² (2.200 cpm)	3.940	47.0	
R01 - R30	02-Dec-96							18.60

BLDG. 9127



08-Jul-97

RADIOLOGICAL SURVEY DATA REPORT

LOCATION

ZONE:	1	SUBZONE:	N/A
BUILDING:	9127	ROOM:	ALL

All data on this report is background corrected. Negative values in the report are calculated activities that were below measured background.

Grids	GAMMA	ALPHA		BETA		LSC
	Field (μ R/hr)	Lab dpm/100cm ²	Field dpm/100cm ²	Lab dpm/100cm ²	Field dpm/100cm ²	Lab dpm/100cm ²
R01	0	-2.728	5.6	-4.699	51.6	
R02	0	-3.274	14.1	-6.621	-245.3	
R03	0	-2.455	2.8	-4.913	-339.9	
R04	0	-3.001	8.5	-5.340	90.4	
R05	0	-3.001	0.0	-3.631	-279.7	
R06	0	-2.455	78.9	-5.553	86.1	
R07	0	-3.274	16.9	-5.126	-305.5	
R08	0	-3.547	2.8	-5.553	-331.3	

08-Jul-97

LABORATORY TECHNICAL SUPPORT DATA

LOCATION

ZONE: 1 SUBZONE: N/A
BUILDING: 9127 ROOM: ALL

COUNTING LAB

GRIDS	PROCESSED DATE	ALPHA			BETA			LSC
		BKG	MDA (dpm/100cm ²)	EFF. %	BKG	MDA (dpm/100cm ²)	EFF. %	BKG (cpm)
R01 - R08	16-Jan-97	3.547 dpm/100cm ² (1.300 cpm)	4.477	36.7	10.039 dpm/100cm (4.700 cpm)	6.151	46.8	
R01 - R08								

08-Jul-97

FIELD TECHNICAL SUPPORT DATA

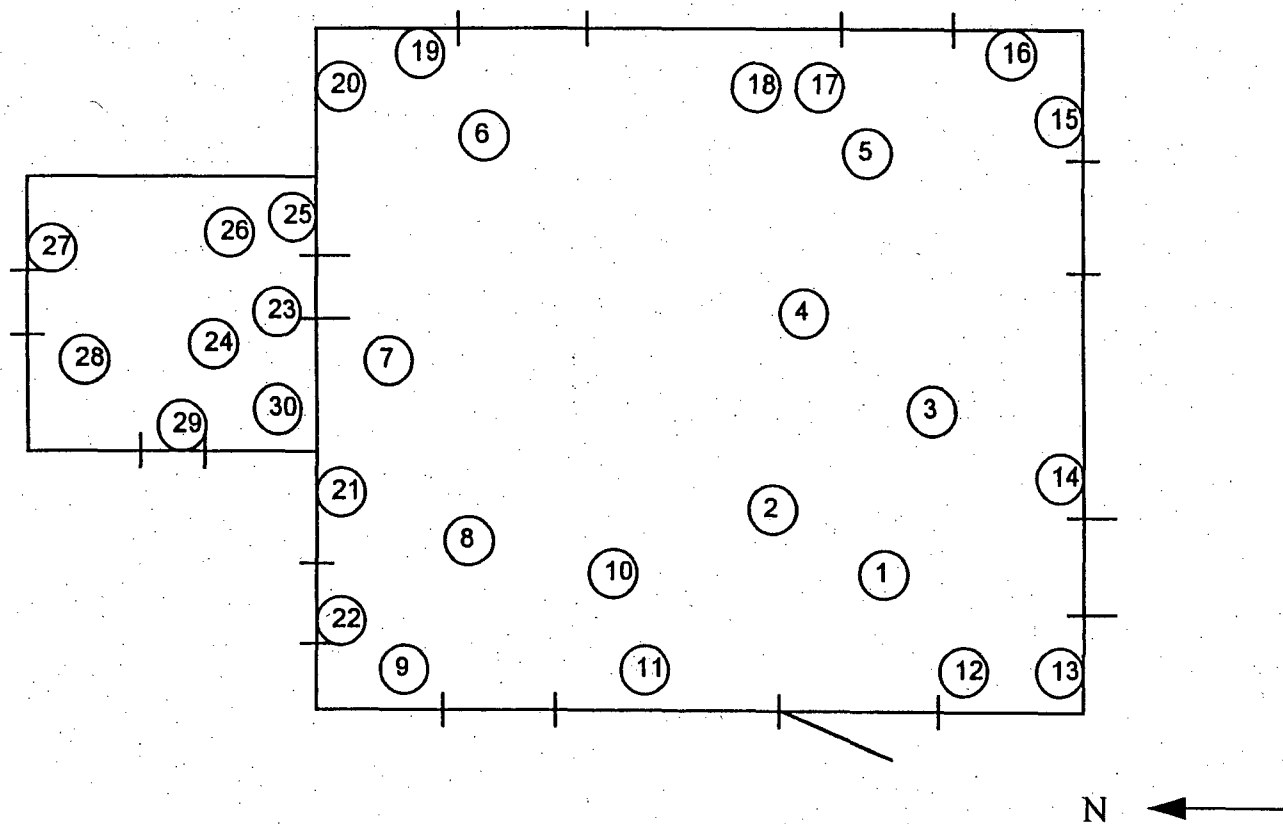
LOCATION

ZONE: 1 SUBZONE: N/A
BUILDING: 9127 ROOM: ALL

FIELD SURVEY

GRIDS	LEAD TECH	SURVEY DATE	INST #	PROBE #	ALPHA			BETA			GAMMA	PROBE AREA
					BKG	MDA	EFF.	BKG	MDA	EFF.	BKG	
					(dpm/100cm ²)		%	(dpm/100cm ²)		%	(μR/hr)	
R01 - R08	CONNOLLY	24-Feb-97	133661	139658	3 dpm/100cm ² (1 cpm)	17	35.49	1312 dpm/100cm ² (305 cpm)	282	23.24		100 cm ²
R01 - R08	GATES	18-Feb-97	131280								4	N/A

Bldg.9087



Not to scale

08-Jul-97

RADIOLOGICAL SURVEY DATA REPORT

LOCATION

ZONE: 1 SUBZONE: N/A

BUILDING: 9087 ROOM: ALL

All data on this report is background corrected. Negative values in the report are calculated activities that were below measured background.

Grids	GAMMA Field (μ R/hr)	ALPHA		BETA		LSC Lab dpm/100cm ²
		Lab dpm/100cm ²	Field dpm/100cm ²	Lab dpm/100cm ²	Field dpm/100cm ²	
R01	-3	-0.576	0.0	0.638	-223.8	-14.53
R02	-3	-0.302	8.5	-0.638	-266.8	-3.86
R03	-3	-0.576	2.8	0.213	-206.5	1.61
R04	-3	0.521	0.0	-0.638	-258.2	-1.15
R05	-3	-0.027	-2.8	-0.638	-258.2	2.60
R06	-3	-0.302	-2.8	-0.425	-236.7	-5.30
R07	-1	-0.302	8.5	0.000	-215.1	-2.54
R08	-2	-0.850	0.0	-0.425	-228.1	-7.09
R09	-3	-1.124	0.0	0.213	-279.7	3.53
R10	-3	-0.027	0.0	-0.425	-137.7	-7.60
R11	-3	-0.027	-2.8	0.213	-232.4	-15.77
R12	-2	-0.302	2.8	-0.213	-137.7	-3.90
R13	-2	-0.850	2.8	1.064	-383.0	3.38
R14	-3	-0.850	0.0	0.425	-503.4	0.69
R15	-3	-0.576	5.6	1.702	-374.4	-0.23
R16	-3	-0.027	2.8	-0.638	-628.2	-5.38
R17	-3	-0.850	-5.6	-1.064	-525.0	-7.31
R18	-3	-0.850	-5.6	0.213	-387.3	-0.26

Grids	GAMMA Field (μ R/hr)	ALPHA		BETA		LSC Lab dpm/100cm ²
		Lab dpm/100cm ²	Field dpm/100cm ²	Lab dpm/100cm ²	Field dpm/100cm ²	
R19	-3	-0.850	-2.8	-0.213	-576.6	-13.72
R20	-2	-0.302	8.5	0.638	-516.4	-4.48
R21	-2	-1.124	0.0	-0.213	-477.6	-8.78
R22	-3	-0.302	5.6	-1.489	-486.2	-1.28
R23	0	-0.850	0.0	0.000	-253.9	-9.57
R24	0	-0.576	2.8	-0.213	154.9	-6.70
R25	1	0.521	-2.8	-0.851	68.8	-12.74
R26	3	-0.576	19.7	0.425	1,204.8	-9.78
R27	3	-0.850	-2.8	-1.276	387.3	-0.22
R28	3	-0.850	8.5	0.851	305.5	-15.69
R29	3	-0.850	-2.8	-0.638	335.6	-0.23
R30	3	-0.850	-2.8	0.638	223.8	-8.84

08-Jul-97

LABORATORY TECHNICAL SUPPORT DATA

LOCATION

ZONE: 1	SUBZONE: N/A
BUILDING: 9087	ROOM: ALL

COUNTING LAB

GRIDS	PROCESSED DATE	ALPHA			BETA			LSC
		BKG	MDA	EFF.	BKG	MDA	EFF.	BKG
			(dpm/100cm ²)	%		(dpm/100cm ²)	%	(cpm)
R01 - R30	13-Jan-97	1.124 dpm/100cm ² (0.410 cpm)	2.613	36.5	4.680 dpm/100cm ² (2.200 cpm)	3.943	47.0	
R01 - R30	03-Dec-96							18.10

08-Jul-97

FIELD TECHNICAL SUPPORT DATA

LOCATION

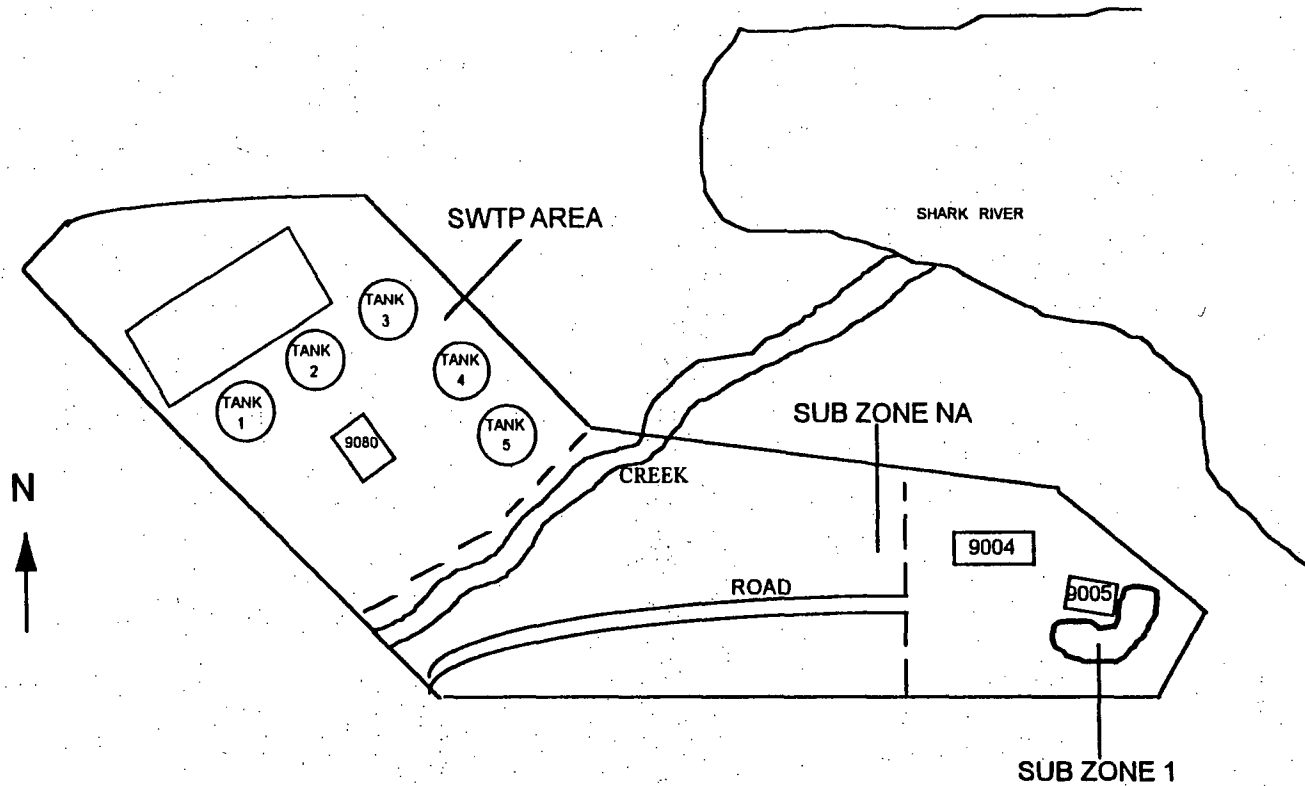
ZONE: 1 SUBZONE: N/A

BUILDING: 9087 ROOM: ALL

FIELD SURVEY

GRIDS	LEAD TECH	SURVEY DATE	INST #	PROBE #	ALPHA			BETA			GAMMA	PROBE AREA
					BKG	MDA	EFF.	BKG	MDA	EFF.	BKG	
					(dpm/100cm ²)		%	(dpm/100cm ²)		%	(μR/hr)	
R01 - R30	EAVES	13-Mar-97	133661	139658	6 dpm/100cm ² (2 cpm)	21	35.49	1239 dpm/100cm ² (288 cpm)	274	23.24		100 cm ²
R01 - R30	CONNOLLY	18-Feb-97	127410								7	N/A

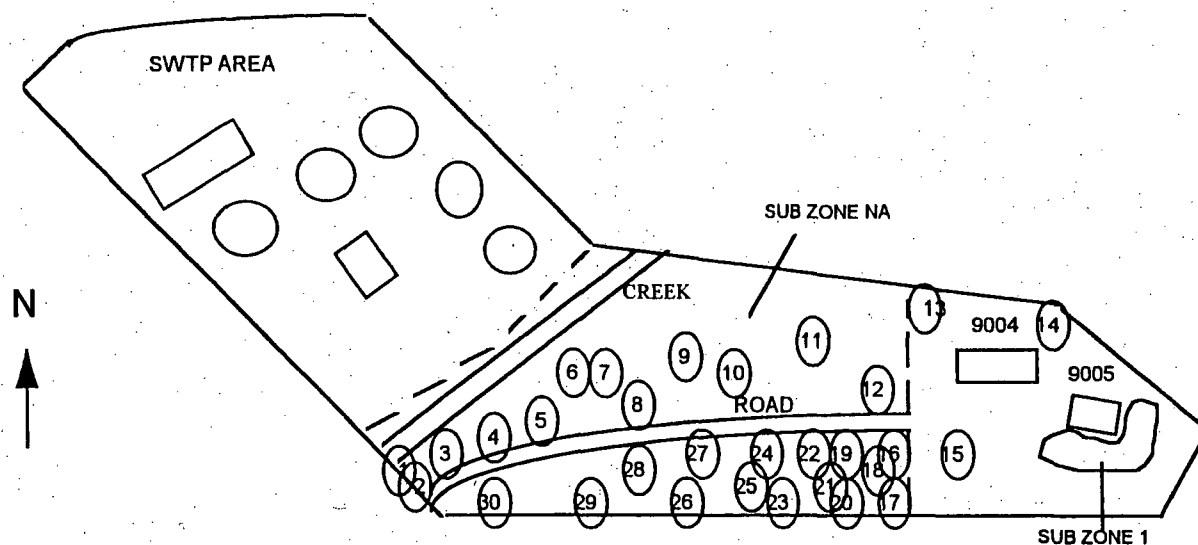
ZONE 1A



— — Denotes fenced area

Not to scale

ZONE 1A



— — Denotes fenced area

Not to scale

09-Jul-97

RADIOLOGICAL SURVEY DATA REPORT

LOCATION

SOIL	
ZONE: 1A	SUBZONE: N/A

All field data in this report are background corrected; all lab data are gross values.

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
R01	-3	2.288	0.773	3.466	0.580	Sum	5.588E+00
						CS-137	4.229E-02
						K-40	4.264E+00
						RA-226	5.832E-01
						TH-232	5.723E-01
						U-235	1.267E-01
R02	-2	0.860	0.726	3.291	0.586	Sum	6.807E+00
						CS-137	9.708E-02
						K-40	5.255E+00
						RA-226	6.638E-01
						TH-232	6.389E-01
						U-235	1.521E-01
R03	-1	2.910	0.984	6.793	0.565	Sum	7.294E+00
						CS-137	3.370E-01
						K-40	5.228E+00
						RA-226	8.567E-01
						TH-232	7.259E-01
						U-235	1.465E-01

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
R04	-3	3.396	0.718	4.981	0.571	Sum	1.933E+00
						K-40	1.225E+00
						RA-226	3.430E-01
						TH-232	3.162E-01
						U-235	4.874E-02
R05	0	1.777	0.707	3.910	0.583	Sum	9.757E+00
						CS-137	5.113E-01
						K-40	5.761E+00
						RA-226	1.509E+00
						TH-232	1.695E+00
						U-235	2.809E-01
R06	2	3.740	1.264	3.425	0.573	Sum	8.925E+00
						CS-137	4.752E-01
						K-40	5.127E+00
						RA-226	1.450E+00
						TH-232	1.659E+00
						U-235	2.134E-01
R07	-1	1.038	0.877	6.204	0.568	Sum	6.951E+00
						CS-137	1.052E+00
						K-40	4.072E+00
						RA-226	8.556E-01
						TH-232	8.475E-01
						U-235	1.235E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
R08	-4	0.184	0.623	2.996	0.571	Sum	2.632E+00
						CS-137	1.241E-01
						K-40	1.170E+00
						RA-226	4.857E-01
						TH-232	5.368E-01
						U-235	3.150E-01
R09	-1	1.814	0.876	4.321	0.567	Sum	7.036E+00
						CS-137	8.723E-01
						K-40	4.204E+00
						RA-226	8.911E-01
						TH-232	8.559E-01
						U-235	2.125E-01
R10	-4	1.245	0.765	3.179	0.585	Sum	3.562E+00
						CS-137	2.903E-01
						K-40	2.417E+00
						RA-226	3.137E-01
						TH-232	4.386E-01
						U-235	1.020E-01
R11	-2	0.868	0.533	3.805	0.567	Sum	3.616E+00
						CS-137	3.572E-01
						K-40	2.055E+00
						RA-226	5.296E-01
						TH-232	5.677E-01
						U-235	1.065E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
R12	-4	2.363	0.695	4.028	0.493	Sum	3.462E+00
						CS-137	1.795E-01
						K-40	2.339E+00
						RA-226	3.917E-01
						TH-232	4.688E-01
						U-235	8.255E-02
R13	-1	2.357	1.138	5.728	0.562	Sum	5.439E+00
						CS-137	6.031E-01
						K-40	3.453E+00
						RA-226	6.054E-01
						TH-232	6.529E-01
						U-235	1.246E-01
R14	-3	2.375	0.698	5.446	0.555	Sum	6.389E+00
						CS-137	7.848E-01
						K-40	4.450E+00
						RA-226	4.935E-01
						TH-232	5.766E-01
						U-235	8.450E-02
R15	-3	2.003	0.797	3.497	0.551	Sum	3.990E+00
						CS-137	2.401E-01
						K-40	2.560E+00
						RA-226	5.012E-01
						TH-232	4.604E-01
						U-235	2.279E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
R16	-3	0.645	0.545	2.780	0.570	Sum	3.429E+00
						CS-137	9.847E-02
						K-40	2.310E+00
						RA-226	4.267E-01
						TH-232	4.970E-01
						U-235	9.650E-02
R17	-3	4.169	0.972	4.966	0.536	Sum	3.215E+00
						CS-137	4.049E-01
						K-40	1.893E+00
						RA-226	3.415E-01
						TH-232	4.720E-01
						U-235	1.039E-01
R18	-3	1.072	0.906	4.622	0.578	Sum	9.432E+00
						CS-137	1.473E+00
						K-40	6.402E+00
						RA-226	6.858E-01
						TH-232	6.654E-01
						U-235	2.061E-01
R19	-3	2.491	0.842	4.286	0.576	Sum	4.902E+00
						CS-137	1.520E-01
						K-40	3.680E+00
						RA-226	4.216E-01
						TH-232	4.106E-01
						U-235	2.380E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
R20	-1	3.555	0.924	4.637	0.543	Sum	9.367E+00
						CS-137	9.850E-01
						K-40	6.538E+00
						RA-226	8.331E-01
						TH-232	8.147E-01
						U-235	1.966E-01
R21	-3	1.626	1.000	1.696	0.556	Sum	2.272E+00
						CS-137	6.064E-02
						K-40	1.445E+00
						RA-226	3.357E-01
						TH-232	3.819E-01
						U-235	4.836E-02
R22	-4	3.701	1.472	4.893	0.573	Sum	6.210E+00
						CS-137	2.293E-01
						K-40	4.273E+00
						RA-226	7.511E-01
						TH-232	8.465E-01
						U-235	1.105E-01
R23	-2	0.348	1.177	4.788	0.561	Sum	8.012E+00
						CE-144	2.899E-01
						CS-137	9.685E-01
						K-40	5.068E+00
						RA-226	7.124E-01
						TH-232	8.402E-01
						U-235	1.334E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
R24	-3	1.480	0.910	2.151	0.569	Sum	3.438E+00
						CS-137	7.008E-02
						K-40	2.462E+00
						RA-226	4.129E-01
						TH-232	3.884E-01
						U-235	1.045E-01
R25	-1	4.455	2.738	4.372	0.560	Sum	1.497E+01
						CS-137	6.922E-01
						K-40	1.205E+01
						RA-226	1.083E+00
						TH-232	9.260E-01
						U-235	2.206E-01
R26	-3	2.953	0.624	5.173	0.581	Sum	3.488E+00
						CS-137	6.376E-01
						K-40	1.782E+00
						RA-226	4.588E-01
						TH-232	5.426E-01
						U-235	6.716E-02
R27	-3	2.363	0.799	4.221	0.581	Sum	2.964E+00
						CS-137	4.534E-02
						K-40	1.850E+00
						RA-226	4.850E-01
						TH-232	4.822E-01
						U-235	1.015E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
R28	-1	1.302	0.629	3.445	0.559	Sum	3.234E+00
						CS-137	7.074E-01
						K-40	1.223E+00
						RA-226	6.590E-01
						TH-232	5.449E-01
						U-235	9.921E-02
R29	-3	3.253	1.100	4.053	0.545	Sum	4.160E+00
						CE-144	1.404E-01
						CS-137	5.896E-02
						K-40	2.925E+00
						RA-226	5.295E-01
						TH-232	4.042E-01
						U-235	1.017E-01
R30	-3	1.806	1.110	4.870	0.583	Sum	4.195E+00
						CS-137	3.434E-02
						K-40	2.881E+00
						RA-226	6.021E-01
						TH-232	5.661E-01
						U-235	1.110E-01

GRIDS	FIELD	LAB				
	GAMMA	ALPHA		BETA		GAMMA
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide pCi/gm
		Alpha		Beta		Gamma (Sum)
Minimum	-4	0.184	0.533	1.696	0.493	1.933E+00
Maximum	2	4.455	2.738	6.793	0.586	1.497E+01
Average	-2	2.148	0.931	4.201	0.565	5.556E+00

09-Jul-97

FIELD TECHNICAL SUPPORT DATA

LOCATION

SOIL	
ZONE: 1A	SUBZONE: N/A

FIELD SURVEY

GRIDS	LEAD TECH	SURVEY DATE	INST #	PROBE #	ALPHA			BETA			GAMMA	PROBE AREA
					BKG	MDA (dpm/100cm ²)	EFF. %	BKG	MDA (dpm/100cm ²)	EFF. %	BKG (μR/hr)	
R01 - R30	GATES	24-Jan-97	131280								8	N/A

ZONE 1A SUBZONE 1 SURFACE SOIL SAMPLE COLLECTION POINTS

18T MGRS-NEW
W V 80125e 48303n
GPS PLUGER
POINT

SEWAGE TREATMENT
PLANT 175 METERS

9005

80142e 48788n
GPS PLUGER POINT

LESS THAN 8uR/HR
TYPICAL AREA DOSERATE

10 micro R/HR
DOSERATE BOUNDARY

MARCONIRD
125 METERS

EDGE POWER LINE
ACCESS CLEARED
AREA

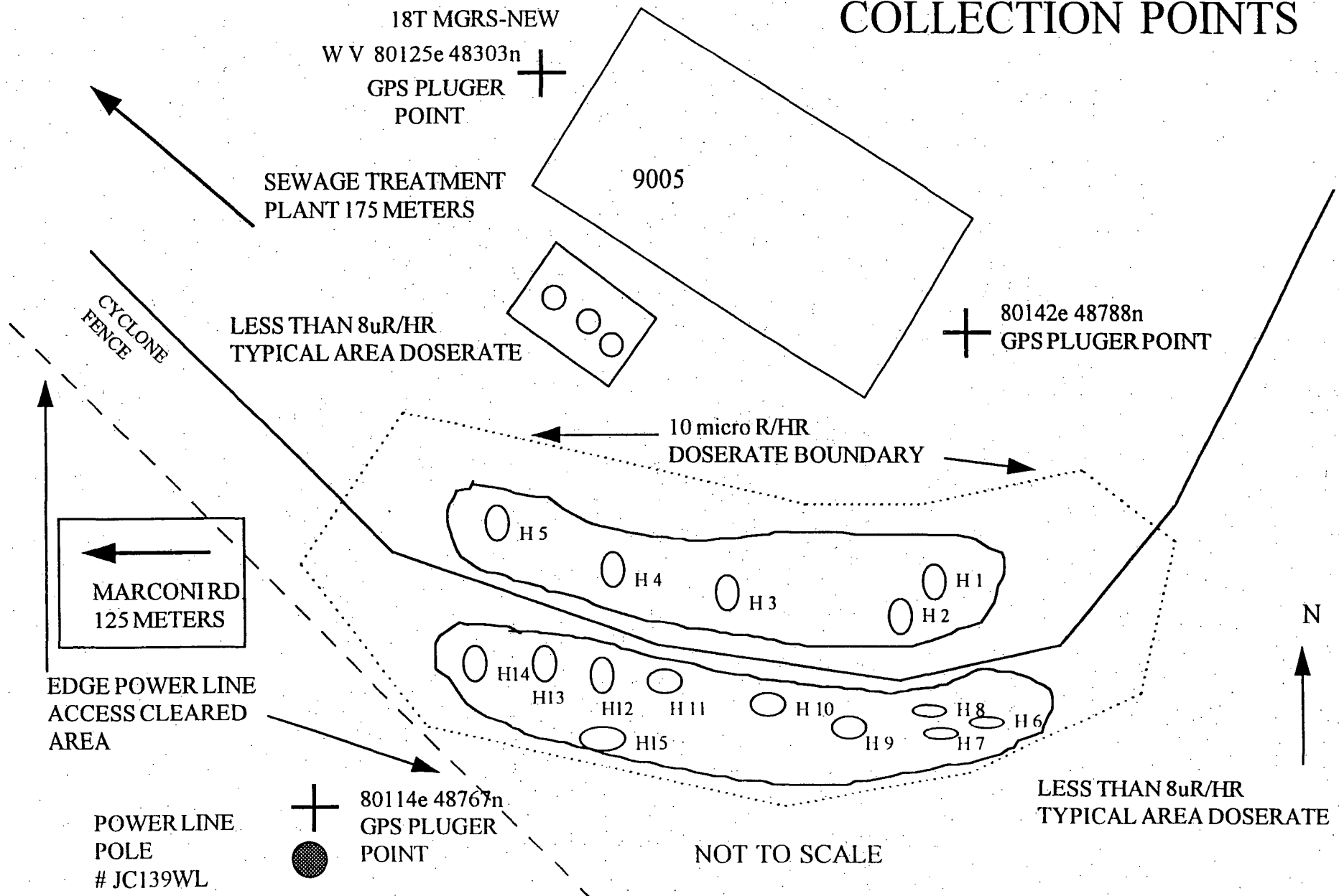
POWER LINE
POLE
JC139WL

80114e 48767n
GPS PLUGER
POINT

LESS THAN 8uR/HR
TYPICAL AREA DOSERATE

NOT TO SCALE

N



09-Jul-97

RADIOLOGICAL SURVEY DATA REPORT

LOCATION

SOIL

ZONE: 1A

SUBZONE: 1

All field data in this report are background corrected; all lab data are gross values.

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
H01	5	3.871	0.914	5.154	0.840	Sum	9.381E+00
						CS-137	1.110E-01
						K-40	5.796E+00
						RA-226	1.577E+00
						TH-232	1.732E+00
						U-235	1.646E-01
H02	5	0.826	0.833	3.501	0.820	Sum	1.358E+01
						CS-137	8.222E-02
						K-40	1.020E+01
						RA-226	1.384E+00
						TH-232	1.650E+00
						U-235	2.682E-01
H03	9	7.447	0.995	5.765	0.808	Sum	9.454E+00
						CS-137	3.032E-01
						K-40	5.990E+00
						RA-226	1.292E+00
						TH-232	1.558E+00
						U-235	3.111E-01

123817

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
H04	6	11.550	0.915	8.666	0.857	Sum	1.249E+01
						K-40	7.300E+00
						RA-226	2.189E+00
						TH-232	2.814E+00
						U-235	1.860E-01
H04-1	1 ft depth	3.509	0.505	4.952	0.556	Sum	1.271E+01
						K-40	8.846E+00
						RA-226	1.710E+00
						TH-232	1.931E+00
						U-235	2.213E-01
H04-2	2 ft depth	2.812	0.594	4.006	0.581	Sum	1.293E+01
						K-40	9.741E+00
						RA-226	1.470E+00
						TH-232	1.504E+00
						U-235	2.108E-01
H05	4	5.473	0.820	5.230	0.852	Sum	8.427E+00
						K-40	5.326E+00
						RA-226	1.469E+00
						TH-232	1.355E+00
						U-235	2.767E-01
H06	7	7.617	1.056	12.722	0.816	Sum	1.409E+01
						CS-137	4.784E-01
						K-40	7.934E+00
						RA-226	2.487E+00
						TH-232	2.836E+00
						U-235	3.526E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
H07	9	9.822	0.813	8.559	0.857	Sum	1.056E+01
						CS-137	2.140E-01
						K-40	5.784E+00
						RA-226	2.199E+00
						TH-232	2.128E+00
						U-235	2.327E-01
H08	7	5.662	1.185	8.067	0.861	Sum	1.414E+01
						CS-137	5.870E-01
						K-40	7.585E+00
						RA-226	2.431E+00
						TH-232	3.212E+00
						U-235	3.206E-01
H08-1	1 ft depth	2.814	0.501	4.368	0.587	Sum	1.442E+01
						CS-137	7.753E-02
						K-40	9.989E+00
						RA-226	1.851E+00
						TH-232	2.353E+00
						U-235	1.446E-01
H08-2	2 ft depth	4.220	0.538	5.282	0.581	Sum	1.324E+01
						CS-137	6.877E-02
						K-40	9.983E+00
						RA-226	1.382E+00
						TH-232	1.608E+00
						U-235	1.933E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
H09	7	9.544	0.827	6.480	0.836	Sum	1.279E+01
						CS-137	2.624E-01
						K-40	6.878E+00
						RA-226	2.454E+00
						TH-232	2.916E+00
						U-235	2.798E-01
H10	7	2.339	0.998	7.661	0.840	Sum	1.504E+01
						CS-137	1.185E+00
						K-40	9.382E+00
						RA-226	2.172E+00
						TH-232	1.967E+00
						U-235	3.293E-01
H11	6	5.068	1.061	7.610	0.812	Sum	1.254E+01
						CS-137	5.444E-01
						K-40	7.324E+00
						RA-226	1.929E+00
						TH-232	2.347E+00
						U-235	3.981E-01
H11-1	1 ft depth	3.571	0.589	6.102	0.578	Sum	1.212E+01
						CS-137	7.223E-02
						K-40	9.060E+00
						RA-226	1.408E+00
						TH-232	1.411E+00
						U-235	1.716E-01

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
H11-2	2 ft depth	2.150	0.454	2.443	0.564	Sum	1.091E+01
						K-40	8.752E+00
						RA-226	1.130E+00
						TH-232	8.760E-01
						U-235	1.534E-01
H12	7	8.677	1.416	5.525	0.865	Sum	1.171E+01
						CS-137	5.981E-01
						K-40	8.216E+00
						RA-226	1.299E+00
						TH-232	1.396E+00
						U-235	1.983E-01
H13	7	3.200	1.224	7.033	0.852	Sum	1.118E+01
						CS-137	4.454E-01
						K-40	8.083E+00
						RA-226	1.307E+00
						TH-232	1.180E+00
						U-235	1.676E-01
H14	9	3.605	0.975	5.572	0.840	Sum	1.177E+01
						CS-137	3.200E-01
						K-40	6.732E+00
						RA-226	2.020E+00
						TH-232	2.319E+00
						U-235	3.747E-01

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
H14-1	1 ft depth	1.630	0.551	3.491	0.584	Sum	1.244E+01
						K-40	9.383E+00
						RA-226	1.569E+00
						TH-232	1.393E+00
						U-235	9.444E-02
H14-2	2 ft depth	2.471	0.643	3.812	0.584	Sum	1.076E+01
						K-40	7.689E+00
						RA-226	1.436E+00
						TH-232	1.435E+00
						U-235	1.954E-01
H15	5	0.343	0.761	2.912	0.857	Sum	9.625E+00
						CS-137	4.770E-01
						K-40	6.144E+00
						RA-226	1.215E+00
						RU-106	3.400E-01
						TH-232	1.257E+00
						U-235	1.920E-01
H15-1	1 ft depth	0.722	0.610	2.836	0.581	Sum	1.020E+01
						CS-137	1.189E-01
						K-40	7.385E+00
						RA-226	1.372E+00
						TH-232	1.171E+00
						U-235	1.505E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
H15-2 2 ft depth		4.535	0.807	3.986	0.578	Sum	1.412E+01
						CS-137	9.193E-02
						K-40	1.085E+01
						RA-226	1.620E+00
						TH-232	1.347E+00
						U-235	2.086E-01

		Alpha		Beta		Gamma (Sum)
Minimum	4	0.343	0.454	2.443	0.556	8.427E+00
Maximum	9	11.550	1.416	12.722	0.865	1.504E+01
Average	7	4.539	0.823	5.669	0.735	1.202E+01

09-Jul-97

FIELD TECHNICAL SUPPORT DATA

LOCATION

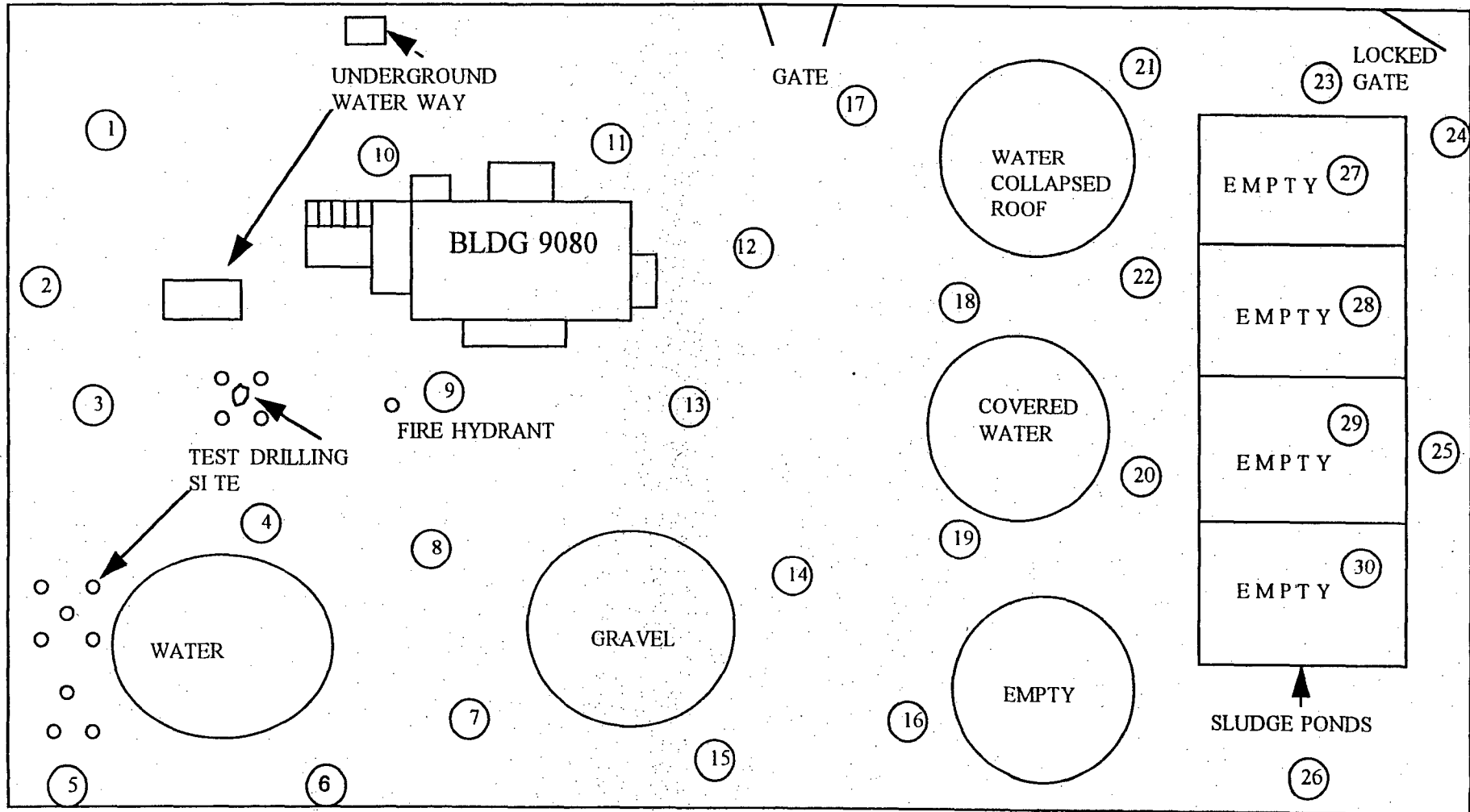
SOIL	
ZONE: 1A	SUBZONE: 1

FIELD SURVEY

GRIDS	LEAD TECH	SURVEY DATE	INST #	PROBE #	ALPHA			BETA			GAMMA	PROBE AREA
					BKG	MDA (dpm/100cm²)	EFF. %	BKG	MDA (dpm/100cm²)	EFF. %	BKG (µR/hr)	
H01 - H15	EAVES	11-Apr-97	00914	723415							5	N/A

ZONE 1A SUB ZONE SWTP SOIL COLLECTION LOCATIONS

○ Denotes survey points



→ N

Not to scale

09-Jul-97

RADIOLOGICAL SURVEY DATA REPORT

LOCATION

SOIL	
ZONE: 1A	SUBZONE: SWTP

All field data in this report are background corrected; all lab data are gross values.

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
R01	-2	1.187	0.730	3.545	0.575	Sum	4.248E+00
						CS-137	3.345E-01
						K-40	2.394E+00
						RA-226	7.185E-01
						TH-232	6.951E-01
						U-235	1.058E-01
R02	-1	0.879	0.743	3.406	0.570	Sum	7.145E+00
						CS-137	1.945E-01
						K-40	5.061E+00
						RA-226	7.758E-01
						TH-232	9.501E-01
						U-235	1.634E-01
R03	-1	2.841	1.130	7.981	0.584	Sum	1.055E+01
						CE-144	1.928E-01
						CS-137	4.606E-01
						K-40	7.638E+00
						RA-226	9.695E-01
						TH-232	1.051E+00
						U-235	2.414E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
R04	0	1.384	0.668	3.793	0.581	Sum	5.197E+00
						CS-137	3.043E-01
						K-40	3.183E+00
						RA-226	8.259E-01
						TH-232	7.500E-01
						U-235	1.337E-01
R05	0	3.572	1.207	4.303	0.578	Sum	1.032E+01
						CS-137	2.972E-01
						K-40	7.758E+00
						RA-226	1.128E+00
						TH-232	9.751E-01
						U-235	1.664E-01
R06	-1	-0.415	0.702	0.177	0.581	Sum	6.172E+00
						CS-137	4.443E-01
						K-40	3.909E+00
						RA-226	7.505E-01
						RU-106	2.386E-01
						TH-232	7.257E-01
						U-235	1.042E-01
R07	-2	1.469	0.709	3.597	0.567	Sum	4.726E+00
						CS-137	4.181E-01
						K-40	2.868E+00
						RA-226	7.497E-01
						TH-232	5.628E-01
						U-235	1.272E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
R08	-2	2.608	1.037	4.890	0.573	Sum	4.249E+00
						CS-137	4.960E-01
						K-40	2.423E+00
						RA-226	6.565E-01
						TH-232	5.587E-01
						U-235	1.149E-01
R09	-1	2.224	0.884	4.240	0.584	Sum	6.276E+00
						CS-137	9.405E-01
						K-40	3.871E+00
						RA-226	6.612E-01
						TH-232	6.446E-01
						U-235	1.591E-01
R10	-2	2.506	0.737	4.537	0.581	Sum	5.683E+00
						CS-137	2.823E-01
						K-40	3.853E+00
						RA-226	7.250E-01
						TH-232	6.830E-01
						U-235	1.396E-01
R11	-2	1.813	3.238	2.357	0.724	Sum	6.183E+00
						CS-137	2.638E-01
						K-40	4.357E+00
						RA-226	7.054E-01
						TH-232	6.747E-01
						U-235	1.818E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
R12	-1	-3.969	4.724	6.698	0.717	Sum	7.329E+00
						CS-137	3.624E-01
						K-40	5.179E+00
						RA-226	7.964E-01
						TH-232	8.637E-01
						U-235	1.280E-01
R13	-1	-0.959	1.712	2.357	0.724	Sum	4.018E+00
						CS-137	1.031E-01
						K-40	2.547E+00
						RA-226	6.020E-01
						TH-232	6.419E-01
						U-235	1.241E-01
R14	-1	2.970	3.535	3.700	0.707	Sum	5.415E+00
						CS-137	3.794E-01
						K-40	3.601E+00
						RA-226	7.980E-01
						TH-232	4.819E-01
						U-235	1.548E-01
R15	-1	0.650	1.161	4.817	0.724	Sum	5.425E+00
						CS-137	3.973E-01
						K-40	3.166E+00
						RA-226	8.918E-01
						TH-232	7.537E-01
						U-235	2.163E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
R16	-1	-0.237	0.846	2.524	0.714	Sum	6.443E+00
						CS-137	4.345E-01
						K-40	3.950E+00
						RA-226	9.729E-01
						TH-232	9.707E-01
						U-235	1.144E-01
R17	-1	0.703	0.836	2.855	0.721	Sum	5.025E+00
						CS-137	2.455E-01
						K-40	3.274E+00
						RA-226	7.102E-01
						TH-232	6.376E-01
						U-235	1.580E-01
R18	0	1.368	0.814	4.509	0.724	Sum	5.185E+00
						CS-137	3.189E-01
						K-40	3.386E+00
						RA-226	6.455E-01
						TH-232	7.001E-01
						U-235	1.350E-01
R19	0	0.000	0.764	2.254	0.724	Sum	6.947E+00
						CS-137	4.552E-01
						K-40	4.743E+00
						RA-226	8.619E-01
						TH-232	7.208E-01
						U-235	1.664E-01

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
R20	-1	0.892	0.796	3.123	0.690	Sum	5.906E+00
						CE-144	2.051E-01
						CS-137	3.814E-01
						K-40	3.512E+00
						RA-226	8.556E-01
						TH-232	7.534E-01
						U-235	1.982E-01
R21	-1	2.274	2.030	4.241	0.714	Sum	5.600E+00
						CS-137	4.001E-01
						K-40	3.420E+00
						RA-226	8.761E-01
						TH-232	8.050E-01
						U-235	9.917E-02
R22	0	0.000	2.513	2.713	0.710	Sum	5.410E+00
						CS-137	3.999E-01
						K-40	3.340E+00
						RA-226	7.389E-01
						TH-232	7.979E-01
						U-235	1.333E-01
R23	0	3.785	1.351	3.867	0.683	Sum	4.551E+00
						CS-137	5.182E-01
						K-40	2.786E+00
						RA-226	5.797E-01
						TH-232	5.783E-01
						U-235	8.904E-02

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
R24	-3	2.613	1.333	3.530	0.693	Sum	7.893E+00
						CS-137	3.486E-01
						K-40	5.403E+00
						RA-226	8.886E-01
						RU-106	3.033E-01
						TH-232	7.821E-01
						U-235	1.670E-01
R25	-3	3.263	1.456	3.316	0.710	Sum	4.376E+00
						CS-137	2.673E-01
						K-40	2.930E+00
						RA-226	5.342E-01
						TH-232	5.549E-01
						U-235	8.991E-02
R26	-2	-0.570	1.018	3.416	0.690	Sum	5.566E+00
						CS-137	3.095E-01
						K-40	3.322E+00
						RA-226	8.194E-01
						TH-232	1.016E+00
						U-235	9.938E-02
R27	-4	-0.577	2.060	1.515	0.714	Sum	1.851E+00
						CE-144	1.138E-01
						CS-137	4.104E-01
						K-40	6.230E-01
						RA-226	1.723E-01
						TH-232	2.721E-01
						U-235	2.597E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
R28	-4	0.461	1.648	2.550	0.693	Sum	9.118E-01
						CS-137	4.135E-01
						RA-226	1.463E-01
						TH-232	2.889E-01
						U-235	6.310E-02
R29	-4	-0.848	1.515	1.854	0.728	Sum	9.669E-01
						CS-137	6.815E-01
						RA-226	2.528E-01
						U-235	3.255E-02
R30	-3	0.000	1.249	2.928	0.714	Sum	1.310E+00
						CS-137	3.605E-01
						K-40	4.573E-01
						RA-226	2.445E-01
						TH-232	2.476E-01
TNK5		0.955		2.963		Sum	9.687E-02
						U-235	9.687E-02

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μR/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
		Alpha		Beta		Gamma (Sum)	
Minimum	-4	-3.969	0.668	0.177	0.567	9.687E-02	
Maximum	0	3.785	4.724	7.981	0.728	1.055E+01	
Average	-2	1.059	1.438	3.502	0.666	5.193E+00	

09-Jul-97

FIELD TECHNICAL SUPPORT DATA

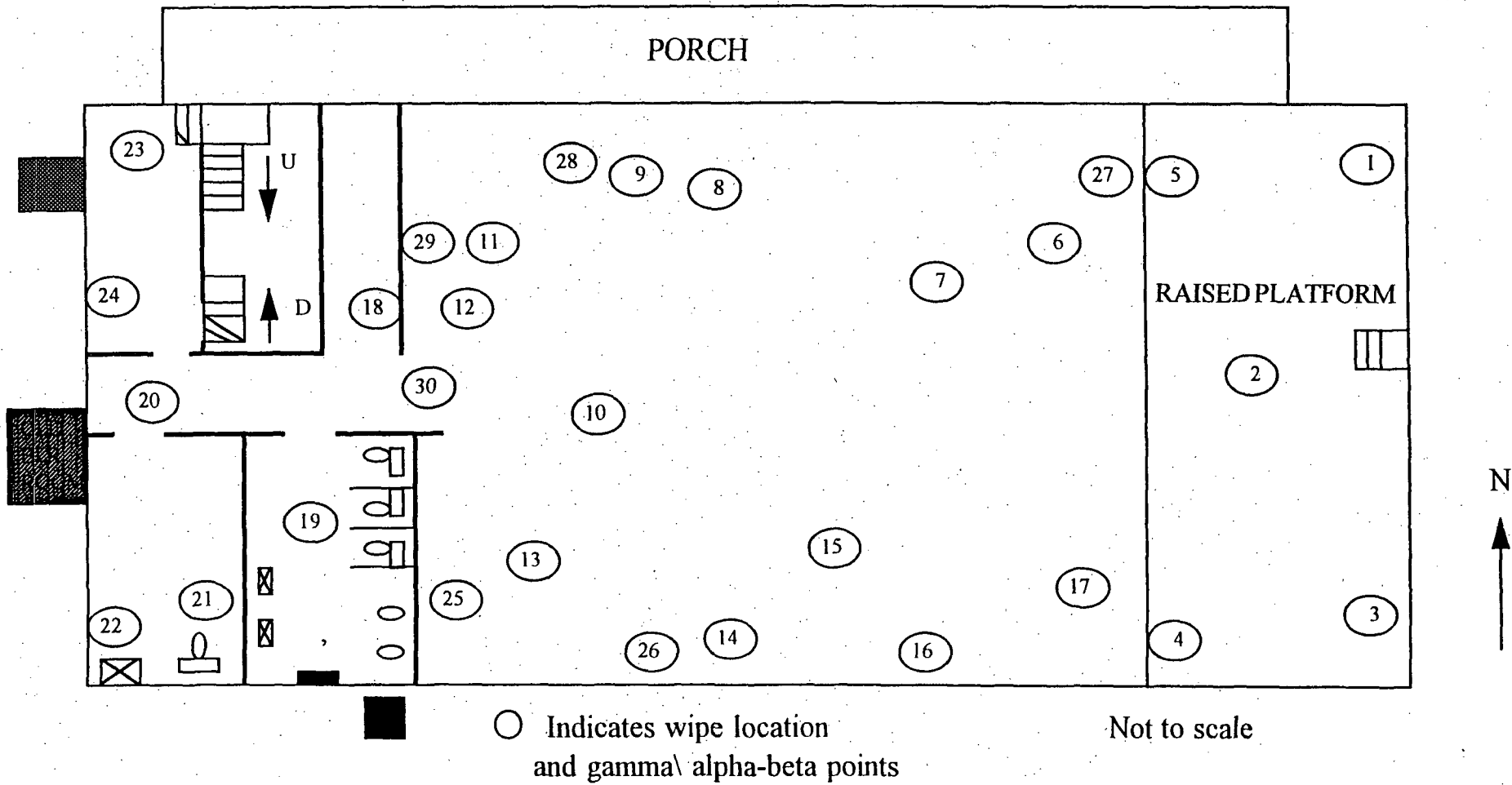
LOCATION

SOIL	
ZONE: 1A	SUBZONE: SWTP

FIELD SURVEY

GRIDS	LEAD TECH	SURVEY DATE	INST #	PROBE #	ALPHA			BETA			GAMMA	PROBE AREA
					BKG	MDA (dpm/100cm ²)	EFF. %	BKG	MDA (dpm/100cm ²)	EFF. %	BKG (μR/hr)	
R01 - R30	GATES	15-Oct-96	131280								8	N/A

BLDG 9004 overall



08-Jul-97

RADIOLOGICAL SURVEY DATA REPORT

LOCATION

ZONE: 1A	SUBZONE: N/A
BUILDING: 9004	ROOM: ALL

All data on this report is background corrected. Negative values in the report are calculated activities that were below measured background.

Grids	GAMMA	ALPHA		BETA		LSC
	Field (μ R/hr)	Lab dpm/100cm ²	Field dpm/100cm ²	Lab dpm/100cm ²	Field dpm/100cm ²	Lab dpm/100cm ²
R01	3	-0.183	-2.8	0.283	76.7	-3.29
R02	-1	0.640	-5.5	3.463	-11.8	-4.79
R03	1	0.640	0.0	-0.353	-67.9	-11.68
R04	1	-0.183	8.3	1.131	-53.1	-7.28
R05	2	0.640	-5.5	-0.989	-23.6	-7.84
R06	1	1.189	0.0	0.707	-106.3	-11.52
R07	1	0.640	2.8	0.919	-35.4	-4.46
R08	0	0.091	5.5	-1.201	-106.3	-8.73
R09	0	0.366	11.0	1.131	-56.1	-9.64
R10	0	0.091	0.0	0.919	-97.4	-11.45
R11	0	0.366	2.8	-1.201	-180.0	-5.44
R12	-1	-0.183	-5.5	1.343	-132.8	-9.80
R13	-1	0.915	0.0	1.343	-124.0	-11.34
R14	1	0.915	-5.5	2.827	0.0	-10.98
R15	0	0.915	0.0	1.555	-82.6	-3.36
R16	-1	1.464	-2.8	-0.353	-88.5	-1.51
R17	0	0.366	-2.8	-0.565	-32.5	-3.02
R18	-2	0.366	-2.8	0.071	-304.0	-1.98

Grids	GAMMA Field (μ R/hr)	ALPHA		BETA		LSC Lab dpm/100cm ²
		Lab dpm/100cm ²	Field dpm/100cm ²	Lab dpm/100cm ²	Field dpm/100cm ²	
R19	-1	-0.183	0.0	-0.353	-141.7	-11.04
R20	0	0.091	-2.8	-2.262	-183.0	-5.56
R21	1	-0.183	19.3	0.707	1,021.3	0.00
R22	1	-0.183	13.8	-0.353	1,041.9	2.20
R23	-1	0.091	-2.8	-0.353	-147.6	-5.01
R24	-1	0.091	2.8	-0.777	-245.0	4.38
R25	0	-0.183	-2.8	-1.201	-357.1	-8.62
R26	0	0.640	2.8	-0.777	-289.3	-5.33
R27	2	-0.183	-2.8	0.071	-218.4	-3.61
R28	0	0.366	-2.8	-0.989	-174.1	-5.04
R29	0	-0.183	-2.8	0.707	-386.7	4.08
R30	-1	0.366	-2.8	0.071	-510.6	-8.33

08-Jul-97

LABORATORY TECHNICAL SUPPORT DATA

LOCATION

ZONE:	1A	SUBZONE:	N/A
BUILDING:	9004	ROOM:	ALL

COUNTING LAB

GRIDS	PROCESSED DATE	ALPHA			BETA			LSC
		BKG	MDA (dpm/100cm ²)	EFF. %	BKG	MDA (dpm/100cm ²)	EFF. %	BKG (cpm)
R01 - R30	21-Jan-97	0.183 dpm/100cm ² (0.067 cpm)	1.594	36.4	4.594 dpm/100cm ² (2.167 cpm)	4.326	47.2	
R01 - R30	15-Jan-97							15.40

08-Jul-97

FIELD TECHNICAL SUPPORT DATA

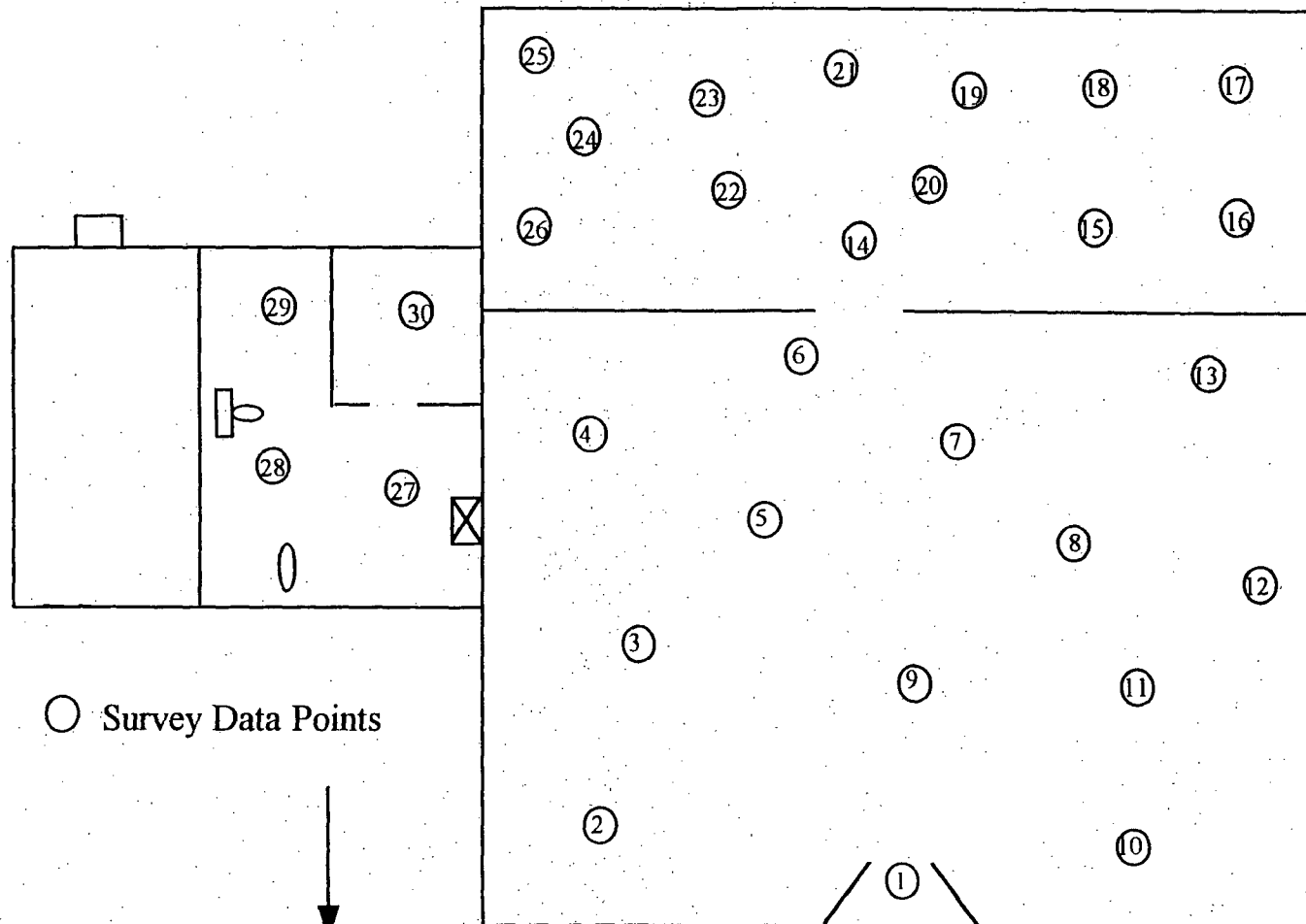
LOCATION

ZONE: 1A SUBZONE: N/A
BUILDING: 9004 ROOM: ALL

FIELD SURVEY

GRIDS	LEAD TECH	SURVEY DATE	INST #	PROBE #	ALPHA			BETA			GAMMA	PROBE AREA
					BKG	MDA	EFF.	BKG	MDA	EFF.	BKG	
					(dpm/100cm ²)	(dpm/100cm ²)	%	(dpm/100cm ²)	(dpm/100cm ²)	%	(μR/hr)	
R01 - R30	FINCHUM	10-Mar-97	133666	139659	6 dpm/100cm ² (2 cpm)	21	36.20	1033 dpm/100cm ² (350 cpm)	207	33.88		100 cm ²
R01 - R30	GATES	18-Feb-97	131280								7	N/A

Bldg. 9005



08-Jul-97

RADIOLOGICAL SURVEY DATA REPORT

LOCATION

ZONE:	1A	SUBZONE:	N/A
BUILDING:	9005	ROOM:	ALL

All data on this report is background corrected. Negative values in the report are calculated activities that were below measured background.

Grids	GAMMA	ALPHA		BETA		LSC
	Field (μ R/hr)	Lab dpm/100cm ²	Field dpm/100cm ²	Lab dpm/100cm ²	Field dpm/100cm ²	Lab dpm/100cm ²
R01	0	0.246	5.5	0.422	-221.4	-5.99
R02	0	-0.848	2.8	1.477	-245.0	-5.51
R03	-1	-0.848	2.8	1.266	-191.9	-7.24
R04	0	-0.574	2.8	0.000	-428.0	3.10
R05	0	-0.848	2.8	0.000	-224.3	-5.85
R06	0	-0.848	2.8	-1.266	-416.2	0.46
R07	0	0.246	0.0	0.211	-227.3	-6.92
R08	0	-0.574	2.8	-0.633	-150.5	0.00
R09	0	-0.301	2.8	-1.055	-265.6	-2.65
R10	-1	0.246	0.0	0.422	-215.5	-10.43
R11	0	-0.848	0.0	-1.477	-59.0	-11.76
R12	-1	-0.574	2.8	2.532	-247.9	-8.60
R13	-1	-0.027	2.8	1.055	-262.7	-16.24
R14	-1	-0.848	2.8	0.844	-454.5	-7.22
R15	0	-0.027	0.0	-1.477	-121.0	-7.05
R16	0	-0.574	0.0	0.633	-318.8	-6.08
R17	0	-0.848	0.0	-1.266	-292.2	-5.68
R18	0	-0.574	0.0	1.477	-141.7	-11.11

Grids	GAMMA	ALPHA		BETA		LSC
	Field (μ R/hr)	Lab dpm/100cm ²	Field dpm/100cm ²	Lab dpm/100cm ²	Field dpm/100cm ²	Lab dpm/100cm ²
R19	0	-0.301	0.0	-0.211	-265.6	2.36
R20	0	0.246	2.8	-0.211	-280.4	-10.05
R21	0	-1.121	5.5	1.477	-144.6	-17.80
R22	0	-0.574	2.8	0.211	-250.9	1.37
R23	0	0.246	0.0	-0.211	-242.0	-3.37
R24	0	-0.848	5.5	1.477	-150.5	-9.86
R25	-1	-0.848	0.0	-0.844	-259.7	-14.63
R26	0	-0.848	5.5	1.266	-215.5	-3.85
R27	2	-0.574	5.5	-0.211	-183.0	-15.85
R28	0	-0.848	0.0	0.000	-377.8	-10.85
R29	2	-0.574	8.3	-0.422	-91.5	-9.94
R30	3	-0.848	11.0	-1.477	-112.2	-3.05

08-Jul-97

LABORATORY TECHNICAL SUPPORT DATA

LOCATION

ZONE:	1A	SUBZONE:	N/A
BUILDING:	9005	ROOM:	ALL

COUNTING LAB

GRIDS	PROCESSED DATE	ALPHA			BETA			LSC
		BKG	MDA (dpm/100cm ²)	EFF. %	BKG	MDA (dpm/100cm ²)	EFF. %	BKG (cpm)
R01 - R30	22-Jan-97	1.121 dpm/100cm ² (0.410 cpm)	2.607	36.6	4.642 dpm/100cm ² (2.200 cpm)	3.911	47.4	
R01 - R30	15-Jan-97							15.80

08-Jul-97

FIELD TECHNICAL SUPPORT DATA

LOCATION

ZONE: 1A SUBZONE: N/A

BUILDING: 9005 ROOM: ALL

FIELD SURVEY

GRIDS	LEAD TECH	SURVEY DATE	INST #	PROBE #	ALPHA			BETA			GAMMA	PROBE AREA
					BKG	MDA	EFF.	BKG	MDA	EFF.	BKG	
					(dpm/100cm ²)		%	(dpm/100cm ²)		%	(μR/hr)	
R01 - R30	FINCHUM	11-Mar-97	133666	139659	0 dpm/100cm ² (0 cpm)	7	36.20	942 dpm/100cm ² (319 cpm)	197	33.88		100 cm ²
R01 - R30	GATES	18-Feb-97	131280								4	N/A

08-Jul-97

RADIOLOGICAL SURVEY DATA REPORT

LOCATION

WATER	
ZONE: 1A	SUBZONE:
BUILDING: 9004	ROOM: BMNT

All lab data are gross values.

GRIDS	LAB				
	ALPHA		BETA		GAMMA
	pCi/l	MDA (pCi/l)	pCi/l	MDA (pCi/l)	Nuclide pCi/l
1	-0.665	3.538	5.620	3.870	Sum 0.000E+00
					0.000E+00

	Alpha		Beta		Gamma (Sum)
Minimum	-0.665	3.538	5.620	3.870	0.000E+00
Maximum	-0.665	3.538	5.620	3.870	0.000E+00
Average	-0.665	3.538	5.620	3.870	0.000E+00

10-Jul-97

RADIOLOGICAL SURVEY DATA REPORT

LOCATION

WATER			
ZONE:	1A	SUBZONE:	STP
BUILDING:	9080	ROOM:	BMNT

All lab data are gross values.

GRIDS	LAB					
	ALPHA		BETA		GAMMA	
	pCi/l	MDA (pCi/l)	pCi/l	MDA (pCi/l)	Nuclide	pCi/l
1	9.356	18.096	44.649	3.627	Sum	0.000E+00
						0.000E+00

	Alpha		Beta		Gamma (Sum)	
Minimum	9.356	18.096	44.649	3.627		0.000E+00
Maximum	9.356	18.096	44.649	3.627		0.000E+00
Average	9.356	18.096	44.649	3.627		0.000E+00

08-Jul-97

RADIOLOGICAL SURVEY DATA REPORT

LOCATION

WATER

ZONE: 1A

SUBZONE: N/A

BUILDING: SWTP

ROOM: TANKS

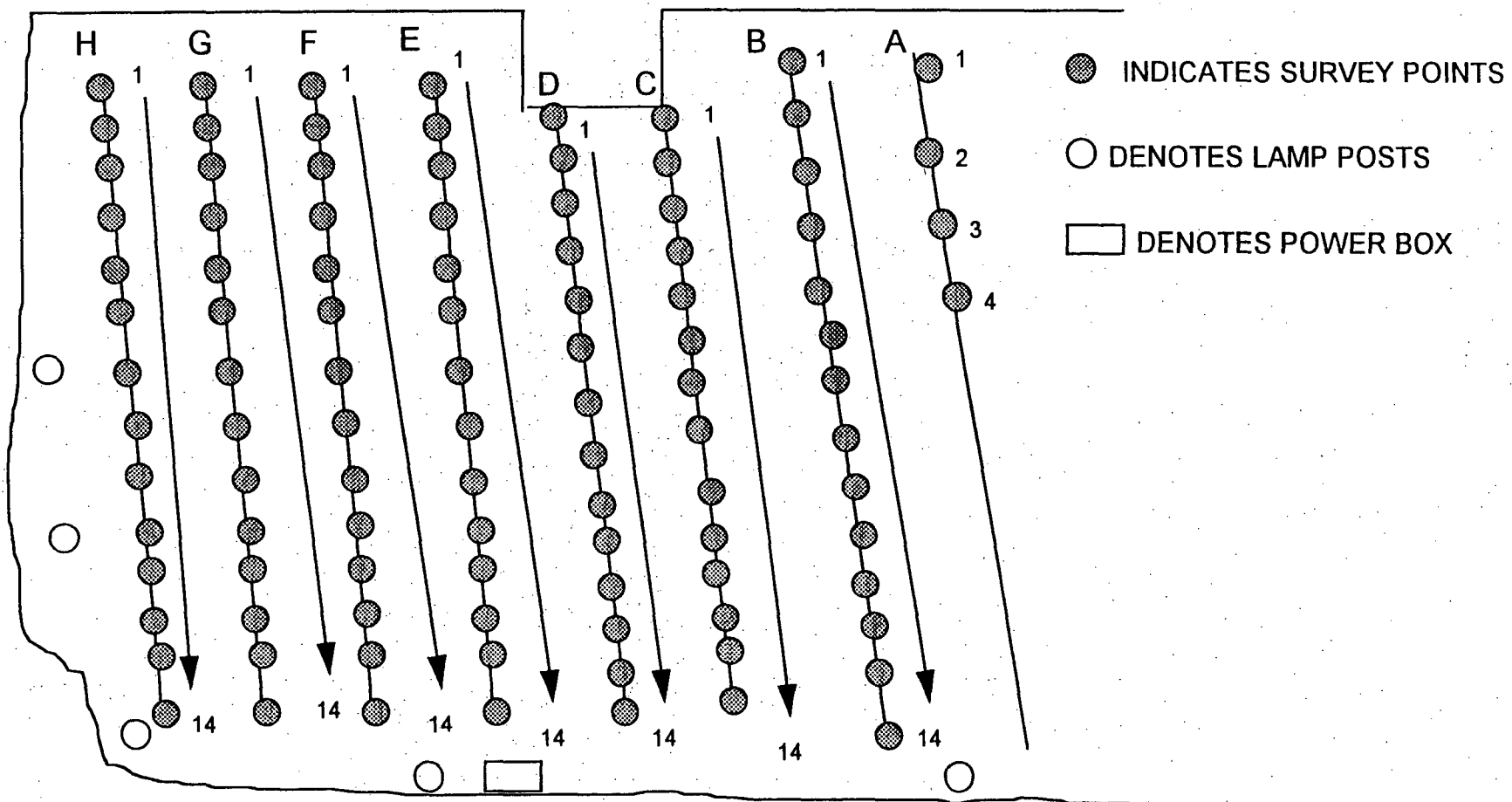
All lab data are gross values.

GRIDS	LAB				
	ALPHA		BETA		GAMMA
	pCi/l	MDA (pCi/l)	pCi/l	MDA (pCi/l)	Nuclide pCi/l
TANK 1	1.654	7.038	9.758	3.413	Sum 1.226E+01
					U-235 1.226E+01
TANK 2	-1.146	6.094	8.778	3.778	Sum 6.552E+00
					U-235 6.552E+00

	Alpha		Beta		Gamma (Sum)
Minimum	-1.146	6.094	8.778	3.413	6.552E+00
Maximum	1.654	7.038	9.758	3.778	1.226E+01
Average	0.254	6.566	9.268	3.595	9.406E+00

CHARLESWOOD AREA

(Reference-1)



03-Jul-97

RADIOLOGICAL SURVEY DATA REPORT

CHARLES WOOD REFERENCE DATA

LOCATION

SOIL

ZONE: R1

SUBZONE: N/A

All lab data are gross values.

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
RA01	6	1.670	1.236	7.501	0.606	Sum	1.316E+01
						CS-137	2.271E-01
						K-40	1.195E+01
						RA-226	6.221E-01
						TH-232	3.041E-01
						U-235	5.342E-02
RA02	7	8.277	0.997	12.651	0.606	Sum	1.915E+01
						CS-137	1.262E-01
						K-40	1.791E+01
						RA-226	7.295E-01
						TH-232	2.690E-01
						U-235	1.165E-01
RA03	7	4.703	1.874	15.127	0.651	Sum	2.258E+01
						K-40	2.151E+01
						RA-226	7.530E-01
						TH-232	2.337E-01
						U-235	8.068E-02

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
RA04	7	7.916	1.640	10.916	0.638	Sum	1.805E+01
						CS-137	7.703E-02
						K-40	1.695E+01
						RA-226	5.097E-01
						TH-232	3.002E-01
						U-235	2.149E-01
RB01	6	2.154	0.858	5.682	0.626	Sum	8.547E+00
						CS-137	4.370E-01
						K-40	7.221E+00
						RA-226	2.675E-01
						TH-232	2.610E-01
						U-235	3.604E-01
RB02	6	1.137	0.842	3.432	0.648	Sum	7.490E+00
						CS-137	2.721E-01
						K-40	6.549E+00
						RA-226	3.634E-01
						TH-232	2.593E-01
						U-235	4.649E-02
RB03	6	2.899	0.790	4.518	0.658	Sum	5.717E+00
						CS-137	2.244E-01
						K-40	4.871E+00
						RA-226	3.388E-01
						TH-232	2.394E-01
						U-235	4.366E-02

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
RB04	6	0.969	0.717	2.981	0.661	Sum	7.421E+00
						CS-137	1.986E-01
						K-40	6.487E+00
						RA-226	3.143E-01
						TH-232	3.648E-01
						U-235	5.597E-02
RB05	6	1.709	0.886	2.951	0.632	Sum	8.371E+00
						CS-137	2.740E-01
						K-40	7.305E+00
						RA-226	3.055E-01
						TH-232	4.462E-01
						U-235	4.045E-02
RB06	7	0.871	0.644	4.392	0.654	Sum	8.922E+00
						CE-144	8.109E-01
						CS-137	3.930E-01
						K-40	7.280E+00
						RA-226	4.384E-01
RB07	7	4.440	1.045	6.966	0.654	Sum	8.276E+00
						CS-137	2.826E-01
						K-40	7.338E+00
						RA-226	2.582E-01
						TH-232	3.648E-01
						U-235	3.271E-02

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
RB08	7	1.927	0.998	4.289	0.654	Sum	9.866E+00
						CS-137	3.267E-01
						K-40	8.767E+00
						RA-226	3.500E-01
						TH-232	3.800E-01
						U-235	4.266E-02
RB09	6	6.125	1.133	5.316	0.641	Sum	6.573E+00
						CS-137	2.190E-01
						K-40	5.745E+00
						RA-226	2.852E-01
						TH-232	2.843E-01
						U-235	3.979E-02
RB10	7	3.587	0.978	6.758	0.664	Sum	9.518E+00
						CS-137	2.762E-01
						K-40	8.454E+00
						RA-226	3.464E-01
						TH-232	3.748E-01
						U-235	6.709E-02
RB11	6	3.784	1.032	5.311	0.617	Sum	9.775E+00
						CS-137	3.550E-01
						K-40	9.071E+00
						RA-226	3.312E-01
						U-235	1.748E-02

GRIDS	FIELD	LAB					
	GAMMA (μ R/hr)	ALPHA pCi/gm MDA (pCi/gm)		BETA pCi/gm MDA (pCi/gm)		GAMMA Nuclide pCi/gm	
RB12	6	6.871	1.271	5.805	0.651	Sum	6.318E+00
						CS-137	2.141E-01
						K-40	5.732E+00
						RA-226	3.644E-01
						U-235	7.653E-03
RB13	6	2.063	1.527	7.348	0.661	Sum	1.111E+01
						CS-137	2.297E-01
						K-40	9.615E+00
						RA-226	4.166E-01
						RU-106	4.363E-01
						TH-232	4.140E-01
RB14	6	5.684	1.178	6.564	0.635	Sum	6.977E+00
						CS-137	3.090E-01
						K-40	5.941E+00
						RA-226	3.239E-01
						TH-232	3.733E-01
						U-235	2.931E-02
RC01	6	2.369	0.767	4.780	0.651	Sum	6.685E+00
						CS-137	3.758E-01
						K-40	6.309E+00
RC02	7	2.162	0.862	5.265	0.635	Sum	6.868E+00
						CS-137	2.969E-01
						K-40	6.571E+00

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
RC03	7	4.402	0.736	4.268	0.651	Sum	7.593E+00
						CS-137	3.007E-01
						K-40	6.918E+00
						RA-226	3.358E-01
						U-235	3.861E-02
RC04	6	13.114	4.135	5.575	0.680	Sum	9.926E+00
						CS-137	3.511E-01
						K-40	8.821E+00
						RA-226	3.866E-01
						TH-232	2.962E-01
						U-235	7.104E-02
RC05	6	0.000	3.544	6.001	0.670	Sum	6.881E+00
						CS-137	3.601E-01
						K-40	6.364E+00
						U-235	1.567E-01
RC06	6	1.932	2.031	5.970	0.690	Sum	9.327E+00
						CS-137	3.144E-01
						K-40	8.133E+00
						RA-226	3.490E-01
						TH-232	4.172E-01
						U-235	1.132E-01
RC07	6	5.104	2.682	5.602	0.683	Sum	8.676E+00
						CS-137	4.050E-01
						K-40	7.883E+00
						RA-226	3.563E-01
						U-235	3.136E-02

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
RC08	6	2.142	3.378	7.974	0.683	Sum	8.577E+00
						CS-137	3.697E-01
						K-40	7.435E+00
						TH-232	7.006E-01
						U-235	7.219E-02
RC09	6	-1.842	5.809	6.804	0.690	Sum	8.171E+00
						CS-137	4.617E-01
						K-40	7.384E+00
						RA-226	2.549E-01
						U-235	7.043E-02
RC10	6	3.634	1.910	6.728	0.704	Sum	9.518E+00
						CE-144	1.378E-01
						CS-137	3.107E-01
						K-40	8.276E+00
						RA-226	4.070E-01
						TH-232	2.963E-01
						U-235	9.033E-02
RC11	6	4.896	1.930	8.174	0.700	Sum	8.722E+00
						CS-137	4.451E-01
						K-40	7.530E+00
						RA-226	3.252E-01
						TH-232	3.950E-01
						U-235	2.634E-02

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
RC12	6	0.000	2.039	5.241	0.704	Sum	8.653E+00
						CS-137	3.301E-01
						K-40	7.842E+00
						RA-226	3.583E-01
						U-235	1.229E-01
RC13	5	8.347	3.290	8.387	0.683	Sum	1.248E+01
						CS-137	3.488E-01
						K-40	1.100E+01
						RA-226	5.114E-01
						TH-232	5.386E-01
						U-235	8.288E-02
RC14	6	1.089	1.716	4.674	0.683	Sum	9.557E+00
						AM-241	9.449E-02
						CS-137	3.655E-01
						K-40	8.275E+00
						RA-226	3.830E-01
						TH-232	3.835E-01
						U-235	5.546E-02
RD01	5	2.835	1.490	5.037	0.676	Sum	4.955E+00
						CS-137	3.966E-01
						K-40	4.558E+00
RD02	6	2.744	1.236	4.263	0.700	Sum	6.552E+00
						CS-137	4.474E-01
						K-40	5.758E+00
						RA-226	3.105E-01
						U-235	3.647E-02

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
RD03	6	4.448	1.753	5.368	0.667	Sum	7.210E+00
						CS-137	2.777E-01
						K-40	6.162E+00
						RA-226	3.526E-01
						TH-232	3.437E-01
						U-235	7.422E-02
RD04	6	2.614	2.060	5.666	0.704	Sum	7.206E+00
						CS-137	3.494E-01
						K-40	6.557E+00
						RA-226	3.000E-01
RD05	6	0.866	1.365	3.082	0.673	Sum	8.013E+00
						CS-137	3.669E-01
						K-40	6.947E+00
						RA-226	3.772E-01
						TH-232	2.595E-01
						U-235	6.270E-02
RD06	6	2.995	1.574	4.369	0.700	Sum	7.927E+00
						CS-137	3.129E-01
						K-40	6.855E+00
						RA-226	2.787E-01
						TH-232	4.807E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
RD07	6	5.720	2.577	5.956	0.676	Sum	8.024E+00
						CS-137	3.144E-01
						K-40	6.873E+00
						RA-226	3.194E-01
						TH-232	4.678E-01
						U-235	4.944E-02
RD08	7	7.936	3.575	7.223	0.700	Sum	1.308E+01
						CS-137	2.700E-01
						K-40	1.182E+01
						RA-226	3.830E-01
						TH-232	5.370E-01
						U-235	7.362E-02
RD09	6	9.463	2.295	8.069	0.700	Sum	1.215E+01
						CS-137	3.192E-01
						K-40	1.105E+01
						RA-226	3.709E-01
						TH-232	3.215E-01
						U-235	9.266E-02
RD10	6	5.202	3.281	10.124	0.711	Sum	1.074E+01
						CS-137	3.752E-01
						K-40	9.529E+00
						RA-226	4.214E-01
						TH-232	3.556E-01
						U-235	6.268E-02

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
RD11	5	10.874	3.429	5.912	0.683	Sum	9.507E+00
						CS-137	2.949E-01
						K-40	8.162E+00
						RA-226	3.996E-01
						TH-232	5.250E-01
						U-235	1.255E-01
RD12	7	10.498	3.678	9.167	0.680	Sum	1.111E+01
						CS-137	2.798E-01
						K-40	9.809E+00
						RA-226	4.327E-01
						TH-232	5.151E-01
						U-235	7.346E-02
RD13	7	1.261	1.988	6.797	0.711	Sum	7.947E+00
						CS-137	2.402E-01
						K-40	6.784E+00
						RA-226	3.751E-01
						TH-232	4.582E-01
						U-235	8.940E-02
RD14	6	2.954	1.552	5.616	0.711	Sum	6.255E+00
						CS-137	1.484E-01
						K-40	5.478E+00
						RA-226	2.634E-01
						TH-232	3.305E-01
						U-235	3.507E-02

GRIDS	FIELD GAMMA (pR/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
RE01	6	1.145	1.805	5.819	0.697	Sum	5.660E+00
						CS-137	8.140E-01
						K-40	4.427E+00
						RA-226	2.728E-01
						U-235	1.457E-01
RE02	6	0.486	1.532	5.321	0.714	Sum	6.989E+00
						CS-137	3.204E-01
						K-40	5.998E+00
						RA-226	3.465E-01
						TH-232	3.238E-01
RE03	6	3.638	1.912	4.549	0.680	Sum	7.164E+00
						CS-137	2.486E-01
						K-40	6.555E+00
						RA-226	2.129E-01
						TH-232	1.471E-01
RE04	6	0.000	2.059	6.074	0.690	Sum	9.060E+00
						CS-137	3.256E-01
						K-40	8.050E+00
						RA-226	3.144E-01
						TH-232	3.278E-01
						U-235	4.260E-02
RE05	6	2.878	1.815	4.179	0.686	Sum	6.137E+00
						CS-137	1.946E-01
						K-40	5.639E+00
						TH-232	3.030E-01

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
RE06	6	4.011	1.807	4.754	0.680	Sum	7.119E+00
						CS-137	3.222E-01
						K-40	6.076E+00
						RA-226	3.004E-01
						TH-232	2.955E-01
						U-235	1.246E-01
RE07	6	4.002	2.103	4.594	0.686	Sum	1.046E+01
						CS-137	3.470E-01
						K-40	1.011E+01
RE08	6	3.448	2.174	5.714	0.697	Sum	6.419E+00
						CS-137	3.372E-01
						K-40	5.725E+00
						RA-226	2.767E-01
						U-235	7.997E-02
RE09	6	0.504	1.590	6.104	0.693	Sum	5.846E+00
						AM-241	1.660E-01
						CS-137	2.918E-01
						K-40	5.156E+00
						RA-226	2.203E-01
						U-235	1.221E-02
RE10	6	2.658	2.095	5.548	0.676	Sum	7.595E+00
						CS-137	3.096E-01
						K-40	6.494E+00
						RA-226	3.475E-01
						TH-232	3.631E-01
						U-235	8.113E-02

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
RE11	6	2.435	2.560	7.791	0.704	Sum	7.354E+00
						CS-137	3.126E-01
						K-40	6.482E+00
						RA-226	2.635E-01
						TH-232	2.343E-01
						U-235	6.179E-02
RE12	6	-1.305	4.115	9.205	0.715	Sum	9.740E+00
						CS-137	2.932E-01
						K-40	8.230E+00
						RA-226	3.731E-01
						RU-106	2.563E-01
						TH-232	4.364E-01
						U-235	1.506E-01
RE13	5	1.971	3.107	7.397	0.697	Sum	7.652E+00
						CS-137	3.413E-01
						K-40	6.904E+00
						RA-226	2.587E-01
						U-235	1.483E-01
RE14	5	0.558	1.761	1.854	0.670	Sum	7.096E+00
						CS-137	2.487E-01
						K-40	6.847E+00
RF01	5	0.943	1.486	4.978	0.697	Sum	6.974E+00
						CS-137	2.688E-01
						K-40	6.705E+00

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
RF02	5	5.337	2.805	11.461	0.707	Sum	6.887E+00
						CE-144	2.473E-01
						CS-137	2.589E-01
						K-40	5.734E+00
						RA-226	3.305E-01
						TH-232	3.160E-01
RF03	6	1.272	2.005	6.074	0.690	Sum	7.689E+00
						CS-137	3.179E-01
						K-40	6.741E+00
						RA-226	2.703E-01
						TH-232	3.205E-01
						U-235	3.937E-02
RF04	6	-0.693	2.185	4.607	0.673	Sum	8.655E+00
						CS-137	3.853E-01
						K-40	7.499E+00
						RA-226	3.048E-01
						U-235	4.660E-01
RF05	5	3.829	2.415	7.284	0.676	Sum	8.315E+00
						CS-137	3.140E-01
						K-40	7.290E+00
						RA-226	3.151E-01
						TH-232	3.730E-01
						U-235	2.311E-02

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
RF06	6	1.555	1.635	5.449	0.690	Sum	8.467E+00
						CS-137	4.247E-01
						K-40	7.282E+00
						RA-226	2.682E-01
						TH-232	3.716E-01
						U-235	1.209E-01
RF07	6	1.030	1.624	6.044	0.686	Sum	7.368E+00
						CS-137	2.087E-01
						K-40	6.686E+00
						RA-226	2.578E-01
						TH-232	1.611E-01
						U-235	5.428E-02
RF08	5	1.446	1.520	4.369	0.700	Sum	7.102E+00
						CS-137	1.831E-01
						K-40	6.143E+00
						RA-226	2.476E-01
						TH-232	4.704E-01
						U-235	5.755E-02
RF09	6	2.956	1.553	4.527	0.676	Sum	7.944E+00
						CS-137	2.622E-01
						K-40	7.682E+00
RF10	5	-0.447	1.410	4.662	0.697	Sum	6.436E+00
						CS-137	2.951E-01
						K-40	6.141E+00

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
RF11	5	0.490	1.545	3.471	0.690	Sum	6.142E+00
						CS-137	3.630E-01
						K-40	5.779E+00
RF12	5	0.550	0.868	3.232	0.683	Sum	6.720E+00
						CS-137	2.337E-01
						K-40	6.003E+00
						RA-226	2.550E-01
						TH-232	2.282E-01
RF13	5	0.858	1.352	2.743	0.690	Sum	8.186E+00
						CS-137	3.571E-01
						K-40	7.035E+00
						RA-226	3.518E-01
						TH-232	3.239E-01
						U-235	1.186E-01
RF14	5	1.833	1.156	3.489	0.693	Sum	7.625E+00
						CS-137	3.092E-01
						K-40	6.732E+00
						RA-226	2.250E-01
						TH-232	2.450E-01
						U-235	1.135E-01
RG01	6	0.361	1.138	3.346	0.707	Sum	8.685E+00
						CS-137	2.867E-01
						K-40	7.517E+00
						RA-226	2.534E-01
						TH-232	3.623E-01
						U-235	2.659E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
RG02	6	0.980	1.030	2.455	0.697	Sum	8.005E+00
						CS-137	2.490E-01
						K-40	7.091E+00
						RA-226	3.175E-01
						TH-232	3.476E-01
RG03	6	1.767	1.114	3.594	0.693	Sum	8.274E+00
						AM-241	1.351E-01
						CS-137	2.392E-01
						K-40	7.166E+00
						RA-226	3.441E-01
						TH-232	3.389E-01
						U-235	5.036E-02
RG04	6	1.355	1.069	3.385	0.693	Sum	7.004E+00
						CS-137	2.875E-01
						K-40	6.033E+00
						RA-226	3.188E-01
						TH-232	3.027E-01
						U-235	6.224E-02
RG05	6	2.226	1.003	4.057	0.683	Sum	8.235E+00
						CS-137	3.161E-01
						K-40	7.157E+00
						RA-226	3.579E-01
						TH-232	2.665E-01
						U-235	1.380E-01

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
RG06	6	1.473	1.161	4.414	0.707	Sum	7.133E+00
						CS-137	2.908E-01
						K-40	6.258E+00
						RA-226	2.417E-01
						TH-232	2.909E-01
						U-235	5.198E-02
RG07	6	1.403	1.106	3.041	0.711	Sum	6.959E+00
						CS-137	3.164E-01
						K-40	5.878E+00
						RA-226	3.851E-01
						TH-232	3.143E-01
						U-235	6.544E-02
RG08	7	2.000	1.261	3.899	0.711	Sum	6.297E+00
						CS-137	3.207E-01
						K-40	5.186E+00
						RA-226	3.627E-01
						TH-232	3.355E-01
						U-235	9.238E-02
RG09	6	0.620	0.977	4.307	0.707	Sum	7.151E+00
						CS-137	2.819E-01
						K-40	6.255E+00
						RA-226	2.639E-01
						TH-232	3.498E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
RG10	6	0.737	0.581	2.160	0.704	Sum	7.460E+00
						CS-137	4.326E-01
						K-40	6.617E+00
						RA-226	3.604E-01
						U-235	4.974E-02
RG11	6	-0.277	0.873	2.806	0.680	Sum	7.541E+00
						CS-137	2.962E-01
						K-40	6.849E+00
						RA-226	3.251E-01
						U-235	7.065E-02
RG12	6	2.394	1.078	3.694	0.673	Sum	6.403E+00
						CS-137	2.688E-01
						K-40	5.497E+00
						RA-226	2.458E-01
						TH-232	3.247E-01
						U-235	6.651E-02
RG13	6	0.000	0.850	3.296	0.697	Sum	5.326E+00
						CS-137	2.557E-01
						K-40	4.824E+00
						TH-232	2.465E-01
RG14	5	0.520	0.819	2.278	0.707	Sum	5.421E+00
						CS-137	3.749E-01
						K-40	5.046E+00

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
RH01	5	2.719	0.880	4.697	0.626	Sum	6.295E+00
						CS-137	3.674E-01
						K-40	5.259E+00
						RA-226	2.993E-01
						TH-232	3.382E-01
						U-235	3.104E-02
RH02	5	-0.564	0.890	2.784	0.700	Sum	7.435E+00
						CS-137	3.078E-01
						K-40	6.409E+00
						RA-226	3.903E-01
						TH-232	3.284E-01
RH03	5	0.718	1.133	3.287	0.673	Sum	7.910E+00
						CE-144	1.513E-01
						CS-137	4.210E-01
						K-40	6.569E+00
						RA-226	3.792E-01
						TH-232	3.017E-01
						U-235	8.800E-02
RH04	5	0.290	0.916	2.692	0.704	Sum	7.196E+00
						CS-137	2.679E-01
						K-40	6.266E+00
						RA-226	3.648E-01
						TH-232	2.662E-01
						U-235	3.138E-02

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
RH05	6	0.000	1.020	2.703	0.680	Sum	7.941E+00
						CS-137	2.761E-01
						K-40	6.963E+00
						RA-226	3.133E-01
						TH-232	3.160E-01
						U-235	7.291E-02
RH06	6	1.926	1.012	2.539	0.664	Sum	6.782E+00
						CS-137	2.519E-01
						K-40	5.986E+00
						RA-226	2.414E-01
						TH-232	3.024E-01
RH07	6	1.530	0.804	2.940	0.664	Sum	6.571E+00
						CS-137	1.604E-01
						K-40	5.764E+00
						RA-226	3.075E-01
						TH-232	2.581E-01
						U-235	8.083E-02
RH08	5	0.707	1.115	3.491	0.673	Sum	6.917E+00
						CS-137	2.814E-01
						K-40	6.549E+00
						U-235	8.656E-02

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
RH09	5	0.342	1.078	3.612	0.697	Sum	6.888E+00
						CS-137	3.344E-01
						K-40	5.856E+00
						RA-226	3.346E-01
						TH-232	3.049E-01
						U-235	5.835E-02
RH10	5	1.847	1.165	4.033	0.697	Sum	6.091E+00
						CS-137	1.641E-01
						K-40	5.243E+00
						RA-226	2.435E-01
						TH-232	3.796E-01
						U-235	6.053E-02
RH11	5	2.219	1.166	4.850	0.693	Sum	5.800E+00
						CS-137	2.304E-01
						K-40	4.941E+00
						RA-226	2.855E-01
						TH-232	2.764E-01
						U-235	6.634E-02
RH12	5	0.000	1.124	3.385	0.693	Sum	6.725E+00
						CS-137	2.958E-01
						K-40	5.709E+00
						RA-226	3.419E-01
						TH-232	3.213E-01
						U-235	5.657E-02

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
RH13	5	3.144	1.101	2.798	0.704	Sum	5.892E+00
						CS-137	2.716E-01
						K-40	5.132E+00
						RA-226	2.761E-01
						TH-232	1.859E-01
						U-235	2.592E-02
RH14	5	2.953	1.552	2.107	0.722	Sum	5.630E+00
						CS-137	3.278E-01
						K-40	4.596E+00
						RA-226	3.303E-01
						TH-232	2.894E-01
						U-235	8.601E-02

		Alpha		Beta		Gamma (Sum)
Minimum	5	-1.842	0.581	1.854	0.606	4.955E+00
Maximum	7	13.114	5.809	15.127	0.722	2.258E+01
Average	6	2.601	1.660	5.241	0.681	8.166E+00

03-Jul-97

FIELD TECHNICAL SUPPORT DATA

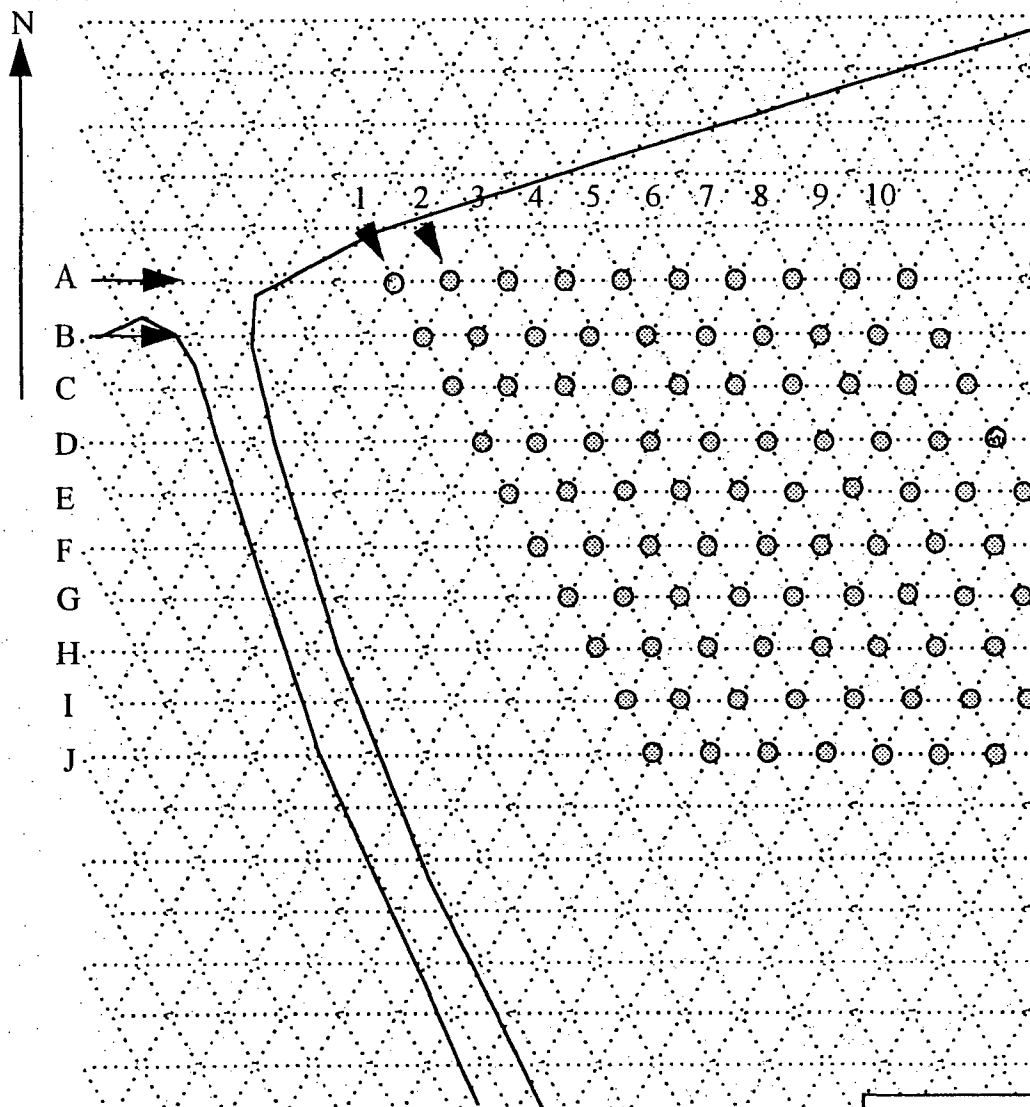
CHARLES WOOD REFERENCE DATA

LOCATION

SOIL	
ZONE: R1	SUBZONE: N/A

FIELD SURVEY

GRIDS	LEAD TECH	SURVEY DATE	INST #	PROBE #	ALPHA			BETA			GAMMA	PROBE AREA
					BKG	MDA (dpm/100cm ²)	EFF. %	BKG	MDA (dpm/100cm ²)	EFF. %	BKG (μR/hr)	
RA01 - RD14	GATES	21-Aug-96	131280									N/A
RE01 - RH14	GATES	22-Aug-96	131280									N/A



CHARLESWOOD
REFERENCE-2

03-Jul-97

RADIOLOGICAL SURVEY DATA REPORT

CHARLES WOOD REFERENCE DATA

LOCATION

SOIL	
ZONE: R2	SUBZONE: N/A

All lab data are gross values.

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
A01	5	1.679	1.187	2.627	0.730	Sum	4.704E+00
						CS-137	6.868E-01
						K-40	4.017E+00
A02	5	-1.140	1.128	1.385	0.723	Sum	4.444E+00
						CS-137	2.946E-01
						K-40	3.627E+00
						RA-226	3.462E-01
						U-235	1.762E-01
A03	5	2.923	3.616	4.573	0.730	Sum	5.004E+00
						K-40	4.805E+00
						RA-226	1.994E-01
A04	4	-0.184	1.818	1.272	0.716	Sum	5.365E+00
						CS-137	2.652E-01
						K-40	5.100E+00

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
A05	5	0.741	1.467	1.706	0.730	Sum	5.624E+00
						CS-137	1.630E-01
						K-40	4.827E+00
						RA-226	2.687E-01
						TH-232	3.195E-01
						U-235	4.574E-02
A06	5	0.224	1.107	1.612	0.733	Sum	5.990E+00
						CS-137	3.967E-01
						K-40	5.593E+00
A07	6	-0.125	1.241	0.686	0.733	Sum	5.633E+00
						CE-144	2.152E-01
						CS-137	6.108E-01
						K-40	4.033E+00
						RA-226	4.189E-01
						TH-232	2.749E-01
						U-235	8.013E-02
A08	5	-0.119	1.181	-0.135	0.723	Sum	6.052E+00
						CS-137	3.210E-01
						K-40	4.939E+00
						RA-226	3.214E-01
						TH-232	4.708E-01
A09	6	1.754	2.170	2.552	0.709	Sum	5.584E+00
						CS-137	5.310E-01
						K-40	4.955E+00
						U-235	9.814E-02

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
A10	5	-0.100	0.990	1.206	0.737	Sum	7.284E-01
						CS-137	1.938E-01
						RA-226	4.388E-01
						U-235	9.576E-02
B01	4	-0.673	1.666	2.452	0.709	Sum	5.748E+00
						CS-137	4.406E-01
						K-40	5.191E+00
						U-235	1.161E-01
B02	6	-0.135	1.341	4.304	0.719	Sum	5.655E+00
						CS-137	3.825E-01
						K-40	5.272E+00
B03	5	-0.127	1.256	3.413	0.723	Sum	5.515E+00
						CE-144	1.912E-01
						CS-137	1.932E-01
						K-40	4.877E+00
						TH-232	2.535E-01
B04	4	0.366	1.809	3.395	0.741	Sum	6.569E+00
						CS-137	2.911E-01
						K-40	6.278E+00
B05	5	-1.054	1.491	3.187	0.741	Sum	5.067E+00
						CS-137	6.307E-01
						K-40	4.436E+00

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
B06	5	-0.214	2.115	5.392	0.730	Sum	6.709E+00
						CS-137	7.413E-01
						K-40	5.029E+00
						RA-226	4.130E-01
						TH-232	4.538E-01
						U-235	7.230E-02
B07	4	1.215	1.093	4.822	0.692	Sum	7.720E+00
						AM-241	8.773E-02
						CS-137	6.639E-01
						K-40	5.997E+00
						RA-226	4.034E-01
						TH-232	4.541E-01
						U-235	1.136E-01
B08	4	0.254	1.258	2.175	0.716	Sum	7.378E+00
						CS-137	2.602E-01
						K-40	6.340E+00
						RA-226	3.185E-01
						TH-232	3.724E-01
						U-235	8.701E-02
B09	4	1.077	1.332	2.211	0.695	Sum	5.935E+00
						CS-137	1.860E-01
						K-40	5.341E+00
						RA-226	4.084E-01

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
B10	6	0.268	1.329	3.248	0.709	Sum	7.542E+00
						CS-137	5.430E-01
						K-40	6.503E+00
						RA-226	4.060E-01
						U-235	8.986E-02
C01	5	2.216	1.567	8.458	0.712	Sum	1.071E+01
						CS-137	2.843E+00
						K-40	6.352E+00
						RA-226	6.318E-01
						TH-232	7.621E-01
						U-235	1.175E-01
C02	5	2.418	2.176	3.284	0.695	Sum	6.877E+00
						CS-137	3.308E-01
						K-40	6.546E+00
C03	5	0.933	1.155	2.589	0.719	Sum	7.783E+00
						CS-137	3.804E-01
						K-40	7.403E+00
C04	5	-0.391	0.967	1.427	0.745	Sum	5.541E+00
						CS-137	2.726E-01
						K-40	4.887E+00
						RA-226	3.227E-01
						U-235	5.895E-02

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
C05	4	1.458	1.804	3.914	0.741	Sum	7.768E+00
						CS-137	2.723E-01
						K-40	6.959E+00
						RA-226	2.185E-01
						TH-232	2.851E-01
						U-235	3.268E-02
C06	6	0.238	1.177	3.344	0.730	Sum	5.313E+00
						CS-137	3.945E-01
						K-40	4.919E+00
C07	4	-0.107	1.062	2.123	0.699	Sum	6.485E+00
						CS-137	4.899E-01
						K-40	5.223E+00
						RA-226	3.054E-01
						TH-232	4.246E-01
						U-235	4.165E-02
C08	5	-0.443	1.095	2.207	0.726	Sum	5.661E+00
						CS-137	5.588E-01
						K-40	5.102E+00
C09	4	0.778	0.963	2.332	0.733	Sum	5.370E+00
						CS-137	4.350E-01
						K-40	4.498E+00
						TH-232	3.233E-01
						U-235	1.134E-01

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
C10	6	0.224	1.107	3.691	0.699	Sum	8.289E+00
						CS-137	4.334E-01
						K-40	7.571E+00
						RA-226	2.849E-01
D01	7	3.476	1.125	5.731	0.654	Sum	8.816E+00
						CS-137	8.821E-01
						K-40	6.771E+00
						RA-226	5.342E-01
						TH-232	5.827E-01
						U-235	4.592E-02
D02	6	0.111	0.577	2.865	0.635	Sum	6.653E+00
						CS-137	3.597E-01
						K-40	5.724E+00
						RA-226	2.002E-01
						TH-232	2.967E-01
						U-235	7.238E-02
D03	5	1.048	0.543	3.793	0.657	Sum	6.314E+00
						CS-137	8.674E-01
						K-40	5.206E+00
						TH-232	2.410E-01
D04	5	4.041	0.675	2.299	0.645	Sum	8.946E+00
						CS-137	4.554E-01
						K-40	8.374E+00
						U-235	1.166E-01

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
D05	5	0.666	0.493	1.597	0.648	Sum	3.509E+00
						CS-137	1.833E-01
						K-40	3.326E+00
D06	5	1.855	0.739	2.436	0.654	Sum	6.794E+00
						CS-137	5.728E-01
						K-40	5.779E+00
						RA-226	2.179E-01
						TH-232	2.247E-01
D07	4	4.159	0.862	5.449	0.658	Sum	7.385E+00
						CS-137	3.393E-01
						K-40	7.046E+00
D08	5	1.429	0.570	2.345	0.657	Sum	1.825E-01
						CS-137	1.246E-01
						U-235	5.787E-02
D09	5	1.396	0.556	0.383	0.664	Sum	2.789E+00
						CS-137	9.933E-02
						K-40	2.402E+00
						RA-226	2.139E-01
						U-235	7.421E-02
D10	4	0.984	0.392	0.789	0.654	Sum	4.822E+00
						CE-144	3.291E-01
						CS-137	3.323E-01
						K-40	3.933E+00
						RA-226	1.617E-01
						U-235	6.565E-02

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
E01	7	3.643	0.755	3.228	0.648	Sum	7.932E+00
						CE-144	4.009E-01
						CS-137	1.848E-01
						K-40	6.168E+00
						RA-226	5.735E-01
						TH-232	5.527E-01
						U-235	5.177E-02
E02	5	0.343	0.444	2.096	0.645	Sum	5.017E+00
						CS-137	2.298E-01
						K-40	4.508E+00
						U-235	2.794E-01
E03	4	1.101	0.570	3.820	0.645	Sum	4.330E+00
						CS-137	2.301E-01
						K-40	4.100E+00
E04	5	0.608	0.450	1.650	0.629	Sum	5.544E+00
						CS-137	2.812E-01
						K-40	5.263E+00
E05	6	3.573	0.597	2.966	0.657	Sum	4.906E+00
						CS-137	2.503E-01
						K-40	4.656E+00
E06	5	4.132	0.630	2.035	0.657	Sum	4.393E+00
						CS-137	2.651E-01
						K-40	4.128E+00

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
E07	5	0.091	0.471	1.912	0.651	Sum	2.308E+00
						CS-137	1.179E-01
						K-40	1.950E+00
						RA-226	2.397E-01
E08	5	0.990	0.513	2.806	0.645	Sum	6.131E+00
						CS-137	2.687E-01
						K-40	5.552E+00
						TH-232	3.105E-01
E09	6	1.749	0.697	5.060	0.661	Sum	6.498E+00
						CS-137	4.274E-01
						K-40	5.301E+00
						RA-226	2.957E-01
						TH-232	3.379E-01
						U-235	1.364E-01
E10	4	0.868	0.643	4.451	0.648	Sum	6.074E+00
						CS-137	6.671E-01
						K-40	5.407E+00
F01	8	0.623	1.112	5.499	0.707	Sum	9.609E+00
						CS-137	4.967E-01
						K-40	7.267E+00
						RA-226	8.394E-01
						TH-232	9.030E-01
						U-235	1.024E-01

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
F02	5	0.445	0.795	1.500	0.707	Sum	5.022E+00
						CS-137	2.244E-01
						K-40	4.695E+00
						U-235	1.028E-01
F03	5	-0.231	0.825	2.799	0.707	Sum	3.137E+00
						CS-137	6.564E-01
						K-40	2.481E+00
F04	5	1.303	0.776	2.638	0.717	Sum	5.861E+00
						CS-137	2.313E-01
						K-40	5.367E+00
						RA-226	2.625E-01
F05	5	0.235	0.839	1.435	0.724	Sum	4.794E+00
						CS-137	3.101E-01
						K-40	4.368E+00
						U-235	1.159E-01
F06	5	0.266	0.951	3.689	0.724	Sum	5.244E+00
						CS-137	3.989E-01
						K-40	4.581E+00
						RA-226	2.641E-01
F07	5	-0.265	0.948	3.894	0.724	Sum	6.053E+00
						CS-137	1.016E+00
						K-40	4.598E+00
						RA-226	1.949E-01
						TH-232	2.443E-01

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
F08	6	-0.693	2.473	5.325	0.710	Sum	1.408E+01
						CS-137	4.204E-01
						K-40	1.270E+01
						RA-226	3.671E-01
						TH-232	5.307E-01
						U-235	5.868E-02
F09	4	0.279	0.997	2.221	0.714	Sum	5.412E+00
						CE-144	2.601E-01
						CS-137	3.618E-01
						K-40	4.483E+00
						RA-226	2.404E-01
						U-235	6.708E-02
F10	5	0.263	0.939	1.420	0.717	Sum	5.215E+00
						CS-137	1.636E-01
						K-40	4.870E+00
						RA-226	1.816E-01
G01	7	2.353	2.473	5.820	0.697	Sum	1.240E+01
						CS-137	1.115E+00
						K-40	8.118E+00
						RA-226	1.270E+00
						TH-232	1.690E+00
						U-235	2.070E-01
G02	6	0.863	1.361	3.775	0.670	Sum	4.689E+00
						CS-137	3.317E-01
						K-40	4.128E+00
						TH-232	2.293E-01

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
G03	5	0.985	1.036	2.562	0.670	Sum	5.533E+00
						CS-137	2.695E-01
						K-40	5.264E+00
G04	5	1.227	0.967	2.418	0.686	Sum	5.289E+00
						CS-137	2.871E-01
						K-40	4.434E+00
						RA-226	2.356E-01
						TH-232	2.588E-01
						U-235	7.345E-02
G05	5	2.319	1.044	2.497	0.680	Sum	5.014E+00
						CS-137	1.531E-01
						K-40	4.401E+00
						RA-226	1.792E-01
						TH-232	2.277E-01
						U-235	5.305E-02
G06	6	0.752	1.186	3.190	0.697	Sum	5.780E+00
						CS-137	5.381E-02
						K-40	5.204E+00
						RA-226	1.933E-01
						TH-232	3.293E-01
G07	4	0.888	1.400	3.190	0.697	Sum	5.012E+00
						CS-137	3.868E-01
						K-40	3.900E+00
						RA-226	3.520E-01
						TH-232	3.309E-01
						U-235	4.204E-02
						ZONE	R2
						SUBZONE N/A	

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
G08	6	1.706	1.794	4.792	0.700	Sum	6.526E+00
						CS-137	3.670E-01
						K-40	5.480E+00
						RA-226	3.072E-01
						TH-232	3.344E-01
						U-235	3.744E-02
G09	5	0.546	1.722	3.895	0.673	Sum	7.063E+00
						CS-137	5.986E-01
						K-40	5.806E+00
						RA-226	3.465E-01
						TH-232	2.443E-01
						U-235	6.718E-02
G10	6	3.056	2.409	4.922	0.704	Sum	6.893E+00
						CS-137	1.946E-01
						K-40	5.990E+00
						RA-226	2.998E-01
						TH-232	4.083E-01
H01	4	4.583	1.314	4.801	0.686	Sum	5.771E+00
						CS-137	9.937E-02
						K-40	4.960E+00
						RA-226	3.558E-01
						TH-232	3.086E-01
						U-235	4.694E-02
H02	5	2.315	1.043	3.710	0.676	Sum	5.808E+00
						CS-137	1.142E-01
						K-40	5.694E+00

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
H03	5	1.033	1.086	1.851	0.707	Sum	5.411E+00
						CS-137	2.526E-01
						K-40	5.158E+00
H04	6	0.000	1.046	1.613	0.697	Sum	6.192E+00
						K-40	5.432E+00
						RA-226	2.322E-01
						TH-232	5.281E-01
H05	6	2.129	1.342	2.232	0.693	Sum	6.844E+00
						AM-241	2.116E-01
						CS-137	1.493E-01
						K-40	5.897E+00
						RA-226	4.674E-01
						U-235	1.186E-01
H06	6	0.398	1.255	3.199	0.676	Sum	6.964E+00
						CS-137	5.252E-01
						K-40	5.672E+00
						RA-226	2.449E-01
						U-235	5.214E-01
H07	5	0.913	1.439	3.420	0.680	Sum	5.203E+00
						CS-137	3.788E-01
						K-40	4.314E+00
						RA-226	3.202E-01
						TH-232	1.271E-01
						U-235	6.255E-02

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
H08	4	0.731	1.152	2.430	0.690	Sum	6.339E+00
						CS-137	2.156E-01
						K-40	5.974E+00
						U-235	1.490E-01
H09	6	-0.639	1.007	1.918	0.693	Sum	6.628E+00
						CS-137	1.028E-01
						K-40	6.235E+00
						RA-226	2.164E-01
						U-235	7.358E-02
H10	5	0.868	1.369	2.664	0.697	Sum	5.762E+00
						CS-137	3.092E-01
						K-40	5.453E+00
I01	4	-0.733	1.156	3.712	0.677	Sum	6.168E+00
						CS-137	1.180E+00
						K-40	4.312E+00
						RA-226	2.764E-01
						TH-232	3.459E-01
						U-235	5.404E-02
I02	5	1.425	1.498	2.372	0.674	Sum	6.915E+00
						CS-137	2.380E-01
						K-40	6.571E+00
						U-235	1.060E-01

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
I03	6	1.601	1.683	3.577	0.690	Sum	6.679E+00
						CS-137	4.103E-01
						K-40	5.815E+00
						RA-226	1.715E-01
						TH-232	2.470E-01
						U-235	3.556E-02
I04	6	0.680	1.072	1.538	0.711	Sum	5.487E+00
						CS-137	1.363E-01
						K-40	4.898E+00
						RA-226	1.684E-01
						TH-232	2.839E-01
I05	5	1.047	1.651	3.987	0.707	Sum	6.945E+00
						K-40	6.339E+00
						RA-226	2.705E-01
						TH-232	2.639E-01
						U-235	7.200E-02
I06	5	1.863	1.175	3.594	0.693	Sum	4.806E+00
						CS-137	3.570E-01
						K-40	4.345E+00
						U-235	1.040E-01
I07	5	1.214	0.957	2.442	0.693	Sum	5.034E+00
						AM-241	1.580E-01
						CS-137	1.302E-01
						K-40	4.456E+00
						RA-226	2.301E-01
						U-235	5.940E-02

GRIDS	FIELD GAMMA (μ R/hr)	LAB					
		ALPHA		BETA		GAMMA	
		pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
I08	4	0.522	0.823	2.085	0.714	Sum	5.157E+00
						CS-137	5.654E-01
						K-40	4.193E+00
						RA-226	1.275E-01
						TH-232	2.324E-01
						U-235	3.914E-02
I09	6	-0.663	1.045	1.948	0.704	Sum	7.043E+00
						CS-137	2.911E-01
						K-40	6.168E+00
						RA-226	2.374E-01
						TH-232	2.821E-01
						U-235	6.406E-02
I10	5	2.762	1.742	1.646	0.711	Sum	7.064E+00
						CS-137	2.499E-01
						K-40	6.186E+00
						RA-226	3.658E-01
						TH-232	2.283E-01
						U-235	3.394E-02
J01	5	1.413	1.114	3.132	0.707	Sum	4.288E+00
						CS-137	1.527E-01
						K-40	3.433E+00
						RA-226	2.615E-01
						TH-232	3.816E-01
						U-235	5.938E-02

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
J02	5	0.336	1.059	1.546	0.715	Sum	6.133E+00
						CS-137	2.527E-01
						K-40	5.070E+00
						RA-226	2.188E-01
						TH-232	3.732E-01
						U-235	2.178E-01
J03	4	-0.685	1.080	2.522	0.687	Sum	6.412E+00
						CS-137	1.553E-01
						K-40	5.933E+00
						RA-226	3.237E-01
J04	6	0.645	1.018	1.701	0.690	Sum	7.408E+00
						K-40	7.278E+00
						U-235	1.301E-01
J05	6	0.493	0.777	1.389	0.690	Sum	4.738E+00
						K-40	4.738E+00
J06	5	-0.315	0.995	2.182	0.711	Sum	3.398E+00
						CS-137	2.039E-01
						K-40	3.194E+00
J07	5	0.652	1.028	3.191	0.697	Sum	6.943E+00
						CS-137	1.472E-01
						K-40	6.522E+00
						RA-226	2.227E-01
						U-235	5.089E-02

GRIDS	FIELD	LAB					
	GAMMA	ALPHA		BETA		GAMMA	
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide	pCi/gm
J08	5	2.225	1.169	2.160	0.704	Sum	4.747E+00
						CS-137	1.700E-01
						K-40	3.946E+00
						RA-226	2.553E-01
						TH-232	2.725E-01
						U-235	1.031E-01
J09	6	0.000	1.032	3.056	0.690	Sum	6.278E+00
						CS-137	1.282E-01
						K-40	5.569E+00
						RA-226	2.220E-01
						TH-232	2.985E-01
						U-235	6.075E-02
J10	5	0.524	0.826	3.264	0.690	Sum	5.039E+00
						CS-137	3.170E-01
						K-40	4.654E+00
						U-235	6.773E-02

GRIDS	FIELD	LAB				
	GAMMA	ALPHA		BETA		GAMMA
	(μ R/hr)	pCi/gm	MDA (pCi/gm)	pCi/gm	MDA (pCi/gm)	Nuclide pCi/gm
		Alpha		Beta		Gamma (Sum)
Minimum	4	-1.140	0.392	-0.135	0.629	1.825E-01
Maximum	8	4.583	3.616	8.458	0.745	1.408E+01
Average	5	0.945	1.170	2.895	0.695	5.983E+00

03-Jul-97

FIELD TECHNICAL SUPPORT DATA

CHARLES WOOD REFERENCE DATA

LOCATION

SOIL	
ZONE: R2	SUBZONE: N/A

FIELD SURVEY

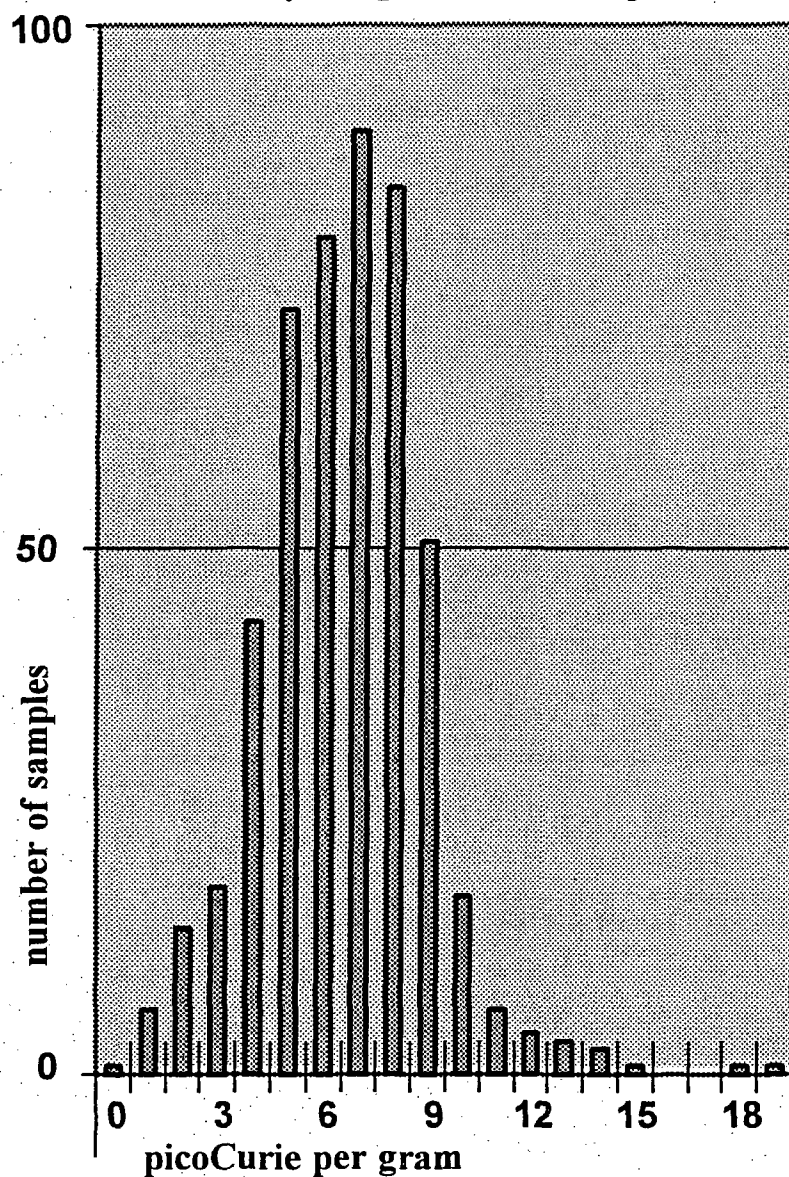
GRIDS	LEAD TECH	SURVEY DATE	INST #	PROBE #	ALPHA			BETA			GAMMA	PROBE AREA
					BKG	MDA (dpm/100cm ²)	EFF. %	BKG	MDA (dpm/100cm ²)	EFF. %	BKG (μR/hr)	
A01 - C10	FINCHUM	21-Aug-96	131265									N/A
D01 - J10	FINCHUM	22-Aug-96	131265									N/A

APPENDIX D

SOIL GROSS GAMMA ACTIVITY DISTRIBUTION
SURVEY AREAS AND BACKGROUND
GRAPHS

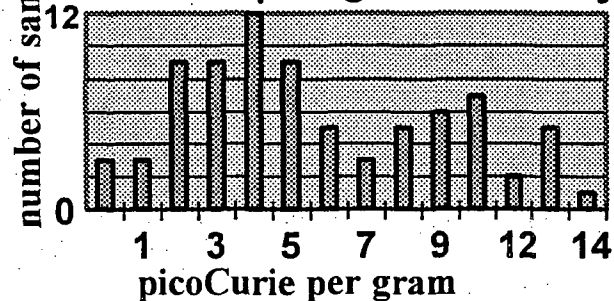
Zone 1

Soil Samples gamma activity distribution

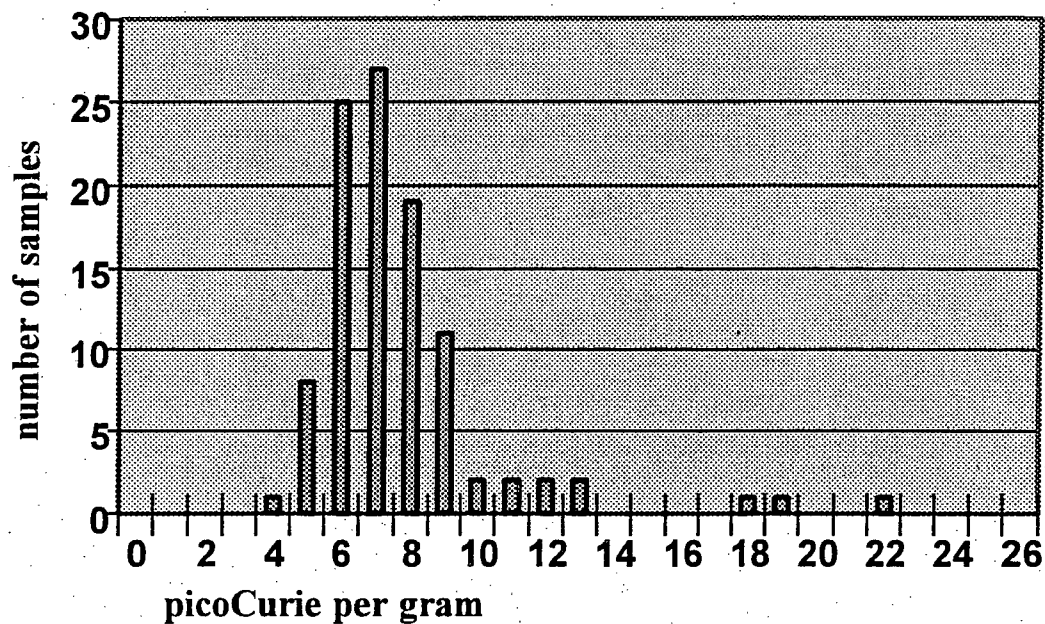


Zone 1a and sub-zone 1a1

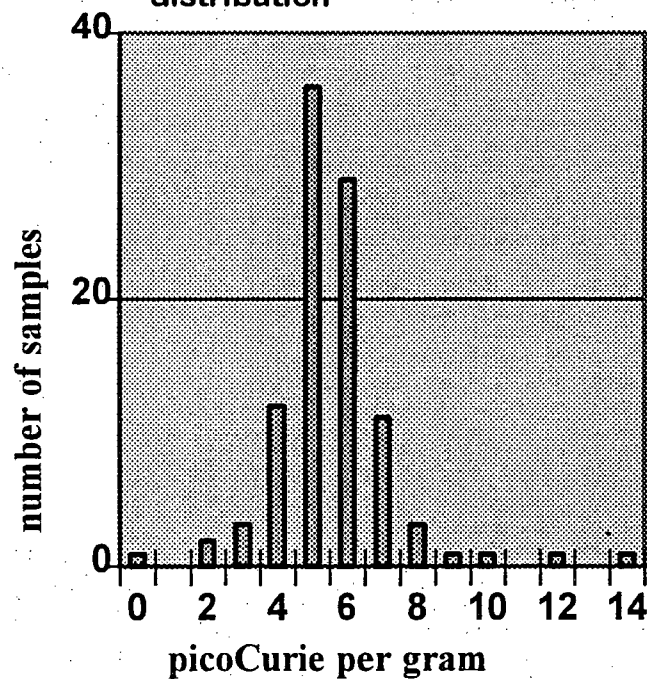
Soil Samples gamma activity distribution



CWA R-1 (Open field) background soil gamma activity distribution



CWA R2 (Wooded Area) background soil gamma activity distribution



background samples
taken at Charles Wood
Area, Fort Monmouth
Approximately 10 miles
north of Evans Area,
Zone 1 and 1A



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
HEADQUARTERS, US ARMY COMMUNICATIONS-ELECTRONICS COMMAND
AND FORT MONMOUTH
FORT MONMOUTH, NEW JERSEY 07703-5000



September 4, 1996

US Army Communications -
Electronics Command
ATTN: AMSEL-SF
Fort Monmouth, NJ 07703-5024

SUBJECT: Base Realignment and Closure (BRAC)

U.S. Nuclear Regulatory Commission
Region I
ATTN: Materials Licensing Section
475 Allendale Road
King of Prussia, PA 19406-1415

29-01022-06

As a result of mandated Base Realignment and Closure (BRAC) initiatives, the US Army Communications - Electronics Command (CECOM), Fort Monmouth, NJ will be closing and releasing for public use, a 270 acre annex to Fort Monmouth. The property designated as the Evans Area, is located in Wall township, NJ. Prior to release of this property, we are required by Federal Regulations to ensure the site is free of radiological contamination or has been remediated to accepted release levels of radiological contamination.

The CECOM Safety Office is performing the radiological evaluation and remediation of the Evans Area. The initial phase of the radiological evaluation is the radiological characterization of the site. The characterization will be conducted in accordance with the enclosed Radiological Characterization Plan (RCP).

The RCP is provided for review and comment. Any questions or comments can be discussed with our project manager, Mr. David Craig, IceSolv, Inc., Health Physics Consultant to the CECOM Safety Office, or the undersigned. Mr. Craig can be contacted at (908) 427-5591. Mr. Horne's phone number is (908) 427-4427.

Sincerely,

Steven A. Horne
Chief, CECOM Safety Office

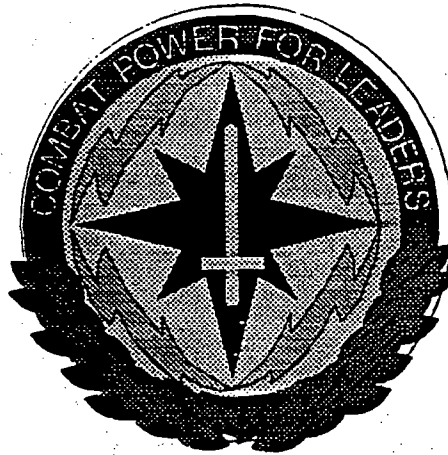
Copies Furnished: AMCSF

RADIOLOGICAL CHARACTERIZATION PLAN

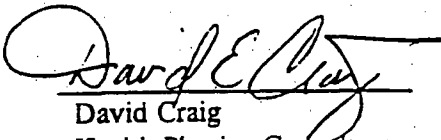
Camp Evans, Fort Monmouth

Prepared for

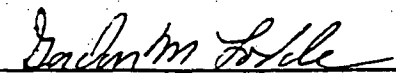
U.S. Army Communications - Electronics Command
Fort Monmouth, New Jersey



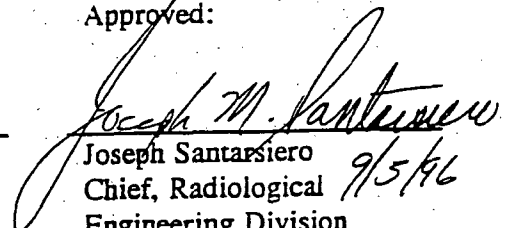
Prepared :

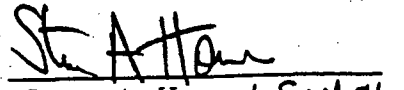

David Craig
Health Physics Consultant
IceSolv, Inc.

Reviewed:


Gordon Lodde
Health Physics Consultant
Modern Technologies Corp.

Approved:


Joseph Santarsiero
Chief, Radiological Engineering Division 9/5/96


Steven A. Horne 6 Sept 96
Chief,
CECOM Safety Office

RADIOLOGICAL CHARACTERIZATION PLAN

Table of Contents

TAB	CHAPTER	Page
	EXECUTIVE SUMMARY	ES
1	1.0 INTRODUCTION	1-1
2	2.0 SITE HISTORY	2-1
	2.1 General	2-1
	2.2 Nuclear	2-1
	2.3 Historical Review	2-1
	2.4 Historical Findings Brief	2-1
3	3.0 GOALS	3-1
	3.1 Objectives	3-1
	3.2 Release Criteria	3-3
4	4.0 ACTIVITIES	4-1
	4.1 General	4-1
	4.2 Reference (Background) Data	4-2
	4.3 Gridding	4-2
	4.4 Survey Procedures	4-3
5	5.0 SCHEDULE	5-1
6	6.0 MANAGEMENT	6-1
	6.1 Key Players and Responsibilities	6-1
	6.2 Training	6-4
	6.3 Health and Safety Program	6-4
7	7.0 SURVEY AND TECHNIQUES	7-1
	7.1 Instrumentation	7-1
	7.2 Quality Assurance	7-3
	7.3 Survey Techniques	7-5

Executive Summary

The Evans Area is located in Wall Township, Monmouth County, NJ approximately ten miles south of Fort Monmouth main post. The Evans Area consists of laboratories, field test areas and ancillary service buildings devoted to research and development of electronic and optical systems for Department of the Army (DA) use.

Base Realignment and Closure (BRAC), Army Execution Plan, BRAC 93, (Public Law 101-510) requires the U.S. Army Communications-Electronics Command (CECOM) and Fort Monmouth, NJ, to close the Evans Area sub-post by September 1997. The CECOM Safety Office is tasked to radiologically decommission the property and provide for its release for unrestricted use. This includes termination of Nuclear Regulatory Commission (NRC) License #29-01022-07 and #29-01022-10. It also includes "end-of-use" surveys for NRC Licenses #29-01022-06 and #29-01022-14. Additional details on these licenses is provided in the Introduction, Section 1.

Early in the atomic age, radioactive material was recognized as a source of power that could be utilized in electronic equipment. The Evans Area was one of the locations the Army used for radiation research in electronics. Alpha, beta, gamma, and neutron sources have been used in research at the Evans Area for almost 50 years. Radiation sources have been used in the design and development of radiation detection instrumentation for illumination of dials and switches, and to provide charged particles (alpha and beta) in the process path and electronic circuits of equipment. To support the Evans Area BRAC initiative, these past activities require that a site residual radiation study be performed to determine the magnitude of any radiation dose level, that is, the product of radioactive sources introduced to the site.

The decommissioning process consists of:

- I. Historical Study
- II. Scoping Surveys
- III. Site Characterization
- IV. Remediation (Decommissioning Plan)
- V. Final Status Surveys
- VI. Verification and Release for Unrestricted Use

This characterization survey plan outlines the general procedures that will be used to determine the current radiological conditions of the Evans Area. This plan incorporates the concepts of design and analysis of final status decommissioning surveys described in NUREG-1505 and related documents that are listed in Appendix A. The Base Realignment and Closure effort at Fort Monmouth is an accelerated program. The site will be surveyed in zones. When a zone satisfies release criteria, it will be released for public use. In the event that unacceptable contamination levels are found within a zone, the plan includes remediation actions that will be taken to ensure the area is remediated to satisfy regulatory compliance with the release limits for unrestricted use.

1.0 INTRODUCTION.

The U.S. Army CECOM Safety Office manages four NRC licenses that reflect the current use of radioactive material at Evans Area. These licenses are summarized in Table 1-1.

The Evans Area, a satellite of Fort Monmouth, is located in Wall Township, NJ, approximately 10 miles south of the main post. The Evans Area is approximately 215 acres in size. The area is bounded on the north by Brighton Avenue, on the east by Marconi Road and a residential development, on the south by Belmar Boulevard, and on the west by a residential development. The location and boundaries of the Evans Area are shown on Map 1 in Appendix B.

Table 1-1
Current NRC Licenses

License #	Authorized Use	Status
29-01022-06	Research and development as defined in 10 CFR 30.4; for training and instrument calibration.	License will remain ACTIVE, however, activity within the Evans Area will be terminated.
29-01022-07	For irradiation of materials except explosives and flammable materials. (437 Ci, Cs-137, Sealed) & (225 Ci, Co-60, Sealed)	To be TERMINATED by Sept 30, 1997
29-01022-10	In an underwater (pool) irradiator for the irradiation of materials except explosives, flammable, corrosives or food for human consumption. (5000 Ci, Co-60, Sealed)	To be TERMINATED by Sept 30, 1997
29-01022-14	Calibration and operational checking of radiation detection instrumentation and optical coating on thermal imaging devices.	License will remain ACTIVE, however, activity within the Evans Area will be terminated.

All areas where these licenses were/are used do not have the same potential for residual contamination. Therefore all areas will not require the same level of survey coverage to achieve a full source term¹ characterization.

Historical records and employee interviews have identified twenty-one (21) buildings and their immediate outdoor areas, two open range areas, two underground liquid waste storage tanks, four chemical neutralization tanks, and the sanitary sewer system as locations with a potential for radiological contamination. These areas with a definite

¹ SOURCE TERM: The source term consists of all residual radioactivity remaining at the site, including material released during normal operations and during inadvertent releases or accidents, and includes radioactive materials which may have been buried at the site in accordance with 10 CFR Part 20.

2.0 SITE HISTORY.

2.1 General.

During World War I the U.S. Army purchased a tract of land in Little Silver, NJ. The land was a horse racetrack that had not been in use since 1908. On 17 June 1917, the U.S. Army inaugurated and opened the installation as Camp Little Silver. The mission of Camp Little Silver was to train Signal Corps operators for service in World War I. In 1925, Camp Little Silver became a permanent installation and was renamed Fort Monmouth.

In the early 1900's the Marconi Wireless Telegraph Company of America (MWTCA) purchased a 93 acre farm in Wall Township, NJ. This property, located approximately 10 miles south of Fort Monmouth, became the home of the Marconi Institute, a school for telegraphy. The site was also the location of wireless telegraph transmission and receiver equipment used for commercial transatlantic operations.

When the United States entered World War I in 1917, the federal government took over the Marconi operation in Wall Township. After the war, the government urged a consortium of American companies to buy the facility. Elements of General Electric, Westinghouse and AT&T coalesced in December of 1919 to form RCA. RCA owned the Wall Township facility until 1924, when operations were moved to more modern accommodations.

By the late 1920s, the main Marconi building had become the home of the New Jersey chapter of the Ku Klux Klan (KKK). In 1937, the property passed to a Reverend Percy Crawford, who established an interdenominational institution on the site called King's College. The school had 100 students enrolled when the government acquired the land in 1941. At that time, the site was designated Camp Evans, in honor of World War I Signal Corps officer COL Paul Wesley Evans.

When the Army bought King's College in November of 1941, it inherited six of the original Marconi buildings. These included the main Marconi building, two bungalows, the operations building, and what are now designated as Buildings 9006 and 9007. With the exception of the Marconi buildings constructed in 1914, most other construction dates to the early years of World War II, when Camp Evans was established. The mission at the Evans Area during and immediately following World War II was Research and Development (R&D) of radar technology. In 1951, the Evans Area R&D organizations began experiments that used radioactive material.

2.2 Nuclear.

Use of radioactive materials in the Evans Area began in 1951 at the Evans Signal Laboratory. Isotopes used in the 1950's included unsealed cobalt-60 (Co-60), polonium-210 (Po-210) and radium-226 (Ra-226) that was used to manufacture self-

08/26/96 1:36 PM
final Draft

HISTORY

Employees interviews indicate that there may have been rubidium-87 (Rb-87) present in some equipment which was burned outside this building in the early 1950's. Therefore, there is a potential for Rb-87 contamination in the soil surrounding this building.

The building is currently in use as a radiation counting laboratory and a radiation survey instrument repair and calibration facility. A radioactive materials storage cabinet, with several low level radiation sources, is still in the building.

Table 2-1
Affected Areas

Location	INTERIOR Square Meters to be Surveyed	EXTERIOR Number of Survey locations
bldg 9045*	1600	120
bldg 9383*	100	80
bldg 9401*	2000	160
Area G	n/a	3966
bldg 9006	823	100
bldg 9010A	2200	400
bldg 9011A	2200	400
bldg 9032	2200	400
bldg 9036	4400	400
bldg 9037	4400	200
bldg 9039	5000	240
bldg 9040	3500	200
bldg 9041	3500	180
bldg 9047	1600	120
bldg 9049	1000	120
bldg 9053	40	160
bldg 9055	1600	160
bldg 9109	600	120
bldg 9345	2000	200
bldg 9392	900	160
bldg 9400	600	100

* These buildings and the fenced area they are located in are still radioactive material use, handling and storage facilities.

MD to conduct scoping, remediation, and verification surveys of the area. The scoping survey defined the region of contamination, and remediation surveys monitored the progress of the clean-up effort. The highest concentration of Co-60 found in the soil was 395.0 ± 12.7 picocuries per gram (pCi/g). Two pieces of plastic (removed as radiological waste) were contaminated with Co-60 to 6924.0 ± 99.0 pCi/g. Vegetation in the area was found with concentrations as high as 149.2 ± 7.8 pCi/g. The decontamination required the removal of soil in the immediate area down to a depth of 5 feet and removal of vegetation. The radioactive waste generated was collected in fifty-five gallon metal drums. A total of five-hundred-sixty-eight (568) drums were filled. The drums of waste were shipped off-site and disposed of at Barnwell, SC, radioactive waste landfill.

In November 1976, AEHA conducted a verification survey of the contaminated site. The area was surveyed at ground level for external radiation dose rates. Background in the region was 12 microroentgen per hour (uR/hr), no area was greater than twice background. Two soil bore samples were collected. The highest activity detected in the soil was 6.5 ± 1.6 pCi/g of Co-60. Based on the verification survey results the area was released for unrestricted use.

In March 1983, a brush clearing crew found radiation warning signs and a barrier rope around a concrete block structure (30" x 30" x 48") in the "G" Area; work was stopped and the CECOM Safety Office was notified. A radiation survey of the area revealed the presence of contamination that was identified by laboratory analysis as Co-60. This contaminated structure was approximately 100 feet from the border of the first contamination found in the "G" Area and, for report purposes, was designated "G-2". The highest Co-60 concentration in the soil against the bottom blocks was 21 pCi/g. Seven inches away from the base of the structure the highest concentration was 7 pCi/g. The contaminated soil and concrete was collected in fifty-five gallon metal drums and shipped to the Barnwell, SC, radioactive waste landfill.

AEHA performed verification surveys of the "G-2" Area in April 1983. Based on the results of the survey the area was released for unrestricted use. A second verification survey was performed by AEHA in June 1985 and this survey confirmed the results of the previous verification survey.

Remaining Affected Historical Buildings.

The historical records search and employee interviews identified the other buildings listed in Table 2-1 as radioactive material use areas. These buildings all had recorded periods of use, storage, and/or maintenance of radioactive materials. The activities in these buildings included research and development projects that used radioactive materials.

HISTORY

with no operations history, and the immediate area around these buildings (administrative, residence, utilities, shelters, etc.), have been identified as non-impacted areas. No characterization surveys will be performed in these buildings. However, each building will be evaluated. Some non-impacted buildings in the Evans Area may be used as reference areas¹. All of the Evans Area buildings are listed in Appendix E.

¹ **Reference Area:** Geographical area from which representative reference samples will be collected for comparison with samples collected in geographically similar surveyed areas at the remediated site.

3.0 GOALS.

3.1 Objectives.

The characterization survey will assess the current radiological condition of the Evans Area. The surveys and analysis of results will be performed quantitatively and qualitatively with a precision that will satisfy the release criteria described in paragraph 3.2 of this chapter. This will allow characterization survey results for a building or area that is below release limits to be used in the Final Status Survey Report. The survey and results analysis will be designed to satisfy requirements outlined in NUREG-1505, "A Nonparametric Statistical Methodology for the Design and Analysis of Final Status Decommissioning Surveys".

3.2 Release Criteria.

The NRC and New Jersey Department of Environmental Protection (NJDEP), Bureau of Environmental Radiation release criteria are currently being revised and draft regulations for both agencies are in the review process. The release criteria that will be used in the final survey report, for the Evans Area, is that proposed in draft NRC regulation, Title 10, Code of Federal Regulations, Part 20, Subpart E. The draft regulation specifies that radioactivity from licensed operations be reduced to a level as-low-as-is-reasonably-achievable (ALARA) below the level that would result in a 15 millirem per year (mrem/yr) dose to the average individual in the critical group. This release criteria satisfies purposed New Jersey State release limits detailed in the New Jersey Department of Environmental Protection Draft Report for Comment, "A Pathway Analysis Approach for Determining Generic Cleanup Standards for Radioactive Materials", January 1996. The same release criteria will be applied to naturally occurring radioactive materials that have been concentrated for use, i.e., Ra-226 in illuminating paints, Th-232, Depleted Uranium, etc.

Survey results that indicate a zone's annual dose from residual radiation is less than or equal to 4 mrem, will require no ALARA evaluation.

Surface Contamination.

Table 3-1 lists all isotopes that were authorized for use in the Evans Area by NRC licenses. One of the NRC licenses for the Evans Area was a general license. The NRC general license authorizes use of any byproduct isotope with atomic number 1 through 83; in fact the number of different isotopes used in the Evans Area was limited. Surface contamination surveys will focus on the detection of isotopes that were known to be used in an area. Table 3-2 provides default concentration values taken from NUREG-1505 that are equivalent to 15 milli-roentgen equivalent per year for each area use scenario. Surface contamination, not removable by simple

Table 3-1
List of Isotopes

ISOTOPE	CHEMICAL/PHYSICAL FORM
Any Byproduct Material with Atomic Number 1-83	Any
Tritium	Any
Cobalt 60	Any
Krypton 85	Any
Rubidium 87	Any
Strontium 90	Any
Cesium 137	Any
Polonium 210	Any
Thorium 234	Any
Thorium 230	Electroplated
Thorium 232	Metal foils, solid (thorium fluoride coating on optical systems)
Plutonium 238	Sealed
Plutonium 239	Electroplated, resin on acrylic plastic disk
Uranium (natural or depleted)	Any
Americium 241	Any
Californium 252	Sealed
Radium 226	Any
Ra-Be	Sealed

Table 3-2
Default Concentration Values to Achieve 15 mrem/y for Each Scenario

Decay Chain	Soil Concentration Residential Scenario (pCi/g)	Surface Concentration Building Occupancy (dpm/100cm ²)	Volume Concentration Renovation Scenario (pCi/g)	Source Term Drinking Water Scenario (total pCi)	Soil Concentration Drinking Water Scenario (pCi/g)
H-3	4.14E+02	2.64E+07	4.66E+07	1.21E+11	9.76E+02
Co-60	2.97E+00	5.19E+03	1.94E+01	1.32E+12	1.07E+04
Sr-90	1.14E+01	9.94E+03	6.96E+03	4.85E+09	3.92E+01
Ra-226	7.87E-01	7.57E+02	2.71E+01	7.83E+08	6.34E+00

Table 3-4
Unrestricted Soil Concentrations

ISOTOPE	Soil Concentration @ 15 mrem/yr Residential Scenario (pCi/g)	ISOTOPE	Soil Concentration @ 15 mrem/yr Residential Scenario (pCi/g)
H-3	4.14E+02	Pu-238	2.10E+00 (25.0) ¹
Co-60	2.97E+00 (8.0)	Pu-239	1.89E+00 (25.0)
Sr-90	1.14E+01 (5)	U-234	1.90E+01
Cs-137	1.07E+01 (15.0)	U-235	1.49E+01
Pu-210	1.10E+01	U-238	1.97E+01 (35.0)
Th-234	2.93E+03	Am-241	1.83E+00 (30.0)
Th-230	2.61E+00	Cf-252	6.53E+00
Th-232	8.71E-01	Ra-226-C	5.62E+00

¹ The values in parentheses are approved values that exceed the NUREG-1500 concentrations.

4.0 ACTIVITIES.

4.1 General.

This section describes the overall plan to accomplish the radiological characterization of the Evans Area of Fort Monmouth. General sequences and descriptions of activities for different areas are contained in this section. The planned survey activities are based on historical document reviews and personnel interviews. The decommissioning operations and quality assurance activities will be conducted in accordance with procedures approved by the Program Manager and Radiation Protection Officer.

This plan will assess and evaluate the levels of residual radioactive material that remain at the site as a result of the use of licensed radioactive material and the concentration of natural occurring radioactive isotopes.

Based on inspections and the historical review that identified known contamination locations and other radioactive material use, storage, and maintenance operations, the facilities undergoing characterization have been placed in one of five categories.

- 1) Indoor Affected Areas
- 2) Indoor Unaffected Areas
- 3) Outdoor Affected Areas
- 4) Outdoor Unaffected Areas
- 5) Non-impacted

The Evans Area has been divided into six survey zones. These zones allow for portions of the property to be surveyed and scheduled for early release. The six zones are outlined on Map 2 located in Appendix B. Appendix D contains photographs for the affected buildings and gives their locations.

The zones are separated by roads, fences or other easily identified geographical features. Since the zones are separated they will be treated as independent projects. When a zone's surveys have been completed, data analysis shows all release criteria are satisfied and regulatory agencies approve, the zone may be released for private use. This survey approach will allow property release to the public at the earliest possible time while ensuring release criteria are achieved.

In conjunction with zone surveys, reference (background) surveys will be conducted in a physically similar non-impacted area. Areas within a zone, which are classified as affected, will be gridded in a triangular pattern that will produce adequate data collection for statistical analysis. The location of each data collection point will be recorded with a precision that will allow, if needed, verification data collection in the

attached to the survey information page. Outdoor affected areas will be gridded using the same methods, but the minimum triangle side will be five meters in length.

Indoor unaffected areas will not require gridding. The floor plan of the surveyed area will be marked at each data/sample point with sufficient information to accurately return to the point. This location data will be used if verification surveys are performed in any area.

Outdoor unaffected areas will be gridded with a triangle grid side of twenty-five meters long. Outdoor unaffected areas are gridded for accurate location of data points due to the lack of structured bench marks.

All outdoor gridding start points will be selected randomly. The random selection is performed using a random number generator software program that generates three digit random numbers. The random numbers are used to develop map coordinates in the area. The map coordinates are entered on a survey map and into a Global Positioning System (GPS) that is used to locate the point in the field. The grid is laid using land survey instruments. If the terrain or ground cover vegetation makes land survey impractical in an unaffected area, sample points will be located by GPS.

4.4 Survey Procedures.

Each survey in a zone will have a sampling plan and survey packets prepared prior to the performance of the survey. The packet will include:

- 1) Survey maps (structural and grids)
- 2) List of required samples and instrument readings
- 3) Sampling location codes (hard copy or electronic)
- 4) Work permit, if required

INDOOR AFFECTED AREAS.

Prior to the start of any work in an affected area, the area boundaries will be defined and any required administrative controls implemented. All indoor affected areas will be evaluated prior to the start of work by a senior health physics (SHP) technician for potential safety hazards. The area will be secured and, if required, a work permit posted at the entrance to the area. The work permit will identify any industrial and radiological hazards, list special instructions, any contamination control procedures and protective clothing and/or equipment that may be required for entry. It will also contain emergency phone numbers and any special procedures for the area. Areas that require a work permit will have all items that are removed from the area wiped and then scanned with an instrument prior to removal from the area. Items identified as contaminated will be held for decontamination or disposal. If the area does not require

One hundred percent of the surface area will be scanned for contamination using appropriate instruments. If contamination is found, the boundary of the contamination will be determined. It is also necessary to determine if the contamination is removable or fixed. If the contamination is fixed the extent of leaching into the subsurface must be determined. When survey instruments indicate an area of elevated activity, a wipe will be collected at the point and analyzed for type and quantity of removable contamination. When scanning results are negative, fixed readings will be recorded following the triangle pattern (Figure 4-2).

The three corners of the triangle pattern will be the data points of the survey. If no contamination is found above the release criteria, the area will be posted to identify it as prepared for release and restricted from further introduction or use of radioactive materials.

Along with survey instrument readings, the removable contamination in all areas will be assessed. If required, both a wipe for liquid scintillation analysis and a wipe for gross alpha/beta counting will be taken from the triangle points of each grid. If an instrument reading in a grid is higher than the action level, of two times daily QA check background reading for the instrument (i.e. background 40 cpm beta, scan reading 80 cpm beta) a wipe for gross alpha/beta will be collected from that location as well. If counting results determined the activity is fixed, the location will be further evaluated to determine if a grab sample will be collected. A grab sample is a physical sample of building material, soil or ground cover material which appears to be the cause of the elevated instrument readings.

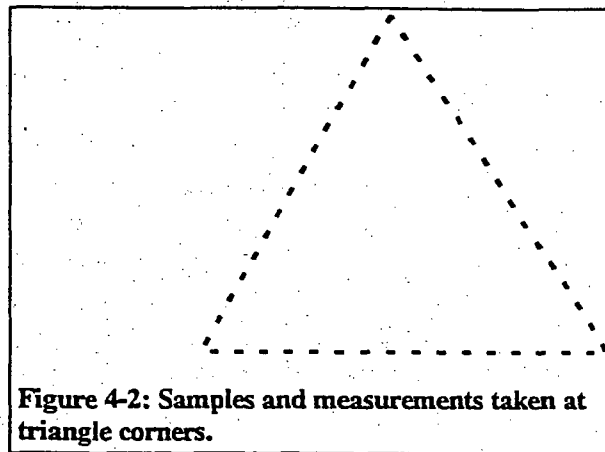


Figure 4-2: Samples and measurements taken at triangle corners.

Each area will have its own sampling requirements. These requirements will be outlined in the individual survey packets for the area.

INDOOR UNAFFECTED AREAS.

These areas are not expected to be contaminated. No work permit is required for these areas. Gridding is not required for reproduction of the survey data. The survey teams will be provided with building floor plans. The sample locations will be marked on the map. When needed a brief description of the sample location may be included on the data sheet.

Only two unaffected buildings, 9011 and 9043, have more than 1500m² surface area. These buildings require 60 random sample locations and a 10% surface scan. In the remaining unaffected buildings, a minimum 10% surface scan and 30 random sampling

OUTDOOR UNAFFECTED AREAS.

No work permit will be required in these areas. These areas are assumed to have no contamination present based on historical data. Unaffected areas do not require gridding to select sample point. However, large areas will be gridded to ensure adequate samples are taken to justify the release decision for the area. When used, the grid pattern will be an equilateral triangle pattern with sides 25 meters in length. Typically a soil sample and gamma dose rate reading will be taken at each sample point.

Release limit concentrations for some isotopes are below the Minimum Detectable Activity of available scanning instruments. The characterization of the area will be based on the analysis of physical samples collected. However, scanning will still be conducted in these areas to verify that no elevated activity areas are present. In unaffected areas, a minimum of 1 % of the surface will be scanned.

For areas of less than 20,000 square meters sampling will be performed at a minimum of 30 randomly selected locations. In addition to randomly selected locations, samples will also be collected where past geophysics reports have identified anomalies (i.e., landfills, dumps established after 1950).

MANHOLES.

The sewers may have been affected by historical work conducted at the Evans Area. Each manhole will be entered and the vertical shaft and immediate sewer tunnel will be characterized. Each manhole entry will be a confined space entry, and safety procedures for confined spaces will be followed for each entry.

There are 47 manholes through-out the Evans Area. Lines will be drawn on the vertical shaft walls in the due east and westerly directions. This divides the manhole shaft into north and south walls. The north and south shaft walls will be divided into one meter vertical grids and the sewer tunnel floor (shaft bottom) will be a grid. (See Figure 4-4)

Each manhole tunnel floor grid will have two sediment and, if possible, two water samples collected. The shaft wall grid surfaces will be surveyed following the same protocols as an indoor affected area.

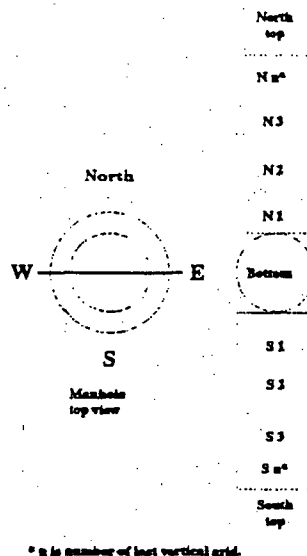


Figure 4-4

UNDERGROUND STORAGE TANKS.

There are two underground storage tanks located next to building 9045. The contents of the tanks will be sampled for alpha, beta and gamma activity. Other underground storage tanks in the area that were laboratory discharge line tanks will be surveyed for radioactive contamination. The soil above and on all sides of these tanks will be sampled before any excavation begins. If no contamination is found the soil will be excavated and the storage tanks removed. After the tanks are removed the area under the tanks will be sampled. If no contamination is detected the hole will be filled.

UNDERGROUND NEUTRALIZATION TANKS.

Four underground neutralization tanks were identified in the historical review of the Evans Area. These tanks were located outside of closed chemistry laboratories in the Evans Area. The contents of the tanks were known to contain hazardous liquid waste. The EPA requires the prompt disposal of hazardous waste once identified. To satisfy the EPA prompt disposal requirement, the contents of these tanks, the pits they occupied and the surrounding soil, were sampled for radioactive contamination in preparation for removal. The samples were analyzed for contamination from gamma, alpha and beta emitters. The analysis of the contents of the four tanks verified that there was no radioactive

5.0 SCHEDULE.

The decommissioning process consists of the following activities.

- I. Historical Study
- II. Scoping Surveys
- III. Site Characterization
- IV. Remediation (D-Plan)
- V. Final Status Surveys
- VI. Verification and Release for Unrestricted Use

The characterization phase of the decommissioning process is composed of the following sub-phases. The following schedule (page 5-2) is a tentative timeline contingent primarily upon the movement of personnel from the Evans Area. Buildings must be vacated with no future operations scheduled prior to survey.

Table 5-1
Timeline of Events

I. Background Study	September 1995
II. Site Preparation	May 1996 - July 1996
III. Surveying	August 1996 - September 1997
IV. Sample Analysis	August 1996 - October 1997
V. Initial Draft Characterization Report and Decommissioning Plan	January 1997
VI. Final Draft Characterization Report and Decommissioning Plan	August 1997
VII. Characterization Report and Decommissioning Plan complete.....	September 1997
VIII. Remediation/Decommissioning	January 1997 - January 1998