



**Rocky Flats Environmental Technology Site**

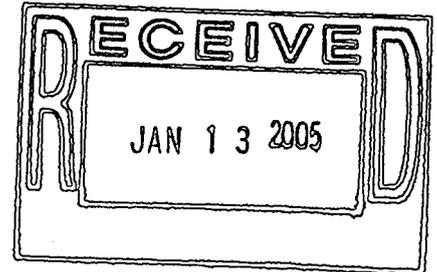
**PRE-DEMOLITION SURVEY REPORT (PDSR)**

**1<sup>st</sup> FLOOR OF BUILDING 707**

**REVISION 0**

**November 11, 2004**

**Volume 1**



**Classification Review not required per  
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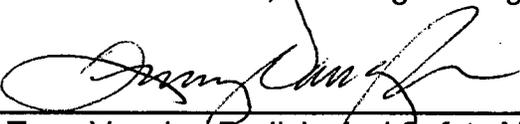
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**1<sup>st</sup> FLOOR OF BUILDING 707**

**REVISION 0**

**November 11, 2004**

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- A Overview and Plated Area Maps
- B B1-B77 Survey Unit Radiological Data Summary and Survey Maps
- C Chemical Data Summaries and Sample Maps
- D Data Quality Assessment Details

## ABBREVIATIONS/ACRONYMS

Be	Beryllium
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CDPHE	Colorado Department of Public Health and the Environment
DCGL <sub>EMC</sub>	Derived Concentration Guideline Level – elevated measurement comparison
DCGL <sub>W</sub>	Derived Concentration Guideline Level – Wilcoxon Rank Sum Test
D&D	Decontamination and Decommissioning
DDCP	Decontamination and Decommissioning Characterization Protocol
DOE	U.S. Department of Energy
DOP	Decommissioning Operations Plan
DQA	Data quality assessment
DQOs	Data quality objectives
EPA	U.S. Environmental Protection Agency
LBP	Lead-based paint
MARSSIM	Multi-Agency Radiation Survey and Site Investigation Manual
MDA	Minimum detectable activity
N/A	Not Applicable
OSHA	Occupational Safety and Health Administration
PCBs	Polychlorinated Biphenyls
PDS	Pre-demolition survey
PDSP	Pre-demolition survey plan
PDSR	Pre-demolition survey report
RCRA	Resource Conservation and Recovery Act
RFETS	Rocky Flats Environmental Technology Site
RLCR	Reconnaissance Level Characterization Report
RSA	Removable Surface Activity
RSP	Radiological Safety Practices
TSA	Total surface activity
TSCA	Toxic Substances Control Act
V&V	Verification and Validation
VOCs	Volatile organic compounds
WEMS	Waste and Environmental Management System

## EXECUTIVE SUMMARY

In order to keep the Pre Demolition Survey Reports (PDSR) a manageable size, and simplify the review process, multiple PDSRs will be issued for B707. The expected issuance of reports through the duration of the final survey process will be as follows:

**Report #1** - The main building - 2<sup>nd</sup> floor, 2<sup>nd</sup> floor annex and the entire exterior of B707

**Report #2** - B707, 1<sup>st</sup> floor (including the office and dock areas and modules A -K)

**Report #3** - B778 (Excluding the laundry, plenum room and west breezeway floor between the B776 office areas and B778. These floor surfaces were impacted by the 1969 B776 fire, and will be demolished as part of the B776/777 demolition)

**Report #1** has been completed and approved by DOE and the CDPHE.

**Report #2** covers the Pre-Demolition Survey performed to define the final radiological and chemical condition of the 1<sup>st</sup> floor of the main building and annex in accordance with decommissioning objectives. These areas of the building were surveyed and will be released under this PDSR. Because B707 is classified as a type 3 structure and will be demolished, the characterization was performed on the building surfaces in accordance with the Pre-Demolition Survey Plan (MAN-127-PDSP). Environmental media beneath and surrounding this structure is not within the scope of this PDS and will be addressed by Environmental Restoration.

Upon approval of **Report #2**, by DOE and concurrence by CDPHE, the main building and annex may be demolished.

The PDS encompassed both chemical and radiological characterization. The characterization was based on physical, chemical and radiological hazards identified in the facility-specific *Building 707 Closure Project Decommissioning Operations Plan and the associated Reconnaissance Level Characterization Report*.

The areas listed in Table 1 failed to meet the unrestricted release criteria, and will be remediated as radioactive material after the removal of the portions of the building that meet the unrestricted release criteria. If surface contamination exceeds the unrestricted release limits, if possible, the locations will be covered with metal plate to prevent cross-contamination of building debris.

Based upon the results of this PDSR, the 1<sup>st</sup> floor of the main building and annex with the exception of the locations in Table 1, meet the unrestricted release limits specified in the site Pre-Demolition Survey Plan. With CDPHE concurrence, and DOE approval, B707 with the exception of the areas listed in Table 1, will be demolished and managed as sanitary waste. To ensure that the facility remains below the release levels and PDS data remain valid, Level 2 isolation controls have been established on areas undergoing final survey, and posted accordingly.

## 1 INTRODUCTION

A pre-demolition survey was performed to define the final radiological and chemical condition of this portion of the facility. Building 707 was categorized as a Type 3 facility based on the reconnaissance level characterization surveys performed. Because this structure will be demolished, the characterization was performed in accordance with the Pre-Demolition Survey Plan (MAN-127-PDSP). With the exception of the portions of the building delineated in Table 1, the results of this survey demonstrate the 1<sup>st</sup> floor of the main building and annex meet the unrestricted release limits specified in the site Pre-Demolition Survey Plan prior to demolition. Environmental media beneath and surrounding this area was not within the scope of this PDS and will be addressed by Environmental Restoration.

As part of the Rocky Flats Environmental Technology Site (RFETS) Closure Project, numerous facilities will be removed. Building 707 no longer supports the RFETS mission and will be removed to reduce Site infrastructure, risks and/or operating costs.

Before this structure can be demolished, the Data Quality Objectives (DQOs) for a Pre-Demolition Survey (PDS) must be satisfied. This document presents the PDS results of the 1<sup>st</sup> floor of the main building and annex. The PDS was conducted pursuant to the Decontamination and Decommissioning Characterization Protocol (MAN-077-DDCP) and the Pre-Demolition Survey Plan for D&D Facilities (MAN-127-PDSP).

### 1.1 Purpose

The purpose of this report is to communicate and document the results of this portion of the B707 PDS effort. A PDS is performed prior to building demolition to define the pre-demolition radiological and chemical conditions of a facility. The pre-demolition conditions are compared with the release limits for radiological and non-radiological contaminants. PDS results will enable project personnel to make final disposition decisions, develop related worker health and safety controls, and estimate waste volumes by waste types.

### 1.2 Scope

This report presents the pre-demolition radiological and chemical conditions of the 1<sup>st</sup> floor of the main building and annex. Environmental media beneath and surrounding the facility are not within the scope of this PDSR and will be addressed by Environmental Restoration.

### 1.3 Data Quality Objectives

The Data Quality Objectives (DQOs) used in designing this PDS were the same DQOs identified in the Section 2.0 of the Pre-Demolition Survey Plan for D&D Facilities (MAN-127-PDSP). Refer to section 2.0 of MAN-127-PDSP for these DQOs.

## 2 HISTORICAL SITE ASSESSMENT

A facility-specific Hazards Characterization Report was conducted to understand the facility history and related hazards. This report, *The Building 707 Closure Project Decommissioning Operations Plan (DOP)* and the *associated Reconnaissance Level Characterization Report (RLCR)*, Revision 0) focused on the more highly contaminated sections of the B707 cluster. Reconnaissance level characterization surveys were performed on this structure.

### 3 RADIOLOGICAL CHARACTERIZATION AND HAZARDS

The 1<sup>st</sup> floor of the main building and annex were characterized for radiological hazards per the PDSP. Radiological characterization was performed to define the nature and extent of radioactive materials that may be present on the facility surfaces.

Measurements were performed to evaluate the contaminants of concern (weapons-grade plutonium isotopes). Based upon historical and process knowledge, in-process survey data, building walk-downs, and MARSSIM guidance, a Radiological Characterization Plan in the form of seventy-seven (77) survey packages was developed during the planning phase that describes the minimum survey requirements (refer to table 2 for the applicable survey units).

With the exception of those areas listed in Table 1, all contaminated components have been removed from the 1<sup>st</sup> floor.

The areas listed in the following table failed to meet the unrestricted release criteria, and will be remediated as radioactive material after the removal of the portions of the building that meet the unrestricted release criteria. If surface contamination exceeds the unrestricted release limits, the locations will be covered with metal plate to prevent cross-contamination of building debris during demolition. Please see Plated Contamination Area Map in Attachment A

**Table 1**  
**Contaminated Material Remaining in the Building**

Location	Description	Total Surface contamination (Yes/No)	Plate Required (Yes/No)	Grouted? (Yes/No)
"A" module floor	Numerous Floor cracks (3 locations)	Yes	Yes	No
Floor - "B" module where the rolling mill press and hydra-form press once existed	2 Sections of the floor	Yes	Yes	No
"C" pit	Floor & wall	No	No	No
Floor - runs from "G" module to "C" pit	1 pipe chase	Yes	Yes	Encapsulated
Floor - runs from "A" module to "C" pit	1 pipe chase	No	No	Yes
"D" module column	Small T beam support brace	Yes	No	No
"G" module floor	Pipe chase to "C" pit	No	Yes	Yes
"H" module floor	6 ventilation ducts associated with the autoclave pits	No	No	Yes
"J" module floor	Pipe chase to "K" module	No	Plated	Yes
Floor - "J" module floor	Plated surface contamination	Yes	Yes	No
Floor - "J" module floor	Scale base	No	Yes	No
Floor - "K" module floor	Foot print of the X-Y retriever	Yes	Yes	No
Floor - "K" module floor	Pipe chase to "C" pit (2 locations)	Yes	Yes	Yes

Location	Description	Surface contamination (Yes/No)	Plate Required (Yes/No)	Grouted? (Yes/No)
Floor - "A" - "K" modules	Process waste drains located on the floor, throughout the building	Yes	Yes	Yes
"K" module column	Small T beam support brace	Yes	No	No

The building was divided into survey units, based on the similarities for the potential for contamination, and geographical boundaries. If deemed necessary, reclassification of areas was performed based on the extent of contamination discovered. The following survey breakdown structure delineates all of the applicable survey units for B707 1<sup>st</sup> floor of the main building and annex.

**Table 2**  
**Survey Breakdown Structure**

Survey Unit	MARSSIM Class	Survey Unit Description	# of Measurements
707013	3	Office area - Rooms 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 165, 168, 172, & 174, Corridors A, B, & E (Includes associated partitioned rooms - A, B, C etc.)	15
707014	2	Rooms 142, 149, 164, 166, 169, 170, 171, 173, 175, 176, 178, 179, 180, 181, 182, 183, 184, 185, 188, 193, 195, 196, 197, & North Airlock (Includes associated partitioned rooms - A, B, C etc.)	15
707015	1	NDT Vault floor- Room 167	15
707021	2	A Module Area Walls & Ceiling	25
707022	1	A Module Area - C-D, 1-3	17
707023	1	A Module Area - D-E, 1-3	17
707024	1	A Module Area - E-F, 1-3	17
707025	1	A Module Area - F-G, 1-3	17
707026	1	A Module Area - G-H, 1-3	16
707027	1	A Module Area - H-J, 1-3	17
707028	1	A Module Area - J-K, 1-3	17
707029	1	A Module Area - K-L, 1-3	17
707030	2	B Module Area Walls & Ceiling	30
707031	1	B Module Area - C-D, 3-5	17
707032	1	B Module Area - D-E, 3-5	17
707033	1	B Module Area - E-F, 3-5	17
707034	1	B Module Area - F-G, 3-5	17
707035	1	B Module Area - G-H, 3-5	17
707036	1	B Module Area - H-J, 3-5	17
707037	1	B Module Area - J-K, 3-5	15
707038	1	B Module Area - K-L, 3-5	17
707039	2	C Module Area Walls & Ceiling	24
707040 - 707047	1	C Module Floor Area - C-L, 5-7	Note 1
707048	2	D Module Area and Room 167 Walls & Ceiling	30
707049	1	D Module Area - C-D, 7-9	17
707050	1	D Module Area - D-E, 7-9	17

Survey Unit	MARSSIM Class	Survey Unit Description	# of Measurements
707051	1	D Module Area - E-F, 7-9	17
707052	1	D Module Area - F-G, 7-9	17
707053	1	D Module Area - G-H, 7-9	16
707054	1	D Module Area - H-J, 7-9	17
707055	1	D Module Area - J-K, 7-9	17
707056	1	D Module Area - K-L, 7-9	17
707057	2	E Module Area Walls & Ceiling	15
707058	1	E Module Area - C-D, 9-11	17
707059	1	E Module Area - D-E, 9-11	17
707060	1	E Module Area - E-F, 9-11	17
707061	1	E Module Area - F-G, 9-11	17
707062	1	E Module Area - G-H, 9-11	16
707063	1	E Module Area - H-J, 9-11	17
707064	1	E Module Area - J-K, 9-11	17
707065	1	E Module Area - K-L, 9-11	17
707066	2	F Module Area Walls & Ceiling	15
707067	1	F Module Area - C-D, 11-13	17
707068	1	F Module Area - D-E, 11-13	17
707069	1	F Module Area - E-F, 11-13	17
707070	1	F Module Area - F-G, 11-13	17
707071	1	F Module Area - G-H, 11-13	17
707072	1	F Module Area - H-J, 11-13	17
707073	1	F Module Area - J-K, 11-13	17
707074	1	F Module Area - K-L, 11-13	17
707075	2	G Module Area Walls & Ceiling	15
707076	1	G Module Area - C-D, 13-15	17
707077	1	G Module Area - D-E, 13-15	17
707078	1	G Module Area - E-F, 13-15	17
707079	1	G Module Area - F-G, 13-15	17
707080	1	G Module Area - G-H, 13-15	17
707081	1	G Module Area - H-J, 13-15	17
707082	1	G Module Area - J-K, 13-15	17
707083	1	G Module Area - K-L, 13-15	17
707084	2	H Module Area Walls & Ceiling	15
707085	1	H Module Area - C-D, 15-17	17
707086	1	H Module Area - D-E, 15-17	16
707087	1	H Module Area - E-F, 15-17	17
707088	1	H Module Area - F-G, 15-17	16
707089	1	H Module Area - G-H, 15-17	16
707090	1	H Module Area - H-J, 15-17	16
707091	1	H Module Area - J-K, 15-17	15
707092	1	H Module Area - K-L, 15-17	16
707093	2	K Module Area Walls & Ceiling	40
707094	2	Rooms 141 and 142 Floors, walls and ceiling	19

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Survey Unit	MARSSIM Class	Survey Unit Description	# of Measurements
707095	1	J Module Area - Floors M-O, 1-3	33
707096	1	J Module Area - Floors O-Q, 1-3	33
707097	1	K Module Area - L-Q, 3-4	18
707098	1	K Module Area - L-Q, 4-5.4	53
707113	1	Reclassification - South wall of E module area - 1st Floor bldg 707	15
707114	1	Reclassification of 1st floor walls in vault and office area	15
707117	2	J Module Area - walls and ceiling M-O, 1-3	17
707118	2	J Module Area - walls and ceiling O-Q, 1-3	18

Note 1 – Sections of the floor in “C” module will be plated prior to building demolition. The remaining floor surfaces have been verified to be < the 300 dpm/100 cm<sup>2</sup>, but because of the extent of contamination under the slab, will be handled as radioactive material after building demolition unless underslab surveys prove otherwise.

In addition to the TSAs and RSAs, scans were performed at the following survey density:

### Class 1 Survey Units

- A 100% scan of accessible surfaces of the floors was performed.
- A 100% scan of lower walls (if applicable)
- A 100% scan of the upper walls and ceiling surfaces.

### Class 2 Survey Units

- A 100% scan of accessible surfaces of the floors was performed.
- A minimum of a 25% scan was performed on lower wall surfaces (2 meters and below).
- A minimum of a 10% scan was performed on wall and ceiling surfaces as well as adjacent equipment in the overhead. Scans biased on all horizontal surfaces.

### Class 3 Survey Units in the administrative area

- A 50% scan of accessible surfaces of the floors was performed.
- A minimum of a 25% scan was performed on lower wall surfaces (2 meters and below).
- A minimum of a 5% scan was performed on upper wall and ceiling surfaces as well as adjacent equipment in the overhead.

### Class 3 Survey Units on the exterior of the building

- A minimum of a 5% scan was performed on wall and roof surfaces.

Based on hazards characterization data and historical and process knowledge, as documented in Technical Basis Document 00168 “*Building 707/778 Technical Justification For Types of Radiological Surveys Performed*”, transuranic isotopes are the primary contaminants of concern in the Building 707 Cluster. Therefore, the PDS was performed to the transuranic PDS unrestricted release criteria. Individual radiological survey unit packages are maintained in the Building 707/776/777 Characterization Project files.

The survey unit packages were developed in accordance with Radiological Safety Practices (RSP) 16.01, *Radiological Survey/Sampling Package Design, Preparation, Control, Implementation and Closure*. Total surface activity (TSA), removable surface activity (RSA), media samples, and scan measurements were collected in accordance with RSP 16.02

**Radiological Surveys of Surfaces and Structures.** Radiological survey data were verified, validated and evaluated in accordance with RSP 16.04, *Radiological Survey/Sample Data Analysis*. Quality control measures were implemented relative to the survey process in accordance with RSP 16.05, *Radiological Survey/Sample Quality Control*. Radiological survey data, statistical analysis results, survey locations, scan data and radiological scan maps are presented in Attachments B1 through B77, *Radiological Data Summary and Survey Maps*. Data from all survey units was evaluated after TSA/RSA data collection to ensure they would pass the MARSSIM sign test (This includes survey units with elevated or missing survey data).

For a majority of the lower wall and floor scan surveys, the Bartlett Final Survey Monitor (FSM) was used. This instrument has the capability of detecting localized alpha contamination (hot spots) above 300 dpm/100 cm<sup>2</sup>. In addition, the associated software has the ability to provide square meter averages of alpha contamination. This instrument has an alarm function and visual display for values that exceed the transuranic DCGL<sub>emc</sub> of 300 dpm/100 cm<sup>2</sup> as well as the transuranic DCGL<sub>w</sub> of 100 dpm/100 cm<sup>2</sup>.

### **Survey Unit 707013**

This survey unit is comprised of the floor, walls and ceiling in the office area - Rooms 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 165, 168, 172, & 174, Corridors A, B, & E (Includes associated partitioned rooms - A, B, C etc.) on the 1<sup>st</sup> floor of B707. It is classified as a Class 3 survey unit. The classification was based on the minimal potential for contamination due to process history. No contamination in excess of the unrestricted release limits was anticipated. A total of 15 random TSA and RSA measurements were collected in this the survey unit. Class 3 surface scan surveys of the accessible floor, wall, and ceiling surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA survey results in survey unit 707013 were less than the applicable PDS transuranic DCGL values. Three spots of contamination were discovered on the floor surfaces. These areas were investigated, and/or remediated to <300 dpm/100 cm<sup>2</sup>. Extensive scan surveys were performed in all adjacent areas to ensure the contamination was bounded, and provide justification for not up-grading the classification. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B1 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707013.

### **Survey Unit 707014**

This survey unit is comprised of the floor, walls and ceiling in Rooms 142, 149, 164, 166, 169, 170, 171, 173, 175, 176, 178, 179, 180, 181, 182, 183, 184, 185, 188, 193, 195, 196, 197, & North Airlock (Includes associated partitioned rooms - A, B, C etc.) on the 1<sup>st</sup> floor of B707. It is classified as a Class 2 survey unit. The classification was based on the minimal potential for contamination due to process history. No contamination in excess of the unrestricted release limits was anticipated. A total of 15 random TSA and RSA measurements were collected for the survey unit. In addition, 13 media samples were obtained. Class 2 surface scan surveys of the accessible floor, wall, and ceiling surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA, RSA, and media sample survey results in survey unit 707014 were less than the applicable PDS transuranic DCGL values. During the scanning process, contamination > DCGL<sub>w</sub> was detected on a vault wall and a wall in room 182A in this survey unit. This area was isolated, reclassified class 1 (new survey unit - 707114), and remediated. During the scanning process, numerous spots of contamination were discovered on the floor surface. These areas were investigated, and/or remediated to <300 dpm/100 cm<sup>2</sup>. The entire survey unit met the

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acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B2 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707014.

### **Survey Unit 707015**

This survey unit is comprised of the floor in the NDT vault (room 167) on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination on the floor surface due to process history. A total of 15 random TSA and RSA measurements were collected for the survey unit. The floor was shaved as part of the remediation process prior to surveying. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9. All random TSA and RSA survey results in survey unit 707015 were less than the applicable PDS transuranic DCGL values. During the scanning process, numerous spots of contamination were discovered on the floor surface. These localized areas of contamination were investigated, and/or remediated to <300 dpm/100 cm<sup>2</sup>. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B3 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707015.

### **Survey Unit 707021**

This survey unit is comprised of the walls and ceiling in the "A" module area, on the 1<sup>st</sup> floor of B707. The walls and ceiling were part of the corridor, separated by drywall walls and a false ceiling, and not part of "A" module. Therefore, it is classified as a Class 2 survey unit. The classification was based on the minimal potential for contamination due to process history. No contamination in excess of the unrestricted release limits was anticipated. A total of 25 random TSA and RSA measurements were collected for the survey unit. Class 2 surface scans of the accessible wall and ceiling surfaces of this survey unit were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA survey results in survey unit 707021 were less than the applicable PDS transuranic DCGL values. All scanned surfaces were <300 dpm/100 cm<sup>2</sup>. No investigations were required in this survey unit. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B4 for radiological survey data, statistical analysis results, survey locations, and radiological scan maps for survey unit 707021.

### **Survey Unit 707022**

This survey unit is comprised of the floor surfaces between column lines C-D and 1-3 in the "A" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 17 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA results in survey unit 707022 were less than the applicable PDS transuranic DCGL values. During the scanning process, numerous spots of contamination were discovered on the floor surface. Because of the extent of contamination in this survey unit, these localized areas of contamination were shaved, and rescanned with the Bartlett floor monitor. All values were verified to be <300 dpm/100 cm<sup>2</sup>. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B5 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707022.

### **Survey Unit 707023**

This survey unit is comprised of the floor surfaces between column lines D-E and 1-3 in the "A" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 17 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

One random TSA measurement (#11) exceeded 100 dpm/100 cm<sup>2</sup>. The measurement location had fallen on a contaminated crack in the floor. This crack was remediated, but continued to exceed 300 dpm/100 cm<sup>2</sup> and will be plated for later removal as radioactive material. The survey measurement was omitted. This resulted in 16 random TSA measurements remaining, which is a sufficient quantity to meet MARSSIM statistical sign test requirements. All of the random TSA and RSA results in survey unit 707023 were less than the applicable PDS transuranic DCGL values. During the scanning process, numerous spots of contamination were discovered on the floor surface. Because of the extent of contamination in this survey unit, these localized areas of contamination were shaved, and rescanned with the Bartlett floor monitor. All values were verified to be <300 dpm/100 cm<sup>2</sup>. The entire survey unit with the exception of areas mentioned in Table 1 and depicted on the plate and pipe chase map in Attachment A met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B6 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707023.

### **Survey Unit 707024**

This survey unit is comprised of the floor surfaces between column lines E-F and 1-3 in the "A" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 17 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

One random TSA measurement (#16) exceeded 300 dpm/100 cm<sup>2</sup>. The measurement location was remediated successfully, and was <100 dpm/100 cm<sup>2</sup>. All remaining random TSA and RSA results in survey unit 707024 were less than the applicable PDS transuranic DCGL values also. During the scanning process, numerous spots of contamination were discovered on the floor surface. Because of the extent of contamination in this survey unit, these localized areas of contamination were shaved, and rescanned with the Bartlett floor monitor. All values were verified to be <300 dpm/100 cm<sup>2</sup>. The entire survey unit with the exception of areas mentioned in Table 1 and depicted on the plate and pipe chase map in Attachment A met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B7 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707024.

### **Survey Unit 707025**

This survey unit is comprised of the floor surfaces between column lines F-G and 1-3 in the "A" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 17 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA results in survey unit 707025 were less than the applicable PDS transuranic DCGL values. During the scanning process, numerous spots of contamination were discovered on the floor surface. Because of the extent of contamination in this survey unit, these localized areas of contamination were shaved, and rescanned with the Bartlett floor monitor. All values were verified to be  $<300$  dpm/100 cm<sup>2</sup>. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B8 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707025.

#### **Survey Unit 707026**

This survey unit is comprised of the floor surfaces between column lines G-H and 1-3 in the "A" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 16 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA results in survey unit 707026 were less than the applicable PDS transuranic DCGL values. During the scanning process, numerous spots of contamination were discovered on the floor surface. Because of the extent of contamination in this survey unit, these localized areas of contamination were shaved, and rescanned with the Bartlett floor monitor. All values were verified to be  $<300$  dpm/100 cm<sup>2</sup>. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B9 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707026.

#### **Survey Unit 707027**

This survey unit is comprised of the floor surfaces between column lines H-J and 1-3 in the "A" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 17 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

Two random TSA measurements (#6 and 10) exceeded 100 dpm/100 cm<sup>2</sup>, but did not exceed 300 dpm/100 cm<sup>2</sup>. A nine-point investigation was performed, and the square meter average for both locations was  $<100$  dpm/100 cm<sup>2</sup>. All remaining random TSA and RSA results in survey unit 707027 were less than the applicable PDS transuranic DCGL values also. During the scanning process, numerous spots of contamination were discovered on the floor surface. Because of the extent of contamination in this survey unit, these localized areas of contamination were shaved, and rescanned with the Bartlett floor monitor. All values were verified to be  $<300$  dpm/100 cm<sup>2</sup>. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B10 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707027.

#### **Survey Unit 707028**

This survey unit is comprised of the floor surfaces between column lines J-K and 1-3 in the "A" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 17 random TSA and RSA

measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA results in survey unit 707028 were less than the applicable PDS transuranic DCGL values. During the scanning process, numerous spots of contamination were discovered on the floor surface. Because of the extent of contamination in this survey unit, these localized areas of contamination were shaved, and rescanned with the Bartlett floor monitor. All values were verified to be  $<300$  dpm/100 cm<sup>2</sup>. The entire survey unit with the exception of areas mentioned in Table 1 and depicted on the plate and pipe chase map in Attachment A met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B11 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707028.

### **Survey Unit 707029**

This survey unit is comprised of the floor surfaces between column lines K-L and 1-3 in the "A" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 17 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA sample results in survey unit 707029 were less than the applicable PDS transuranic DCGL values. During the scanning process, numerous spots of contamination were discovered on the floor surface. Because of the extent of contamination in this survey unit, these localized areas of contamination were shaved, and rescanned with the Bartlett floor monitor. All values were verified to be  $<300$  dpm/100 cm<sup>2</sup>. The entire survey unit with the exception of areas mentioned in Table 1 and depicted on the plate and pipe chase map in Attachment A met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B12 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707029.

### **Survey Unit 707030**

This survey unit is comprised of the walls and ceiling in the "B" module area, on the 1<sup>st</sup> floor of B707. The walls and ceiling were part of the corridor, separated by drywall walls and a false ceiling, and not part of "B" module. Therefore, it is classified as a Class 2 survey unit. The classification was based on the minimal potential for contamination due to process history. No contamination in excess of the unrestricted release limits was anticipated. A total of 15 random and 15 biased TSA and RSA measurements were collected for the survey unit. Class 2 surface scans of the accessible wall and ceiling surfaces of this survey unit were also performed at the scan frequencies specified on Page 9.

Two random TSA measurements (#26 and QC at #11) exceeded 100 dpm/100 cm<sup>2</sup>, but did not exceed 300 dpm/100 cm<sup>2</sup>. A nine-point investigation was performed, and the square meter average for both locations was  $<100$  dpm/100 cm<sup>2</sup>. This resulted in 13 random TSA and RSA measurements with initial values  $<100$  dpm/100 cm<sup>2</sup>. This quantity of uninvestigated TSA measurements is a sufficient quantity to meet MARSSIM sign test requirements. All random TSA and RSA results in survey unit 707030 were less than the applicable PDS transuranic DCGL values. No investigations were required in this survey unit. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the

DCGL<sub>emc</sub>. See Attachment B13 for radiological survey data, statistical analysis results, survey locations, and radiological scan maps for survey unit 707030.

### **Survey Unit 707031**

This survey unit is comprised of the floor surfaces between column lines C-D and 3-5 in the "B" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 17 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA results in survey unit 707031 were less than the applicable PDS transuranic DCGL values. During the scanning process, numerous spots of contamination were discovered on the floor surface. Because of the extent of contamination in this survey unit, these localized areas of contamination were shaved, and rescanned with the Bartlett floor monitor. All values were verified to be <300 dpm/100 cm<sup>2</sup>. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B14 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707031.

### **Survey Unit 707032**

This survey unit is comprised of the floor surfaces between column lines D-E and 3-5 in the "B" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 17 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA results in survey unit 707032 were less than the applicable PDS transuranic DCGL values. During the scanning process, numerous spots of contamination were discovered on the floor surface. Because of the extent of contamination in this survey unit, these localized areas of contamination were shaved, and rescanned with the Bartlett floor monitor. All values were verified to be <300 dpm/100 cm<sup>2</sup>. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B15 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707032.

### **Survey Unit 707033**

This survey unit is comprised of the floor surfaces between column lines E-F and 3-5 in the "B" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 17 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA results in survey unit 707033 were less than the applicable PDS transuranic DCGL values. During the scanning process, numerous spots of contamination were discovered on the floor surface. Because of the extent of contamination in this survey unit, these localized areas of contamination were shaved, and rescanned with the Bartlett floor monitor. All values were verified to be <300 dpm/100 cm<sup>2</sup>. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the

DCGL<sub>emc</sub>. See Attachment B16 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707033.

#### **Survey Unit 707034**

This survey unit is comprised of the floor surfaces between column lines F-G and 3-5 in the "B" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 17 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA results in survey unit 707034 were less than the applicable PDS transuranic DCGL values. During the scanning process, numerous spots of contamination were discovered on the floor surface. Because of the extent of contamination in this survey unit, these localized areas of contamination were shaved, and rescanned with the Bartlett floor monitor. All values were verified to be <300 dpm/100 cm<sup>2</sup>. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B17 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707034.

#### **Survey Unit 707035**

This survey unit is comprised of the floor surfaces between column lines G-H and 3-5 in the "B" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 17 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

Two random TSA measurements (#5 and #6) exceeded 100 dpm/100 cm<sup>2</sup>. The measurement locations had fallen on a contaminated pit that will be filled with concrete for later removal as radioactive material. The two survey measurements were omitted. This resulted in 15 random TSA measurements remaining, which is a sufficient quantity to meet MARSSIM statistical sign test requirements. All of the random TSA and RSA results in survey unit 707035 were less than the applicable PDS transuranic DCGL values. During the scanning process, numerous spots of contamination were discovered on the floor surface. Because of the extent of contamination in this survey unit, these localized areas of contamination were shaved, and rescanned with the Bartlett floor monitor. All values were verified to be <300 dpm/100 cm<sup>2</sup>. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B18 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707035.

#### **Survey Unit 707036**

This survey unit is comprised of the floor surfaces between column lines H-J and 3-5 in the "B" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 17 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA results in survey unit 707036 were less than the applicable PDS transuranic DCGL values. During the scanning process, numerous spots of contamination were discovered on the floor surface. Because of the extent of contamination in this survey unit,

these localized areas of contamination were shaved, and rescanned with the Bartlett floor monitor. All values were verified to be  $<300$  dpm/100 cm<sup>2</sup>. The entire survey unit with the exception of areas mentioned in Table 1 and depicted on the plate and pipe chase map in Attachment A met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B19 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707036.

#### **Survey Unit 707037**

This survey unit is comprised of the floor surfaces between column lines J-K and 3-5 in the "B" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 15 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA results in survey unit 707037 were less than the applicable PDS transuranic DCGL values. During the scanning process, numerous spots of contamination were discovered on the floor surface. Because of the extent of contamination in this survey unit, these localized areas of contamination were shaved, and rescanned with the Bartlett floor monitor. All values were verified to be  $<300$  dpm/100 cm<sup>2</sup>. The entire survey unit with the exception of areas mentioned in Table 1 and depicted on the plate and pipe chase map in Attachment A met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B20 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707037.

#### **Survey Unit 707038**

This survey unit is comprised of the floor surfaces between column lines K-L and 3-5 in the "B" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 17 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA results in survey unit 707038 were less than the applicable PDS transuranic DCGL values. During the scanning process, numerous spots of contamination were discovered on the floor surface. These localized areas of contamination were investigated, and/or remediated to  $<300$  dpm/100 cm<sup>2</sup>. The entire survey unit with the exception of areas mentioned in Table 1 and depicted on the plate and pipe chase map in Attachment A with the exception of areas mentioned in Table 1 and depicted on the plate and pipe chase map in Attachment A met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B21 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707038.

#### **Survey Unit 707039**

This survey unit is comprised of the walls and ceiling in the "C" module area, on the 1<sup>st</sup> floor of B707. The walls and ceiling were part of the corridor, separated by drywall walls and a false ceiling, and not part of "C" module. Therefore, it is classified as a Class 2 survey unit. The classification was based on the minimal potential for contamination due to process history. No contamination in excess of the unrestricted release limits was anticipated. A total of 15 random

and 9 biased TSA and RSA measurements were collected for the survey unit. Class 2 surface scans of the accessible wall and ceiling surfaces of this survey unit were also performed at the scan frequencies specified on Page 9.

All random TSA, RSA and media sample results in survey unit 707039 were less than the applicable PDS transuranic DCGL values. All scanned surfaces were  $<300$  dpm/100 cm<sup>2</sup>. No investigations were required in this survey unit. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B22 for radiological survey data, statistical analysis results, survey locations, and radiological scan maps for survey unit 707039.

#### **Survey Units 707040-707047**

The floor in "C" module encompasses survey units 707040-707047. The floor surface in this module has several cracks that are contaminated. Contamination has been detected in the soil beneath the module. Therefore, the floor surface in this module is not considered part of this PDSR and will not be released in an unrestricted manner at the present time. Floor surfaces that exceed 300 dpm/100 cm<sup>2</sup> have been plated to prevent cross-contamination of the clean building debris. Final survey data will not be presented for the floor surfaces in "C" module. Sections of the floor may be released by RISS/ER at a future time under the formal property/waste release evaluation process, if contamination is not detected in excess of the unrestricted release criteria on the underside of the slab.

#### **Survey Unit 707048**

This survey unit is comprised of the walls and ceiling in the "D" module area, on the 1<sup>st</sup> floor of B707. The walls and ceiling were part of the corridor, separated by drywall walls and a false ceiling, and not part of "D" module. Also included in this survey unit were the walls in the NDT vault (Room 167). Therefore, it is classified as a Class 2 survey unit. The classification was based on the minimal potential for contamination due to process history. No contamination in excess of the unrestricted release limits was anticipated. A total of 15 random and 15 biased TSA and RSA measurements were collected for the survey unit. Class 2 surface scans of the accessible wall and ceiling surfaces of this survey unit were also performed at the scan frequencies specified on Page 9. In addition, 15 media samples were obtained on areas with painted surfaces. 2 of the media samples in room 167 were  $>100$  dpm/100 cm<sup>2</sup>. Process history indicated that a glovebox removal adjacent to these walls in room 167 resulted in the painted over contamination that was detected. The walls where process history indicated freshly painted surfaces, and elevated media samples existed, were removed from this survey unit, reclassified as part of survey unit 707114, and hydrolased.

All random TSA and RSA survey results in survey unit 707048 were less than the applicable PDS transuranic DCGL values. All scanned surfaces were  $<300$  dpm/100 cm<sup>2</sup>. No investigations were required in this survey unit. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B23 for radiological survey data, statistical analysis results, survey locations, and radiological scan maps for survey unit 707048.

#### **Survey Unit 707049**

This survey unit is comprised of the floor surfaces between column lines C-D and 7-9 in the "D" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 17 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor, wall, and ceiling surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA results in survey unit 707049 were less than the applicable PDS transuranic DCGL values. During the scanning process, numerous spots of contamination were discovered on the floor surface. These localized areas of contamination were investigated, and/or remediated to  $<300$  dpm/100 cm<sup>2</sup>. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B24 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707049.

#### **Survey Unit 707050**

This survey unit is comprised of the floor surfaces between column lines D-E and 7-9 in the "D" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 17 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA results in survey unit 707050 were less than the applicable PDS transuranic DCGL values. During the scanning process, one spot of contamination was discovered on the floor surface. This localized area of contamination was investigated, and/or remediated to  $<300$  dpm/100 cm<sup>2</sup>. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B25 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707050.

#### **Survey Unit 707051**

This survey unit is comprised of the floor surfaces between column lines E-F and 7-9 in the "D" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 17 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA results in survey unit 707051 were less than the applicable PDS transuranic DCGL values. During the scanning process, three spots of contamination were discovered on the floor surface. These localized areas of contamination were investigated, and/or remediated to  $<300$  dpm/100 cm<sup>2</sup>. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B26 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707051.

#### **Survey Unit 707052**

This survey unit is comprised of the floor surfaces between column lines F-G and 7-9 in the "D" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 17 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA results in survey unit 707052 were less than the applicable PDS transuranic DCGL values. During the scanning process, two spots of contamination were discovered on the floor surface. These localized areas of contamination were investigated, and/or remediated to  $<300$  dpm/100 cm<sup>2</sup>. The entire survey unit met the acceptance criteria of

100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B27 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707052.

### **Survey Unit 707053**

This survey unit is comprised of the floor surfaces between column lines G-H and 7-9 in the "D" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 17 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

One random TSA measurement (#15) exceeded 100 dpm/100 cm<sup>2</sup>, but did not exceed 300 dpm/100 cm<sup>2</sup>. A nine-point investigation was performed, and the square meter average was <100 dpm/100 cm<sup>2</sup>. This resulted in 16 random TSA and RSA measurements with initial values <100 dpm/100 cm<sup>2</sup>. This quantity of uninvestigated TSA measurements is a sufficient quantity to meet MARSSIM sign test requirements. All random TSA and RSA results in survey unit 707053 were less than the applicable PDS transuranic DCGL values. During the scanning process, numerous spots of contamination were discovered on the floor surface. These localized areas of contamination were investigated, and/or remediated to <300 dpm/100 cm<sup>2</sup>. See Attachment B28 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707053.

### **Survey Unit 707054**

This survey unit is comprised of the floor surfaces between column lines H-J and 7-9 in the "D" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 17 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA results in survey unit 707054 were less than the applicable PDS transuranic DCGL values. During the scanning process, one spot of contamination was discovered on the floor surface. This localized area of contamination was investigated, and/or remediated to <300 dpm/100 cm<sup>2</sup>. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B29 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707054.

### **Survey Unit 707055**

This survey unit is comprised of the floor surfaces between column lines J-K and 7-9 in the "D" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 17 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA results in survey unit 707055 were less than the applicable PDS transuranic DCGL values. During the scanning process, two spots of contamination were discovered on the floor surface. These localized areas of contamination were investigated, and/or remediated to <300 dpm/100 cm<sup>2</sup>. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment

B30 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707055.

### **Survey Unit 707056**

This survey unit is comprised of the floor surfaces between column lines K-L and 7-9 in the "D" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 17 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA results in survey unit 707056 were less than the applicable PDS transuranic DCGL values. During the scanning process, one spot of contamination was discovered on the floor surface. This localized area of contamination was investigated, and/or remediated to  $<300$  dpm/100 cm<sup>2</sup>. The entire survey unit with exception of the area mentioned in Table 1 and on the plate and pipe chase map in Attachment A, met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B31 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707056.

### **Survey Unit 707057**

This survey unit is comprised of the walls and ceiling in the "E" module area, on the 1<sup>st</sup> floor of B707. Media samples on the "E" module wall exceeded 100 dpm/100 cm<sup>2</sup>, and the wall was therefore removed from this survey unit and reclassified (Survey unit 707113). The remaining walls and ceiling were part of the corridor, separated by drywall walls and a false ceiling, and not part of "E" module. Therefore, it is classified as a Class 2 survey unit. The classification was based on the minimal potential for contamination due to process history. No contamination in excess of the unrestricted release limits was anticipated. A total of 15 random TSA and RSA measurements were collected for the survey unit. Class 2 surface scans of the accessible wall and ceiling surfaces of this survey unit were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA survey results in survey unit 707057 were less than the applicable PDS transuranic DCGL values. All scanned surfaces were  $<300$  dpm/100 cm<sup>2</sup>. During the scanning process, one spot of contamination was discovered on the floor surface. This localized area of contamination was investigated, and/or remediated to  $<300$  dpm/100 cm<sup>2</sup>. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B32 for radiological survey data, statistical analysis results, survey locations, and radiological scan maps for survey unit 707057.

### **Survey Unit 707058**

This survey unit is comprised of the floor surfaces between column lines C-D and 9-11 in the "E" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 17 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA results in survey unit 707058 were less than the applicable PDS transuranic DCGL values. During the scanning process, numerous spots of contamination were discovered on the floor surface. These localized areas of contamination were investigated, and/or remediated to  $<300$  dpm/100 cm<sup>2</sup>. The entire survey unit met the acceptance criteria of

100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B33 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707058.

#### **Survey Unit 707059**

This survey unit is comprised of the floor surfaces between column lines D-E and 9-11 in the "E" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 17 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

One random TSA measurement (#6) exceeded 100 dpm/100 cm<sup>2</sup>, but did not exceed 300 dpm/100 cm<sup>2</sup>. A nine-point investigation was performed, and the square meter average was <100 dpm/100 cm<sup>2</sup>. All remaining random TSA and RSA results in survey unit 707059 were less than the applicable PDS transuranic DCGL values also. During the scanning process, six spots of contamination were discovered on the floor surface. These localized areas of contamination were investigated, and/or remediated to <300 dpm/100 cm<sup>2</sup>. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B34 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707059.

#### **Survey Unit 707060**

This survey unit is comprised of the floor surfaces between column lines E-F and 9-11 in the "E" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 17 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA results in survey unit 707060 were less than the applicable PDS transuranic DCGL values. During the scanning process, two spots of contamination were discovered on the floor surface. These localized areas of contamination were investigated, and/or remediated to <300 dpm/100 cm<sup>2</sup>. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B35 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707060.

#### **Survey Unit 707061**

This survey unit is comprised of the floor surfaces between column lines F-G and 9-11 in the "E" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 17 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA results in survey unit 707061 were less than the applicable PDS transuranic DCGL values. During the scanning process, no contamination was discovered on the floor surface. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B36 for radiological

survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707061.

### **Survey Unit 707062**

This survey unit is comprised of the floor surfaces between column lines G-H and 9-11 in the "E" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 17 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA results in survey unit 707062 were less than the applicable PDS transuranic DCGL values. During the scanning process, five spots of contamination were discovered on the floor surface. These localized areas of contamination were investigated, and/or remediated to  $<300$  dpm/100 cm<sup>2</sup>. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B37 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707062.

### **Survey Unit 707063**

This survey unit is comprised of the floor surfaces between column lines H-J and 9-11 in the "E" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA results in survey unit 707063 were less than the applicable PDS transuranic DCGL values. During the scanning process, three spots of contamination were discovered on the floor surface. These localized areas of contamination were investigated, and/or remediated to  $<300$  dpm/100 cm<sup>2</sup>. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B38 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707063.

### **Survey Unit 707064**

This survey unit is comprised of the floor surfaces between column lines J-K and 9-11 in the "E" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 17 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA results in survey unit 707064 were less than the applicable PDS transuranic DCGL values. During the scanning process, three spots of contamination were discovered on the floor surface. These localized areas of contamination were investigated, and/or remediated to  $<300$  dpm/100 cm<sup>2</sup>. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B39 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707064.

### **Survey Unit 707065**

This survey unit is comprised of the floor surfaces between column lines K-L and 9-11 in the "E" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification

was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 17 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

One random TSA measurement (#3) exceeded 100 dpm/100 cm<sup>2</sup>, but did not exceed 300 dpm/100 cm<sup>2</sup>. A nine-point investigation was performed, and the square meter average was <100 dpm/100 cm<sup>2</sup>. This resulted in 16 random TSA and RSA measurements with initial values <100 dpm/100 cm<sup>2</sup>. This quantity of uninvestigated TSA measurements is a sufficient quantity to meet MARSSIM sign test requirements. All random TSA and RSA results in survey unit 707065 were less than the applicable PDS transuranic DCGL values. During the scanning process, several spots of contamination were discovered on the floor surface. These localized areas of contamination were investigated, and/or remediated to <300 dpm/100 cm<sup>2</sup>. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B40 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707065.

### Survey Unit 707066

This survey unit is comprised of the walls and ceiling in the "F" module area, on the 1<sup>st</sup> floor of B707. The walls and ceiling were part of the corridor, separated by drywall walls and a false ceiling, and not part of "F" module. Therefore, it is classified as a Class 2 survey unit. The classification was based on the minimal potential for contamination due to process history. No contamination in excess of the unrestricted release limits was anticipated. A total of 15 random TSA and RSA measurements were collected for the survey unit. Class 2 surface scans of the accessible wall and ceiling surfaces of this survey unit were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA survey results in survey unit 707066 were less than the applicable PDS transuranic DCGL values. All scanned surfaces were <300 dpm/100 cm<sup>2</sup>. No investigations were required in this survey unit. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B41 for radiological survey data, statistical analysis results, survey locations, and radiological scan maps for survey unit 707066.

### Survey Unit 707067

This survey unit is comprised of the floor surfaces between column lines C-D and 11-13 in the "F" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 17 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

One QC TSA measurement (#11) was elevated, but did not exceed 300 dpm/100 cm<sup>2</sup>. A nine-point investigation was performed, and the square meter average was <100 dpm/100 cm<sup>2</sup>. All remaining random TSA and RSA results in survey unit 707067 were less than the applicable PDS transuranic DCGL values also. All scanned surfaces were <300 dpm/100 cm<sup>2</sup>. No investigations were required in this survey unit. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B42 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707067.

### **Survey Unit 707068**

This survey unit is comprised of the floor surfaces between column lines D-E and 11-13 in the "F" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 17 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA results in survey unit 707068 were less than the applicable PDS transuranic DCGL values. All scanned surfaces were  $<300$  dpm/100 cm<sup>2</sup>. No investigations were required in this survey unit. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B43 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707068.

### **Survey Unit 707069**

This survey unit is comprised of the floor surfaces between column lines E-F and 11-13 in the "F" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 17 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA results in survey unit 707069 were less than the applicable PDS transuranic DCGL values. During the scanning process, three spots of contamination were discovered on the floor surface. These localized areas of contamination were investigated, and/or remediated to  $<300$  dpm/100 cm<sup>2</sup>. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B44 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707069.

### **Survey Unit 707070**

This survey unit is comprised of the floor surfaces between column lines F-G and 11-13 in the "F" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 17 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA results in survey unit 707070 were less than the applicable PDS transuranic DCGL values. All scanned surfaces were  $<300$  dpm/100 cm<sup>2</sup>. No investigations were required in this survey unit. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B45 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707070.

### **Survey Unit 707071**

This survey unit is comprised of the floor surfaces between column lines G-H and 11-13 in the "F" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 17 random

TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA results in survey unit 707071 were less than the applicable PDS transuranic DCGL values. During the scanning process, three spots of contamination were discovered on the floor surface. These localized areas of contamination were investigated, and/or remediated to  $<300$  dpm/100 cm<sup>2</sup>. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B46 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707071.

### **Survey Unit 707072**

This survey unit is comprised of the floor surfaces between column lines H-J and 11-13 in the "F" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 17 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

Two random TSA measurements (#3 and #9) exceeded 100 dpm/100 cm<sup>2</sup>, but did not exceed 300 dpm/100 cm<sup>2</sup>. A nine-point investigation was performed, and the square meter average was  $<100$  dpm/100 cm<sup>2</sup> for both measurements. This resulted in 15 random TSA and RSA measurements with initial values  $<100$  dpm/100 cm<sup>2</sup>. This quantity of uninvestigated TSA measurements is a sufficient quantity to meet MARSSIM sign test requirements. All random TSA and RSA results in survey unit 707072 were less than the applicable PDS transuranic DCGL values. During the scanning process, four spots of contamination were discovered on the floor surface. These localized areas of contamination were investigated, and/or remediated to  $<300$  dpm/100 cm<sup>2</sup>. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B47 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707072.

### **Survey Unit 707073**

This survey unit is comprised of the floor surfaces between column lines J-K and 11-13 in the "F" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 17 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA results in survey unit 707073 were less than the applicable PDS transuranic DCGL values. During the scanning process, one spot of contamination was discovered on the floor surface. This localized area of contamination was investigated, and/or remediated to  $<300$  dpm/100 cm<sup>2</sup>. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B48 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707073.

### **Survey Unit 707074**

This survey unit is comprised of the floor surfaces between column lines K-L and 11-13 in the "F" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history.

Contamination in excess of the unrestricted release limits was anticipated. A total of 17 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA results in survey unit 707074 were less than the applicable PDS transuranic DCGL values. During the scanning process, three spots of contamination were discovered on the floor surface. These localized areas of contamination were investigated, and/or remediated to  $<300$  dpm/100 cm<sup>2</sup>. The entire survey unit with the exception of areas mentioned in Table 1 and depicted on the plate and pipe chase map in Attachment A met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B49 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707074.

#### **Survey Unit 707075**

This survey unit is comprised of the walls and ceiling in the "G" module area, on the 1<sup>st</sup> floor of B707. The walls and ceiling were part of the corridor, separated by drywall walls and a false ceiling, and not part of "G" module. Therefore, it is classified as a Class 2 survey unit. The classification was based on the minimal potential for contamination due to process history. No contamination in excess of the unrestricted release limits was anticipated. A total of 15 random TSA and RSA measurements were collected for the survey unit. Class 2 surface scans of the accessible wall and ceiling surfaces of this survey unit were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA survey results in survey unit 707075 were less than the applicable PDS transuranic DCGL values. All scanned surfaces were  $<300$  dpm/100 cm<sup>2</sup>. No investigations were required in this survey unit. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B50 for radiological survey data, statistical analysis results, survey locations, and radiological scan maps for survey unit 707075.

#### **Survey Unit 707076**

This survey unit is comprised of the floor surfaces between column lines C-D and 13-15 in the "G" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 17 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA results in survey unit 707076 were less than the applicable PDS transuranic DCGL values. All scanned surfaces were  $<300$  dpm/100 cm<sup>2</sup>. No investigations were required in this survey unit. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B51 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707076.

#### **Survey Unit 707077**

This survey unit is comprised of the floor surfaces between column lines D-E and 13-15 in the "G" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 17 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA results in survey unit 707077 were less than the applicable PDS transuranic DCGL values. During the scanning process, six spots of contamination were discovered on the floor surface. These localized areas of contamination were investigated, and/or remediated to  $<300$  dpm/100 cm<sup>2</sup>. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B52 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707077.

#### **Survey Unit 707078**

This survey unit is comprised of the floor surfaces between column lines E-F and 13-15 in the "G" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 17 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA results in survey unit 707078 were less than the applicable PDS transuranic DCGL values. During the scanning process, four spots of contamination were discovered on the floor surface. These localized areas of contamination were investigated, and/or remediated to  $<300$  dpm/100 cm<sup>2</sup>. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B53 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707078.

#### **Survey Unit 707079**

This survey unit is comprised of the floor surfaces between column lines F-G and 13-15 in the "G" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 17 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

One random TSA measurement (#10) exceeded 100 dpm/100 cm<sup>2</sup>, but did not exceed 300 dpm/100 cm<sup>2</sup>. A nine-point investigation was performed, and the square meter average was  $<100$  dpm/100 cm<sup>2</sup>. This resulted in 17 random TSA and RSA measurements with initial values  $<100$  dpm/100 cm<sup>2</sup>. This quantity of uninvestigated TSA measurements is a sufficient quantity to meet MARSSIM sign test requirements. All remaining random TSA and RSA results in survey unit 707079 were less than the applicable PDS transuranic DCGL values also. During the scanning process, five spots of contamination were discovered on the floor surface. These localized areas of contamination were investigated, and/or remediated to  $<300$  dpm/100 cm<sup>2</sup>. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B54 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707079.

#### **Survey Unit 707080**

This survey unit is comprised of the floor surfaces between column lines G-H and 13-15 in the "G" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 17 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA results in survey unit 707080 were less than the applicable PDS transuranic DCGL values. During the scanning process, four spots of contamination were discovered on the floor surface. These localized areas of contamination were investigated, and/or remediated to  $<300$  dpm/100 cm<sup>2</sup>. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B55 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707080.

#### **Survey Unit 707081**

This survey unit is comprised of the floor surfaces between column lines H-J and 13-15 in the "G" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 17 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA results in survey unit 707081 were less than the applicable PDS transuranic DCGL values. During the scanning process, one spot of contamination was discovered on the floor surface. This localized area of contamination was investigated, and/or remediated to  $<300$  dpm/100 cm<sup>2</sup>. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B56 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707081.

#### **Survey Unit 707082**

This survey unit is comprised of the floor surfaces between column lines J-K and 13-15 in the "G" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 17 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA results in survey unit 707082 were less than the applicable PDS transuranic DCGL values. During the scanning process, two spots of contamination were discovered on the floor surface. These localized areas of contamination were investigated, and/or remediated to  $<300$  dpm/100 cm<sup>2</sup>. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B57 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707082.

#### **Survey Unit 707083**

This survey unit is comprised of the floor surfaces between column lines K-L and 13-15 in the "G" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 17 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA results in survey unit 707083 were less than the applicable PDS transuranic DCGL values. During the scanning process, one spot of contamination was discovered on the floor surface. This localized area of contamination was investigated, and/or remediated to  $<300$  dpm/100 cm<sup>2</sup>. The entire survey unit met the acceptance criteria of 100

dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B58 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707083.

#### **Survey Unit 707084**

This survey unit is comprised of the walls and ceiling in the "H" module area, on the 1<sup>st</sup> floor of B707. Some of the walls and ceiling were part of the corridor, separated by drywall walls, and not part of "H" module. The autoclave vault walls and ceiling were inside the module, however, based on process knowledge, very limited contamination was discovered in "H" module. Therefore, it is classified as a Class 2 survey unit. The classification was based on the minimal potential for contamination due to process history. No contamination in excess of the unrestricted release limits was anticipated. A total of 15 random TSA and RSA measurements were collected for the survey unit. Class 2 surface scans of the accessible wall and ceiling surfaces of this survey unit were also performed at the scan frequencies specified on Page 9.

All random TSA, RSA and media sample results in survey unit 707084 were less than the applicable PDS transuranic DCGL values. All scanned surfaces were <300 dpm/100 cm<sup>2</sup>. No investigations were required in this survey unit. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B59 for radiological survey data, statistical analysis results, survey locations, and radiological scan maps for survey unit 707084.

#### **Survey Unit 707085**

This survey unit is comprised of the floor surfaces between column lines C-D and 15-17 in the "H" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 17 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA results in survey unit 707085 were less than the applicable PDS transuranic DCGL values. During the scanning process, numerous spots of contamination were discovered on the floor surface. These localized areas of contamination were investigated, and/or remediated to <300 dpm/100 cm<sup>2</sup>. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B60 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707085.

#### **Survey Unit 707086**

This survey unit is comprised of the floor surfaces between column lines D-E and 15-17 in the "H" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 17 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA results in survey unit 707086 were less than the applicable PDS transuranic DCGL values. During the scanning process, numerous spots of contamination were discovered on the floor surface. These localized areas of contamination were investigated, and/or remediated to <300 dpm/100 cm<sup>2</sup>. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment

B61 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707086.

### **Survey Unit 707087**

This survey unit is comprised of the floor surfaces between column lines E-F and 15-17 in the "H" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 17 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA results in survey unit 707087 were less than the applicable PDS transuranic DCGL values. During the scanning process, numerous spots of contamination were discovered on the floor surface. These localized areas of contamination were investigated, and/or remediated to  $<300$  dpm/100 cm<sup>2</sup>. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B62 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707087.

### **Survey Unit 707088**

This survey unit is comprised of the floor surfaces between column lines F-G and 15-17 in the "H" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 16 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor, wall, and ceiling surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA results in survey unit 707088 were less than the applicable PDS transuranic DCGL values. During the scanning process, numerous spots of contamination were discovered on the floor surface. These localized areas of contamination were investigated, and/or remediated to  $<300$  dpm/100 cm<sup>2</sup>. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B63 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707088.

### **Survey Unit 707089**

This survey unit is comprised of the floor surfaces between column lines G-H and 15-17 in the "H" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 17 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA results in survey unit 707089 were less than the applicable PDS transuranic DCGL values. During the scanning process, numerous spots of contamination were discovered on the floor surface. These localized areas of contamination were investigated, and/or remediated to  $<300$  dpm/100 cm<sup>2</sup>. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B64 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707089.

### **Survey Unit 707090**

This survey unit is comprised of the floor surfaces between column lines H-J and 15-17 in the "H" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 16 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA results in survey unit 707090 were less than the applicable PDS transuranic DCGL values. During the scanning process, numerous spots of contamination were discovered on the floor surface. These localized areas of contamination were investigated, and/or remediated to <300 dpm/100 cm<sup>2</sup>. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B65 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707090.

### **Survey Unit 707091**

This survey unit is comprised of the floor surfaces between column lines J-K and 15-17 in the "H" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 15 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

One random TSA measurement (#13) exceeded 100 dpm/100 cm<sup>2</sup>, but did not exceed 300 dpm/100 cm<sup>2</sup>. A nine-point investigation was performed, and the square meter average was <100 dpm/100 cm<sup>2</sup>. This resulted in 14 random TSA and RSA measurements with initial values <100 dpm/100 cm<sup>2</sup>. This quantity of uninvestigated TSA measurements is a sufficient quantity to meet MARSSIM sign test requirements. All random TSA and RSA results in survey unit 707091 were less than the applicable PDS transuranic DCGL values. During the scanning process, numerous spots of contamination were discovered on the floor surface. These localized areas of contamination were investigated, and/or remediated to <300 dpm/100 cm<sup>2</sup>. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B66 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707091.

### **Survey Unit 707092**

This survey unit is comprised of the floor surfaces between column lines K-L and 15-17 in the "H" module area, on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 16 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA, RSA and media sample results in survey unit 707092 were less than the applicable PDS transuranic DCGL values. During the scanning process, numerous spots of contamination were discovered on the floor surface. These localized areas of contamination were investigated, and/or remediated to <300 dpm/100 cm<sup>2</sup>. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the

### **Survey Unit 707093**

This survey unit is comprised of the wall and ceiling surfaces of "K" module in the 1<sup>st</sup> floor annex of B707. It is classified as a Class 2 survey unit. The classification was based on the potential for contamination due to process history. A total of 40 random TSA and RSA measurements were collected for the survey unit. Class 2 surface scans of the accessible wall and ceiling surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA sample results in survey unit 707093 were less than the applicable PDS transuranic DCGL values. During the scanning process, numerous spots of contamination were discovered on the floor surface. These localized areas of contamination were investigated, and/or remediated to <300 dpm/100 cm<sup>2</sup>. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B68 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707093.

### **Survey Unit 707094**

This survey unit is comprised of the floor, wall, and ceiling surfaces of the "J" module vault (Rooms 141 and 142) on the 1<sup>st</sup> floor of B707. It is classified as a Class 2 survey unit. The classification was based on the potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 19 random TSA and RSA measurements were collected for the survey unit. In addition, 11 media samples were collected. Class 2 surface scans of the accessible floor, wall, and ceiling surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA, RSA and media sample results in survey unit 707094 were less than the applicable PDS transuranic DCGL values. During the scanning process, three spots of contamination were discovered floor surface. These localized areas of contamination were investigated, and/or remediated to <300 dpm/100 cm<sup>2</sup>. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B69 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707094.

### **Survey Unit 707095**

This survey unit is comprised of the floor surfaces of "J" module between columns M-O, 1-3 in the 1<sup>st</sup> floor annex of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 33 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor, wall, and ceiling surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA results in survey unit 707095 were less than the applicable PDS transuranic DCGL values also. During the scanning process, numerous spots of contamination were discovered on the floor surface. These localized areas of contamination were investigated, and/or remediated to <300 dpm/100 cm<sup>2</sup>. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B70 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707095.

### **Survey Unit 707096**

This survey unit is comprised of the floor surfaces of "J" module between columns O-Q, 1-3 in the 1<sup>st</sup> floor annex of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess

of the unrestricted release limits was anticipated. A total of 33 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor, wall, and ceiling surfaces were also performed at the scan frequencies specified on Page 9.

Three random TSA measurements (#10, 12, and 19) exceeded 100 dpm/100 cm<sup>2</sup>, but did not exceed 300 dpm/100 cm<sup>2</sup>. Nine-point investigations were performed, and the square meter averages were <100 dpm/100 cm<sup>2</sup>. This resulted in 30 random TSA and RSA measurements with initial values <100 dpm/100 cm<sup>2</sup>. This quantity of uninvestigated TSA measurements is a sufficient quantity to meet MARSSIM sign test requirements. All random TSA and RSA results in survey unit 707096 were less than the applicable PDS transuranic DCGL values also. During the scanning process, numerous spots of contamination were discovered on the floor surface. These localized areas of contamination were investigated, and/or remediated to <300 dpm/100 cm<sup>2</sup>. The entire survey unit with the exception of areas mentioned in Table 1 and depicted on the plate and pipe chase map in Attachment A met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B71 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707096.

### **Survey Unit 707097**

This survey unit is comprised of the floor surfaces of "K" module between columns L-Q, 3-4 in the 1<sup>st</sup> floor annex of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. The footprint of the X-Y retriever is not included in this survey unit because of extensive contamination. It will be plated, and removed as radioactive waste by RISS/ER. A total of 18 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor, wall, and ceiling surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA results in survey unit 707097 were less than the applicable PDS transuranic DCGL values. During the scanning process, numerous spots of contamination were discovered on the floor surface. These localized areas of contamination were investigated, and/or remediated to <300 dpm/100 cm<sup>2</sup>. The entire survey unit with the exception of areas mentioned in Table 1 and depicted on the plate and pipe chase map in Attachment A met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B72 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707097.

### **Survey Unit 707098**

This survey unit is comprised of the floor surfaces of "K" module between columns L-Q, 4-5.4 in the 1<sup>st</sup> floor annex of B707. It is classified as a Class 1 survey unit. The classification was based on the high potential for contamination due to process history. Contamination in excess of the unrestricted release limits was anticipated. A total of 53 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible floor surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA results in survey unit 707097 were less than the applicable PDS transuranic DCGL values. During the scanning process, numerous spots of contamination were discovered on the floor surface. These localized areas of contamination were investigated, and/or remediated to <300 dpm/100 cm<sup>2</sup>. The entire survey unit with the exception of areas mentioned in Table 1 and depicted on the plate and pipe chase map in Attachment A met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the

DCGL<sub>emc</sub>. See Attachment B73 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707098.

### **Survey Unit 707113**

This survey unit is a reclassification of the south wall surfaces of "E" module in the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The classification was based on previous media sample results >100 dpm/100 cm<sup>2</sup>. After the media for the affected area was removed, a total of 15 random TSA and RSA measurements were collected for the survey unit. Class 1 surface scans of the accessible wall surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA sample results in survey unit 707113 were less than the applicable PDS transuranic DCGL values. During the scanning process, no contamination in excess of 300 dpm/100 cm<sup>2</sup> was discovered on the wall surface. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B74 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 7070113.

### **Survey Unit 707114**

This survey unit is a reclassification of portions of vault and office wall surfaces of survey unit 707014 on the 1<sup>st</sup> floor of B707. It is classified as a Class 1 survey unit. The re-classification of the vault (room 167) was based on media sample results >100 dpm/100 cm<sup>2</sup> and recent process history regarding the source of contamination. The reclassification of the other walls was based on general surface contamination >100 dpm/100 cm<sup>2</sup>. Contamination in excess of the unrestricted release limits was present. All of the affected the walls were hydrolysed. A total of 15 random TSA and RSA measurements were collected for the survey unit after remediation. Class 1 surface scans of the accessible wall surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA results in survey unit 707114 were less than the applicable PDS transuranic DCGL values. During the scanning process, no contamination in excess of 300 dpm/100 cm<sup>2</sup> was discovered on the wall surfaces. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B75 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 7070114.

### **Survey Unit 707117**

This survey unit is comprised of the wall, and ceiling surfaces of "J" module between columns M-O, 1-3 in the 1<sup>st</sup> floor annex of B707. It is classified as a Class 2 survey unit. The classification was based on the potential for contamination due to process history. A total of 17 random TSA and RSA measurements were collected for the survey unit. Class 2 surface scans of the accessible wall and ceiling surfaces were also performed at the scan frequencies specified on Page 9.

One random TSA measurement (#9) exceeded 100 dpm/100 cm<sup>2</sup>, but did not exceed 300 dpm/100 cm<sup>2</sup>. A nine-point investigation was performed, and the square meter average was <100 dpm/100 cm<sup>2</sup>. This resulted in 16 random TSA and RSA measurements with initial values <100 dpm/100 cm<sup>2</sup>. This quantity of uninvestigated TSA measurements is a sufficient quantity to meet MARSSIM sign test requirements. All random TSA and RSA results in survey unit 707117 were less than the applicable PDS transuranic DCGL values. During the scanning process, several spots of contamination were discovered on the lower wall surface. These

localized areas of contamination were investigated, and/or remediated to  $<300$  dpm/100 cm<sup>2</sup>. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B76 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707117.

### **Survey Unit 707118**

This survey unit is comprised of the wall, and ceiling surfaces of "J" module between columns O-Q, 1-3 in the 1<sup>st</sup> floor annex of B707. It is classified as a Class 2 survey unit. The classification was based on the potential for contamination due to process history. A total of 19 random TSA and RSA measurements were collected for the survey unit. Class 2 surface scans of the accessible wall, and ceiling surfaces were also performed at the scan frequencies specified on Page 9.

All random TSA and RSA results in survey unit 707118 were less than the applicable PDS transuranic DCGL values also. During the scanning process, two spots of contamination were discovered on the lower wall surface. These localized areas of contamination were investigated, and/or remediated to  $<300$  dpm/100 cm<sup>2</sup>. The entire survey unit met the acceptance criteria of 100 dpm/100 cm<sup>2</sup> for the DCGL<sub>w</sub> as well as 300 dpm/100 cm<sup>2</sup> for the DCGL<sub>emc</sub>. See Attachment B77 for radiological survey data, investigation documentation, statistical analysis results, survey locations, and radiological scan maps for survey unit 707118.

## **4 CHEMICAL CHARACTERIZATION AND HAZARDS**

### **4.1 Asbestos**

No asbestos-containing materials are present in these areas. Asbestos abatement was successfully completed in accordance with CAQCC Regulation No. 8, as certified in the Demolition Notification submitted to CDPHE.

### **4.2 Beryllium (Be)**

All beryllium samples obtained below were obtained in accordance with the site PDSP.

**"A" module** (room 100) of building 707 was listed on the Historical List of Rooms with potential beryllium contamination. The historical records indicate that the potential beryllium contamination was internal to the plenum and Zone 1 exhaust system. The baseline sampling of this room revealed no removable beryllium contamination outside of the gloveboxes. This room was never posted as a Beryllium Regulated or Controlled Area. Since the baseline survey, the room has been stripped of internally beryllium-contaminated systems. The final beryllium surveys for this area were collected on October 16, 2004. All samples were below the analytical detection limit of 0.1ug/100 cm<sup>2</sup>. Samples were collected on horizontal surfaces from floor to ceiling. Since no removable beryllium was detected, no further sampling is required. PDS beryllium laboratory sample data and location maps are contained in Attachment C, *Chemical Data Summaries and Sample Maps*.

**"B" module** (room 105) of building 707 was listed on the Historical List of Rooms with potential beryllium contamination. The historical records indicate that potential beryllium parts may have been present in this room. A tent erected inside the module was used to open and clean HEPA vacuums. During this operation, the tent was contaminated with beryllium. The tent was posted a Beryllium Controlled Area. The tent was decontaminated and de-posted for beryllium prior to removal. Subsequent sampling has found no removable beryllium in room 105. Since the baseline survey, the room has been stripped of internally contaminated beryllium contaminated systems. The final beryllium surveys for this area were collected on October 16, 2004. All samples collected were below the analytical detection limit of 0.1ug/100 cm<sup>2</sup>. Samples were collected on horizontal surfaces from floor to ceiling. Since no removable beryllium was

detected, no further sampling is required. PDS beryllium laboratory sample data and location maps are contained in Attachment C, *Chemical Data Summaries and Sample Maps*.

**"C" module** (room 110) of building 707 was not listed on the Historical List of Rooms with potential beryllium contamination. Internal sampling of the gloveboxes indicate that beryllium contamination was internal to the system. Baseline sampling found no removable beryllium contamination on external surfaces in the room. This room was never posted as a Beryllium Regulated or Controlled Area. Since the baseline survey, the room has been stripped of internally contaminated systems. The final beryllium surveys for this area were collected on August 27, 2004. All samples were below the analytical detection limit of 0.1ug/100 cm<sup>2</sup>. Samples were collected on horizontal surfaces from floor to ceiling. Since no removable beryllium was detected, no further sampling is required. PDS beryllium laboratory sample data and location maps are contained in Attachment C, *Chemical Data Summaries and Sample Maps*

**"D" module** (room 115) of building 707 was listed on the Historical List of Rooms with potential beryllium contamination. The historical records indicate that the potential beryllium contamination was internal to the plenum and Zone 1 exhaust system. The baseline sampling of this room revealed one tool box with removable beryllium contamination inside. The tool box was removed and subsequent routine samples have all been below the reporting limit of 0.1ug/100 cm<sup>2</sup>. Since the baseline survey, the room has been stripped of internally contaminated systems. The final beryllium surveys for this area were collected on August 27, 2004. All samples were below the analytical detection limit of 0.1ug/100 cm<sup>2</sup>. Samples were collected on horizontal surfaces from floor to ceiling. Since no removable beryllium was detected, no further sampling is required. PDS beryllium laboratory sample data and location maps are contained in Attachment C, *Chemical Data Summaries and Sample Maps*

**"E" module** (room 120) of building 707 was listed on the Historical List of Rooms with potential beryllium contamination. The historical records indicate that the potential beryllium contamination was internal to the plenum and Zone 1 exhaust system. Both baseline and routine sampling of this room revealed one sample above the reporting limit of 0.1ug/100 cm<sup>2</sup>. The area was decontaminated and subsequent samples in the room have all been below the reporting limit of 0.1ug/100 cm<sup>2</sup>. This room was never posted as a Beryllium Regulated or Controlled Area. Since the baseline survey, the room has been stripped of internally contaminated systems. The final beryllium surveys for this area were collected on August 27, 2004. All samples were below the analytical detection limit of 0.1ug/100 cm<sup>2</sup>. Samples were collected on horizontal surfaces from floor to ceiling. Since no removable beryllium was detected, no further sampling is required. PDS beryllium laboratory sample data and location maps are contained in Attachment C, *Chemical Data Summaries and Sample Maps*

**"F", "G", and "H" modules** (rooms 125, 125A, 125B, 130, 130A, 130B, 131, 131A, 132, 132A, 133, 133A, 135, 135A-135F, and 136) are in the historical record as having had machining operations and storage of beryllium parts. The KH baseline characterization performed in 1999, indicated removable beryllium contamination greater than 0.2 ug/100 cm<sup>2</sup> existed in these rooms. The rooms were posted as Beryllium Controlled Areas. Since the baseline survey, the room has been stripped of internally contaminated systems. The rooms that were posted as Beryllium Controlled Areas were decontaminated and removed from Beryllium postings prior to the collection of final surveys. The final beryllium surveys for this area were collected on June 20, 2004. All samples were below the analytical detection limit of 0.1ug/100 cm<sup>2</sup>. Samples were collected on horizontal surfaces from floor to ceiling. Since no removable beryllium was detected, no further sampling is required. PDS beryllium laboratory sample data and location maps are contained in Attachment C, *Chemical Data Summaries and Sample Maps*

**"J" and "K" modules** (rooms 140, 141, 142, 145, & 146) of building 707 were listed on the Historical List of Rooms with potential beryllium contamination. The historical records indicate that the potential beryllium contamination was internal to the gloveboxes associated with the thermal stabilization process. Subsequent sampling of this operation revealed no beryllium present. The baseline sampling of this room revealed one furnace gear with beryllium above the reporting limit of 0.1ug/100 cm<sup>2</sup>. The gear was decontaminated prior to removal. Subsequent samples in the room have all been below the reporting limit of 0.1ug/100 cm<sup>2</sup>. Since the baseline survey, the room has been stripped of internally contaminated systems. The final beryllium surveys for this area were collected on October 16, 2004. All samples were below the analytical detection limit of 0.1ug/100 cm<sup>2</sup>. Samples were collected on horizontal surfaces from floor to ceiling. Since no removable beryllium was detected, no further sampling is required. PDS beryllium laboratory sample data and location maps are contained in Attachment C, *Chemical Data Summaries and Sample Maps*

Rooms 167, 169, 171, 173, 184, & 188) of building 707 were listed on the Historical List of Rooms with potential beryllium contamination. The historical records indicate that the beryllium parts may have been stored in these rooms. The baseline sampling of this room revealed one sample on a tool part with beryllium above the reporting limit of 0.1ug/100 cm<sup>2</sup>. The part was removed and subsequent samples have all been below the reporting limit of 0.1ug/100 cm<sup>2</sup>. The rooms were never posted as a Beryllium Regulated or Controlled Area. Since the baseline survey, the room has been stripped of internally contaminated systems. The final beryllium surveys for this area were collected on October 16, 2004. All samples were below the analytical detection limit of 0.1ug/100 cm<sup>2</sup>. Samples were collected on horizontal surfaces from floor to ceiling. Since no removable beryllium was detected, no further sampling is required. PDS beryllium laboratory sample data and location maps are contained in Attachment C, *Chemical Data Summaries and Sample Maps*

#### **4.3 RCRA/CERCLA Constituents [including metals and volatile organic compounds (VOCs)]**

Based on a review of WEMS, Building 707 first floor historically contained numerous Resource Conservation and Recovery Act (RCRA) 90-day storage units and satellite storage areas. All were appropriately closed, and no evidence of releases from these units was observed. Based on a review of WEMS and the RCRA Master List of Units at RFETS, there were a number of RCRA permitted container storage units, permitted treatment units, and mixed residue tank systems in Building 707. Most of these units have already been closed in accordance with the Building 707 DOP and the remaining units will be closed prior to demolition. There were also several CERCLA remediation waste storage areas on the first floor, which have been appropriately closed.

A visual inspection of the first floor by 707 Environmental Compliance personnel verified that hazardous wastes and chemicals have been removed, including gas cylinders, capacitors, batteries, mercury switches, lead shielding, poured lead piping joints, and chemicals that were previously stored in the building. Liquids have been drained from equipment that will remain in the facility for demolition, including water from the fire suppression system and oil from the elevator.

Sampling was conducted on paint from the floor in C-pit (sample 04C0108) and floor shaving waste (paint and concrete) from the floor in H Module (sample 04C0117). These samples were below TCLP levels for all RCRA metals, and VOCs were non-detect. Most floor surfaces and some walls have had paint removed by shaving or hydrolasing. Remaining painted surfaces will be managed as non-hazardous solid waste in accordance with Environmental Waste Compliance Guidance #27, *Lead-Based Paint (LBP) and LBP Debris Disposal*, which states that

LBP debris generated outside of currently identified high contamination areas shall be managed as non-hazardous (solid) waste and need not be sampled unless the potentially lead-containing component is to be scabbled or otherwise comprise a separate waste stream.

As a result of these observations it has been determined that no further sampling for RCRA/CERCLA constituents is required. All building demolition debris can be compliantly disposed as non-hazardous sanitary or low-level waste.

#### **4.4 Polychlorinated Biphenyls (PCBs)**

Building 707 has been used to store PCB wastes. All PCB wastes and waste containers have been removed from the facility, including light ballasts and capacitors. The paint and floor shaving samples listed in section 4.3 were also sampled for PCBs. The C-Pit floor paint had 1.5 ppm PCBs and the H Module floor shaving waste had 15.8 ppm PCBs. Environmental Waste Compliance Guidance #25, *Management of Polychlorinated Biphenyls (PCBs) in Paint and Other Bulk Product Waste During Facility Disposition*, states that applied dried paints are acceptable for disposal (with notification) in a non-hazardous solid waste landfill as PCB bulk product waste and need not be sampled.

#### **4.5 Freon**

Various equipment and free-standing units on the first floor contained freon and halons. These chlorofluorocarbons (CFCs) were drained from the equipment by a Colorado licensed refrigeration technician, and the equipment has been removed from the building.

#### **4.6 Physical hazards**

Physical hazards associated with B707 consist of those common to standard industrial environments, and include hazards associated with energized systems, utilities, and trips and falls. There are no other unique hazards associated with the facility. The facility has been relatively well maintained and is in good physical condition, and therefore, does not present hazards associated with building deterioration.

Physical hazards are controlled by the Site Occupational Safety and Industrial Hygiene Program, which is based on OSHA regulations, DOE orders, and standard industry practices. A structural engineer will evaluate the structure prior to demolition as required by the B707 DOP, to assess any structural issues associated with the proposed demolition methods and sequence.

### **5 DATA QUALITY ASSESSMENT**

Data used in making management decisions for decommissioning of B707 and consequent waste management is of adequate quality to support the decisions documented in this report. The data presented in this report (Attachments B1 through B77) were verified and validated relative to DOE quality requirements, applicable EPA guidance, and original project DQOs. DQAs for radiological surveys and beryllium analyses are included in this report. The facility has been verified to be free of asbestos, PCBs, and RCRA/CERCLA materials through in-process characterization and final facility walkdowns, and no further sampling for these chemical constituents was required.

In summary, the Verification and Validation (V&V) process corroborates that the following elements of the characterization process are adequate:

- ◆ the *number* of samples and surveys;
- ◆ the *types* of samples and surveys;
- ◆ the sampling/survey process as implemented "in the field"; and
- ◆ the laboratory analytical process, relative to accuracy and precision considerations.

Details of the DQA are presented in Attachment D. The DQA Checklists are provided in the individual survey unit packages (located in the Building 707 Characterization Files).

The Minimum Detectable Activity (MDA) for each PDS instrument was determined *a priori* based on typical parameters (background, efficiency, and count time). A list of radiological field instrumentation and associated sensitivities is presented in Table 3.

## 6. INDEPENDENT VERIFICATION

Oak Ridge Institute for Science and Education (ORISE) has been contracted to perform an independent verification of the PDSP process and data collected in support of Final Survey of Building 707.

**Table 3**  
**PDS Radiological Field Instrumentation**  
**& Minimum Detectable Activities**

Model	Measurement Type	MDA (dpm/100 cm <sup>2</sup> )
NE Electra DP6	TSA	48
NE Electra AP6	Scan	300
Eberline SAC-4	Removable (Smears)	10
Bartlett FSM	Scan	300

## 7. DECOMMISSIONING WASTE TYPES AND VOLUME ESTIMATES

The demolition and disposal of B707 will generate a variety of wastes. All waste identified previously can be disposed of as sanitary waste.

## 8. FACILITY CLASSIFICATION AND CONCLUSIONS

Based upon the results of this PDSR, the 1<sup>st</sup> floor surfaces of B707 meet the unrestricted release limits specified in the site Pre-Demolition Survey Plan and are ready for demolition. The PDS for the 1<sup>st</sup> floor surfaces of B707 was performed in accordance with the DDCP and PDSP. All PDSP DQOs were met, and all data satisfied the PDSP DQA criteria. Environmental media beneath and surrounding the facilities and the components and areas presented in Table 1 of this PDSP will be addressed at a future date.

A facility walkdown and historical review indicates that hazardous wastes, asbestos, and CFCs have been removed from the facility, and the remaining structure may be compliantly disposed as non-hazardous sanitary or low-level waste, depending on the radiological conditions. All RCRA units will be closed in accordance with the Building 707 DOP prior to demolition.

With the exception of those components and areas presented in Table 1 of this PDSP, radiological contamination in excess of the PDSP Table 7-1 limits does not exist on the 1<sup>st</sup> floor surfaces of B707.

Based upon this PDSR, in conjunction with the PDSR for the 2<sup>nd</sup> floor and exterior surfaces B707 is acceptable to demolish, and the debris managed as sanitary waste. Under-slab utilities, plated surfaces and piping systems shall be managed as radioactive waste, unless additional data collected prior to waste disposition proves otherwise. To ensure that the facility remains below the release levels and that PDS data remain valid, Level 2 isolation controls have been established, and the area posted accordingly.

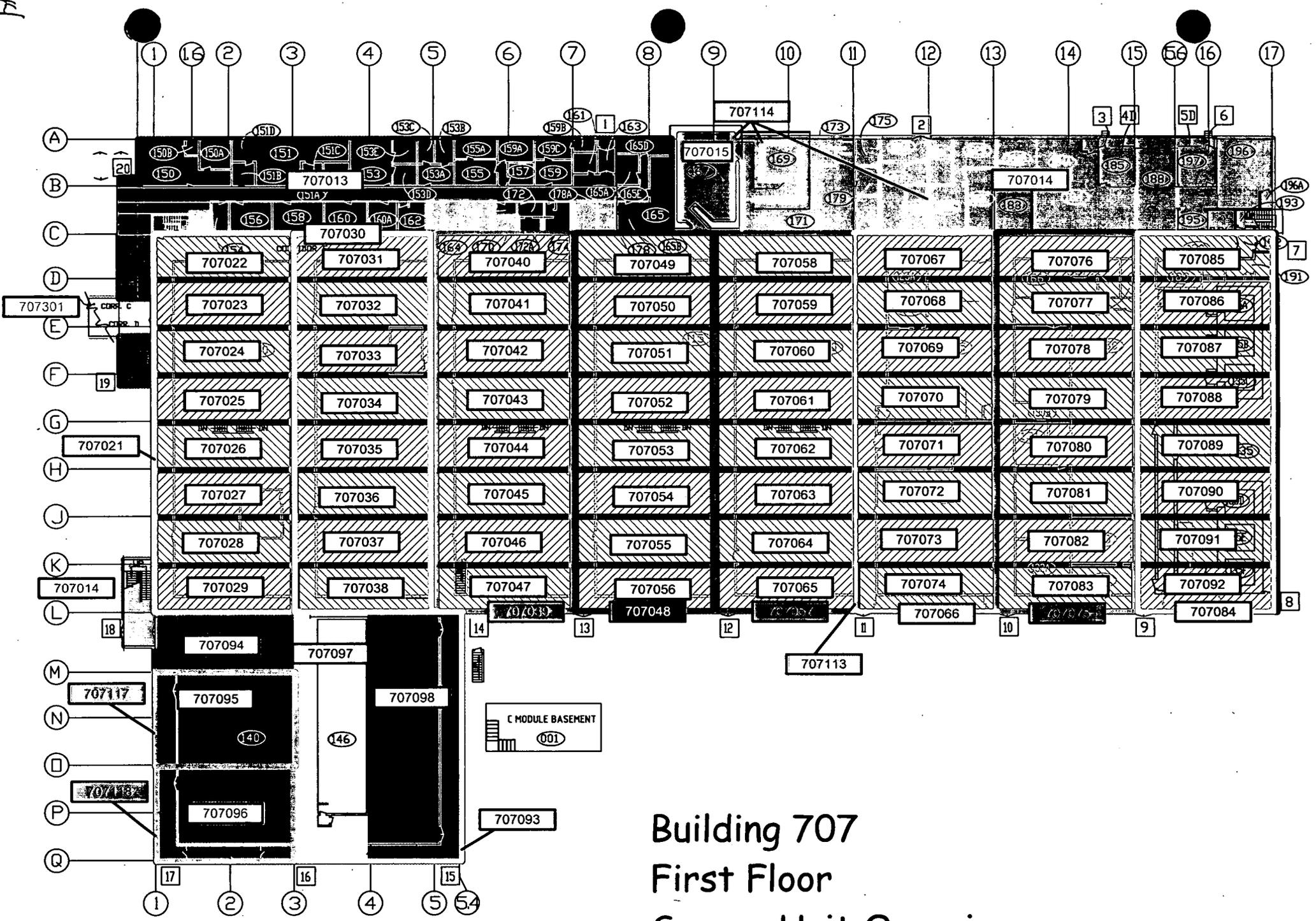
## 9. REFERENCES

- Building 707 Closure Project Decommissioning Operations Plan*, Revision 0, December 21, 2000
- Building 707 Reconnaissance Level Characterization Report, August 1, 2000
- DOE Order 5400.5, *Radiation Protection of the Public and the Environment*
- DOE Order 414.1A, *Quality Assurance*
- MAN-131-QAPM, *Kaiser-Hill Team Quality Assurance Program*, Rev. 1, November 1, 2001.
- MAN-076-FDPM, *Facility Disposition Program Manual*, Rev. 3, January 1, 2002.
- MAN-077-DDCP, *Decontamination and Decommissioning Characterization Protocol*, Rev. 4, July 15, 2002.
- MAN-127-PDSP, *Pre-Demolition Survey Plan for D&D Facilities*, Rev. 1, July 15, 2002.
- MARSSIM - *Multi-Agency Radiation Survey and Site Investigation Manual* (NUREG-1575, EPA 402-R-97-016).
- PRO-475-RSP-16.01, *Radiological Survey/Sampling Package Design, Preparation, Control, Implementation, and Closure*, Rev. 1, May 22, 2001.
- PRO-476-RSP-16.02, *Pre-Demolition (Final Status) Radiological Surveys of Surfaces and Structures*, Rev. 2, March 10, 2003.
- PRO-477-RSP-16.03, *Radiological Samples of Building Media*, Rev. 1, May 22, 2001.
- PRO-478-RSP-16.04, *Radiological Survey/Sample Data Analysis for Final Status Survey*, Rev. 1, May 22, 2001.
- PRO-479-RSP-16.05, *Radiological Survey/Sample Quality Control for Final Status Survey*, Rev. 1, May 22, 2001.
- PRO-563-ACPR, *Asbestos Characterization Procedure*, Revision 0, August 24, 1999.
- PRO-536-BCPR, *Beryllium Characterization Procedure*, Revision 0, August 24, 1999.
- RFETS, *Environmental Waste Compliance Guidance #25, Management of Polychlorinated Biphenyls (PCBs) in Paint and Other Bulk Product Waste During Facility Disposition*, April 5, 1999.
- RFETS, *Environmental Waste Compliance Guidance #27, Lead-Based Paint (LBP) and LBP Debris Disposal*, November 4, 2002

ATTACHMENT A

B 707 1st Floor Main Building and Annex Overview Map  
And  
Plated Contamination Area Map

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Building 707  
 First Floor  
 Survey Unit Overview



ATTACHMENT B1

Survey Unit 707013 Survey Data and Maps

# Investigation Documentation

Survey Unit: 707013

Investigation #	Surface Floor, Wall, Ceiling etc.	Location	"As Found" (dpm/100 cm <sup>2</sup> )	Investigation Value (cpm)	Investigation (dpm)	Remediation Performed? (Yes/No)	"As Left" (dpm/100 cm <sup>2</sup> )	9-Point Done? (Yes/No)	meter <sup>2</sup> Average (dpm/100 cm <sup>2</sup> )
1	Floor	C2	353	157	748	Yes	3	Yes	15
2	Floor	C2	426	155	738	Yes	18	Yes	10
3	Floor	C2	353	144	686	Yes	9	Yes	12

Note 1 = total activity per 600 cm<sup>2</sup> probe

Maximum

18.2

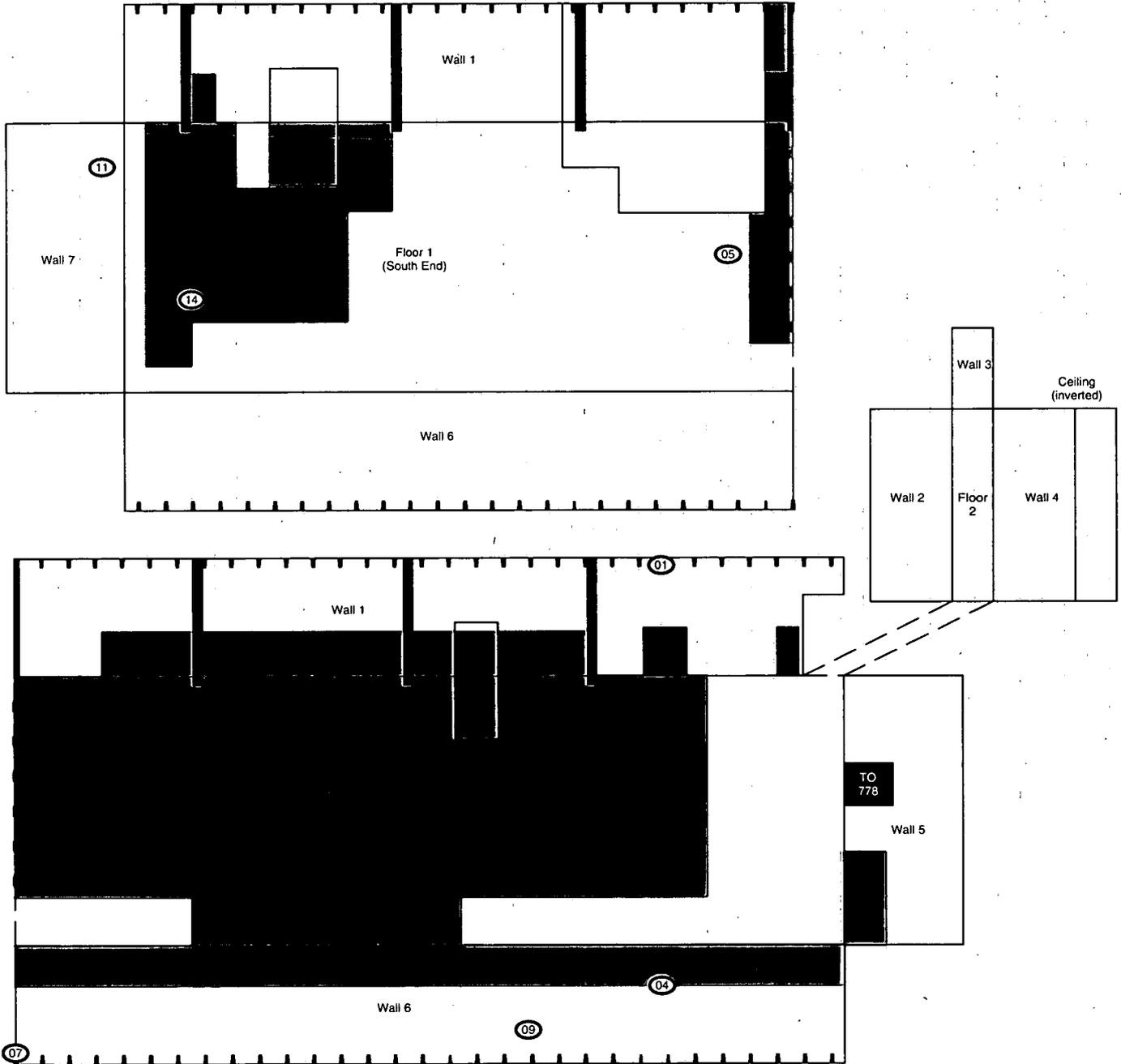
15.1

47

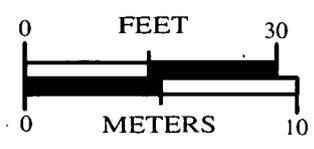
# RADIOLOGICAL CLOSEOUT SURVEY FOR THE 707 CLUSTER

Survey Area: B      Survey Unit: 707013      Classification: 3  
Building: 707  
Survey Unit Description: First floor (office area)  
Total Floor Area: 827 sq. m      Total Area: 3235 sq. m      Grid Size: N/A

## SURVEY UNIT 707013 - MAP 1 OF 3



 Scanned Area



**SURVEY MAP LEGEND**

-  Smear & TSC Location
-  Smear, TSC & Sample Location
-  Open/Inaccessible Area
-  Area in Another Location

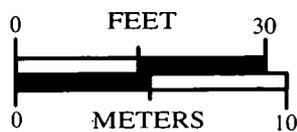
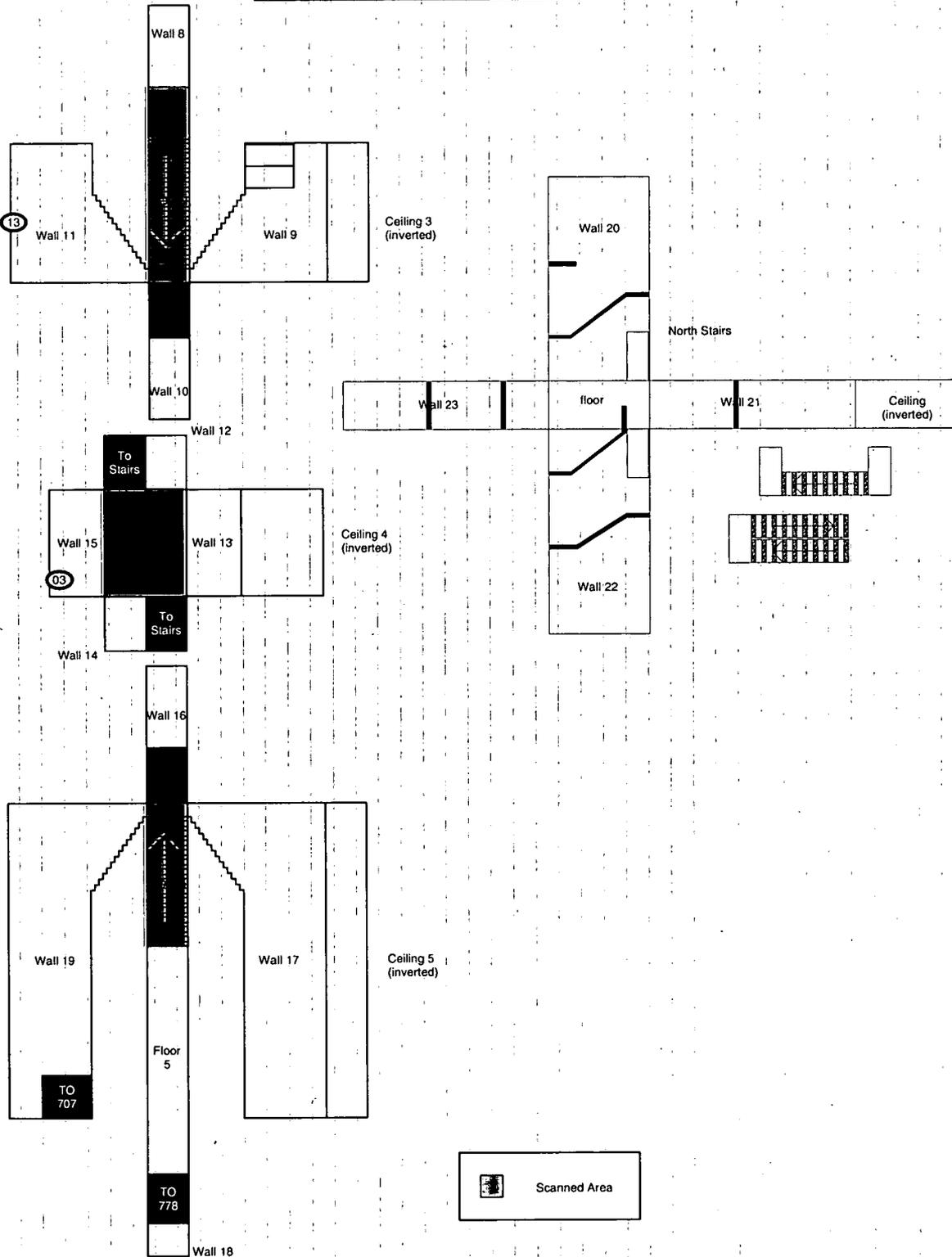
48

# RADIOLOGICAL CLOSEOUT SURVEY FOR THE 707 CLUSTER

Survey Area: B      Survey Unit: 707013      Classification: 3  
Building: 707  
Survey Unit Description: First floor (office area)

Total Floor Area: 827 sq. m      Total Area: 3235 sq. m      Grid Size: N/A

## SURVEY UNIT 707013 - MAP 2 OF 3



**SURVEY MAP LEGEND**

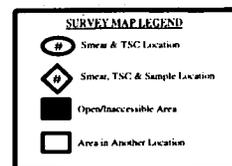
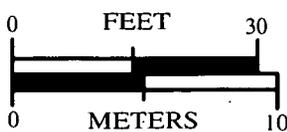
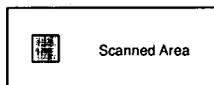
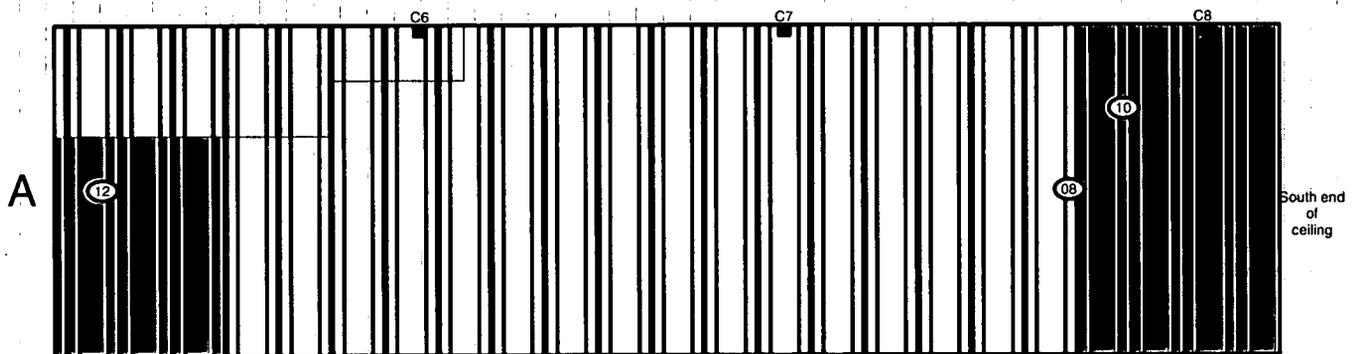
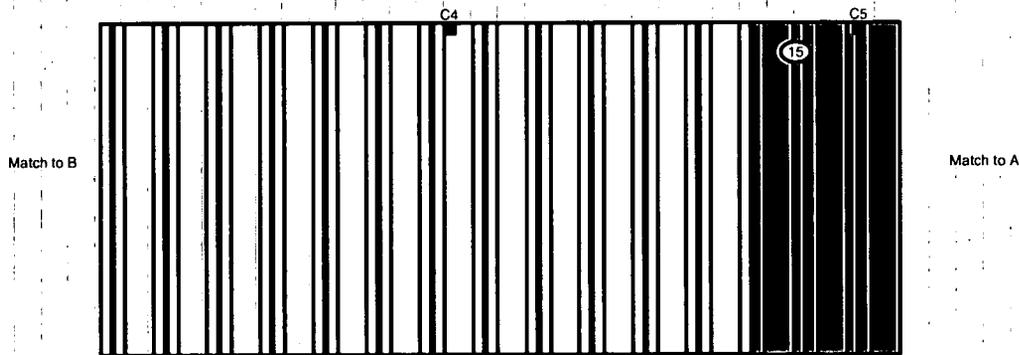
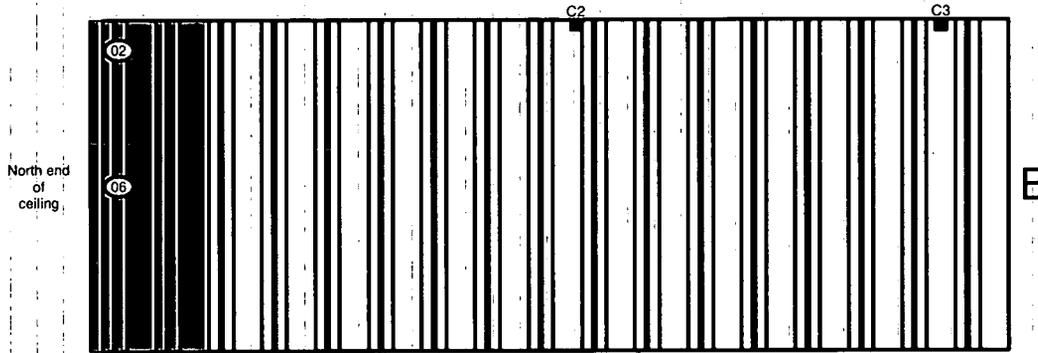
- Smear & TSC Location
- Smear, TSC & Sample Location
- Open/Inaccessible Area
- Area in Another Location

# RADIOLOGICAL CLOSEOUT SURVEY FOR THE 707 CLUSTER

Survey Area: B      Survey Unit: 707013      Classification: 3  
 Building: 707  
 Survey Unit Description: First floor (office area)

Total Floor Area: 827 sq. m      Total Area: 3235 sq. m      Grid Size: N/A

## SURVEY UNIT 707013 - MAP 3 OF 3



Survey Area: B

Survey Unit: 707013

Building: 707

Description: B707 1st floor front office areas

## Rocky Flats Environmental Technology Site Final Radiological Survey Summary Results

### Total Surface Activity Measurements

Nbr Random Measurements Required: 15

Nbr Biased Measurements Required: 0

Nbr QC Required: 2

Nbr Random Measurements Performed: 15

Nbr Biased Measurements Performed: 0

Nbr QC Performed: 2

#### Alpha

Maximum:	40.2 dpm/100cm <sup>2</sup>
Minimum:	7.1 dpm/100cm <sup>2</sup>
Mean:	19.0 dpm/100cm <sup>2</sup>
Standard Deviation:	11.1
QC Maximum:	51.6 dpm/100cm <sup>2</sup>
QC Minimum:	14.1 dpm/100cm <sup>2</sup>
QC Mean:	32.9 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>w</sub> :	100.0 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>EMC</sub> :	300.0 dpm/100cm <sup>2</sup>

### Removable Surface Activity Measurements

Nbr Random Measurements Required: 15

Nbr Biased Measurements Required: 0

Nbr Random Measurements Performed: 15

Nbr Biased Measurements Performed: 0

#### Alpha

Maximum:	1.5 dpm/100cm <sup>2</sup>
Minimum:	0.0 dpm/100cm <sup>2</sup>
Mean:	0.4 dpm/100cm <sup>2</sup>
Standard Deviation:	0.7
Transuranic DCGL <sub>w</sub> :	20.0 dpm/100cm <sup>2</sup>

### Media Sample Results

Nbr Random Required: 0

Nbr Biased Required: 0

Nbr Random Collected: 0

Nbr Biased Collected: 0

*Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.*

Survey Area: B

Survey Unit: 707013

Building: 707

Description: B707 1st floor front office areas

### Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency		A-Priori MDA (dpm/100cm <sup>2</sup> )		Survey Type
							Alpha	Beta	Alpha	Beta	
1	511510	10/20/04	Electra	2383	DP-6	12/30/04	0.220	NA	48.0	NA	T
2	511510	10/20/04	SAC-4	957	NA	11/05/04	0.333	NA	10.0	NA	R
3	513185	10/25/04	Electra	3977	DP-6	01/31/05	0.213	NA	48.0	NA	T

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

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Survey Area: B

Survey Unit: 707013

Building: 707

Description: B707 1st floor front office areas

### Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707013PRP-N001	2	0.0	N/A	
707013PRP-N002	2	0.0	N/A	
707013PRP-N003	2	0.0	N/A	
707013PRP-N004	2	0.0	N/A	
707013PRP-N005	2	0.0	N/A	
707013PRP-N006	2	0.0	N/A	
707013PRP-N007	2	0.0	N/A	
707013PRP-N008	2	0.0	N/A	
707013PRP-N009	2	1.5	N/A	
707013PRP-N010	2	0.0	N/A	
707013PRP-N011	2	1.5	N/A	
707013PRP-N012	2	1.5	N/A	
707013PRP-N013	2	1.5	N/A	
707013PRP-N014	2	0.0	N/A	
707013PRP-N015	2	0.0	N/A	

Comments:

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Survey Area: B

Survey Unit: 707013

Building: 707

Description: B707 1st floor front office areas

### Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707013PRP-N001	1	18.9	N/A	
707013PRP-N002	1	29.8	N/A	
707013PRP-N003	1	9.8	N/A	
707013PRP-N004	1	40.2	N/A	
707013PRP-N005	1	16.2	N/A	
707013QRP-N005	3	14.1	N/A	
707013PRP-N006	1	16.2	N/A	
707013PRP-N007	1	9.8	N/A	
707013PRP-N008	1	28.0	N/A	
707013PRP-N009	1	9.8	N/A	
707013PRP-N010	1	9.8	N/A	
707013PRP-N011	1	7.1	N/A	
707013PRP-N012	1	23.4	N/A	
707013PRP-N013	1	9.8	N/A	
707013PRP-N014	1	40.2	N/A	
707013QRP-N014	3	51.6	N/A	
707013PRP-N015	1	16.2	N/A	

Comments: >50% of the floor, >10% of the lower walls, and >5% of the upper wall and ceiling surfaces were scanned. All values after remediation <300 dpm/100 cm<sup>2</sup>.

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ATTACHMENT B2

Survey Unit 707014 Survey Data and Maps

# Investigation Documentation

Survey Unit: 707014

Investigation Number	Surface Floor, Wall, Ceiling etc.	Location	"As Found" (dpm/100 cm <sup>2</sup> )	Remediation Performed? (Yes/No)	"As Left" (dpm) <sup>Note 1</sup>	Note 2 "As Left" (dpm/100 cm <sup>2</sup> )	9-Point Done? (Yes/No)	meter <sup>2</sup> Average (dpm/100 cm <sup>2</sup> )
1	Floor	Office	798	Yes	195	N/A	No	<100
2	Floor	Office	968	Yes	55	N/A	No	<100
3	Floor	Office	1298	Yes	55	N/A	No	<100
4	Floor	Office	625	Yes	0	N/A	No	<100
5	Floor	Office	561	Yes	291	N/A	No	<100
6	Floor	Office	391	Yes	55	N/A	No	<100
7	Floor	Office	1563	Yes	164	N/A	No	<100
8	Floor	Office	2298	Yes	109	N/A	No	<100
9	Floor	Office	625	Yes	82	N/A	No	<100
10	Floor	Office	455	Yes	191	N/A	No	<100
11	Floor	Office	395	Yes	245	N/A	No	<100
12	Floor	Office	671	Yes	0	N/A	No	<100
13	Floor	Office	391	Yes	N/A	0	No	<100
14	Floor	Office	391	Yes	N/A	27	No	<100
15	Floor	Office	430	Yes	N/A	191	No	<100
16	Floor	Office	684	Yes	N/A	27	No	<100
17	Floor	Office	534	Yes	N/A	55	No	<100
18	Floor	Office	492	Yes	N/A	0	No	<100
19	Floor	Office	542	Yes	N/A	55	No	<100
20	Floor	Office	3485	Yes	N/A	55	No	<100
21	Floor	Office	472	Yes	N/A	64	No	<100
22	Floor	Office	601	Yes	N/A	0	No	<100
35	Floor	C15	350	Yes	N/A	109	No	<100
36	Floor	C15	309	Yes	N/A	109	No	<100
37	Floor	C15	318	Yes	N/A	127	No	<100
38	Floor	C15	275	Yes	N/A	73	No	<100
39	Floor	C14	419	Yes	N/A	145	No	<100
40	Floor	C15	301	Yes	N/A	123	No	<100
41	Floor	C15	275	Yes	N/A	191	No	<100
42	Floor	C15	361	Yes	N/A	45	No	<100
43	Floor	C15	322	Yes	N/A	123	No	<100
44	Floor	C15	197	Yes	N/A	118	No	<100
45	Floor	D16	414	Yes	N/A	86	No	<100
46	Floor	B16	371	Yes	N/A	64	No	<100
47	Floor	B16	1943	Yes	N/A	23	No	<100
48	Floor	B16	600	Yes	N/A	105	No	<100
49	Floor	B16	300	Yes	N/A	86	No	<100
50	Floor	B16	700	Yes	N/A	168	No	<100
51	Floor	B16	600	Yes	N/A	N/A	No	<100
52	Floor	B16	782	Yes	N/A	123	No	<100
53	Floor	B16	666	Yes	N/A	145	No	<100
54	Floor	B16	667	Yes	N/A	177	No	<100
55	Floor	B16	300	Yes	N/A	209	No	<100
56	Floor	B16	309	Yes	N/A	118	No	<100
57	Floor	B16	357	Yes	N/A	136	No	<100
58	Floor	B16	409	Yes	N/A	155	No	<100
59	Floor	B16	400	Yes	N/A	186	No	<100
60	Floor	B16	350	Yes	N/A	136	No	<100

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# Investigation Documentation

Survey Unit: 707014

Investigation Number	Surface Floor, Wall, Ceiling etc.	Location	"As Found" (dpm/100 cm <sup>2</sup> )	Remediation Performed? (Yes/No)	"As Left" (dpm) <sup>Note 1</sup>	Note 2 "As Left" (dpm/100 cm <sup>2</sup> )	9-Point Done? (Yes/No)	meter <sup>2</sup> Average (dpm/100 cm <sup>2</sup> )
61	Floor	B16	400	Yes	N/A	155	No	<100
62	Floor	C13	411	Yes	N/A	100	No	<100
63	Floor	C13	436	Yes	N/A	100	No	<100
64	Floor	C13	326	Yes	N/A	155	No	<100
65	Floor	C5	284	Yes	N/A	<300	No	<100
66	Floor	C5	411	Yes	N/A	<300	No	<100
67	Floor	C5	326	Yes	N/A	<300	No	<100
68	Floor	C5	300	Yes	N/A	<300	No	<100
69	Floor	C5	284	Yes	N/A	<300	No	<100
70	Floor	C5	286	Yes	N/A	<300	No	<100
71	Floor	C5	258	Yes	N/A	<300	No	<100
72	Floor	C5	563	Yes	N/A	95	No	<100
73	Floor	C5	267	Yes	N/A	182	No	<100
Note 1 - total activity per 600 cm <sup>2</sup> probe					Maximum	290.9	209.1	<100
Note 2 - <300 is the FSM value after remediation and re-survey.								

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**RADIOLOGICAL CLOSEOUT SURVEY FOR THE 707 CLUSTER**

Survey Area: B

Survey Unit: 707014

Classification: 2

Building: 707

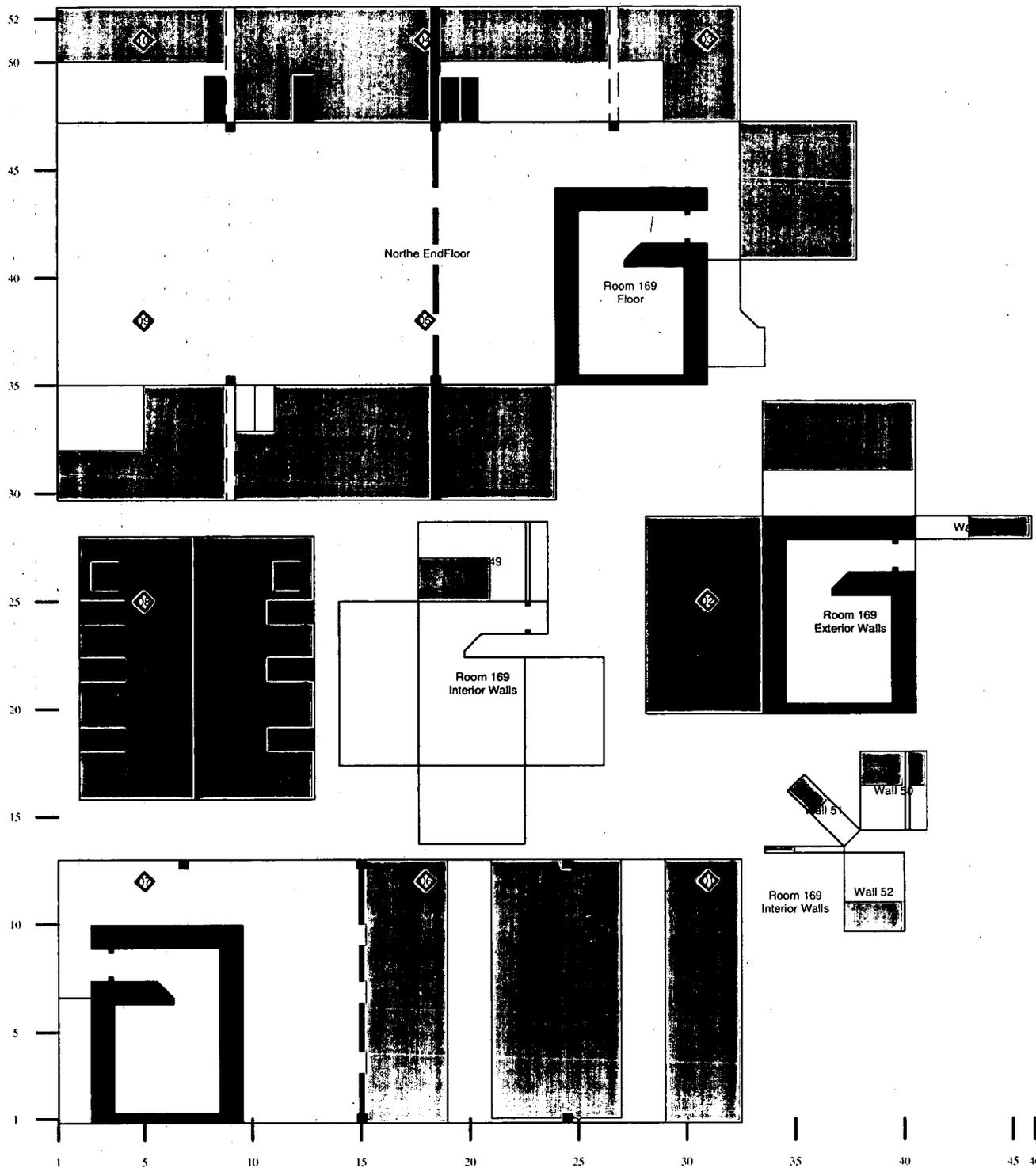
Survey Unit Description: First floor

Total Floor Area: 838 sq. m

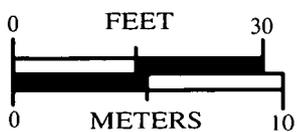
Total Area: 3780 sq. m

Random Start Grid Size: 13X x 13 sq. m

**SURVEY UNIT 707014 - MAP 1 OF 4**



Scanned Area



**SURVEY MAP LEGEND**

- Smear & TSC Location
- Smear, TSC & Sample Location
- Open/Inaccessible Area
- Area in Another Location

**RADIOLOGICAL CLOSEOUT SURVEY FOR THE 707 CLUSTER**

Survey Area: B

Survey Unit: 707014

Classification: 2

Building: 707

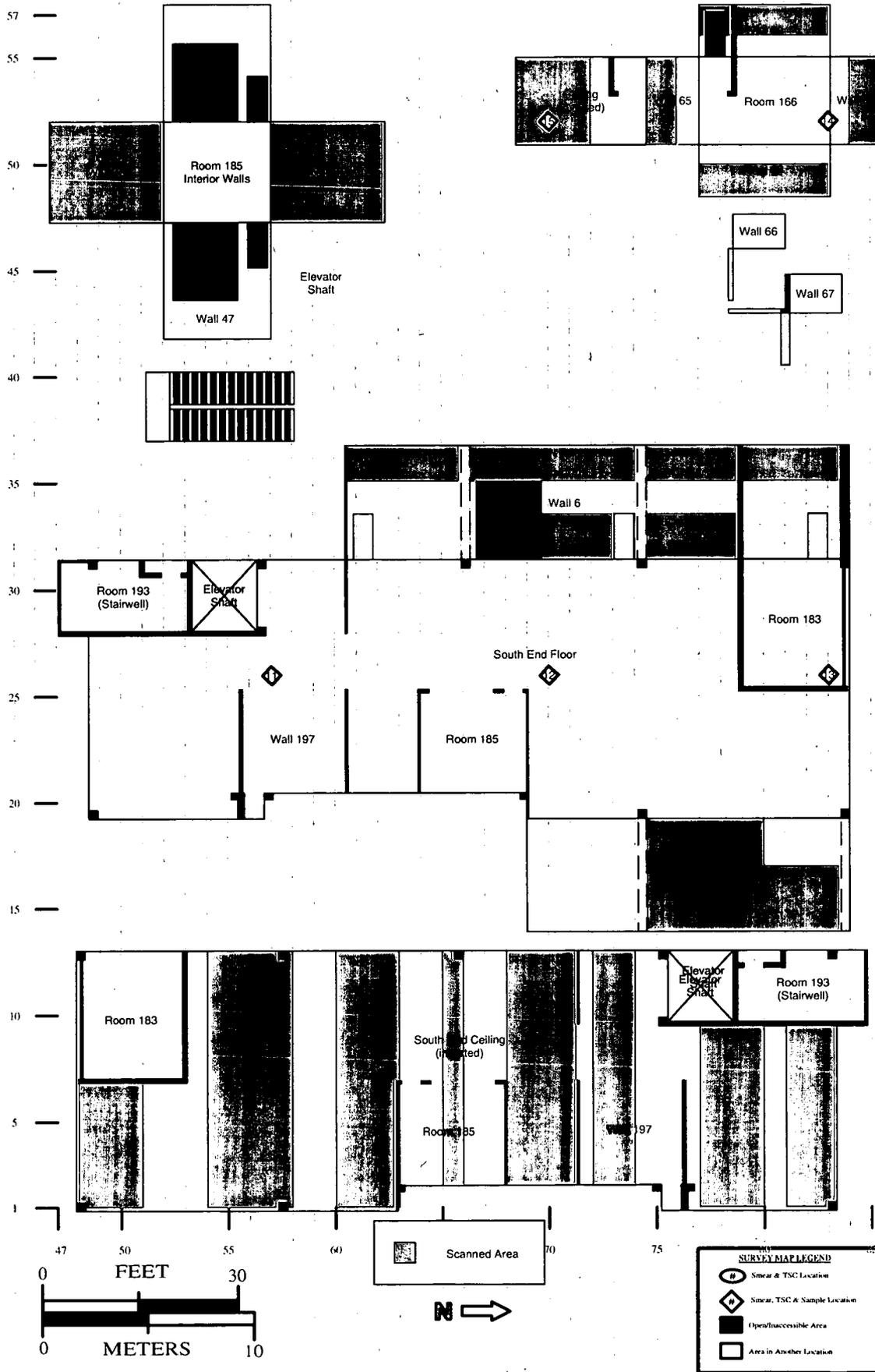
Survey Unit Description: First floor

Total Floor Area: 838 sq. m

Total Area: 3780 sq. m

Random Start Grid Size: 13 x 13 sq. m

**SURVEY UNIT 707014 - MAP 2 OF 4**

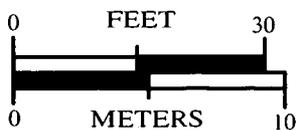
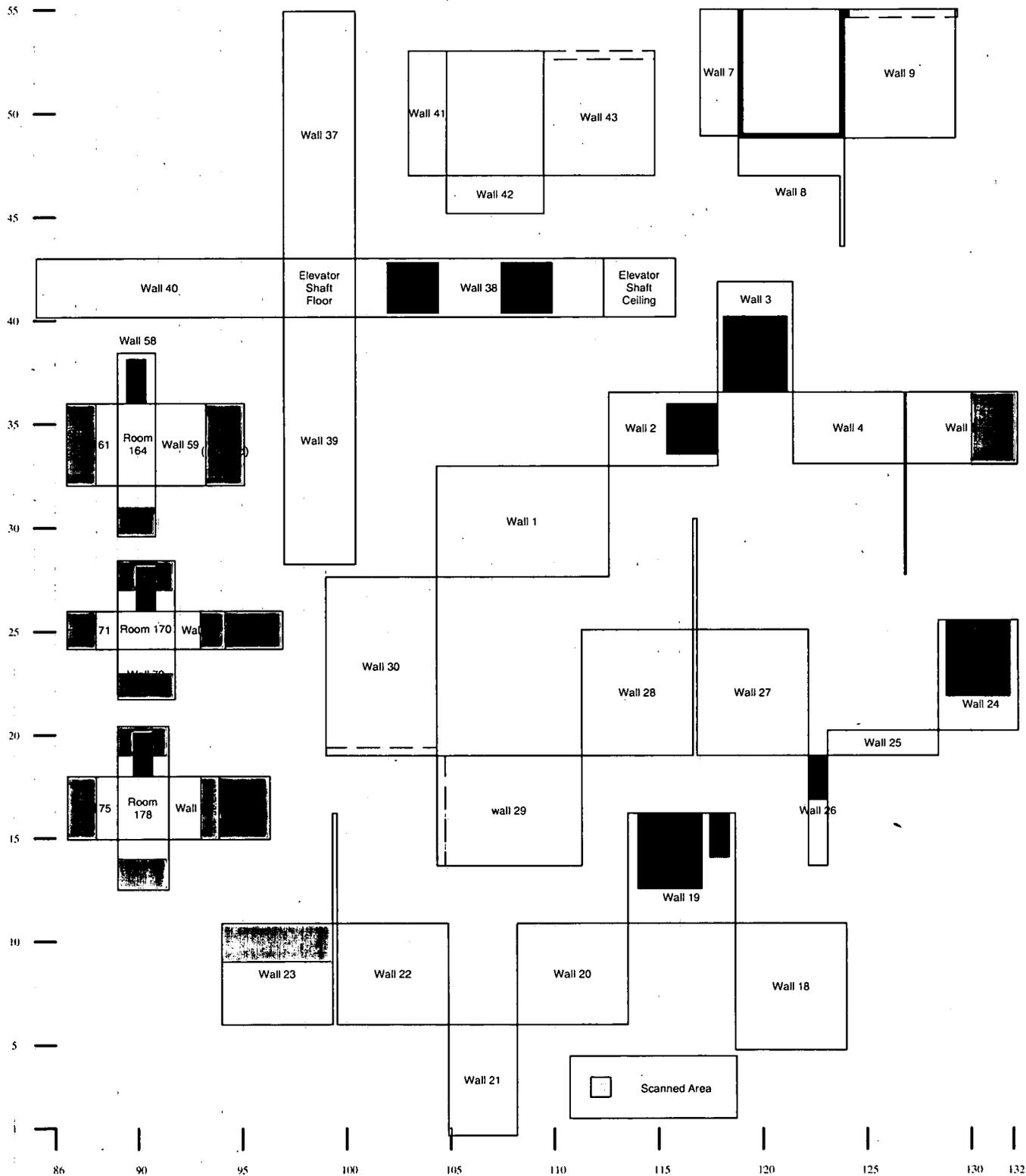


**RADIOLOGICAL CLOSEOUT SURVEY FOR THE 707 CLUSTER**

Survey Area: B      Survey Unit: 707014      Classification: 2  
 Building: 707  
 Survey Unit Description: First floor

Total Floor Area: 838 sq. m      Total Area: 3780 sq. m      Random Start Grid Size: 13 x 13 sq. m

**SURVEY UNIT 707014 - MAP 3 OF 4**



**SURVEY MAP LEGEND**

- ⊙ Smear & TSC Location
- ⬠ Smear, TSC & Sample Location
- Open/Inaccessible Area
- Area in Another Location

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**RADIOLOGICAL CLOSEOUT SURVEY FOR THE 707 CLUSTER**

Survey Area: B

Survey Unit: 707014

Classification: 2

Building: 707

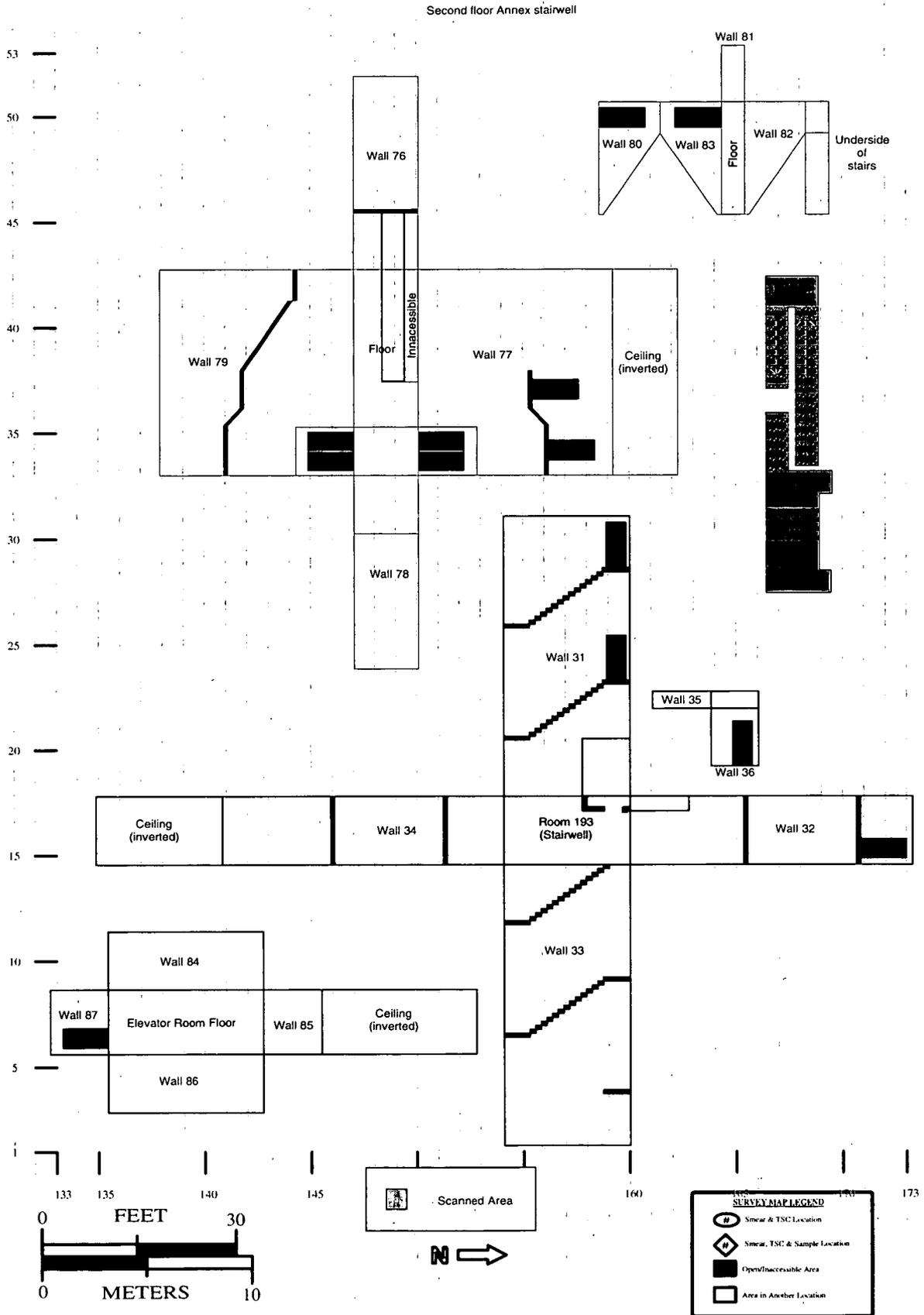
Survey Unit Description: First floor

Total Floor Area: 838 sq. m

Total Area: 3780 sq. m

Random Start Grid Size: 13 x 13 sq. m

**SURVEY UNIT 707014 - MAP 4 OF 4**



Survey Area: B

Survey Unit: 707014

Building: 707

Description: Rooms on the 1st floor, in the east end of B707 adjacent to modules A-H. Rooms 142, 149, 164, 166, 168, 169, 170, 171, 173, 175, 176, 178, 179, 180, 181, 182, 183, 184, 185, 188, 193, 195, 196, 197 & North Airlock. The list of rooms includes associated partitioned rooms - A, B, C, etc.

## Rocky Flats Environmental Technology Site Final Radiological Survey Summary Results

### Total Surface Activity Measurements

Nbr Random Measurements Required: 15  
Nbr Random Measurements Performed: 15

Nbr Biased Measurements Required: 0  
Nbr Biased Measurements Performed: 0

Nbr QC Required: 2  
Nbr QC Performed: 2

#### Alpha

Maximum:	61.9 dpm/100cm <sup>2</sup>
Minimum:	-10.2 dpm/100cm <sup>2</sup>
Mean:	27.3 dpm/100cm <sup>2</sup>
Standard Deviation:	21.7
QC Maximum:	52.4 dpm/100cm <sup>2</sup>
QC Minimum:	24.3 dpm/100cm <sup>2</sup>
QC Mean:	38.3 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>w</sub> :	100.0 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>EMC</sub> :	300.0 dpm/100cm <sup>2</sup>

### Removable Surface Activity Measurements

Nbr Random Measurements Required: 15  
Nbr Random Measurements Performed: 15

Nbr Biased Measurements Required: 0  
Nbr Biased Measurements Performed: 0

#### Alpha

Maximum:	3.0 dpm/100cm <sup>2</sup>
Minimum:	0.0 dpm/100cm <sup>2</sup>
Mean:	0.8 dpm/100cm <sup>2</sup>
Standard Deviation:	1.0
Transuranic DCGL <sub>w</sub> :	20.0 dpm/100cm <sup>2</sup>

### Media Sample Results

Nbr Random Required: 13  
Nbr Random Collected: 13

Nbr Biased Required: 0  
Nbr Biased Collected: 0

#### Uranium

Maximum:	NA dpm/100cm <sup>2</sup>
Minimum:	NA dpm/100cm <sup>2</sup>
Mean:	NA dpm/100cm <sup>2</sup>
Standard Deviation:	NA
Uranium DCGL <sub>w</sub> :	5,000 dpm/100cm <sup>2</sup>
Uranium DCGL <sub>EMC</sub> :	15,000 dpm/100cm <sup>2</sup>

#### Transuranic

Maximum:	50 dpm/100cm <sup>2</sup>
Minimum:	-1 dpm/100cm <sup>2</sup>
Mean:	21 dpm/100cm <sup>2</sup>
Standard Deviation:	14
Transuranic DCGL <sub>w</sub> :	100 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>EMC</sub> :	300 dpm/100cm <sup>2</sup>

Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.

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Survey Area: B

Survey Unit: 707014

Building: 707

Description: Rooms on the 1st floor, in the east end of B707 adjacent to modules A-H. Rooms 142, 149, 164, 166, 168, 169, 170, 171, 173, 175, 176, 178, 179, 180, 181, 182, 183, 184, 185, 188, 193, 195, 196, 197 & North Airlock. The list of rooms includes associated partitioned rooms - A, B, C, etc.

### Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency		A-Priori MDA (dpm/100cm <sup>2</sup> )		Survey Type
							Alpha	Beta	Alpha	Beta	
1	509552	08/09/04	Electra	1240	DP-6	01/22/05	0.212	NA	48.0	NA	T
2	511510	08/09/04	SAC-4	1469	NA	11/27/04	0.333	NA	10.0	NA	R
3	509552	08/10/04	Electra	1240	DP-6	01/22/05	0.212	NA	48.0	NA	T/S
4	511510	08/10/04	SAC-4	1469	NA	11/27/04	0.333	NA	10.0	NA	R
5	509552	08/11/04	Electra	1240	DP-6	01/22/05	0.212	NA	48.0	NA	T/S
6	511510	08/11/04	SAC-4	1469	NA	11/27/04	0.333	NA	10.0	NA	R
7	509552	08/11/04	Electra	1100	DP-6	09/02/04	0.214	NA	48.0	NA	T/S
8	510198	08/15/04	Electra	2335	DP-6	04/07/05	0.213	NA	48.0	NA	T/S
9	510198	08/15/04	SAC-4	1162	NA	12/01/04	0.333	NA	10.0	NA	R

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

Survey Area: B

Survey Unit: 707014

Building: 707

Description: Rooms on the 1st floor, in the east end of B707 adjacent to modules A-H. Rooms 142, 149, 164, 166, 168, 169, 170, 171, 173, 175, 176, 178, 179, 180, 181, 182, 183, 184, 185, 188, 193, 195, 196, 197 & North Airlock. The list of rooms includes associated partitioned rooms - A, B, C, etc.

### Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707014PRP-N001	6	1.5	N/A	
707014PRP-N002	6	1.5	N/A	
707014PRP-N003	2	0.0	N/A	
707014PRP-N004	2	0.0	N/A	
707014PRP-N005	2	0.0	N/A	
707014PRP-N006	6	1.5	N/A	
707014PRP-N007	6	0.0	N/A	
707014PRP-N008	4	0.0	N/A	
707014PRP-N009	2	1.5	N/A	
707014PRP-N010	2	0.0	N/A	
707014PRP-N011	6	0.0	N/A	
707014PRP-N012	6	1.5	N/A	
707014PRP-N013	6	0.0	N/A	
707014PRP-N014	9	1.5	N/A	
707014PRP-N015	9	3.0	N/A	

Comments:

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Survey Area: B

Survey Unit: 707014

Building: 707

Description: Rooms on the 1st floor, in the east end of B707 adjacent to modules A-H. Rooms 142, 149, 164, 166, 168, 169, 170, 171, 173, 175, 176, 178, 179, 180, 181, 182, 183, 184, 185, 188, 193, 195, 196, 197 & North Airlock. The list of rooms includes associated partitioned rooms - A, B, C, etc.

### Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707014PRP-N001	5	24.7	N/A	
707014PRP-N002	5	36.9	N/A	
707014PRP-N003	1	11.9	N/A	
707014PRP-N004	1	-0.8	N/A	
707014PRP-N005	1	2.5	N/A	
707014PRP-N006	5	25.6	N/A	
707014PRP-N007	5	53.0	N/A	
707014PRP-N008	3	13.4	N/A	
707014PRP-N009	1	61.9	N/A	
707014QRP-N009	7	24.3	N/A	
707014PRP-N010	1	21.4	N/A	
707014PRP-N011	5	-10.2	N/A	
707014PRP-N012	5	48.3	N/A	
707014QRP-N012	7	52.4	N/A	
707014PRP-N013	5	43.5	N/A	
707014PRP-N014	8	52.6	N/A	
707014PRP-N015	8	24.4	N/A	

Comments: 100% of accessible floor, >25% of lower wall, and >10% of upper wall and ceiling surfaces were scanned. All values after remediation were <300 dpm/100 cm<sup>2</sup> after remediation.

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Survey Area: B

Survey Unit: 707014

Building: 707

Description: Rooms on the 1st floor, in the east end of B707 adjacent to modules A-H. Rooms 142, 149, 164, 166, 168, 169, 170, 171, 173, 175, 176, 178, 179, 180, 181, 182, 183, 184, 185, 188, 193, 195, 196, 197 & North Airlock. The list of rooms includes associated partitioned rooms - A, B, C, etc.

### Media Samples Data Sheet

Site Sample ID / Nbr ----- Description	Nuclide	Sample (dpm)	Sample MDA (dpm)	Surface Area (in <sup>2</sup> )	Sample Nuclide (dpm/100cm <sup>2</sup> )	Sample Nuclide MDA (dpm/100cm <sup>2</sup> )	Sample Total (dpm/100cm <sup>2</sup> )
MED00192 1 Floor	U234	NA	NA	26.3	NA	NA	Uranium NA Transuranic 15
	U235	NA	NA		NA	NA	
	U238	NA	NA		NA	NA	
	Pu239/240	21.7	35.0		13	21	
	Am241	3.1	5.0		2	3	
MED00193 2 Wall	U234	NA	NA	26.3	NA	NA	Uranium NA Transuranic 10
	U235	NA	NA		NA	NA	
	U238	NA	NA		NA	NA	
	Pu239/240	14.7	95.2		9	56	
	Am241	2.1	13.6		1	8	
MED00194 3 Wall	U234	NA	NA	26.3	NA	NA	Uranium NA Transuranic 22
	U235	NA	NA		NA	NA	
	U238	NA	NA		NA	NA	
	Pu239/240	32.9	92.4		19	55	
	Am241	4.7	13.2		3	8	
MED00195 4 Wall	U234	NA	NA	26.3	NA	NA	Uranium NA Transuranic 22
	U235	NA	NA		NA	NA	
	U238	NA	NA		NA	NA	
	Pu239/240	32.9	72.1		19	43	
	Am241	4.7	10.3		3	6	
MED00196 5 Floor	U234	NA	NA	26.3	NA	NA	Uranium NA Transuranic 23
	U235	NA	NA		NA	NA	
	U238	NA	NA		NA	NA	
	Pu239/240	33.6	84.0		20	50	
	Am241	4.8	12.0		3	7	
MED00197 6 Floor	U234	NA	NA	26.3	NA	NA	Uranium NA Transuranic 13
	U235	NA	NA		NA	NA	
	U238	NA	NA		NA	NA	
	Pu239/240	18.9	32.2		11	19	
	Am241	2.7	4.6		2	3	
MED00198 7 Floor	U234	NA	NA	26.3	NA	NA	Uranium NA Transuranic 2
	U235	NA	NA		NA	NA	
	U238	NA	NA		NA	NA	
	Pu239/240	3.5	121.1		2	71	
	Am241	0.5	17.3		0	10	

Comments:

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Survey Area: B

Survey Unit: 707014

Building: 707

Description: Rooms on the 1st floor, in the east end of B707 adjacent to modules A-H. Rooms 142, 149, 164, 166, 168, 169, 170, 171, 173, 175, 176, 178, 179, 180, 181, 182, 183, 184, 185, 188, 193, 195, 196, 197 & North Airlock. The list of rooms includes associated partitioned rooms - A, B, C, etc.

### Media Samples Data Sheet

Site Sample ID / Nbr ----- Description	Nuclide	Sample (dpm)	Sample MDA (dpm)		Surface Area (in <sup>2</sup> )	Sample Nuclide (dpm/100cm <sup>2</sup> )	Sample Nuclide MDA (dpm/100cm <sup>2</sup> )	Sample Total (dpm/100cm <sup>2</sup> )
MED00199 8 Wall	U234	NA	NA		26.3	NA	NA	Uranium NA Transuranic -1
	U235	NA	NA			NA	NA	
	U238	NA	NA			NA	NA	
	Pu239/240	0.0	95.2			0	56	
	Am241	-2.4	13.6			-1	8	
MED00200 9 Floor	U234	NA	NA		26.3	NA	NA	Uranium NA Transuranic 50
	U235	NA	NA			NA	NA	
	U238	NA	NA			NA	NA	
	Pu239/240	73.5	95.9			43	57	
	Am241	10.5	13.7			6	8	
MED00201 10 Wall	U234	NA	NA		26.3	NA	NA	Uranium NA Transuranic 20
	U235	NA	NA			NA	NA	
	U238	NA	NA			NA	NA	
	Pu239/240	29.4	84.7			17	50	
	Am241	4.2	12.1			3	7	
MED00202 11 Wall	U234	NA	NA		26.3	NA	NA	Uranium NA Transuranic 32
	U235	NA	NA			NA	NA	
	U238	NA	NA			NA	NA	
	Pu239/240	46.9	39.9			28	24	
	Am241	6.7	5.7			4	3	
MED00203 12 Floor	U234	NA	NA		26.3	NA	NA	Uranium NA Transuranic 37
	U235	NA	NA			NA	NA	
	U238	NA	NA			NA	NA	
	Pu239/240	54.6	105.0			32	62	
	Am241	7.8	15.0			5	9	
MED00204 13 Floor	U234	NA	NA		26.3	NA	NA	Uranium NA Transuranic 28
	U235	NA	NA			NA	NA	
	U238	NA	NA			NA	NA	
	Pu239/240	42.0	84.0			25	50	
	Am241	6.0	12.0			4	7	

ATTACHMENT B3

Survey Unit 707015 Survey Data and Maps

# Investigation Documentation

Survey Unit: 707015

Investigation Number	Surface Floor, Wall, Ceiling etc.	Location	"As Found" (dpm/100 cm <sup>2</sup> )	Remediation Performed? (Yes/No)	"As Left" (dpm) <sup>Note 1</sup>	Note 2 "As Left" (dpm/100 cm <sup>2</sup> )	9-Point Done? (Yes/No)	meter <sup>2</sup> Average (dpm/100 cm <sup>2</sup> )
23	Floor	B-10	470	Yes	78	<300	no	<100
24	Floor	B-10	601	Yes	156	<300	no	<100
25	Floor	B-10	343	Yes	273	<300	no	<100
26	Floor	B-10	400	Yes	273	<300	no	<100
27	Floor	B-10	600	Yes	312	<300	no	<100
28	Floor	B-10	2333	Yes	195	<300	no	<100
29	Floor	B-10	460	Yes	234	<300	no	<100
30	Floor	B-10	477	No	156	<300	Yes	70
31	Floor	B-10	378	Yes	-12	<300	no	<100
32	Floor	B-10	378	Yes	156	<300	no	<100
33	Floor	B-10	600	No	N/A	<300	Yes	53
34	Floor	B-10	400	No	151	<300	Yes	62

Maximum <300

<100

Note 1 = total activity per 600 cm<sup>2</sup> probe

Note 2 = <300 dpm/100 cm<sup>2</sup> is the Final Survey Monitor value after remediation and re-scan.

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**RADIOLOGICAL CLOSEOUT SURVEY FOR THE 707 CLUSTER**

Survey Area: 1

Survey Unit: 707015

Classification: 1

Building: 707

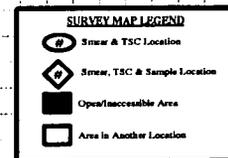
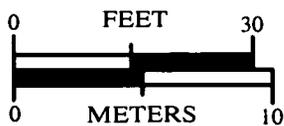
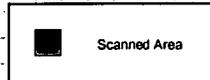
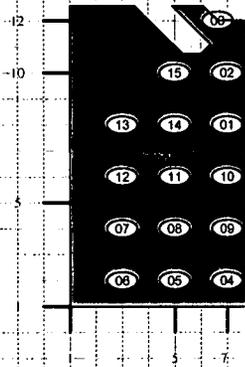
Survey Unit Description: First floor- NDT vault - Room 167

Total Floor Area: 76 sq. m

Total Area: 76 sq. m

Random Start Grid Size: 2 x 2 sq. m

**SURVEY UNIT 707015 - MAP 1 OF 1**



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Survey Area: C

Survey Unit: 707015

Building: B707

Description: B707 1st floor, room 167 floor

## Rocky Flats Environmental Technology Site Final Radiological Survey Summary Results

### Total Surface Activity Measurements

Nbr Random Measurements Required: 15  
Nbr Random Measurements Performed: 15

Nbr Biased Measurements Required: 0  
Nbr Biased Measurements Performed: 0

Nbr QC Required: 2  
Nbr QC Performed: 2

#### Alpha

Maximum:	52.3 dpm/100cm <sup>2</sup>
Minimum:	5.1 dpm/100cm <sup>2</sup>
Mean:	19.4 dpm/100cm <sup>2</sup>
Standard Deviation:	13.6
QC Maximum:	21.7 dpm/100cm <sup>2</sup>
QC Minimum:	21.7 dpm/100cm <sup>2</sup>
QC Mean:	21.7 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>w</sub> :	100.0 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>EMC</sub> :	300.0 dpm/100cm <sup>2</sup>

### Removable Surface Activity Measurements

Nbr Random Measurements Required: 15  
Nbr Random Measurements Performed: 15

Nbr Biased Measurements Required: 0  
Nbr Biased Measurements Performed: 0

#### Alpha

Maximum:	3.0 dpm/100cm <sup>2</sup>
Minimum:	-0.9 dpm/100cm <sup>2</sup>
Mean:	0.6 dpm/100cm <sup>2</sup>
Standard Deviation:	1.1
Transuranic DCGL <sub>w</sub> :	20.0 dpm/100cm <sup>2</sup>

### Media Sample Results

Nbr Random Required: 0  
Nbr Random Collected: 0

Nbr Biased Required: 0  
Nbr Biased Collected: 0

*Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.*

71

Survey Area: C

Survey Unit: 707015

Building: B707

Description: B707 1st floor, room 167 floor

### Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency		A-Priori MDA (dpm/100cm <sup>2</sup> )		Survey Type
							Alpha	Beta	Alpha	Beta	
1	600323	10/09/04	Electra	3985	DP-6	02/20/05	0.230	NA	48.0	NA	T/S
2	600799	10/09/04	Electra	3134	DP-6	11/03/04	0.219	NA	48.0	NA	T/S
3	600323	10/09/04	SAC-4	760	NA	02/28/05	0.333	NA	10.0	NA	R
4	600799	10/09/04	SAC-4	849	NA	02/04/05	0.333	NA	10.0	NA	R

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

72

Survey Area: C

Survey Unit: 707015

Building: B707

Description: B707 1st floor, room 167 floor

### Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707015PRP-N001	3	1.5	N/A	
707015PRP-N002	3	0.0	N/A	
707015PRP-N003	3	1.5	N/A	
707015PRP-N004	3	3.0	N/A	
707015PRP-N005	3	1.5	N/A	
707015PRP-N006	3	0.0	N/A	
707015PRP-N007	3	0.0	N/A	
707015PRP-N008	4	0.6	N/A	
707015PRP-N009	4	0.6	N/A	
707015PRP-N010	4	0.6	N/A	
707015PRP-N011	4	0.6	N/A	
707015PRP-N012	4	-0.9	N/A	
707015PRP-N013	4	2.1	N/A	
707015PRP-N014	4	-0.9	N/A	
707015PRP-N015	4	-0.9	N/A	

Comments:

23

Survey Area: C

Survey Unit: 707015

Building: B707

Description: B707 1st floor, room 167 floor

### Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707015PRP-N001	1	10.8	N/A	
707015PRP-N002	1	19.5	N/A	
707015PRP-N003	1	16.4	N/A	
707015PRP-N004	1	22.5	N/A	
707015PRP-N005	1	5.1	N/A	
707015PRP-N006	1	10.8	N/A	
707015PRP-N007	1	5.1	N/A	
707015PRP-N008	2	52.3	N/A	
707015PRP-N009	2	36.7	N/A	
707015PRP-N010	2	18.5	N/A	
707015PRP-N011	2	39.9	N/A	
707015QRP-N012	1	21.7	N/A	
707015PRP-N012	2	15.7	N/A	
707015PRP-N013	2	15.7	N/A	
707015QRP-N014	1	21.7	N/A	
707015PRP-N014	2	6.6	N/A	
707015PRP-N015	2	15.7	N/A	

Comments: 100% of the accessible floor surface was scanned. All values < 300 dpm/100 cm<sup>2</sup>.

74

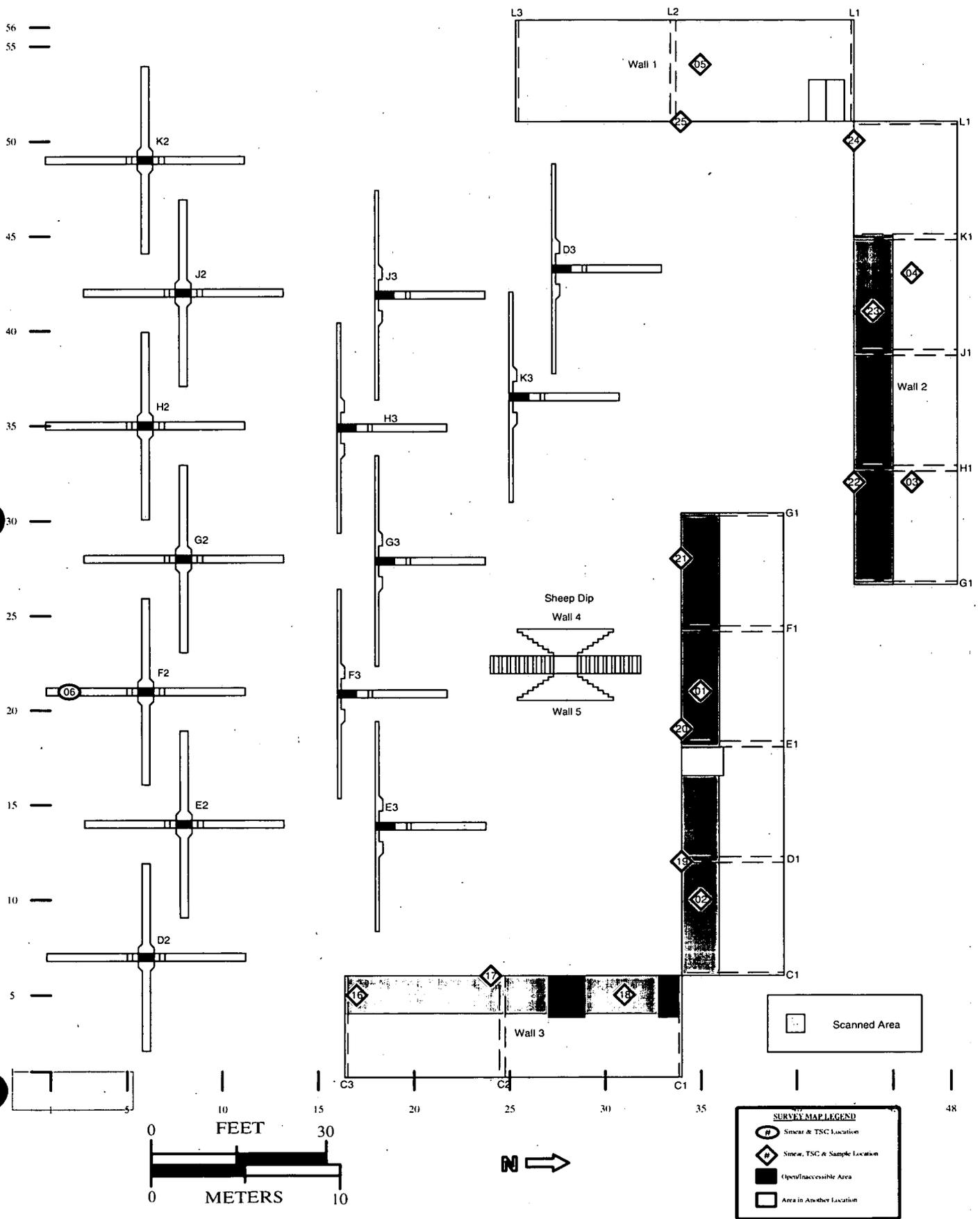
ATTACHMENT B4

Survey Unit 707021 Survey Data and Maps

# RADIOLOGICAL CLOSEOUT SURVEY FOR THE 707 CLUSTER

Survey Area: C      Survey Unit: 707021      Classification: 2  
 Building: 707  
 Survey Unit Description: First floor (A Module walls and ceiling)  
 Total Floor Area: 0 sq. m      Total Area: 2122 sq. m      Grid Size: 11 x 11 sq.m

## SURVEY UNIT 707021 - MAP 1 OF 2



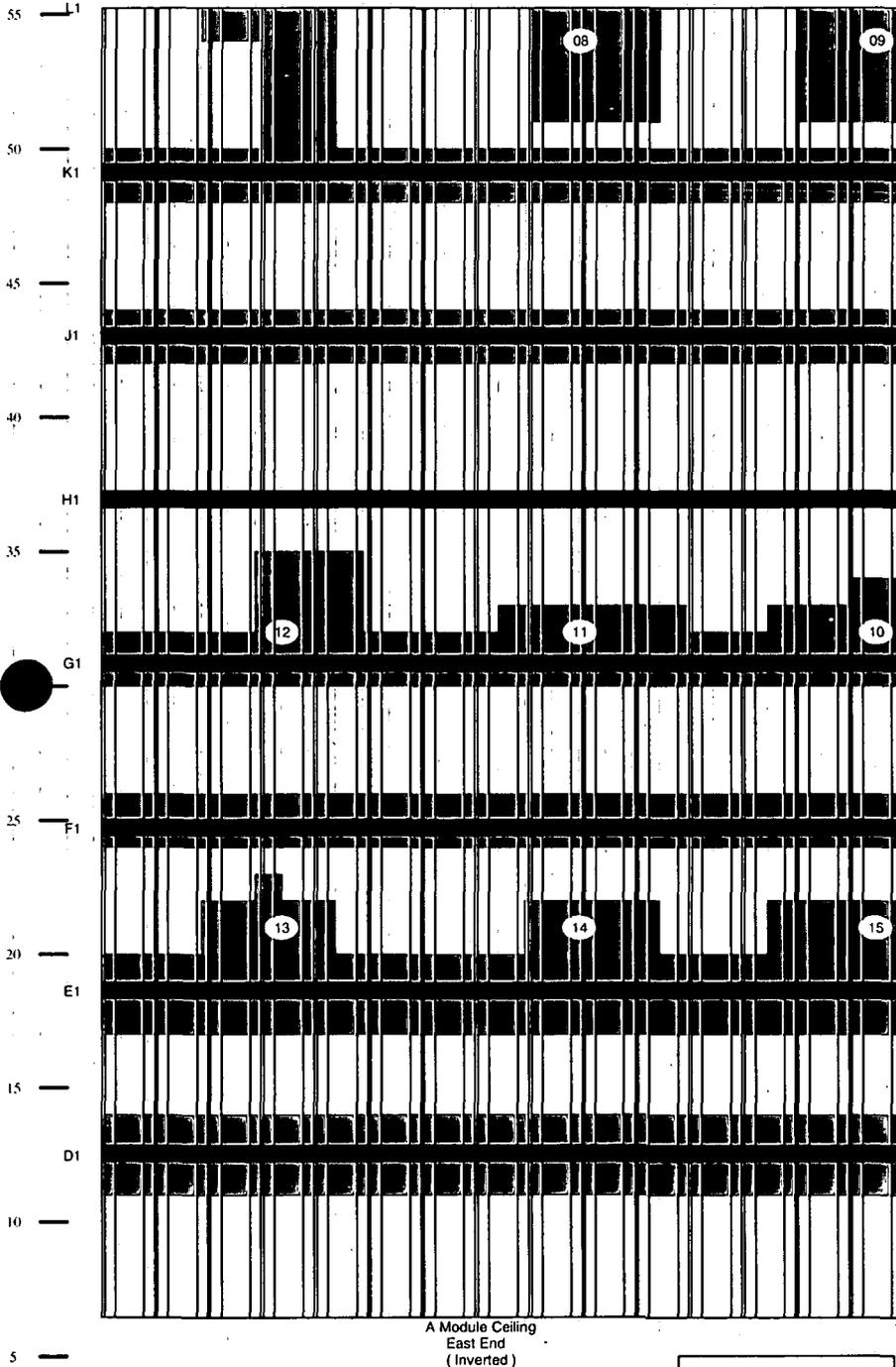
26

# RADIOLOGICAL CLOSEOUT SURVEY FOR THE 707 CLUSTER

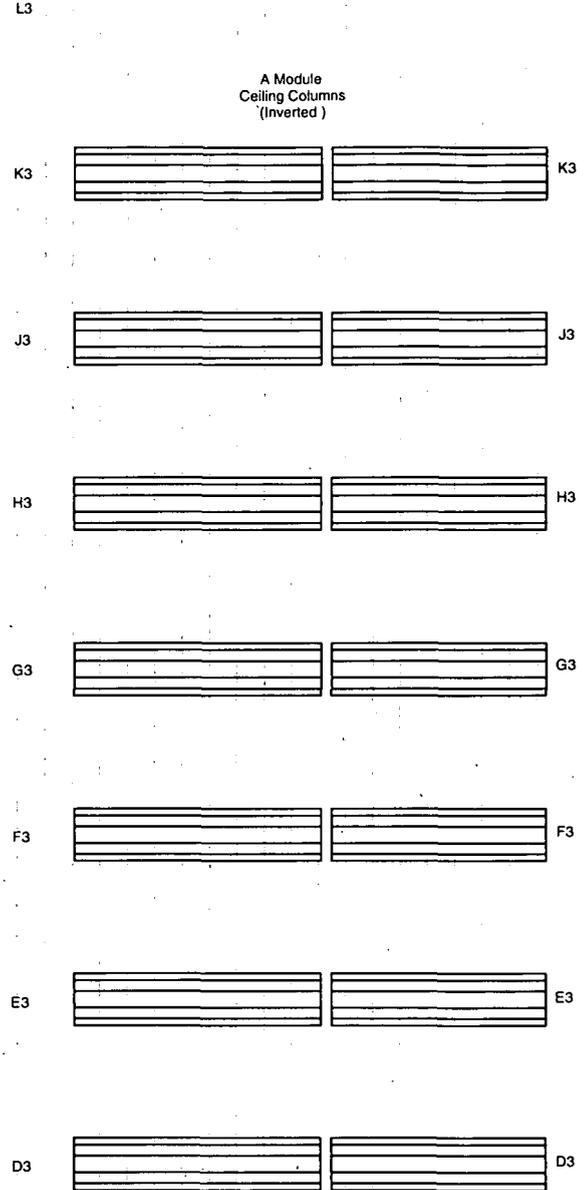
Survey Area: C      Survey Unit: 707021      Classification: 2  
 Building: 707  
 Survey Unit Description: First floor (A Module walls and ceiling)  
 Total Floor Area: 0 sq. m      Total Area: 2122 sq. m      Grid Size: 11 x 11 sq.m

## SURVEY UNIT 707021 - MAP 2 OF 2

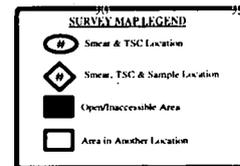
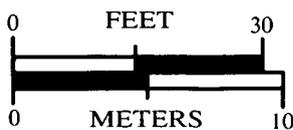
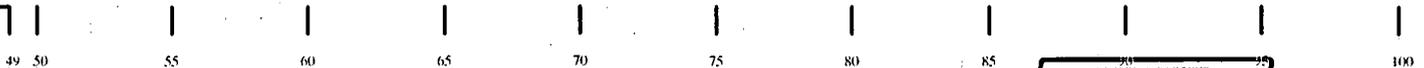
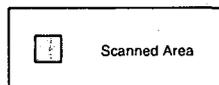
A Module Ceiling  
West End  
(Inverted)



A Module Ceiling Columns  
(Inverted)



A Module Ceiling  
East End  
(Inverted)



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Survey Area: C

Survey Unit: 707021

Building: 707

Description: B707 1st floor walls and ceiling in "A" module area

## Rocky Flats Environmental Technology Site Final Radiological Survey Summary Results

### Total Surface Activity Measurements

Nbr Random Measurements Required: 15

Nbr Biased Measurements Required: 10

Nbr QC Required: 2

Nbr Random Measurements Performed: 15

Nbr Biased Measurements Performed: 10

Nbr QC Performed: 2

#### Alpha

Maximum:	57.6 dpm/100cm <sup>2</sup>
Minimum:	-2.6 dpm/100cm <sup>2</sup>
Mean:	22.4 dpm/100cm <sup>2</sup>
Standard Deviation:	17.2
QC Maximum:	30.4 dpm/100cm <sup>2</sup>
QC Minimum:	-9.4 dpm/100cm <sup>2</sup>
QC Mean:	10.5 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>w</sub> :	100.0 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>EMC</sub> :	300.0 dpm/100cm <sup>2</sup>

### Removable Surface Activity Measurements

Nbr Random Measurements Required: 15

Nbr Biased Measurements Required: 10

Nbr Random Measurements Performed: 15

Nbr Biased Measurements Performed: 10

#### Alpha

Maximum:	5.7 dpm/100cm <sup>2</sup>
Minimum:	-0.6 dpm/100cm <sup>2</sup>
Mean:	1.0 dpm/100cm <sup>2</sup>
Standard Deviation:	2.0
Transuranic DCGL <sub>w</sub> :	20.0 dpm/100cm <sup>2</sup>

### Media Sample Results

Nbr Random Required: 0

Nbr Biased Required: 0

Nbr Random Collected: 0

Nbr Biased Collected: 0

Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.

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Survey Area: C

Survey Unit: 707021

Building: 707

Description: B707 1st floor walls and ceiling in "A" module area

### Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency		A-Priori MDA (dpm/100cm <sup>2</sup> )		Survey Type
							Alpha	Beta	Alpha	Beta	
1	511898	10/24/04	Electra	2378	DP-6	03/20/05	0.221	NA	48.0	NA	T/S
2	512779	10/24/04	Electra	1549	DP-6	02/21/05	0.230	NA	48.0	NA	T/S
3	512779	10/24/04	SAC-4	1489	NA	03/22/05	0.333	NA	10.0	NA	R
4	511898	10/24/04	Electra	4172	DP-6	01/16/05	0.219	NA	48.0	NA	T/S
5	513185	10/26/04	Electra	3973	DP-6	12/22/04	0.216	NA	48.0	NA	T/S
6	513185	10/26/04	SAC-4	1474	NA	11/03/04	0.333	NA	10.0	NA	R

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

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Survey Area: C

Survey Unit: 707021

Building: 707

Description: B707 1st floor walls and ceiling in "A" module area

### Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707021PRP-N001	3	-0.6	N/A	
707021PRP-N002	3	0.9	N/A	
707021PRP-N003	3	-0.6	N/A	
707021PRP-N004	3	5.4	N/A	
707021PRP-N005	6	2.7	N/A	
707021PRP-N006	3	3.9	N/A	
707021PRP-N007	6	-0.3	N/A	
707021PRP-N008	6	1.2	N/A	
707021PRP-N009	6	-0.3	N/A	
707021PRP-N010	3	-0.6	N/A	
707021PRP-N011	3	-0.6	N/A	
707021PRP-N012	3	2.4	N/A	
707021PRP-N013	3	-0.6	N/A	
707021PRP-N014	3	-0.6	N/A	
707021PRP-N015	3	-0.6	N/A	

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Survey Area: C

Survey Unit: 707021

Building: 707

Description: B707 1st floor walls and ceiling in "A" module area

### Biased Removable Surface Activity Data Sheet

Biased Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707021PBP-N016	3	0.9	N/A	
707021PBP-N017	3	3.9	N/A	
707021PBP-N018	3	0.9	N/A	
707021PBP-N019	3	0.9	N/A	
707021PBP-N020	3	2.4	N/A	
707021PBP-N021	3	-0.6	N/A	
707021PBP-N022	3	-0.6	N/A	
707021PBP-N023	3	0.9	N/A	
707021PBP-N024	6	5.7	N/A	
707021PBP-N025	6	-0.3	N/A	

Comments:

81

Survey Area: C

Survey Unit: 707021

Building: 707

Description: B707 1st floor walls and ceiling in "A" module area

### Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707021PRP-N001	1	6.5	N/A	
707021QRP-N001	4	30.4	N/A	
707021PRP-N002	1	-2.6	N/A	
707021PRP-N003	1	27.8	N/A	
707021PRP-N004	1	9.7	N/A	
707021PRP-N005	5	-1.9	N/A	
707021PRP-N006	1	3.3	N/A	
707021PRP-N007	5	10.6	N/A	
707021PRP-N008	5	16.6	N/A	
707021PRP-N009	5	25.9	N/A	
707021PRP-N010	1	33.6	N/A	
707021PRP-N011	1	21.4	N/A	
707021PRP-N012	1	45.9	N/A	
707021PRP-N013	1	9.7	N/A	
707021PRP-N014	1	57.6	N/A	
707021PRP-N015	1	39.5	N/A	
707021QRP-N018	4	-9.4	N/A	

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Survey Area: C

Survey Unit: 707021

Building: 707

Description: B707 1st floor walls and ceiling in "A" module area

### Biased Total Surface Activity Data Sheet

Biased Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707021PBP-N016	1	15.1	N/A	
707021PBP-N017	1	42.2	N/A	
707021PBP-N018	1	12.4	N/A	
707021PBP-N019	1	54.4	N/A	
707021PBP-N020	1	36.3	N/A	
707021PBP-N021	1	33.2	N/A	
707021PBP-N022	1	27.3	N/A	
707021PBP-N023	1	18.2	N/A	
707021PBP-N024	5	19.3	N/A	
707021PBP-N025	5	-2.5	N/A	

Comments: >25% of the lower wall and >10% of the upper wall and ceiling surfaces were scanned. 100% of the horizontal surfaces of the beams in the overhead were scanned as part of the overhead survey. All values <300 dpm/100 cm<sup>2</sup>.

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ATTACHMENT B5

Survey Unit 707022 Survey Data and Maps

# Investigation Documentation

Survey Unit: 707022

Investigation Number	Surface Floor, Wall, Ceiling etc.	Location	"As Found" (dpm/100 cm <sup>2</sup> )	Remediation Performed? (Yes/No)	"As Left" (dpm) <sup>Note 1</sup>	Note 2 "As Left" (dpm/100 cm <sup>2</sup> )	9-Point Done? (Yes/No)	meter <sup>2</sup> Average (dpm/100 cm <sup>2</sup> )
1	Floor	C1	1014	Yes	N/A	<300	No	<100
2	Floor	D3	291	Yes	N/A	<300	No	<100
3	Floor	D2	387	Yes	N/A	<300	No	<100
4	Floor	D3	503	Yes	N/A	<300	No	<100
5.	Floor	D2	522	Yes	N/A	<300	No	<100

Maximum <300 <100

Note 1 - total activity per 600 cm<sup>2</sup> probe

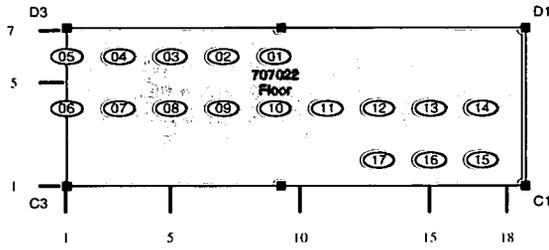
Note 2 - <300 is the FSM value after remediation and re-survey.

85

**RADIOLOGICAL CLOSEOUT SURVEY FOR THE 707 CLUSTER**

Survey Area: C      Survey Unit: 707022      Classification: 1  
Building: 707  
Survey Unit Description: First floor (A module)  
Total Floor Area: 108 sq. m      Total Area: 108 sq. m      Grid Size: 2 x 2 sq.m

**SURVEY UNIT 707022 - MAP 1 OF 1**



**SURVEY MAP LEGEND**

- ④ Swear & TSC Location
- ⬠ Swear, TSC & Sample Location
- Open/Inaccessible Area
- Area in Another Location

86

Survey Area: C

Survey Unit: 707022

Building: 707

Description: B707 1st floor "A" module floor area between columns C-D, 1-3

## Rocky Flats Environmental Technology Site Final Radiological Survey Summary Results

### Total Surface Activity Measurements

Nbr Random Measurements Required: 17

Nbr Biased Measurements Required: 0

Nbr QC Required: 2

Nbr Random Measurements Performed: 17

Nbr Biased Measurements Performed: 0

Nbr QC Performed: 2

#### Alpha

Maximum: 82.7 dpm/100cm<sup>2</sup>

Minimum: 4.4 dpm/100cm<sup>2</sup>

Mean: 45.1 dpm/100cm<sup>2</sup>

Standard Deviation: 17.3

QC Maximum: 32.1 dpm/100cm<sup>2</sup>

QC Minimum: 26.2 dpm/100cm<sup>2</sup>

QC Mean: 29.1 dpm/100cm<sup>2</sup>

Transuranic DCGL<sub>w</sub>: 100.0 dpm/100cm<sup>2</sup>

Transuranic DCGL<sub>EMC</sub>: 300.0 dpm/100cm<sup>2</sup>

### Removable Surface Activity Measurements

Nbr Random Measurements Required: 17

Nbr Biased Measurements Required: 0

Nbr Random Measurements Performed: 17

Nbr Biased Measurements Performed: 0

#### Alpha

Maximum: 3.0 dpm/100cm<sup>2</sup>

Minimum: -1.5 dpm/100cm<sup>2</sup>

Mean: -0.3 dpm/100cm<sup>2</sup>

Standard Deviation: 1.4

Transuranic DCGL<sub>w</sub>: 20.0 dpm/100cm<sup>2</sup>

### Media Sample Results

Nbr Random Required: 0

Nbr Biased Required: 0

Nbr Random Collected: 0

Nbr Biased Collected: 0

*Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.*

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Survey Area: C

Survey Unit: 707022

Building: 707

Description: B707 1st floor "A" module floor area between columns C-D, 1-3

### Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency		A-Priori MDA (dpm/100cm <sup>2</sup> )		Survey Type
							Alpha	Beta	Alpha	Beta	
1	511798	10/10/04	Electra	4430	DP-6	04/01/05	0.221	NA	48.0	NA	T
2	511798	10/10/04	SAC-4	849	NA	02/04/05	0.333	NA	10.0	NA	R
3	516375	10/10/04	Electra	4173	DP-6	11/04/04	0.218	NA	48.0	NA	T

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

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Survey Area: C

Survey Unit: 707022

Building: 707

Description: B707 1st floor "A" module floor area between columns C-D, 1-3

### Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707022PRP-N001	2	3.0	N/A	
707022PRP-N002	2	-1.5	N/A	
707022PRP-N003	2	0.0	N/A	
707022PRP-N004	2	-1.5	N/A	
707022PRP-N005	2	1.5	N/A	
707022PRP-N006	2	0.0	N/A	
707022PRP-N007	2	0.0	N/A	
707022PRP-N008	2	1.5	N/A	
707022PRP-N009	2	-1.5	N/A	
707022PRP-N010	2	-1.5	N/A	
707022PRP-N011	2	-1.5	N/A	
707022PRP-N012	2	0.0	N/A	
707022PRP-N013	2	-1.5	N/A	
707022PRP-N014	2	-1.5	N/A	
707022PRP-N015	2	1.5	N/A	
707022PRP-N016	2	-1.5	N/A	
707022PRP-N017	2	0.0	N/A	

Comments:

**Survey Area:** C**Survey Unit:** 707022**Building:** 707**Description:** B707 1st floor "A" module floor area between columns C-D, 1-3

### Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707022PRP-N001	1	37.4	N/A	
707022PRP-N002	1	43.3	N/A	
707022PRP-N003	1	55.5	N/A	
707022PRP-N004	1	82.7	N/A	
707022QRP-N004	3	26.2	N/A	
707022PRP-N005	1	46.5	N/A	
707022PRP-N006	1	40.6	N/A	
707022PRP-N007	1	40.6	N/A	
707022PRP-N008	1	49.7	N/A	
707022PRP-N009	1	73.6	N/A	
707022PRP-N010	1	28.4	N/A	
707022PRP-N011	1	4.4	N/A	
707022PRP-N012	1	49.7	N/A	
707022QRP-N012	3	32.1	N/A	
707022PRP-N013	1	55.5	N/A	
707022PRP-N014	1	37.4	N/A	
707022PRP-N015	1	49.7	N/A	
707022PRP-N016	1	37.4	N/A	
707022PRP-N017	1	34.3	N/A	

**Comments:** 100% of accessible floor surfaces scanned. All values after remediation <300 dpm/100 cm<sup>2</sup>.

ATTACHMENT B6

Survey Unit 707023 Survey Data and Maps

# Investigation Documentation

Survey Unit: 707023

Investigation Number	Surface Floor, Wall, Ceiling etc.	Location	"As Found" (dpm/100 cm <sup>2</sup> )	Remediation Performed? (Yes/No)	"As Left" (dpm) <sup>Note 1</sup>	Note 2 "As Left" (dpm/100 cm <sup>2</sup> )	9-Point Done? (Yes/No)	meter <sup>2</sup> Average (dpm/100 cm <sup>2</sup> )
1	Floor	D3	306	Yes	N/A	<300	No	<100
2	Floor	D1	307	Yes	N/A	<300	No	<100
3	Floor	D1	401	Yes	N/A	<300	No	<100
4	Floor	E1	318	Yes	N/A	<300	No	<100
5	Floor	E1	790	Yes	N/A	<300	No	<100
6	Floor	E1	563	Yes	N/A	<300	No	<100
7	Floor	E1	379	Yes	N/A	<300	No	<100
8	Floor	E1	719	Yes	N/A	<300	No	<100
9	Floor	E2	450	Yes	N/A	<300	No	<100
10	Floor	E2	679	Yes	N/A	<300	No	<100
11	Floor	E4	435	Yes	N/A	<300	No	<100
101	Floor	E2	334	Yes	N/A	<300	No	<100
102	Floor	H3	404	Yes	N/A	<300	No	<100
103	Floor	H3	386	Yes	N/A	<300	No	<100

Note 1 - total activity per 600 cm<sup>2</sup> probe

Maximum

<300

<100

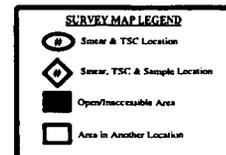
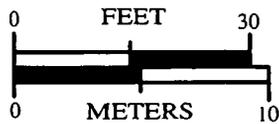
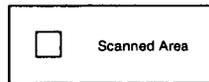
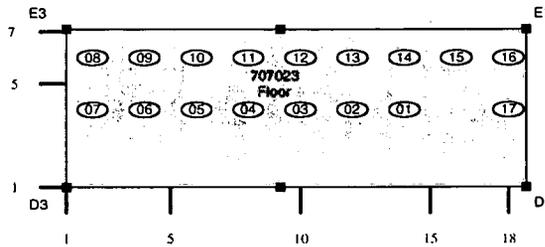
Note 2 - <300 is the FSM value after remediation and re-survey.

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**RADIOLOGICAL CLOSEOUT SURVEY FOR THE 707 CLUSTER**

Survey Area: C      Survey Unit: 707023      Classification: 1  
Building: 707  
Survey Unit Description: First floor (A module)  
Total Floor Area: 108 sq. m      Total Area: 108 sq. m      Grid Size: 2 x 2 sq.m

**SURVEY UNIT 707023 - MAP 1 OF 1**



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Survey Area: C

Survey Unit: 707023

Building: 707

Description: B707 1st floor "A" module floor area between columns D-E, 1-3

## Rocky Flats Environmental Technology Site Final Radiological Survey Summary Results

### Total Surface Activity Measurements

Nbr Random Measurements Required: 17

Nbr Biased Measurements Required: 0

Nbr QC Required: 2

Nbr Random Measurements Performed: 16

Nbr Biased Measurements Performed: 0

Nbr QC Performed: 2

#### Alpha

Maximum:	80.8 dpm/100cm <sup>2</sup>
Minimum:	23.0 dpm/100cm <sup>2</sup>
Mean:	50.7 dpm/100cm <sup>2</sup>
Standard Deviation:	16.3
QC Maximum:	69.4 dpm/100cm <sup>2</sup>
QC Minimum:	51.3 dpm/100cm <sup>2</sup>
QC Mean:	60.4 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>W</sub> :	100.0 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>EMC</sub> :	300.0 dpm/100cm <sup>2</sup>

### Removable Surface Activity Measurements

Nbr Random Measurements Required: 17

Nbr Biased Measurements Required: 0

Nbr Random Measurements Performed: 16

Nbr Biased Measurements Performed: 0

#### Alpha

Maximum:	3.0 dpm/100cm <sup>2</sup>
Minimum:	0.0 dpm/100cm <sup>2</sup>
Mean:	0.9 dpm/100cm <sup>2</sup>
Standard Deviation:	0.9
Transuranic DCGL <sub>W</sub> :	20.0 dpm/100cm <sup>2</sup>

### Media Sample Results

Nbr Random Required: 0

Nbr Biased Required: 0

Nbr Random Collected: 0

Nbr Biased Collected: 0

*Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.*

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Survey Area: C

Survey Unit: 707023

Building: 707

Description: B707 1st floor "A" module floor area between columns D-E, 1-3

### Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency		A-Priori MDA (dpm/100cm <sup>2</sup> )		Survey Type
							Alpha	Beta	Alpha	Beta	
1	516375	10/10/04	Electra	4173	DP-6	11/04/04	0.218	NA	48.0	NA	T
2	516375	10/10/04	SAC-4	1468	NA	02/23/05	0.333	NA	10.0	NA	R
3	511798	10/10/04	Electra	4430	DP-6	04/01/05	0.221	NA	48.0	NA	T

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

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Survey Area: C

Survey Unit: 707023

Building: 707

Description: B707 1st floor "A" module floor area between columns D-E, 1-3

### Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707023PRP-N001	2	1.5	N/A	
707023PRP-N002	2	1.5	N/A	
707023PRP-N003	2	0.0	N/A	
707023PRP-N004	2	0.0	N/A	
707023PRP-N005	2	1.5	N/A	
707023PRP-N006	2	0.0	N/A	
707023PRP-N007	2	1.5	N/A	
707023PRP-N008	2	1.5	N/A	
707023PRP-N009	2	1.5	N/A	
707023PRP-N010	2	3.0	N/A	
707023PRP-N012	2	0.0	N/A	
707023PRP-N013	2	1.5	N/A	
707023PRP-N014	2	0.0	N/A	
707023PRP-N015	2	1.5	N/A	
707023PRP-N016	2	0.0	N/A	
707023PRP-N017	2	0.0	N/A	

Comments: Measurement #11 omitted. The location was contaminated to soil, has been plated, and will be removed as radioactive waste.

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Survey Area: C

Survey Unit: 707023

Building: 707

Description: B707 1st floor "A" module floor area between columns D-E, 1-3

### Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707023PRP-N001	1	47.3	N/A	
707023PRP-N002	1	32.2	N/A	
707023QRP-N002	3	69.4	N/A	
707023PRP-N003	1	59.7	N/A	
707023PRP-N004	1	34.9	N/A	
707023PRP-N005	1	23.0	N/A	
707023PRP-N006	1	41.3	N/A	
707023PRP-N007	1	53.3	N/A	
707023PRP-N008	1	41.3	N/A	
707023PRP-N009	1	62.4	N/A	
707023PRP-N010	1	50.5	N/A	
707023PRP-N012	1	34.9	N/A	
707023PRP-N013	1	80.8	N/A	
707023PRP-N014	1	53.3	N/A	
707023PRP-N015	1	53.3	N/A	
707023PRP-N016	1	80.8	N/A	
707023PRP-N017	1	62.4	N/A	
707023QRP-N017	3	51.3	N/A	

Comments: 100% of accessible floor surface was scanned. All values <300 dpm/100 cm<sup>2</sup>. Measurement #11 omitted. The location was contaminated to soil, has been plated, and will be removed as radioactive waste.

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ATTACHMENT B7

Survey Unit 707024 Survey Data and Maps

# Investigation Documentation

Survey Unit: 707024

Investigation Number	Surface Floor, Wall, Ceiling etc.	Location	"As Found" (dpm/100 cm <sup>2</sup> )	Remediation Performed? (Yes/No)	"As Left" (dpm) <sup>Note 1</sup>	Note 2 "As Left" (dpm/100 cm <sup>2</sup> )	9-Point Done? (Yes/No)	meter <sup>2</sup> Average (dpm/100 cm <sup>2</sup> )
1	Floor	E1	454	Yes	N/A	<300	No	<100
2	Floor	E1	391	Yes	N/A	<300	No	<100
3	Floor	E2	389	Yes	N/A	<300	No	<100
4	Floor	E1	391	Yes	N/A	<300	No	<100
5	Floor	E1	387	Yes	N/A	<300	No	<100
6	Floor	E2	520	Yes	N/A	<300	No	<100
7	Floor	E3	437	Yes	N/A	<300	No	<100
8	Floor	F1	344	Yes	N/A	<300	No	<100
9	Floor	F2	432	Yes	N/A	<300	No	<100
10	Floor	F2	606	Yes	N/A	<300	No	<100
11	Floor	F2	549	Yes	N/A	<300	No	<100
12	Floor	F1	491	Yes	N/A	<300	No	<100
13	Floor	F2	1616	Yes	N/A	<300	No	<100
14	Floor	F2	1206	Yes	N/A	<300	No	<100
15	Floor	F2	1087	Yes	N/A	<300	No	<100
16	Floor	F2	679	Yes	N/A	<300	No	<100
17	Floor	F2	340	Yes	N/A	<300	No	<100

Note 1 - total activity per 600 cm<sup>2</sup> probe

Note 2 - <300 is the FSM value after remediation and re-survey.

Maximum <300

<100

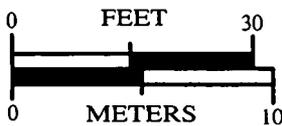
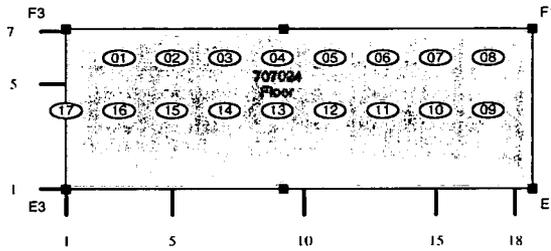
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**RADIOLOGICAL CLOSEOUT SURVEY FOR THE 707 CLUSTER**

Survey Area: C      Survey Unit: 707024      Classification: 1  
Building: 707  
Survey Unit Description: First floor (A module)

Total Floor Area: 108 sq. m      Total Area: 108 sq. m      Grid Size: 2 x 2 sq.m

**SURVEY UNIT 707024 - MAP 1 OF 1**



**SURVEY MAP LEGEND**

- Smear & TSC Location
- Smear, TSC & Sample Location
- Open/Inaccessible Area
- Area in Another Location

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Survey Area: C

Survey Unit: 707024

Building: 707

Description: B707 1st floor "A" module floor area between columns E-F, 1-3

## Rocky Flats Environmental Technology Site Final Radiological Survey Summary Results

### Total Surface Activity Measurements

Nbr Random Measurements Required: 17

Nbr Biased Measurements Required: 0

Nbr QC Required: 2

Nbr Random Measurements Performed: 17

Nbr Biased Measurements Performed: 0

Nbr QC Performed: 2

#### Alpha

Maximum:	81.4 dpm/100cm <sup>2</sup>
Minimum:	21.5 dpm/100cm <sup>2</sup>
Mean:	54.5 dpm/100cm <sup>2</sup>
Standard Deviation:	18.6
QC Maximum:	78.2 dpm/100cm <sup>2</sup>
QC Minimum:	57.8 dpm/100cm <sup>2</sup>
QC Mean:	68.0 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>w</sub> :	100.0 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>EMC</sub> :	300.0 dpm/100cm <sup>2</sup>

### Removable Surface Activity Measurements

Nbr Random Measurements Required: 17

Nbr Biased Measurements Required: 0

Nbr Random Measurements Performed: 17

Nbr Biased Measurements Performed: 0

#### Alpha

Maximum:	2.4 dpm/100cm <sup>2</sup>
Minimum:	-0.6 dpm/100cm <sup>2</sup>
Mean:	0.4 dpm/100cm <sup>2</sup>
Standard Deviation:	1.3
Transuranic DCGL <sub>w</sub> :	20.0 dpm/100cm <sup>2</sup>

### Media Sample Results

Nbr Random Required: 0

Nbr Biased Required: 0

Nbr Random Collected: 0

Nbr Biased Collected: 0

*Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.*

Survey Area: C

Survey Unit: 707024

Building: 707

Description: B707 1st floor "A" module floor area between columns E-F, 1-3

### Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency		A-Priori MDA (dpm/100cm <sup>2</sup> )		Survey Type
							Alpha	Beta	Alpha	Beta	
1	514510	10/10/04	Electra	3972	DP-6	02/04/05	0.222	NA	48.0	NA	T
2	513185	10/10/04	Electra	3985	DP-6	02/20/05	0.230	NA	48.0	NA	T
3	514510	10/10/04	SAC-4	760	NA	02/28/05	0.333	NA	10.0	NA	R

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

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Survey Area: C

Survey Unit: 707024

Building: 707

Description: B707 1st floor "A" module floor area between columns E-F, 1-3

### Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707024PRP-N001	3	0.9	N/A	
707024PRP-N002	3	2.4	N/A	
707024PRP-N003	3	-0.6	N/A	
707024PRP-N004	3	0.9	N/A	
707024PRP-N005	3	2.4	N/A	
707024PRP-N006	3	2.4	N/A	
707024PRP-N007	3	-0.6	N/A	
707024PRP-N008	3	0.9	N/A	
707024PRP-N009	3	-0.6	N/A	
707024PRP-N010	3	-0.6	N/A	
707024PRP-N011	3	2.4	N/A	
707024PRP-N012	3	-0.6	N/A	
707024PRP-N013	3	-0.6	N/A	
707024PRP-N014	3	-0.6	N/A	
707024PRP-N015	3	-0.6	N/A	
707024PRP-N016	3	-0.6	N/A	
707024PRP-N017	3	-0.6	N/A	

Comments:

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**Survey Area:** C**Survey Unit:** 707024**Building:** 707**Description:** B707 1st floor "A" module floor area between columns E-F, 1-3

### Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707024PRP-N001	1	51.2	N/A	
707024PRP-N002	1	81.4	N/A	
707024PRP-N003	1	36.4	N/A	
707024PRP-N004	1	21.5	N/A	
707024PRP-N005	1	78.2	N/A	
707024PRP-N006	1	57.5	N/A	
707024QRP-N006	2	78.2	N/A	
707024PRP-N007	1	36.4	N/A	
707024PRP-N008	1	66.5	N/A	
707024PRP-N009	1	66.5	N/A	
707024PRP-N010	1	60.2	N/A	
707024PRP-N011	1	57.5	N/A	
707024PRP-N012	1	36.4	N/A	
707024PRP-N013	1	63.4	N/A	
707024PRP-N014	1	66.5	N/A	
707024PRP-N015	1	80.0	N/A	
707024QRP-N015	2	57.8	N/A	
707024PRP-N016	1	27.3	N/A	
707024PRP-N017	1	39.5	N/A	

**Comments:** 100% of the accessible floor surfaces scanned. All values after remediation <300 dpm/100 cm<sup>2</sup>.

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ATTACHMENT B8

Survey Unit 707025 Survey Data and Maps

# Investigation Documentation

Survey Unit: 707025

Investigation Number	Surface Floor, Wall, Ceiling etc.	Location	"As Found" (dpm/100 cm <sup>2</sup> )	Remediation Performed? (Yes/No)	"As Left" (dpm) <sup>Note 1</sup>	Note 2 "As Left" (dpm/100 cm <sup>2</sup> )	9-Point Done? (Yes/No)	meter <sup>2</sup> Average (dpm/100 cm <sup>2</sup> )
1	Floor	F3	792	Yes	N/A	<300	No	<100
2	Floor	F3	562	Yes	N/A	<300	No	<100
3	Floor	F3	475	Yes	N/A	<300	No	<100
4	Floor	G2	578	Yes	N/A	<300	No	<100
5	Floor	G2	472	Yes	N/A	<300	No	<100
6	Floor	F2	440	Yes	N/A	<300	No	<100
7	Floor	F2	751	Yes	N/A	<300	No	<100
8	Floor	F2	847	Yes	N/A	<300	No	<100
9	Floor	F2	572	Yes	N/A	<300	No	<100
10	Floor	F2	400	Yes	N/A	<300	No	<100
11	Floor	G2	802	Yes	N/A	<300	No	<100
12	Floor	F1	310	Yes	N/A	<300	No	<100
13	Floor	F1	600	Yes	N/A	<300	No	<100
14	Floor	G1	440	Yes	N/A	<300	No	<100
15	Floor	G2	1000	Yes	N/A	<300	No	<100
16	Floor	G3	2000	Yes	N/A	<300	No	<100

Note 1 - total activity per 600 cm<sup>2</sup> probe

Note 2 - <300 is the FSM value after remediation and re-survey.

Maximum

<300

<100

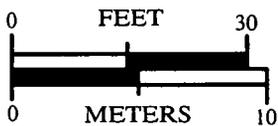
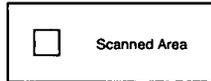
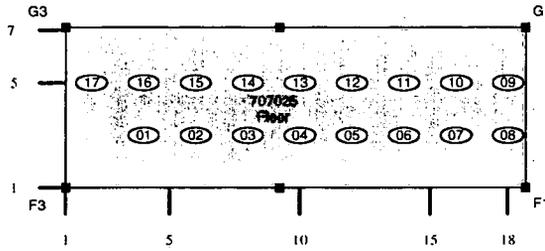
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**RADIOLOGICAL CLOSEOUT SURVEY FOR THE 707 CLUSTER**

Survey Area: C      Survey Unit: 707025      Classification: 1  
Building: 707  
Survey Unit Description: First floor (A module)

Total Floor Area: 108 sq. m      Total Area: 108 sq. m      Grid Size: 2 x 2 sq.m

**SURVEY UNIT 707025 - MAP 1 OF 1**



**SURVEY MAP LEGEND**

- Smear & TSC Location
- Smear, TSC & Sample Location
- Open/Inaccessible Area
- Area in Another Location

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Survey Area: C

Survey Unit: 707025

Building: 707

Description: B707 1st floor "A" module floor area between columns F-G, 1-3

## Rocky Flats Environmental Technology Site Final Radiological Survey Summary Results

### Total Surface Activity Measurements

Nbr Random Measurements Required: 17

Nbr Biased Measurements Required: 0

Nbr QC Required: 2

Nbr Random Measurements Performed: 17

Nbr Biased Measurements Performed: 0

Nbr QC Performed: 2

#### Alpha

Maximum:	82.8 dpm/100cm <sup>2</sup>
Minimum:	18.9 dpm/100cm <sup>2</sup>
Mean:	49.9 dpm/100cm <sup>2</sup>
Standard Deviation:	14.9
QC Maximum:	70.5 dpm/100cm <sup>2</sup>
QC Minimum:	46.6 dpm/100cm <sup>2</sup>
QC Mean:	58.6 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>w</sub> :	100.0 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>EMC</sub> :	300.0 dpm/100cm <sup>2</sup>

### Removable Surface Activity Measurements

Nbr Random Measurements Required: 17

Nbr Biased Measurements Required: 0

Nbr Random Measurements Performed: 17

Nbr Biased Measurements Performed: 0

#### Alpha

Maximum:	2.4 dpm/100cm <sup>2</sup>
Minimum:	-0.6 dpm/100cm <sup>2</sup>
Mean:	0.3 dpm/100cm <sup>2</sup>
Standard Deviation:	1.3
Transuranic DCGL <sub>w</sub> :	20.0 dpm/100cm <sup>2</sup>

### Media Sample Results

Nbr Random Required: 0

Nbr Biased Required: 0

Nbr Random Collected: 0

Nbr Biased Collected: 0

*Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.*

Survey Area: C

Survey Unit: 707025

Building: 707

Description: B707 1st floor "A" module floor area between columns F-G, 1-3

### Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency		A-Priori MDA (dpm/100cm <sup>2</sup> )		Survey Type
							Alpha	Beta	Alpha	Beta	
1	513185	10/10/04	Electra	3985	DP-6	02/20/05	0.230	NA	48.0	NA	T
2	514510	10/10/04	Electra	3972	DP-6	02/04/05	0.222	NA	48.0	NA	T
3	513185	10/10/04	SAC-4	760	NA	02/28/05	0.333	NA	10.0	NA	R
4	513185	10/10/04	Electra	3972	DP-6	02/04/05	0.222	NA	48.0	NA	I
10	516375	10/23/04	Electra	2354	DP-6	11/27/04	0.222	NA	48.0	NA	I

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

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Survey Area: C

Survey Unit: 707025

Building: 707

Description: B707 1st floor "A" module floor area between columns F-G, 1-3

### Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707025PRP-N001	3	-0.6	N/A	
707025PRP-N002	3	-0.6	N/A	
707025PRP-N003	3	-0.6	N/A	
707025PRP-N004	3	-0.6	N/A	
707025PRP-N005	3	-0.6	N/A	
707025PRP-N006	3	2.4	N/A	
707025PRP-N007	3	2.4	N/A	
707025PRP-N008	3	-0.6	N/A	
707025PRP-N009	3	-0.6	N/A	
707025PRP-N010	3	0.9	N/A	
707025PRP-N011	3	-0.6	N/A	
707025PRP-N012	3	-0.6	N/A	
707025PRP-N013	3	2.4	N/A	
707025PRP-N014	3	-0.6	N/A	
707025PRP-N015	3	-0.6	N/A	
707025PRP-N016	3	2.4	N/A	
707025PRP-N017	3	0.9	N/A	

Comments:

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**Survey Area:** C**Survey Unit:** 707025**Building:** 707**Description:** B707 1st floor "A" module floor area between columns F-G, 1-3

### Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707025PRP-N001	1	36.3	N/A	
707025PRP-N002	1	53.7	N/A	
707025QRP-N002	2	46.6	N/A	
707025PRP-N003	1	71.1	N/A	
707025PRP-N004	1	59.8	N/A	
707025PRP-N005	1	42.4	N/A	
707025PRP-N006	1	39.4	N/A	
707025PRP-N007	1	82.8	N/A	
707025PRP-N008	1	62.4	N/A	
707025PRP-N009	1	42.4	N/A	
707025PRP-N010	1	48.1	N/A	
707025PRP-N011	1	18.9	N/A	
707025PRP-N012	1	45.0	N/A	
707025PRP-N013	1	53.7	N/A	
707025PRP-N014	1	56.8	N/A	
707025QRP-N014	2	70.5	N/A	
707025PRP-N015	1	56.8	N/A	
707025IRP-N016	10	38.7	N/A	
707025SRP-N017	4	39.4	N/A	

**Comments:** 100% of the accessible floor surfaces scanned. All values after remediation <300 dpm/100 cm<sup>2</sup>.

ATTACHMENT B9

Survey Unit 707026 Survey Data and Maps

# Investigation Documentation

Survey Unit: 707026

Investigation Number	Surface Floor, Wall, Ceiling etc.	Location	"As Found" (dpm/100 cm <sup>2</sup> )	Remediation Performed? (Yes/No)	"As Left" (dpm) <sup>Note 1</sup>	Note 2 "As Left" (dpm/100 cm <sup>2</sup> )	9-Point Done? (Yes/No)	meter <sup>2</sup> Average (dpm/100 cm <sup>2</sup> )
1	Floor	G1	518	Yes	N/A	<300	No	<100
2	Floor	G2	442	Yes	N/A	<300	No	<100
3	Floor	G3	490	Yes	N/A	<300	No	<100
4	Floor	G3	520	Yes	N/A	<300	No	<100
5	Floor	G3	574	Yes	N/A	<300	No	<100
6	Floor	G2	458	Yes	N/A	<300	No	<100
7	Floor	G3	466	Yes	N/A	<300	No	<100
8	Floor	G3	470	Yes	N/A	<300	No	<100
9	Floor	G3	458	Yes	N/A	<300	No	<100
10	Floor	G3	845	Yes	N/A	<300	No	<100
11	Floor	G3	1235	Yes	N/A	<300	No	<100
12	Floor	G3	640	Yes	N/A	<300	No	<100
13	Floor	G3	577	Yes	N/A	<300	No	<100
14	Floor	G1	462	Yes	N/A	<300	No	<100
15	Floor	G2	642	Yes	N/A	<300	No	<100
16	Floor	H2	1012	Yes	N/A	<300	No	<100
17	Floor	H2	5779	Yes	N/A	<300	No	<100
18	Floor	H3	458	Yes	N/A	<300	No	<100
19	Floor	H3	522	Yes	N/A	<300	No	<100
20	Floor	H3	863	Yes	N/A	<300	No	<100
21	Floor	H3	462	Yes	N/A	<300	No	<100
22	Floor	H3	875	Yes	N/A	<300	No	<100
23	Floor	H3	1134	Yes	N/A	<300	No	<100
24	Floor	H3	452	Yes	N/A	<300	No	<100
25	Floor	H3	410	Yes	N/A	<300	No	<100
26	Floor	H3	1012	Yes	N/A	<300	No	<100
27	Floor	H3	577	Yes	N/A	<300	No	<100
28	Floor	H3	762	Yes	N/A	<300	No	<100
29	Floor	H3	480	Yes	N/A	<300	No	<100
30	Floor	H3	375	Yes	N/A	<300	No	<100
					Maximum	<300		<100

Note 1 - total activity per 600 cm<sup>2</sup> probe

Maximum

Note 2 - <300 is the FSM value after remediation and re-survey.

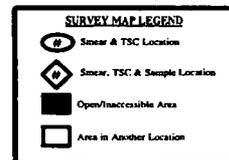
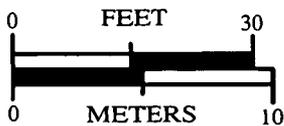
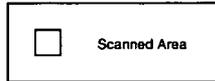
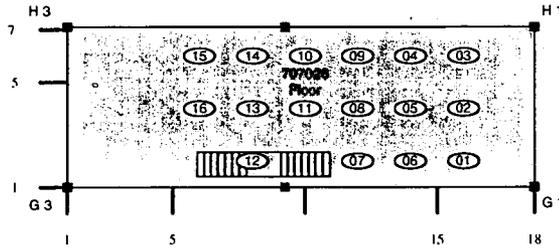
H3

**RADIOLOGICAL CLOSEOUT SURVEY FOR THE 707 CLUSTER**

Survey Area: C      Survey Unit: 707026      Classification: 1  
Building: 707  
Survey Unit Description: First floor (A module)

Total Floor Area: 105 sq. m      Total Area: 105 sq. m      Grid Size: 2 x 2 sq.m

**SURVEY UNIT 707026 - MAP 1 OF 1**



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Survey Area: C

Survey Unit: 707026

Building: 707

Description: B707 1st floor "A" module floor area between columns G-H, 1-3

## Rocky Flats Environmental Technology Site Final Radiological Survey Summary Results

### Total Surface Activity Measurements

Nbr Random Measurements Required: 16  
Nbr Random Measurements Performed: 16

Nbr Biased Measurements Required: 0  
Nbr Biased Measurements Performed: 0

Nbr QC Required: 2  
Nbr QC Performed: 2

#### Alpha

Maximum:	94.0 dpm/100cm <sup>2</sup>
Minimum:	23.2 dpm/100cm <sup>2</sup>
Mean:	52.9 dpm/100cm <sup>2</sup>
Standard Deviation:	16.5
QC Maximum:	54.7 dpm/100cm <sup>2</sup>
QC Minimum:	45.3 dpm/100cm <sup>2</sup>
QC Mean:	50.0 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>w</sub> :	100.0 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>EMC</sub> :	300.0 dpm/100cm <sup>2</sup>

### Removable Surface Activity Measurements

Nbr Random Measurements Required: 16  
Nbr Random Measurements Performed: 16

Nbr Biased Measurements Required: 0  
Nbr Biased Measurements Performed: 0

#### Alpha

Maximum:	6.6 dpm/100cm <sup>2</sup>
Minimum:	-0.9 dpm/100cm <sup>2</sup>
Mean:	0.8 dpm/100cm <sup>2</sup>
Standard Deviation:	2.4
Transuranic DCGL <sub>w</sub> :	20.0 dpm/100cm <sup>2</sup>

### Media Sample Results

Nbr Random Required: 0  
Nbr Random Collected: 0

Nbr Biased Required: 0  
Nbr Biased Collected: 0

*Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.*

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Survey Area: C

Survey Unit: 707026

Building: 707

Description: B707 1st floor "A" module floor area between columns G-H, 1-3

### Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency		A-Priori MDA (dpm/100cm <sup>2</sup> )		Survey Type
							Alpha	Beta	Alpha	Beta	
1	516375	10/20/04	Electra	3973	DP-6	12/22/04	0.216	NA	48.0	NA	T
2	513185	10/20/04	Electra	3977	DP-6	10/31/04	0.213	NA	48.0	NA	T
3	514510	10/20/04	SAC-4	1394	NA	10/27/04	0.333	NA	10.0	NA	R

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

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Survey Area: C

Survey Unit: 707026

Building: 707

Description: B707 1st floor "A" module floor area between columns G-H, 1-3

### Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707026PRP-N001	3	0.6	N/A	
707026PRP-N002	3	-0.9	N/A	
707026PRP-N003	3	-0.9	N/A	
707026PRP-N004	3	-0.9	N/A	
707026PRP-N005	3	0.6	N/A	
707026PRP-N006	3	-0.9	N/A	
707026PRP-N007	3	2.1	N/A	
707026PRP-N008	3	0.6	N/A	
707026PRP-N009	3	6.6	N/A	
707026PRP-N010	3	-0.9	N/A	
707026PRP-N011	3	0.6	N/A	
707026PRP-N012	3	-0.9	N/A	
707026PRP-N013	3	6.6	N/A	
707026PRP-N014	3	-0.9	N/A	
707026PRP-N015	3	0.6	N/A	
707026PRP-N016	3	0.6	N/A	

Comments:

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Survey Area: C

Survey Unit: 707026

Building: 707

Description: B707 1st floor "A" module floor area between columns G-H, 1-3

### Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707026PRP-N001	1	66.2	N/A	
707026PRP-N002	1	41.7	N/A	
707026PRP-N003	1	52.3	N/A	
707026PRP-N004	1	47.7	N/A	
707026PRP-N005	1	94.0	N/A	
707026QRP-N005	2	54.7	N/A	
707026PRP-N006	1	47.7	N/A	
707026PRP-N007	1	47.7	N/A	
707026PRP-N008	1	41.7	N/A	
707026PRP-N009	1	51.0	N/A	
707026PRP-N010	1	23.2	N/A	
707026PRP-N011	1	66.2	N/A	
707026QRP-N011	2	45.3	N/A	
707026PRP-N012	1	41.7	N/A	
707026PRP-N013	1	41.7	N/A	
707026PRP-N014	1	47.7	N/A	
707026PRP-N015	1	60.2	N/A	
707026PRP-N016	1	75.5	N/A	

Comments: 100% of the accessible floor surfaces scanned. All values after remediation <300 dpm/100 cm2.

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ATTACHMENT B10

Survey Unit 707027 Survey Data and Maps

# Investigation Documentation

Survey Unit: 707027

Investigation Number	Surface Floor, Wall, Ceiling etc.	Location	"As Found" (dpm/100 cm <sup>2</sup> )	Remediation Performed? (Yes/No)	"As Left" (dpm) <sup>Note 1</sup>	Note 2 "As Left" (dpm/100 cm <sup>2</sup> )	9-Point Done? (Yes/No)	meter <sup>2</sup> Average (dpm/100 cm <sup>2</sup> )
1	Floor	H1	466	Yes	N/A	<300	No	<100
2	Floor	H1	584	Yes	N/A	<300	No	<100
3	Floor	H1	1225	Yes	N/A	<300	No	<100
4	Floor	H1	411	Yes	N/A	<300	No	<100
5	Floor	J1	421	Yes	N/A	<300	No	<100
6	Floor	J1	482	Yes	N/A	<300	No	<100
7	Floor	J1	632	Yes	N/A	<300	No	<100
8	Floor	J2	505	Yes	N/A	<300	No	<100
9	Floor	J2	421	Yes	N/A	<300	No	<100
10	Floor	J2	399	Yes	N/A	<300	No	<100
11	Floor	J1	438	Yes	N/A	<300	No	<100
12	Floor	J1	1975	Yes	N/A	<300	No	<100
1	Floor	J2	691	Yes	N/A	<300	No	<100
2	Floor	K1	482	Yes	N/A	<300	No	<100
3	Floor	K1	632	Yes	N/A	<300	No	<100
4	Floor	K1	691	Yes	N/A	<300	No	<100
5	Floor	J2	1155	Yes	N/A	<300	No	<100
6	Floor	J2	553	Yes	N/A	<300	No	<100
7	Floor	J2	567	Yes	N/A	<300	No	<100
8	Floor	J1	627	Yes	N/A	<300	No	<100
9	Floor	J2	639	Yes	N/A	<300	No	<100
1	Floor	H2	1714	Yes	N/A	<300	No	<100
2	Floor	H2	813	Yes	N/A	<300	No	<100
3	Floor	H2	577	Yes	N/A	<300	No	<100
4	Floor	H2	577	Yes	N/A	<300	No	<100
5	Floor	H2	398	Yes	N/A	<300	No	<100
6	Floor	H2	697	Yes	N/A	<300	No	<100
7	Floor	H2	457	Yes	N/A	<300	No	<100
8	Floor	H2	396	Yes	N/A	<300	No	<100
9	Floor	H3	396	Yes	N/A	<300	No	<100
10	Floor	H2	617	Yes	N/A	<300	No	<100
11	Floor	J2	1320	Yes	N/A	<300	No	<100
12	Floor	J2	1175	Yes	N/A	<300	No	<100
13	Floor	J2	574	Yes	N/A	<300	No	<100
14	Floor	J2	453	Yes	N/A	<300	No	<100
15	Floor	J2	455	Yes	N/A	<300	No	<100
16	Floor	J2	2193	Yes	N/A	<300	No	<100
17	Floor	J2	631	Yes	N/A	<300	No	<100
18	Floor	J3	425	Yes	N/A	<300	No	<100
19	Floor	J3	457	Yes	N/A	<300	No	<100
20	Floor	J3	563	Yes	N/A	<300	No	<100
					Maximum	<300		<100

Note 1 - total activity per 600 cm<sup>2</sup> probe

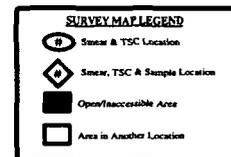
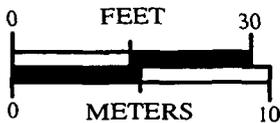
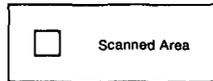
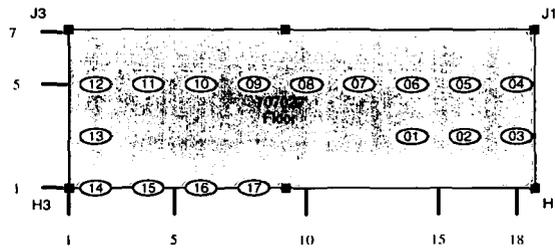
Note 2 - <300 is the FSM value after remediation and re-survey.

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**RADIOLOGICAL CLOSEOUT SURVEY FOR THE 707 CLUSTER**

Survey Area: C      Survey Unit: 707027      Classification: 1  
Building: 707  
Survey Unit Description: First floor (A module)  
Total Floor Area: 108 sq. m      Total Area: 108 sq. m      Grid Size: 2 x 2 sq.m

**SURVEY UNIT 707027 - MAP 1 OF 1**



Survey Area: C

Survey Unit: 707027

Building: 707

Description: B707 1st floor "A" module floor area between columns H-J, 1-3

## Rocky Flats Environmental Technology Site Final Radiological Survey Summary Results

### Total Surface Activity Measurements

Nbr Random Measurements Required: 17  
Nbr Random Measurements Performed: 17

Nbr Biased Measurements Required: 0  
Nbr Biased Measurements Performed: 0

Nbr QC Required: 2  
Nbr QC Performed: 2

#### Alpha

Maximum:	78.9 dpm/100cm <sup>2</sup>
Minimum:	-0.4 dpm/100cm <sup>2</sup>
Mean:	42.4 dpm/100cm <sup>2</sup>
Standard Deviation:	23.6
QC Maximum:	28.5 dpm/100cm <sup>2</sup>
QC Minimum:	12.8 dpm/100cm <sup>2</sup>
QC Mean:	20.7 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>w</sub> :	100.0 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>EMC</sub> :	300.0 dpm/100cm <sup>2</sup>

### Removable Surface Activity Measurements

Nbr Random Measurements Required: 17  
Nbr Random Measurements Performed: 17

Nbr Biased Measurements Required: 0  
Nbr Biased Measurements Performed: 0

#### Alpha

Maximum:	4.2 dpm/100cm <sup>2</sup>
Minimum:	-0.3 dpm/100cm <sup>2</sup>
Mean:	0.8 dpm/100cm <sup>2</sup>
Standard Deviation:	1.5
Transuranic DCGL <sub>w</sub> :	20.0 dpm/100cm <sup>2</sup>

### Media Sample Results

Nbr Random Required: 0  
Nbr Random Collected: 0

Nbr Biased Required: 0  
Nbr Biased Collected: 0

Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.

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Survey Area: C

Survey Unit: 707027

Building: 707

Description: B707 1st floor "A" module floor area between columns H-J, 1-3

### Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency		A-Priori MDA (dpm/100cm <sup>2</sup> )		Survey Type
							Alpha	Beta	Alpha	Beta	
1	516375	10/21/04	Electra	3134	DP-6	11/03/04	0.219	NA	48.0	NA	T
2	516375	10/21/04	SAC-4	760	NA	02/28/05	0.333	NA	10.0	NA	R
3	513185	10/21/04	Electra	4412	DP-6	12/29/04	0.210	NA	48.0	NA	T
11	516375	10/22/04	Electra	3260	DP-6	02/06/05	0.206	NA	48.0	NA	I
12	514510	10/22/04	Electra	4412	DP-6	12/29/04	0.210	NA	48.0	NA	I

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

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Survey Area: C

Survey Unit: 707027

Building: 707

Description: B707 1st floor "A" module floor area between columns H-J, 1-3

### Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707027PRP-N001	2	-0.3	N/A	
707027PRP-N002	2	-0.3	N/A	
707027PRP-N003	2	4.2	N/A	
707027PRP-N004	2	1.2	N/A	
707027PRP-N005	2	2.7	N/A	
707027PRP-N006	2	-0.3	N/A	
707027PRP-N007	2	-0.3	N/A	
707027PRP-N008	2	1.2	N/A	
707027PRP-N009	2	2.7	N/A	
707027PRP-N010	2	-0.3	N/A	
707027PRP-N011	2	-0.3	N/A	
707027PRP-N012	2	-0.3	N/A	
707027PRP-N013	2	1.2	N/A	
707027PRP-N014	2	-0.3	N/A	
707027PRP-N015	2	-0.3	N/A	
707027PRP-N016	2	2.7	N/A	
707027PRP-N017	2	1.2	N/A	

Comments:

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Survey Area: C

Survey Unit: 707027

Building: 707

Description: B707 1st floor "A" module floor area between columns H-J, 1-3

### Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707027PRP-N001	1	78.6	N/A	
707027PRP-N002	1	28.4	N/A	
707027PRP-N003	1	78.6	N/A	
707027PRP-N004	1	48.0	N/A	
707027PRP-N005	1	54.4	N/A	
707027SRP-N006	11	78.9	N/A	
707027PRP-N007	1	17.9	N/A	
707027QRP-N007	3	12.8	N/A	
707027PRP-N008	1	38.9	N/A	
707027PRP-N009	1	20.6	N/A	
707027SRP-N010	12	42.4	N/A	
707027PRP-N011	1	36.1	N/A	
707027PRP-N012	1	-0.4	N/A	
707027PRP-N013	1	57.1	N/A	
707027PRP-N014	1	51.2	N/A	
707027PRP-N015	1	54.4	N/A	
707027PRP-N016	1	23.8	N/A	
707027PRP-N017	1	12.8	N/A	
707027QRP-N017	3	28.5	N/A	

Comments: 100% of the accessible floor area scanned. All value <300 dpm/100 cm<sup>2</sup> after remediation.

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ATTACHMENT B11

Survey Unit 707028 Survey Data and Maps

# Investigation Documentation

Survey Unit: 707028

Investigation Number	Surface Floor, Wall, Ceiling etc.	Location	"As Found" (dpm/100 cm <sup>2</sup> )	Remediation Performed? (Yes/No)	"As Left" (dpm) <sup>Note 1</sup>	Note 2 "As Left" (dpm/100 cm <sup>2</sup> )	9-Point Done? (Yes/No)	meter <sup>2</sup> Average (dpm/100 cm <sup>2</sup> )
1	Floor	K2	344	Yes	N/A	<300	No	<100
2	Floor	K2	668	Yes	N/A	<300	No	<100
3	Floor	K2	560	Yes	N/A	<300	No	<100
4	Floor	K2	485	Yes	N/A	<300	No	<100
5	Floor	K2	614	Yes	N/A	<300	No	<100
6	Floor	K2	429	Yes	N/A	<300	No	<100
7	Floor	K2	259	Yes	N/A	<300	No	<100
8	Floor	K3	467	Yes	N/A	<300	No	<100
9	Floor	K3	295	Yes	N/A	<300	No	<100
10	Floor	K3	336	Yes	N/A	<300	No	<100
11	Floor	J3	348	Yes	N/A	<300	No	<100
12	Floor	J2	520	Yes	N/A	<300	No	<100
13	Floor	J2	305	Yes	N/A	<300	No	<100
14	Floor	J2	483	Yes	N/A	<300	No	<100
15	Floor	J2	334	Yes	N/A	<300	No	<100
16	Floor	J2	272	Yes	N/A	<300	No	<100
17	Floor	J3	399	Yes	N/A	<300	No	<100
					Maximum	<300		<100

Note 1 - total activity per 600 cm<sup>2</sup> probe

Note 2 - <300 is the FSM value after remediation and re-survey.

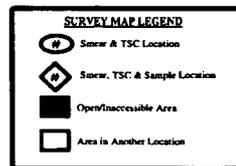
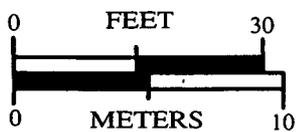
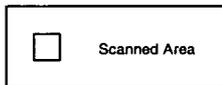
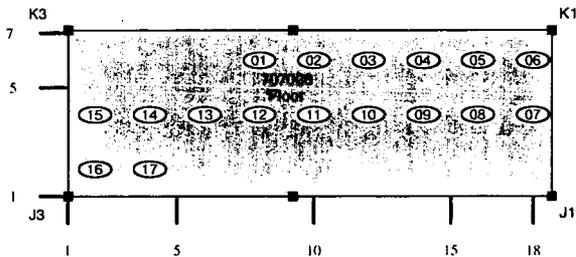
127

**RADIOLOGICAL CLOSEOUT SURVEY FOR THE 707 CLUSTER**

Survey Area: C      Survey Unit: 707028      Classification: 1  
Building: 707  
Survey Unit Description: First floor (A module)

Total Floor Area: 108 sq. m      Total Area: 108 sq. m      Grid Size: 2 x 2 sq.m

**SURVEY UNIT 707028 - MAP 1 OF 1**



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Survey Area: C

Survey Unit: 707028

Building: 707

Description: B707 1st floor "A" module floor area between columns J-K, 1-3

## Rocky Flats Environmental Technology Site Final Radiological Survey Summary Results

### Total Surface Activity Measurements

Nbr Random Measurements Required: 17      Nbr Biased Measurements Required: 0      Nbr QC Required: 2  
Nbr Random Measurements Performed: 17      Nbr Biased Measurements Performed: 0      Nbr QC Performed: 2

#### Alpha

Maximum:	74.4 dpm/100cm <sup>2</sup>
Minimum:	20.3 dpm/100cm <sup>2</sup>
Mean:	46.4 dpm/100cm <sup>2</sup>
Standard Deviation:	16.1
QC Maximum:	24.9 dpm/100cm <sup>2</sup>
QC Minimum:	19.0 dpm/100cm <sup>2</sup>
QC Mean:	21.9 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>w</sub> :	100.0 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>EMC</sub> :	300.0 dpm/100cm <sup>2</sup>

### Removable Surface Activity Measurements

Nbr Random Measurements Required: 17      Nbr Biased Measurements Required: 0  
Nbr Random Measurements Performed: 17      Nbr Biased Measurements Performed: 0

#### Alpha

Maximum:	2.7 dpm/100cm <sup>2</sup>
Minimum:	-0.3 dpm/100cm <sup>2</sup>
Mean:	0.7 dpm/100cm <sup>2</sup>
Standard Deviation:	1.2
Transuranic DCGL <sub>w</sub> :	20.0 dpm/100cm <sup>2</sup>

### Media Sample Results

Nbr Random Required: 0      Nbr Biased Required: 0  
Nbr Random Collected: 0      Nbr Biased Collected: 0

*Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.*

Survey Area: C

Survey Unit: 707028

Building: 707

Description: B707 1st floor "A" module floor area between columns J-K, 1-3

### Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency		A-Priori MDA (dpm/100cm <sup>2</sup> )		Survey Type
							Alpha	Beta	Alpha	Beta	
1	514510	10/21/04	Electra	2354	DP-6	11/27/04	0.222	NA	48.0	NA	T
2	516375	10/21/04	Electra	3134	DP-6	11/03/04	0.219	NA	48.0	NA	T
3	514510	10/21/04	SAC-4	760	NA	02/28/05	0.333	NA	10.0	NA	R

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

130

Survey Area: C

Survey Unit: 707028

Building: 707

Description: B707 1st floor "A" module floor area between columns J-K, 1-3

### Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707028PRP-N001	3	-0.3	N/A	
707028PRP-N002	3	1.2	N/A	
707028PRP-N003	3	-0.3	N/A	
707028PRP-N004	3	1.2	N/A	
707028PRP-N005	3	-0.3	N/A	
707028PRP-N006	3	2.7	N/A	
707028PRP-N007	3	-0.3	N/A	
707028PRP-N008	3	-0.3	N/A	
707028PRP-N009	3	-0.3	N/A	
707028PRP-N010	3	2.7	N/A	
707028PRP-N011	3	1.2	N/A	
707028PRP-N012	3	1.2	N/A	
707028PRP-N013	3	-0.3	N/A	
707028PRP-N014	3	2.7	N/A	
707028PRP-N015	3	1.2	N/A	
707028PRP-N016	3	-0.3	N/A	
707028PRP-N017	3	-0.3	N/A	

Comments:

131

Survey Area: C

Survey Unit: 707028

Building: 707

Description: B707 1st floor "A" module floor area between columns J-K, 1-3

## Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )
707028PRP-N001	1	35.2	N/A
707028PRP-N002	1	38.4	N/A
707028PRP-N003	1	56.4	N/A
707028PRP-N004	1	35.2	N/A
707028PRP-N005	1	41.5	N/A
707028PRP-N006	1	62.2	N/A
707028QRP-N006	2	19.0	N/A
707028PRP-N007	1	32.5	N/A
707028PRP-N008	1	44.2	N/A
707028PRP-N009	1	62.2	N/A
707028PRP-N010	1	32.5	N/A
707028PRP-N011	1	29.4	N/A
707028PRP-N012	1	74.4	N/A
707028PRP-N013	1	71.2	N/A
707028PRP-N014	1	41.5	N/A
707028QRP-N014	2	24.9	N/A
707028PRP-N015	1	20.3	N/A
707028PRP-N016	1	44.2	N/A
707028PRP-N017	1	66.7	N/A

Comments: 100% of the accessible floor surfaces scanned. All values after remediation <300 dpm/100 cm<sup>2</sup>.

ATTACHMENT B12

Survey Unit 707029 Survey Data and Maps

# Investigation Documentation

Survey Unit: 707029

Investigation Number	Surface Floor, Wall, Ceiling etc.	Location	"As Found" (dpm/100 cm <sup>2</sup> )	Remediation Performed? (Yes/No)	"As Left" (dpm) <sup>Note 1</sup>	Note 2 "As Left" (dpm/100 cm <sup>2</sup> )	9-Point Done? (Yes/No)	meter <sup>2</sup> Average (dpm/100 cm <sup>2</sup> )
1	Floor	L-1	655	Yes	N/A	<300	No	<100
2	Floor	L-1	359	Yes	N/A	<300	No	<100
3	Floor	L-1	448	Yes	N/A	<300	No	<100
4	Floor	L-2	406	Yes	N/A	<300	No	<100
5	Floor	L-2	350	Yes	N/A	<300	No	<100
6	Floor	K-3	600	Yes	N/A	<300	No	<100

Note 1 - total activity per 600 cm<sup>2</sup> probe

Maximum <300

<100

Note 2 - <300 is the FSM value after remediation and re-survey.

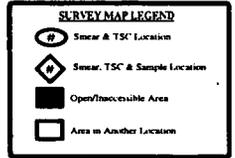
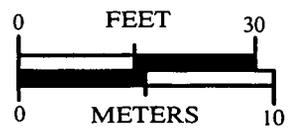
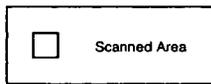
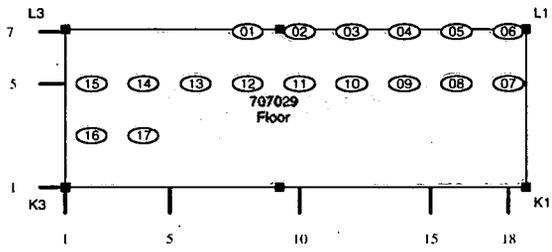
134

**RADIOLOGICAL CLOSEOUT SURVEY FOR THE 707 CLUSTER**

Survey Area: C      Survey Unit: 707029      Classification: 1  
Building: 707  
Survey Unit Description: First floor (A module)

Total Floor Area: 108 sq. m      Total Area: 108 sq. m      Grid Size: 2 x 2 sq.m

**SURVEY UNIT 707029 - MAP 1 OF 1**



135

Survey Area: C

Survey Unit: 707029

Building: 707

Description: B707 1st floor "A" module floor area between columns K-L, 1-3

## Rocky Flats Environmental Technology Site Final Radiological Survey Summary Results

### Total Surface Activity Measurements

Nbr Random Measurements Required: 17

Nbr Biased Measurements Required: 0

Nbr QC Required: 2

Nbr Random Measurements Performed: 17

Nbr Biased Measurements Performed: 0

Nbr QC Performed: 2

#### Alpha

Maximum:	52.7 dpm/100cm <sup>2</sup>
Minimum:	2.1 dpm/100cm <sup>2</sup>
Mean:	25.1 dpm/100cm <sup>2</sup>
Standard Deviation:	15.2
QC Maximum:	63.9 dpm/100cm <sup>2</sup>
QC Minimum:	33.4 dpm/100cm <sup>2</sup>
QC Mean:	48.7 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>w</sub> :	100.0 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>EMC</sub> :	300.0 dpm/100cm <sup>2</sup>

### Removable Surface Activity Measurements

Nbr Random Measurements Required: 17

Nbr Biased Measurements Required: 0

Nbr Random Measurements Performed: 17

Nbr Biased Measurements Performed: 0

#### Alpha

Maximum:	2.7 dpm/100cm <sup>2</sup>
Minimum:	-0.3 dpm/100cm <sup>2</sup>
Mean:	0.8 dpm/100cm <sup>2</sup>
Standard Deviation:	1.2
Transuranic DCGL <sub>w</sub> :	20.0 dpm/100cm <sup>2</sup>

### Media Sample Results

Nbr Random Required: 0

Nbr Biased Required: 0

Nbr Random Collected: 0

Nbr Biased Collected: 0

Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.

136

Survey Area: C

Survey Unit: 707029

Building: 707

Description: B707 1st floor "A" module floor area between columns K-L, 1-3

### Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency		A-Priori MDA (dpm/100cm <sup>2</sup> )		Survey Type
							Alpha	Beta	Alpha	Beta	
1	516375	10/26/04	Electra	1245	DP-6	02/23/05	0.223	NA	48.0	NA	T
2	514510	10/26/04	Electra	2383	DP-6	12/30/04	0.220	NA	48.0	NA	T
3	516375	10/26/04	SAC-4	1474	NA	11/03/04	0.333	NA	10.0	NA	R

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

137

Survey Area: C

Survey Unit: 707029

Building: 707

Description: B707 1st floor "A" module floor area between columns K-L, 1-3

### Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707029PRP-N001	3	-0.3	N/A	
707029PRP-N002	3	-0.3	N/A	
707029PRP-N003	3	1.2	N/A	
707029PRP-N004	3	1.2	N/A	
707029PRP-N005	3	-0.3	N/A	
707029PRP-N006	3	2.7	N/A	
707029PRP-N007	3	1.2	N/A	
707029PRP-N008	3	1.2	N/A	
707029PRP-N009	3	-0.3	N/A	
707029PRP-N010	3	2.7	N/A	
707029PRP-N011	3	2.7	N/A	
707029PRP-N012	3	-0.3	N/A	
707029PRP-N013	3	-0.3	N/A	
707029PRP-N014	3	-0.3	N/A	
707029PRP-N015	3	2.7	N/A	
707029PRP-N016	3	-0.3	N/A	
707029PRP-N017	3	1.2	N/A	

Comments:

138

Survey Area: C

Survey Unit: 707029

Building: 707

Description: B707 1st-floor "A" module floor area between columns K-L, 1-3

### Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707029PRP-N001	1	5.2	N/A	
707029QRP-N001	2	63.9	N/A	
707029PRP-N002	1	37.9	N/A	
707029PRP-N003	1	32.1	N/A	
707029PRP-N004	1	20.0	N/A	
707029PRP-N005	1	11.0	N/A	
707029PRP-N006	1	52.7	N/A	
707029PRP-N007	1	34.8	N/A	
707029PRP-N008	1	34.8	N/A	
707029PRP-N009	1	2.1	N/A	
707029QRP-N009	2	33.4	N/A	
707029PRP-N010	1	43.8	N/A	
707029PRP-N011	1	43.8	N/A	
707029PRP-N012	1	14.2	N/A	
707029PRP-N013	1	11.0	N/A	
707029PRP-N014	1	32.1	N/A	
707029PRP-N015	1	25.8	N/A	
707029PRP-N016	1	14.2	N/A	
707029PRP-N017	1	11.0	N/A	

Comments: 100% of the accesible floor surfaces were scanned. All values <300 dpm/100 cm2.

139

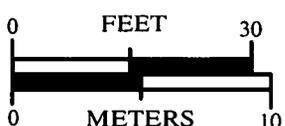
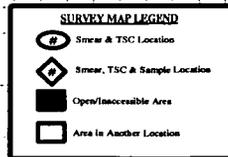
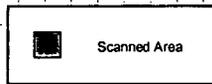
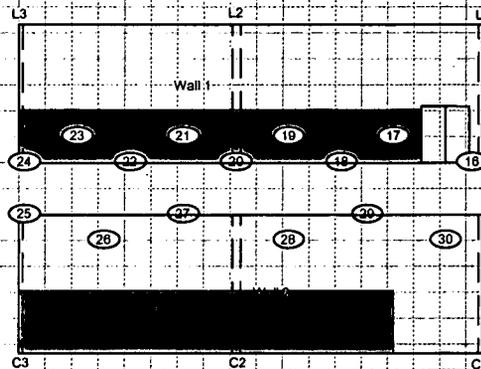
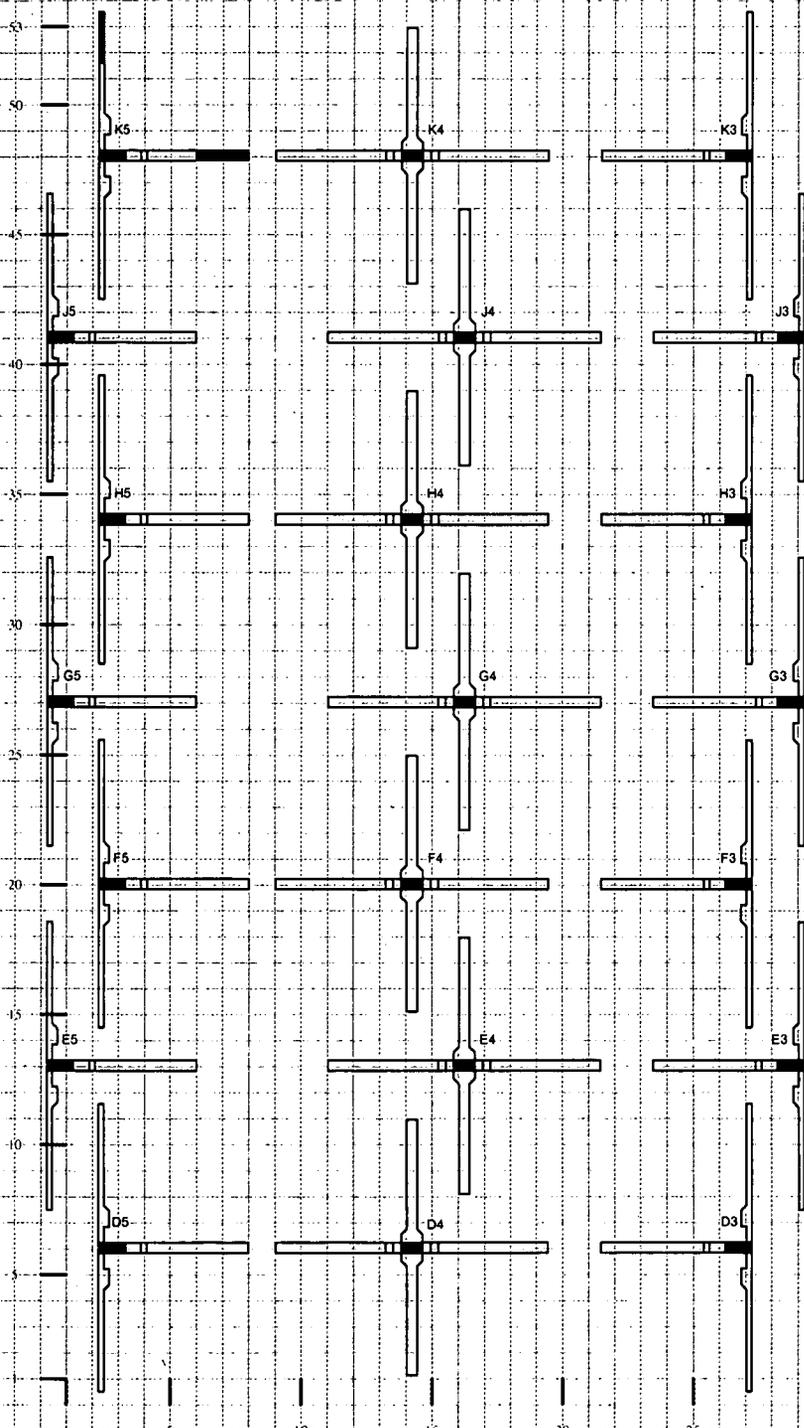
ATTACHMENT B13

Survey Unit 707030 Survey Data and Maps

# RADIOLOGICAL CLOSEOUT SURVEY FOR THE 707 CLUSTER

**Survey Area: C**      **Survey Unit: 707030**      **Classification: 2**  
**Building: 707**  
**Survey Unit Description: First floor (B Module walls and ceiling)**  
**Total Floor Area: 0 sq. m**    **Total Area: 1911 sq. m**    **Grid Size: 11 x 11 sq.m**

## SURVEY UNIT 707030 - MAP 1 OF 2

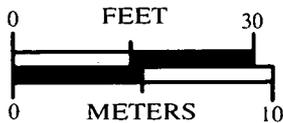
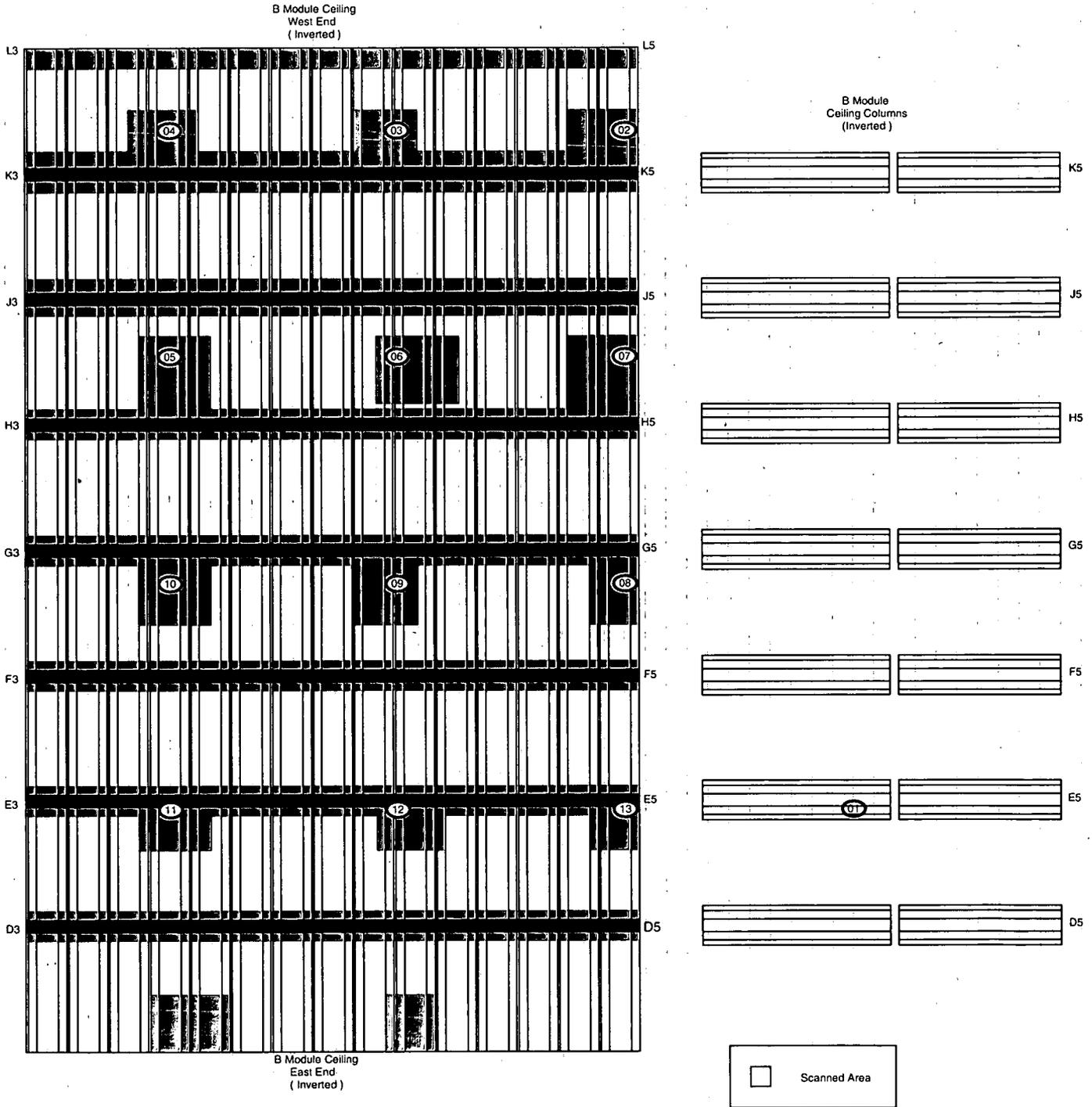


141

# RADIOLOGICAL CLOSEOUT SURVEY FOR THE 707 CLUSTER

Survey Area: C      Survey Unit: 707030      Classification: 2  
 Building: 707  
 Survey Unit Description: First floor (B Module walls and ceiling)  
 Total Floor Area: 0 sq. m      Total Area: 1911 sq. m      Grid Size: 11 x 11 sq.m

## SURVEY UNIT 707030 - MAP 2 OF 2



**SURVEY MAP LEGEND**

- 02 Street A TSC Location
- Street A TSC Sample Location
- Open/Inaccessible Area
- Area in Another Location

142

Survey Area: C

Survey Unit: 707030

Building: 707

Description: B707 1st floor "B" module area wall and ceiling surfaces

## Rocky Flats Environmental Technology Site Final Radiological Survey Summary Results

### Total Surface Activity Measurements

Nbr Random Measurements Required: 15  
Nbr Random Measurements Performed: 15

Nbr Biased Measurements Required: 15  
Nbr Biased Measurements Performed: 15

Nbr QC Required: 2  
Nbr QC Performed: 2

#### Alpha

Maximum:	61.5 dpm/100cm <sup>2</sup>
Minimum:	-20.3 dpm/100cm <sup>2</sup>
Mean:	26.6 dpm/100cm <sup>2</sup>
Standard Deviation:	19.6
QC Maximum:	57.0 dpm/100cm <sup>2</sup>
QC Minimum:	25.3 dpm/100cm <sup>2</sup>
QC Mean:	41.2 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>w</sub> :	100.0 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>EMC</sub> :	300.0 dpm/100cm <sup>2</sup>

### Removable Surface Activity Measurements

Nbr Random Measurements Required: 15  
Nbr Random Measurements Performed: 15

Nbr Biased Measurements Required: 15  
Nbr Biased Measurements Performed: 15

#### Alpha

Maximum:	4.2 dpm/100cm <sup>2</sup>
Minimum:	-1.2 dpm/100cm <sup>2</sup>
Mean:	0.4 dpm/100cm <sup>2</sup>
Standard Deviation:	1.3
Transuranic DCGL <sub>w</sub> :	20.0 dpm/100cm <sup>2</sup>

### Media Sample Results

Nbr Random Required: 0  
Nbr Random Collected: 0

Nbr Biased Required: 0  
Nbr Biased Collected: 0

Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.

143

Survey Area: C

Survey Unit: 707030

Building: 707

Description: B707 1st floor "B" module area wall and ceiling surfaces

### Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency		A-Priori MDA (dpm/100cm <sup>2</sup> )		Survey Type
							Alpha	Beta	Alpha	Beta	
1	514717	10/24/04	Electra	4172	DP-6	01/16/05	0.219	NA	48.0	NA	T/S
2	510391	10/24/04	SAC-4	828	NA	12/11/04	0.333	NA	10.0	NA	R
3	510391	10/24/04	Electra	2378	DP-6	03/20/05	0.221	NA	48.0	NA	T/S
4	513185	10/26/04	Electra	3973	DP-6	12/22/04	0.216	NA	48.0	NA	T/S
5	513185	10/26/04	SAC-4	1474	NA	11/03/04	0.333	NA	10.0	NA	R
11	513185	10/29/04	Electra	1100	DP-6	02/28/05	0.219	NA	48.0	NA	I

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

141

Survey Area: C

Survey Unit: 707030

Building: 707

Description: B707 1st floor "B" module area wall and ceiling surfaces

### Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707030PRP-N001	2	0.3	N/A	
707030PRP-N002	5	-0.3	N/A	
707030PRP-N003	5	2.7	N/A	
707030PRP-N004	5	1.2	N/A	
707030PRP-N005	2	-1.2	N/A	
707030PRP-N006	2	0.3	N/A	
707030PRP-N007	2	0.3	N/A	
707030PRP-N008	2	0.3	N/A	
707030PRP-N009	2	0.3	N/A	
707030PRP-N010	2	-1.2	N/A	
707030PRP-N011	2	0.3	N/A	
707030PRP-N012	2	1.8	N/A	
707030PRP-N013	2	0.3	N/A	
707030PRP-N014	2	-1.2	N/A	
707030PRP-N015	2	0.3	N/A	

145

Survey Area: C

Survey Unit: 707030

Building: 707

Description: B707 1st floor "B" module area wall and ceiling surfaces

### Biased Removable Surface Activity Data Sheet

Biased Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707030PBP-N016	5	2.7	N/A	
707030PBP-N017	5	-0.3	N/A	
707030PBP-N018	5	-0.3	N/A	
707030PBP-N019	5	4.2	N/A	
707030PBP-N020	5	-0.3	N/A	
707030PBP-N021	5	1.2	N/A	
707030PBP-N022	5	1.2	N/A	
707030PBP-N023	5	1.2	N/A	
707030PBP-N024	5	1.2	N/A	
707030PBP-N025	2	-1.2	N/A	
707030PBP-N026	2	0.3	N/A	
707030PBP-N027	2	-1.2	N/A	
707030PBP-N028	2	0.3	N/A	
707030PBP-N029	2	-1.2	N/A	
707030PBP-N030	2	0.3	N/A	

Comments:

146

Survey Area: C

Survey Unit: 707030

Building: 707

Description: B707 1st floor "B" module area wall and ceiling surfaces.

### Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707030PRP-N001	1	61.5	N/A	
707030PRP-N002	4	22.8	N/A	
707030PRP-N003	4	13.5	N/A	
707030PRP-N004	4	28.8	N/A	
707030PRP-N005	1	31.4	N/A	
707030PRP-N006	1	28.2	N/A	
707030PRP-N007	1	22.2	N/A	
707030PRP-N008	1	22.2	N/A	
707030PRP-N009	1	31.4	N/A	
707030PRP-N010	1	31.4	N/A	
707030PRP-N011	1	49.6	N/A	
707030QRP-N011	3	57.0	N/A	
707030PRP-N012	1	25.0	N/A	
707030PRP-N013	1	34.1	N/A	
707030PRP-N014	1	31.4	N/A	
707030PRP-N015	1	49.6	N/A	
707030QRP-N028	3	25.3	N/A	

147

Survey Area: C

Survey Unit: 707030

Building: 707

Description: B707 1st floor "B" module area wall and ceiling surfaces

### Biased Total Surface Activity Data Sheet

Biased Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707030PBP-N016	4	35.2	N/A	
707030PBP-N017	4	13.5	N/A	
707030PBP-N018	4	16.7	N/A	
707030PBP-N019	4	-20.3	N/A	
707030PBP-N020	4	1.0	N/A	
707030PBP-N021	4	10.2	N/A	
707030PBP-N022	4	1.0	N/A	
707030PBP-N023	4	-1.8	N/A	
707030PBP-N024	4	1.0	N/A	
707030PBP-N025	1	49.2	N/A	
707030SBP-N026	11	13.9	N/A	
707030PBP-N027	1	55.2	N/A	
707030PBP-N028	1	43.3	N/A	
707030PBP-N029	1	43.3	N/A	
707030PBP-N030	1	55.2	N/A	

Comments: >25% of the accesible lower walls and >10% of the upper walls and ceiling surfaces were scanned. All values <300 dpm/100 cm2.

148

ATTACHMENT B14

Survey Unit 707031 Survey Data and Maps

# Investigation Documentation

Survey Unit: 707031

Investigation Number	Surface Floor, Wall, Ceiling etc.	Location	"As Found" (dpm/100 cm <sup>2</sup> )	Remediation Performed? (Yes/No)	"As Left" (dpm) <sup>Note 1</sup>	Note 2 "As Left" (dpm/100 cm <sup>2</sup> )	9-Point Done? (Yes/No)	meter <sup>2</sup> Average (dpm/100 cm <sup>2</sup> )
1	Floor	D5	676	Yes	N/A	<300	No	<100
2	Floor	D5	1738	Yes	N/A	<300	No	<100
3	Floor	D5	1304	Yes	N/A	<300	No	<100

Note 1 - total activity per 600 cm<sup>2</sup> probe

Maximum

<300

<100

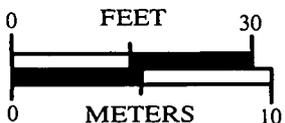
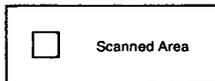
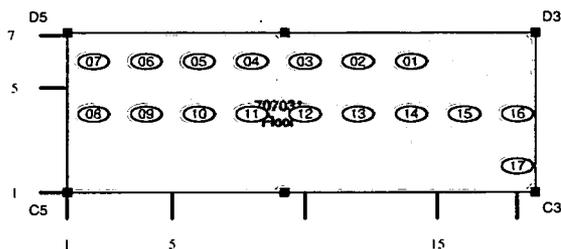
Note 2 - <300 is the FSM value after remediation and re-survey.

**RADIOLOGICAL CLOSEOUT SURVEY FOR THE 707 CLUSTER**

Survey Area: C      Survey Unit: 707031      Classification: 1  
Building: 707  
Survey Unit Description: First floor (B module)

Total Floor Area: 108 sq. m      Total Area: 108 sq. m      Grid Size: 2 x 2 sq.m

**SURVEY UNIT 707031 - MAP 1 OF 1**



**SURVEY MAP LEGEND**

- Search & TSC Location
- Search, TSC & Sample Location
- Open/Inaccessible Area
- Area in Another Location

150

Survey Area: C

Survey Unit: 707031

Building: 707

Description: B707 1st floor "B" module area floor surfaces between columns C-D, 3-5

## Rocky Flats Environmental Technology Site Final Radiological Survey Summary Results

### Total Surface Activity Measurements

Nbr Random Measurements Required: 17  
Nbr Random Measurements Performed: 17

Nbr Biased Measurements Required: 0  
Nbr Biased Measurements Performed: 0

Nbr QC Required: 2  
Nbr QC Performed: 2

#### Alpha

Maximum:	78.5 dpm/100cm <sup>2</sup>
Minimum:	-5.5 dpm/100cm <sup>2</sup>
Mean:	39.1 dpm/100cm <sup>2</sup>
Standard Deviation:	18.4
QC Maximum:	71.5 dpm/100cm <sup>2</sup>
QC Minimum:	33.4 dpm/100cm <sup>2</sup>
QC Mean:	52.4 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>w</sub> :	100.0 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>EMC</sub> :	300.0 dpm/100cm <sup>2</sup>

### Removable Surface Activity Measurements

Nbr Random Measurements Required: 17  
Nbr Random Measurements Performed: 17

Nbr Biased Measurements Required: 0  
Nbr Biased Measurements Performed: 0

#### Alpha

Maximum:	6.0 dpm/100cm <sup>2</sup>
Minimum:	0.0 dpm/100cm <sup>2</sup>
Mean:	1.8 dpm/100cm <sup>2</sup>
Standard Deviation:	1.5
Transuranic DCGL <sub>w</sub> :	20.0 dpm/100cm <sup>2</sup>

### Media Sample Results

Nbr Random Required: 0  
Nbr Random Collected: 0

Nbr Biased Required: 0  
Nbr Biased Collected: 0

Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.

Survey Area: C

Survey Unit: 707031

Building: 707

Description: B707 1st floor "B" module area floor surfaces between columns C-D, 3-5

### Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency		A-Priori MDA (dpm/100cm <sup>2</sup> )		Survey Type
							Alpha	Beta	Alpha	Beta	
1	514510	10/22/04	Electra	3260	DP-6	02/06/05	0.206	NA	48.0	NA	T
2	516375	10/22/04	Electra	4412	DP-6	12/29/04	0.210	NA	48.0	NA	T
3	516375	10/22/04	SAC-4	1057	NA	04/05/05	0.333	NA	10.0	NA	R

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

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Survey Area: C

Survey Unit: 707031

Building: 707

Description: B707 1st floor "B" module area floor surfaces between columns C-D, 3-5

### Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707031PRP-N001	3	3.0	N/A	
707031PRP-N002	3	3.0	N/A	
707031PRP-N003	3	1.5	N/A	
707031PRP-N004	3	0.0	N/A	
707031PRP-N005	3	1.5	N/A	
707031PRP-N006	3	1.5	N/A	
707031PRP-N007	3	1.5	N/A	
707031PRP-N008	3	0.0	N/A	
707031PRP-N009	3	1.5	N/A	
707031PRP-N010	3	0.0	N/A	
707031PRP-N011	3	1.5	N/A	
707031PRP-N012	3	6.0	N/A	
707031PRP-N013	3	3.0	N/A	
707031PRP-N014	3	3.0	N/A	
707031PRP-N015	3	1.5	N/A	
707031PRP-N016	3	0.0	N/A	
707031PRP-N017	3	1.5	N/A	

Comments:

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Survey Area: C

Survey Unit: 707031

Building: 707

Description: B707 1st floor "B" module area, floor surfaces between columns C-D, 3-5

### Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707031PRP-N001	1	30.0	N/A	
707031PRP-N002	1	36.3	N/A	
707031QRP-N002	2	71.5	N/A	
707031PRP-N003	1	33.4	N/A	
707031PRP-N004	1	78.5	N/A	
707031PRP-N005	1	59.1	N/A	
707031PRP-N006	1	49.4	N/A	
707031PRP-N007	1	46.0	N/A	
707031PRP-N008	1	39.7	N/A	
707031QRP-N008	2	33.4	N/A	
707031PRP-N009	1	49.4	N/A	
707031PRP-N010	1	39.7	N/A	
707031PRP-N011	1	-5.5	N/A	
707031PRP-N012	1	33.4	N/A	
707031PRP-N013	1	55.7	N/A	
707031PRP-N014	1	26.6	N/A	
707031PRP-N015	1	36.3	N/A	
707031PRP-N016	1	43.1	N/A	
707031PRP-N017	1	13.9	N/A	

Comments: 100% of the accessible floor surfaces scanned. All values after remediation <300 dpm/100 cm<sup>2</sup>.

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ATTACHMENT B15

Survey Unit 707032 Survey Data and Maps

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# Investigation Documentation

Survey Unit: 707032

Investigation Number	Surface Floor, Wall, Ceiling etc.	Location	"As Found" (dpm/100 cm <sup>2</sup> )	Remediation Performed? (Yes/No)	"As Left" (dpm) <sup>Note 1</sup>	Note 2 "As Left" (dpm/100 cm <sup>2</sup> )	9-Point Done? (Yes/No)	meter <sup>2</sup> Average (dpm/100 cm <sup>2</sup> )
1	Floor	K-4	588	Yes	N/A	<300	No	<100
2	Floor	K-4	471	Yes	N/A	<300	No	<100
3	Floor	K-4	688	Yes	N/A	<300	No	<100
4	Floor	K-4	2398	Yes	N/A	<300	No	<100
5	Floor	L-4	718	Yes	N/A	<300	No	<100
6	Floor	K-4	617	Yes	N/A	<300	No	<100

Note 1 - total activity per 600 cm<sup>2</sup> probe

Note 2 - <300 is the FSM value after remediation

Maximum

<300

<100

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# Investigation Documentation

Survey Unit: 707032

Investigation Number	Surface Floor, Wall, Ceiling etc.	Location	"As Found" (dpm/100 cm <sup>2</sup> )	Remediation Performed? (Yes/No)	"As Left" (dpm) <sup>Note 1</sup>	Note 2 "As Left" (dpm/100 cm <sup>2</sup> )	9-Point Done? (Yes/No)	meter <sup>2</sup> Average (dpm/100 cm <sup>2</sup> )
1	Floor	E4	575	Yes	N/A	<300	No	<100
2	Floor	E4	607	Yes	N/A	<300	No	<100
3	Floor	E4	1368	Yes	N/A	<300	No	<100
4	Floor	E4	374	Yes	N/A	<300	No	<100
5	Floor	E4	357	Yes	N/A	<300	No	<100
6	Floor	E4	346	Yes	N/A	<300	No	<100
7	Floor	E4	400	Yes	N/A	<300	No	<100

Note 1 - total activity per 600 cm<sup>2</sup> probe

Maximum

<300

<100

Note 2 - <300 is the FSM value after remediation and re-survey.

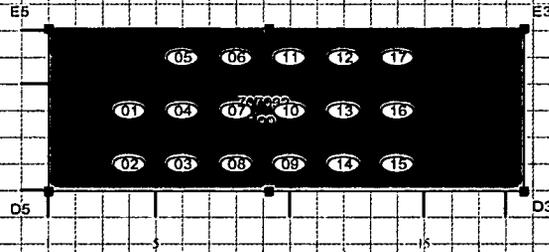
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# RADIOLOGICAL CLOSEOUT SURVEY FOR THE 707 CLUSTER

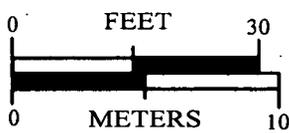
Survey Area: C      Survey Unit: 707032      Classification: 1  
Building: 707  
Survey Unit Description: First floor (B module)

Total Floor Area: 108 sq. m      Total Area: 108 sq. m      Grid Size: 2 x 2 sq.m

## SURVEY UNIT 707032 - MAP 1 OF 1



■ Scanned Area



**SURVEY MAP LEGEND**

- (with 'M') Bmeas & TSC Location
- ◇ (with 'M') Bmeas, TSC & Sample Location
- Open/Inaccessible Area
- Area in Another Location

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Survey Area: C

Survey Unit: 707032

Building: 707

Description: B707 1st floor "B" module area floor surfaces between columns D-E, 3-5

## Rocky Flats Environmental Technology Site Final Radiological Survey Summary Results

### Total Surface Activity Measurements

Nbr Random Measurements Required: 17  
Nbr Random Measurements Performed: 17

Nbr Biased Measurements Required: 0  
Nbr Biased Measurements Performed: 0

Nbr QC Required: 2  
Nbr QC Performed: 2

#### Alpha

Maximum:	70.8 dpm/100cm <sup>2</sup>
Minimum:	10.3 dpm/100cm <sup>2</sup>
Mean:	43.4 dpm/100cm <sup>2</sup>
Standard Deviation:	15.5
QC Maximum:	55.4 dpm/100cm <sup>2</sup>
QC Minimum:	43.7 dpm/100cm <sup>2</sup>
QC Mean:	49.6 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>w</sub> :	100.0 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>EMC</sub> :	300.0 dpm/100cm <sup>2</sup>

### Removable Surface Activity Measurements

Nbr Random Measurements Required: 17  
Nbr Random Measurements Performed: 17

Nbr Biased Measurements Required: 0  
Nbr Biased Measurements Performed: 0

#### Alpha

Maximum:	5.7 dpm/100cm <sup>2</sup>
Minimum:	-0.3 dpm/100cm <sup>2</sup>
Mean:	0.8 dpm/100cm <sup>2</sup>
Standard Deviation:	1.8
Transuranic DCGL <sub>w</sub> :	20.0 dpm/100cm <sup>2</sup>

### Media Sample Results

Nbr Random Required: 0  
Nbr Random Collected: 0

Nbr Biased Required: 0  
Nbr Biased Collected: 0

Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.

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Survey Area: C

Survey Unit: 707032

Building: 707

Description: B707 1st floor "B" module area floor surfaces between columns D-E, 3-5

### Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency		A-Priori MDA (dpm/100cm <sup>2</sup> )		Survey Type
							Alpha	Beta	Alpha	Beta	
1	513185	10/21/04	Electra	4412	DP-6	12/29/04	0.210	NA	48.0	NA	T
2	514510	10/21/04	Electra	2354	DP-6	11/27/04	0.222	NA	48.0	NA	T
3	513185	10/21/04	SAC-4	760	NA	02/28/05	0.333	NA	10.0	NA	R

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

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Survey Area: C

Survey Unit: 707032

Building: 707

Description: B707 1st floor "B" module area floor surfaces between columns D-E, 3-5

### Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707032PRP-N001	3	1.2	N/A	
707032PRP-N002	3	1.2	N/A	
707032PRP-N003	3	-0.3	N/A	
707032PRP-N004	3	-0.3	N/A	
707032PRP-N005	3	-0.3	N/A	
707032PRP-N006	3	5.7	N/A	
707032PRP-N007	3	-0.3	N/A	
707032PRP-N008	3	-0.3	N/A	
707032PRP-N009	3	1.2	N/A	
707032PRP-N010	3	2.7	N/A	
707032PRP-N011	3	-0.3	N/A	
707032PRP-N012	3	-0.3	N/A	
707032PRP-N013	3	-0.3	N/A	
707032PRP-N014	3	4.2	N/A	
707032PRP-N015	3	-0.3	N/A	
707032PRP-N016	3	-0.3	N/A	
707032PRP-N017	3	-0.3	N/A	

Comments:

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Survey Area: C

Survey Unit: 707032

Building: 707

Description: B707 1st floor "B" module area floor surfaces between columns D-E, 3-5

### Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707032PRP-N001	1	10.3	N/A	
707032PRP-N002	1	36.0	N/A	
707032QRP-N002	2	55.4	N/A	
707032PRP-N003	1	26.5	N/A	
707032PRP-N004	1	45.5	N/A	
707032PRP-N005	1	38.9	N/A	
707032PRP-N006	1	51.7	N/A	
707032PRP-N007	1	29.4	N/A	
707032QRP-N007	2	43.7	N/A	
707032PRP-N008	1	45.5	N/A	
707032PRP-N009	1	45.5	N/A	
707032PRP-N010	1	23.2	N/A	
707032PRP-N011	1	55.1	N/A	
707032PRP-N012	1	70.8	N/A	
707032PRP-N013	1	64.6	N/A	
707032PRP-N014	1	57.9	N/A	
707032PRP-N015	1	38.9	N/A	
707032PRP-N016	1	42.2	N/A	
707032PRP-N017	1	55.1	N/A	

Comments: 100% of the accessible floor surfaces scanned. All values after remediation <300 dpm/100 cm<sup>2</sup>.

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ATTACHMENT B16

Survey Unit 707033 Survey Data and Maps

# Investigation Documentation

Survey Unit: 707033

Investigation Number	Surface Floor, Wall, Ceiling etc.	Location	"As Found" (dpm/100 cm <sup>2</sup> )	Remediation Performed? (Yes/No)	"As Left" (dpm) <sup>Note 1</sup>	Note 2 "As Left" (dpm/100 cm <sup>2</sup> )	9-Point Done? (Yes/No)	meter <sup>2</sup> Average (dpm/100 cm <sup>2</sup> )
1	Floor	E5	338	Yes	N/A	<300	No	<100
2	Floor	E4	1023	Yes	N/A	<300	No	<100
3	Floor	F4	405	Yes	N/A	<300	No	<100
4	Floor	F4	2726	Yes	N/A	<300	No	<100
5	Floor	F4	14134	Yes	N/A	<300	No	<100
6	Floor	F4	2313	Yes	N/A	<300	No	<100
7	Floor	F4	19015	Yes	N/A	<300	No	<100
8	Floor	F4	771	Yes	N/A	<300	No	<100
9	Floor	F4	452	Yes	N/A	<300	No	<100
10	Floor	E5	346	Yes	N/A	<300	No	<100

Note 1 - total activity per 600 cm<sup>2</sup> probe

Maximum <300

<100

Note 2 - <300 is the FSM value after remediation and re-survey.

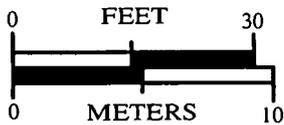
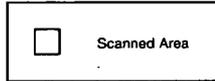
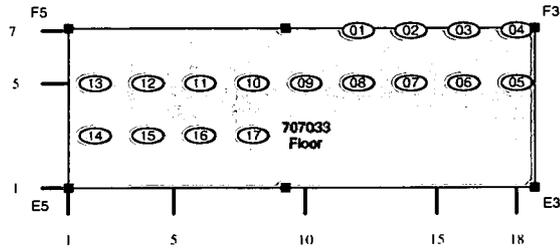
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**RADIOLOGICAL CLOSEOUT SURVEY FOR THE 707 CLUSTER**

Survey Area: C      Survey Unit: 707033      Classification: 1  
Building: 707  
Survey Unit Description: First floor (B module)

Total Floor Area: 108 sq. m      Total Area: 108 sq. m      Grid Size: 2 x 2 sq.m

**SURVEY UNIT 707033 - MAP 1 OF 1**



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Survey Area: C

Survey Unit: 707033

Building: 707

Description: B707 1st floor "B" module area floor surfaces between columns E-F, 3-5

## Rocky Flats Environmental Technology Site Final Radiological Survey Summary Results

### Total Surface Activity Measurements

Nbr Random Measurements Required: 17

Nbr Biased Measurements Required: 0

Nbr QC Required: 2

Nbr Random Measurements Performed: 17

Nbr Biased Measurements Performed: 0

Nbr QC Performed: 2

#### Alpha

Maximum:	62.2 dpm/100cm <sup>2</sup>
Minimum:	8.2 dpm/100cm <sup>2</sup>
Mean:	28.2 dpm/100cm <sup>2</sup>
Standard Deviation:	17.6
QC Maximum:	62.0 dpm/100cm <sup>2</sup>
QC Minimum:	40.7 dpm/100cm <sup>2</sup>
QC Mean:	51.3 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>w</sub> :	100.0 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>EMC</sub> :	300.0 dpm/100cm <sup>2</sup>

### Removable Surface Activity Measurements

Nbr Random Measurements Required: 17

Nbr Biased Measurements Required: 0

Nbr Random Measurements Performed: 17

Nbr Biased Measurements Performed: 0

#### Alpha

Maximum:	2.4 dpm/100cm <sup>2</sup>
Minimum:	-0.6 dpm/100cm <sup>2</sup>
Mean:	0.4 dpm/100cm <sup>2</sup>
Standard Deviation:	1.2
Transuranic DCGL <sub>w</sub> :	20.0 dpm/100cm <sup>2</sup>

### Media Sample Results

Nbr Random Required: 0

Nbr Biased Required: 0

Nbr Random Collected: 0

Nbr Biased Collected: 0

*Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.*

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Survey Area: C

Survey Unit: 707033

Building: 707

Description: B707 1st floor "B" module area floor surfaces between columns E-F, 3-5

### Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency		A-Priori MDA (dpm/100cm <sup>2</sup> )		Survey Type
							Alpha	Beta	Alpha	Beta	
1	511798	10/12/04	Electra	2354	DP-6	11/27/04	0.222	NA	48.0	NA	T
2	511798	10/12/04	SAC-4	1468	NA	02/23/05	0.333	NA	10.0	NA	R
3	512999	10/12/04	Electra	4430	DP-6	04/01/05	0.221	NA	48.0	NA	T

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

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Survey Area: C

Survey Unit: 707033

Building: 707

Description: B707 1st floor "B" module area floor surfaces between columns E-F, 3-5

### Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707033PRP-N001	2	-0.6	N/A	
707033PRP-N002	2	0.9	N/A	
707033PRP-N003	2	-0.6	N/A	
707033PRP-N004	2	0.9	N/A	
707033PRP-N005	2	0.9	N/A	
707033PRP-N006	2	-0.6	N/A	
707033PRP-N007	2	2.4	N/A	
707033PRP-N008	2	-0.6	N/A	
707033PRP-N009	2	-0.6	N/A	
707033PRP-N010	2	-0.6	N/A	
707033PRP-N011	2	-0.6	N/A	
707033PRP-N012	2	2.4	N/A	
707033PRP-N013	2	0.9	N/A	
707033PRP-N014	2	0.9	N/A	
707033PRP-N015	2	-0.6	N/A	
707033PRP-N016	2	-0.6	N/A	
707033PRP-N017	2	2.4	N/A	

Comments:

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Survey Area: C

Survey Unit: 707033

Building: 707

Description: B707 1st floor "B" module area floor surfaces between columns E-F, 3-5

### Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )
707033PRP-N001	1	28.9	N/A
707033PRP-N002	1	50.1	N/A
707033PRP-N003	1	62.2	N/A
707033PRP-N004	1	8.2	N/A
707033PRP-N005	1	59.1	N/A
707033QRP-N005	3	62.0	N/A
707033PRP-N006	1	23.0	N/A
707033PRP-N007	1	23.0	N/A
707033PRP-N008	1	26.2	N/A
707033PRP-N009	1	41.1	N/A
707033PRP-N010	1	37.9	N/A
707033QRP-N010	3	40.7	N/A
707033PRP-N011	1	41.1	N/A
707033PRP-N012	1	8.2	N/A
707033PRP-N013	1	10.9	N/A
707033PRP-N014	1	17.2	N/A
707033PRP-N015	1	14.0	N/A
707033PRP-N016	1	8.2	N/A
707033PRP-N017	1	19.9	N/A

Comments: 100% of the accessible floor surfaces scanned. All values after remediation <300 dpm/100 cm<sup>2</sup>.

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ATTACHMENT B17

Survey Unit 707034 Survey Data and Maps

# Investigation Documentation

Survey Unit: 707034

Investigation Number	Surface Floor, Wall, Ceiling etc.	Location	"As Found" (dpm/100 cm <sup>2</sup> )	Remediation Performed? (Yes/No)	"As Left" (dpm) <sup>Note 1</sup>	Note 2 "As Left" (dpm/100 cm <sup>2</sup> )	9-Point Done? (Yes/No)	meter <sup>2</sup> Average (dpm/100 cm <sup>2</sup> )
1	Floor	G3	614	Yes	N/A	<300	No	<100
2	Floor	G3	411	Yes	N/A	<300	No	<100
3	Floor	G3	392	Yes	N/A	<300	No	<100
4	Floor	G3	2203	Yes	N/A	<300	No	<100
5	Floor	G3	399	Yes	N/A	<300	No	<100
6	Floor	G3	440	Yes	N/A	<300	No	<100
7	Floor	G4	443	Yes	N/A	<300	No	<100

Note 1 - total activity per 600 cm<sup>2</sup> probe

Maximum

<300

<100

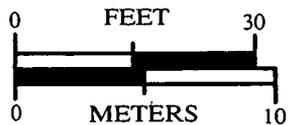
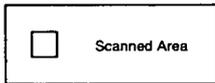
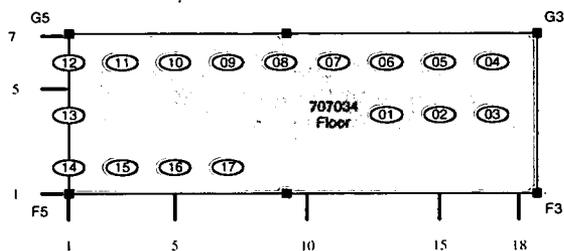
Note 2 - <300 is the FSM value after remediation and re-survey.

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**RADIOLOGICAL CLOSEOUT SURVEY FOR THE 707 CLUSTER**

Survey Area: C      Survey Unit: 707034      Classification: 1  
Building: 707  
Survey Unit Description: First floor (B module)  
Total Floor Area: 108 sq. m      Total Area: 108 sq. m      Grid Size: 2 x 2 sq.m

**SURVEY UNIT 707034 - MAP 1 OF 1**



**SURVEY MAP LEGEND**

- Sitew. & TSC Location
- Sitew., TSC & Sample Location
- Open/Inaccessible Area
- Area in Another Location

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Survey Area: C

Survey Unit: 707034

Building: 707

Description: B707 1st floor "B" module area floor surfaces between columns F-G, 3-5

## Rocky Flats Environmental Technology Site Final Radiological Survey Summary Results

### Total Surface Activity Measurements

Nbr Random Measurements Required: 17  
Nbr Random Measurements Performed: 17

Nbr Biased Measurements Required: 0  
Nbr Biased Measurements Performed: 0

Nbr QC Required: 2  
Nbr QC Performed: 2

#### Alpha

Maximum:	80.7 dpm/100cm <sup>2</sup>
Minimum:	11.5 dpm/100cm <sup>2</sup>
Mean:	41.8 dpm/100cm <sup>2</sup>
Standard Deviation:	18.7
QC Maximum:	48.2 dpm/100cm <sup>2</sup>
QC Minimum:	-1.3 dpm/100cm <sup>2</sup>
QC Mean:	23.5 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>w</sub> :	100.0 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>EMC</sub> :	300.0 dpm/100cm <sup>2</sup>

### Removable Surface Activity Measurements

Nbr Random Measurements Required: 17  
Nbr Random Measurements Performed: 17

Nbr Biased Measurements Required: 0  
Nbr Biased Measurements Performed: 0

#### Alpha

Maximum:	5.4 dpm/100cm <sup>2</sup>
Minimum:	-0.6 dpm/100cm <sup>2</sup>
Mean:	0.0 dpm/100cm <sup>2</sup>
Standard Deviation:	1.5
Transuranic DCGL <sub>w</sub> :	20.0 dpm/100cm <sup>2</sup>

### Media Sample Results

Nbr Random Required: 0  
Nbr Random Collected: 0

Nbr Biased Required: 0  
Nbr Biased Collected: 0

Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.

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Survey Area: C

Survey Unit: 707034

Building: 707

Description: B707 1st floor "B" module area floor surfaces between columns F-G, 3-5

### Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency		A-Priori MDA (dpm/100cm <sup>2</sup> )		Survey Type
							Alpha	Beta	Alpha	Beta	
1	512999	10/12/04	SAC-4	1468	NA	02/23/05	0.333	NA	10.0	NA	R
2	512999	10/12/04	Electra	4430	DP-6	04/01/05	0.221	NA	48.0	NA	T
3	511798	10/12/04	Electra	2354	DP-6	11/27/04	0.222	NA	48.0	NA	T

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

174

Survey Area: C

Survey Unit: 707034

Building: 707

Description: B707 1st floor "B" module area floor surfaces between columns F-G, 3-5

### Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707034PRP-N001	1	5.4	N/A	
707034PRP-N002	1	-0.6	N/A	
707034PRP-N003	1	-0.6	N/A	
707034PRP-N004	1	0.9	N/A	
707034PRP-N005	1	0.9	N/A	
707034PRP-N006	1	-0.6	N/A	
707034PRP-N007	1	-0.6	N/A	
707034PRP-N008	1	-0.6	N/A	
707034PRP-N009	1	-0.6	N/A	
707034PRP-N010	1	-0.6	N/A	
707034PRP-N011	1	-0.6	N/A	
707034PRP-N012	1	-0.6	N/A	
707034PRP-N013	1	-0.6	N/A	
707034PRP-N014	1	-0.6	N/A	
707034PRP-N015	1	-0.6	N/A	
707034PRP-N016	1	0.9	N/A	
707034PRP-N017	1	-0.6	N/A	

Comments:

175

Survey Area: C

Survey Unit: 707034

Building: 707

Description: B707 1st floor "B" module area floor surfaces between columns F-G, 3-5

### Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707034PRP-N001	2	20.6	N/A	
707034QRP-N001	3	48.2	N/A	
707034PRP-N002	2	62.6	N/A	
707034PRP-N003	2	56.8	N/A	
707034PRP-N004	2	11.5	N/A	
707034QRP-N004	3	-1.3	N/A	
707034PRP-N005	2	29.6	N/A	
707034PRP-N006	2	56.8	N/A	
707034PRP-N007	2	80.7	N/A	
707034PRP-N008	2	71.7	N/A	
707034PRP-N009	2	20.6	N/A	
707034PRP-N010	2	32.3	N/A	
707034PRP-N011	2	41.4	N/A	
707034PRP-N012	2	44.5	N/A	
707034PRP-N013	2	32.3	N/A	
707034PRP-N014	2	38.7	N/A	
707034PRP-N015	2	32.3	N/A	
707034PRP-N016	2	38.7	N/A	
707034PRP-N017	2	38.7	N/A	

Comments: 100% of the accessible floor surfaces scanned. All values after remediation <300 dpm/100 cm<sup>2</sup>.

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ATTACHMENT B18

Survey Unit 707035 Survey Data and Maps

# Investigation Documentation

Survey Unit: 707035

Investigation Number	Surface Floor, Wall, Ceiling etc.	Location	"As Found" (dpm/100 cm <sup>2</sup> )	Remediation Performed? (Yes/No)	"As Left" (dpm) <sup>Note 1</sup>	Note 2 "As Left" (dpm/100 cm <sup>2</sup> )	9-Point Done? (Yes/No)	meter <sup>2</sup> Average (dpm/100 cm <sup>2</sup> )
1	Floor	g5	785	Yes	N/A	<300	No	<100
2	Floor	G5	494	Yes	N/A	<300	No	<100
3	Floor	G5	477	Yes	N/A	<300	No	<100
4	Floor	G5	294	Yes	N/A	<300	No	<100
5	Floor	G5	520	Yes	N/A	<300	No	<100
6	Floor	G5	393	Yes	N/A	<300	No	<100
7	Floor	G5	344	Yes	N/A	<300	No	<100
8	Floor	G5	301	Yes	N/A	<300	No	<100
9	Floor	G5	359	Yes	N/A	<300	No	<100
10	Floor	G5	750	Yes	N/A	<300	No	<100
11	Floor	G5	364	Yes	N/A	<300	No	<100
12	Floor	G5	350	Yes	N/A	<300	No	<100
13	Floor	G5	732	Yes	N/A	<300	No	<100
14	Floor	G5	780	Yes	N/A	<300	No	<100
15	Floor	H4	294	Yes	N/A	<300	No	<100
16	Floor	H4	600	Yes	N/A	<300	No	<100
17	Floor	H4	449	Yes	N/A	<300	No	<100
18	Floor	H4	300	Yes	N/A	<300	No	<100
19	Floor	H4	680	Yes	N/A	<300	No	<100
20	Floor	H4	3000	Yes	N/A	<300	No	<100
21	Floor	H4	978	Yes	N/A	<300	No	<100
22	Floor	H4	449	Yes	N/A	<300	No	<100
23	Floor	H4	449	Yes	N/A	<300	No	<100
24	Floor	H4	758	Yes	N/A	<300	No	<100
25	Floor	H4	10865	Yes	N/A	<300	No	<100

Note 1 - total activity per 600 cm<sup>2</sup> probe

Maximum

<300

<100

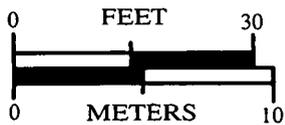
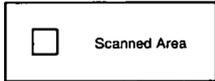
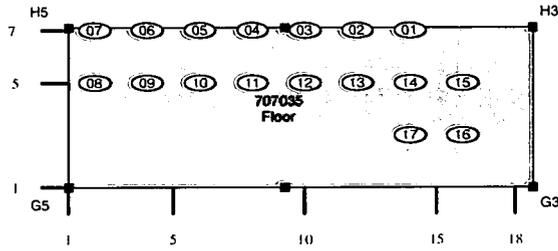
Note 2 - <300 is the FSM value after remediation and re-survey.

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**RADIOLOGICAL CLOSEOUT SURVEY FOR THE 707 CLUSTER**

Survey Area: C      Survey Unit: 707035      Classification: 1  
Building: 707  
Survey Unit Description: First floor (B module)  
Total Floor Area: 108 sq. m      Total Area: 108 sq. m      Grid Size: 2 x 2 sq.m

**SURVEY UNIT 707035 - MAP 1 OF 1**



**SURVEY MAP LEGEND**

- Search & TSC Location
- ◇ Search, TSC & Sample Location
- Open/Inaccessible Area
- Area in Another Location

Survey Area: C

Survey Unit: 707035

Building: 707

Description: B707 1st floor "B" module area floor surfaces between columns G-H, 3-5

## Rocky Flats Environmental Technology Site Final Radiological Survey Summary Results

### Total Surface Activity Measurements

Nbr Random Measurements Required: 17

Nbr Biased Measurements Required: 0

Nbr QC Required: 2

Nbr Random Measurements Performed: 15

Nbr Biased Measurements Performed: 0

Nbr QC Performed: 2

#### Alpha

Maximum:	58.6 dpm/100cm <sup>2</sup>
Minimum:	19.4 dpm/100cm <sup>2</sup>
Mean:	38.9 dpm/100cm <sup>2</sup>
Standard Deviation:	11.9
QC Maximum:	29.8 dpm/100cm <sup>2</sup>
QC Minimum:	23.3 dpm/100cm <sup>2</sup>
QC Mean:	26.6 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>w</sub> :	100.0 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>EMC</sub> :	300.0 dpm/100cm <sup>2</sup>

### Removable Surface Activity Measurements

Nbr Random Measurements Required: 17

Nbr Biased Measurements Required: 0

Nbr Random Measurements Performed: 15

Nbr Biased Measurements Performed: 0

#### Alpha

Maximum:	3.9 dpm/100cm <sup>2</sup>
Minimum:	-0.6 dpm/100cm <sup>2</sup>
Mean:	1.0 dpm/100cm <sup>2</sup>
Standard Deviation:	1.7
Transuranic DCGL <sub>w</sub> :	20.0 dpm/100cm <sup>2</sup>

### Media Sample Results

Nbr Random Required: 0

Nbr Biased Required: 0

Nbr Random Collected: 0

Nbr Biased Collected: 0

*Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.*

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Survey Area: C

Survey Unit: 707035

Building: 707

Description: B707 1st floor "B" module area floor surfaces between columns G-H, 3-5

### Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency		A-Priori MDA (dpm/100cm <sup>2</sup> )		Survey Type
							Alpha	Beta	Alpha	Beta	
1	516375	10/23/04	Electra	2354	DP-6	11/27/04	0.222	NA	48.0	NA	T
2	516375	10/23/04	SAC-4	1057	NA	04/05/05	0.333	NA	10.0	NA	R
3	702058	10/24/04	Electra	2405	DP-6	03/20/05	0.232	NA	48.0	NA	T
4	701418	10/24/04	Electra	1246	DP-6	01/26/05	0.222	NA	48.0	NA	T
5	702058	10/24/04	SAC-4	847	NA	01/09/05	0.333	NA	10.0	NA	R
6	516375	10/25/04	Electra	4430	DP-6	04/01/05	0.221	NA	48.0	NA	T
7	514510	10/25/04	Electra	3977	DP-6	01/31/05	0.213	NA	48.0	NA	T

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

Survey Area: C

Survey Unit: 707035

Building: 707

Description: B707 1st floor "B" module area floor surfaces between columns G-H, 3-5

### Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707035PRP-N001	2	2.4	N/A	
707035PRP-N002	2	0.9	N/A	
707035PRP-N003	2	2.4	N/A	
707035PRP-N004	2	-0.6	N/A	
707035PRP-N007	2	0.9	N/A	
707035PRP-N008	2	-0.6	N/A	
707035PRP-N009	2	3.9	N/A	
707035PRP-N010	2	2.4	N/A	
707035PRP-N011	2	-0.6	N/A	
707035PRP-N012	2	-0.6	N/A	
707035PRP-N013	2	-0.6	N/A	
707035PRP-N014	2	-0.6	N/A	
707035PRP-N015	2	-0.6	N/A	
707035PRP-N016	2	2.4	N/A	
707035PRP-N017	2	3.9	N/A	

Comments: Measurements #5 and #6 omitted. The locations were in a contaminated pit, the pit has been filled with concrete, and will be removed as radioactive waste.

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**Survey Area:** C**Survey Unit:** 707035**Building:** 707

Description: B707 1st floor "B" module area floor surfaces between columns G-H, 3-5

**Random/QC Total Surface Activity Data Sheet**

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707035PRP-N001	1	25.3	N/A	
707035PRP-N002	1	46.5	N/A	
707035PRP-N003	1	58.6	N/A	
707035PRP-N004	1	46.5	N/A	
707035QRP-N005	7	29.8	N/A	
707035QRP-N006	7	23.3	N/A	
707035PRP-N007	1	34.3	N/A	
707035PRP-N008	1	49.6	N/A	
707035PRP-N009	1	28.5	N/A	
707035PRP-N010	1	46.5	N/A	
707035PRP-N011	1	31.6	N/A	
707035PRP-N012	1	28.5	N/A	
707035PRP-N013	1	34.3	N/A	
707035PRP-N014	1	34.3	N/A	
707035PRP-N015	1	58.6	N/A	
707035PRP-N016	1	19.4	N/A	
707035PRP-N017	1	40.6	N/A	

**Comments:** 100% of the accessible floor surfaces scanned. All values <300 dpm/100 cm<sup>2</sup> after remediation. Measurements #5 and #6 omitted. The locations were in a contaminated pit, the pit has been filled with concrete, and will be removed as radioactive waste.

ATTACHMENT B19

Survey Unit 707036 Survey Data and Maps

# Investigation Documentation

Survey Unit: 707036

Investigation Number	Surface Floor, Wall, Ceiling etc.	Location	"As Found" (dpm/100 cm <sup>2</sup> )	Remediation Performed? (Yes/No)	"As Left" (dpm) <sup>Note 1</sup>	Note 2 "As Left" (dpm/100 cm <sup>2</sup> )	9-Point Done? (Yes/No)	meter <sup>2</sup> Average (dpm/100 cm <sup>2</sup> )
1	Floor	H4	370	Yes	N/A	<300	No	<100
2	Floor	H4	740	Yes	N/A	<300	No	<100
3	Floor	H4	324	Yes	N/A	<300	No	<100
4	Floor	H4	560	Yes	N/A	<300	No	<100
5	Floor	H4	400	Yes	N/A	<300	No	<100
6	Floor	H4	614	Yes	N/A	<300	No	<100
7	Floor	H4	327	Yes	N/A	<300	No	<100
8	Floor	H4	340	Yes	N/A	<300	No	<100
9	Floor	H4	470	Yes	N/A	<300	No	<100
10	Floor	H4	958	Yes	N/A	<300	No	<100
11	Floor	H4	609	Yes	N/A	<300	No	<100
12	Floor	H4	378	Yes	N/A	<300	No	<100
13	Floor	H4	343	Yes	N/A	<300	No	<100
14	Floor	H4	476	Yes	N/A	<300	No	<100
15	Floor	H4	945	Yes	N/A	<300	No	<100
16	Floor	H4	324	Yes	N/A	<300	No	<100
17	Floor	H4	327	Yes	N/A	<300	No	<100
18	Floor	H4	950	Yes	N/A	<300	No	<100
19	Floor	H4	314	Yes	N/A	<300	No	<100
20	Floor	H4	939	Yes	N/A	<300	No	<100
21	Floor	H4	377	Yes	N/A	<300	No	<100
22	Floor	H4	406	Yes	N/A	<300	No	<100
23	Floor	H4	340	Yes	N/A	<300	No	<100
24	Floor	H4	314	Yes	N/A	<300	No	<100
25	Floor	H4	300	Yes	N/A	<300	No	<100
26	Floor	H4	447	Yes	N/A	<300	No	<100

Note 1 - total activity per 600 cm<sup>2</sup> probe

Maximum <300

<100

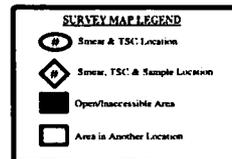
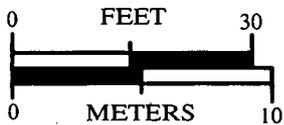
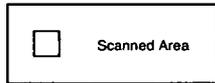
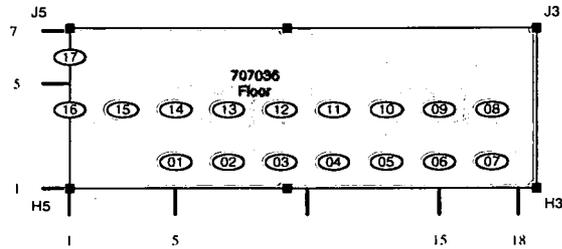
Note 2 - <300 is the FSM value after remediation and re-survey.

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**RADIOLOGICAL CLOSEOUT SURVEY FOR THE 707 CLUSTER**

Survey Area: C      Survey Unit: 707036      Classification: 1  
Building: 707  
Survey Unit Description: First floor (B module)  
Total Floor Area: 108 sq. m      Total Area: 108 sq. m      Grid Size: 2 x 2 sq.m

**SURVEY UNIT 707036 - MAP 1 OF 1**



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Survey Area: C

Survey Unit: 707036

Building: 707

Description: B707 1st floor "B" module area floor surfaces between columns H-J, 3-5

## Rocky Flats Environmental Technology Site Final Radiological Survey Summary Results

### Total Surface Activity Measurements

Nbr Random Measurements Required: 17

Nbr Biased Measurements Required: 0

Nbr QC Required: 2

Nbr Random Measurements Performed: 17

Nbr Biased Measurements Performed: 0

Nbr QC Performed: 2

#### Alpha

Maximum:	58.2 dpm/100cm <sup>2</sup>
Minimum:	9.8 dpm/100cm <sup>2</sup>
Mean:	36.9 dpm/100cm <sup>2</sup>
Standard Deviation:	14.5
QC Maximum:	52.1 dpm/100cm <sup>2</sup>
QC Minimum:	20.4 dpm/100cm <sup>2</sup>
QC Mean:	36.3 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>w</sub> :	100.0 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>EMC</sub> :	300.0 dpm/100cm <sup>2</sup>

### Removable Surface Activity Measurements

Nbr Random Measurements Required: 17

Nbr Biased Measurements Required: 0

Nbr Random Measurements Performed: 17

Nbr Biased Measurements Performed: 0

#### Alpha

Maximum:	3.9 dpm/100cm <sup>2</sup>
Minimum:	-0.6 dpm/100cm <sup>2</sup>
Mean:	0.4 dpm/100cm <sup>2</sup>
Standard Deviation:	1.3
Transuranic DCGL <sub>w</sub> :	20.0 dpm/100cm <sup>2</sup>

### Media Sample Results

Nbr Random Required: 0

Nbr Biased Required: 0

Nbr Random Collected: 0

Nbr Biased Collected: 0

*Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.*

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Survey Area: C

Survey Unit: 707036

Building: 707

Description: B707 1st floor "B" module area floor surfaces between columns H-J, 3-5

### Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency		A-Priori MDA (dpm/100cm <sup>2</sup> )		Survey Type
							Alpha	Beta	Alpha	Beta	
1	512419	10/24/04	Electra	4398	DP-6	01/29/05	0.207	NA	48.0	NA	T
2	512419	10/24/04	SAC-4	1479	NA	03/28/05	0.333	NA	10.0	NA	R
3	515843	10/24/04	Electra	4396	DP-6	02/20/05	0.211	NA	48.0	NA	T

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

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Survey Area: C

Survey Unit: 707036

Building: 707

Description: B707 1st floor "B" module area floor surfaces between columns H-J, 3-5

### Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707036PRP-N001	2	3.9	N/A	
707036PRP-N002	2	-0.6	N/A	
707036PRP-N003	2	-0.6	N/A	
707036PRP-N004	2	0.9	N/A	
707036PRP-N005	2	0.9	N/A	
707036PRP-N006	2	-0.6	N/A	
707036PRP-N007	2	-0.6	N/A	
707036PRP-N008	2	-0.6	N/A	
707036PRP-N009	2	0.9	N/A	
707036PRP-N010	2	-0.6	N/A	
707036PRP-N011	2	-0.6	N/A	
707036PRP-N012	2	-0.6	N/A	
707036PRP-N013	2	2.4	N/A	
707036PRP-N014	2	-0.6	N/A	
707036PRP-N015	2	0.9	N/A	
707036PRP-N016	2	0.9	N/A	
707036PRP-N017	2	0.9	N/A	

Comments:

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Survey Area: C

Survey Unit: 707036

Building: 707

Description: B707 1st floor "B" module area floor surfaces between columns H-J 3-5

### Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707036PRP-N001	1	32.6	N/A	
707036PRP-N002	1	32.6	N/A	
707036QRP-N002	3	20.4	N/A	
707036PRP-N003	1	25.8	N/A	
707036PRP-N004	1	32.6	N/A	
707036PRP-N005	1	48.5	N/A	
707036PRP-N006	1	35.5	N/A	
707036PRP-N007	1	9.8	N/A	
707036PRP-N008	1	38.8	N/A	
707036PRP-N009	1	58.2	N/A	
707036PRP-N010	1	58.2	N/A	
707036PRP-N011	1	13.2	N/A	
707036PRP-N012	1	48.5	N/A	
707036PRP-N013	1	48.5	N/A	
707036QRP-N013	3	52.1	N/A	
707036PRP-N014	1	45.1	N/A	
707036PRP-N015	1	45.1	N/A	
707036PRP-N016	1	16.1	N/A	
707036PRP-N017	1	38.8	N/A	

Comments: 100% of the accessible surfaces were scanned. All values <300 dpm/100 cm<sup>2</sup> after remediation.

190

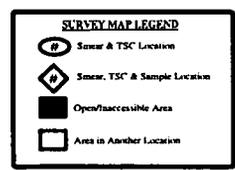
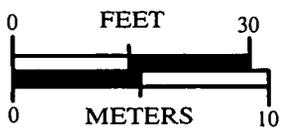
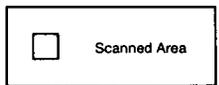
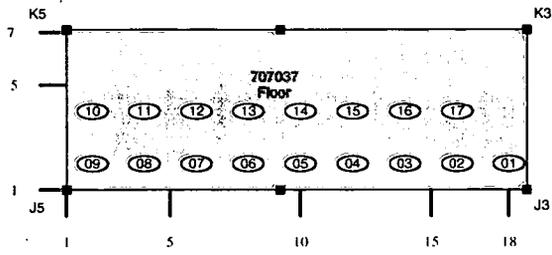
ATTACHMENT B20

Survey Unit 707037 Survey Data and Maps

# RADIOLOGICAL CLOSEOUT SURVEY FOR THE 707 CLUSTER

Survey Area: C      Survey Unit: 707037      Classification: 1  
Building: 707  
Survey Unit Description: First floor (B module)  
Total Floor Area: 108 sq. m      Total Area: 108 sq. m      Grid Size: 2 x 2 sq.m

## SURVEY UNIT 707037 - MAP 1 OF 1



192

Survey Area: C

Survey Unit: 707037

Building: 707

Description: B707 1st floor "B" module area floor surfaces between columns J-K, 3-5

## Rocky Flats Environmental Technology Site Final Radiological Survey Summary Results

### Total Surface Activity Measurements

Nbr Random Measurements Required: 15

Nbr Biased Measurements Required: 0

Nbr QC Required: 2

Nbr Random Measurements Performed: 15

Nbr Biased Measurements Performed: 0

Nbr QC Performed: 2

#### Alpha

Maximum:	80.9 dpm/100cm <sup>2</sup>
Minimum:	31.1 dpm/100cm <sup>2</sup>
Mean:	51.3 dpm/100cm <sup>2</sup>
Standard Deviation:	14.2
QC Maximum:	55.4 dpm/100cm <sup>2</sup>
QC Minimum:	34.3 dpm/100cm <sup>2</sup>
QC Mean:	44.8 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>w</sub> :	100.0 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>EMC</sub> :	300.0 dpm/100cm <sup>2</sup>

### Removable Surface Activity Measurements

Nbr Random Measurements Required: 15

Nbr Biased Measurements Required: 0

Nbr Random Measurements Performed: 15

Nbr Biased Measurements Performed: 0

#### Alpha

Maximum:	3.0 dpm/100cm <sup>2</sup>
Minimum:	0.0 dpm/100cm <sup>2</sup>
Mean:	1.2 dpm/100cm <sup>2</sup>
Standard Deviation:	1.2
Transuranic DCGL <sub>w</sub> :	20.0 dpm/100cm <sup>2</sup>

### Media Sample Results

Nbr Random Required: 0

Nbr Biased Required: 0

Nbr Random Collected: 0

Nbr Biased Collected: 0

*Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.*

Survey Area: C

Survey Unit: 707037

Building: 707

Description: B707 1st floor "B" module area floor surfaces between columns J-K, 3-5

### Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency		A-Priori MDA (dpm/100cm <sup>2</sup> )		Survey Type
							Alpha	Beta	Alpha	Beta	
1	516375	10/29/04	Electra	2166	DP-6	01/22/05	0.213	NA	48.0	NA	T
3	514510	10/29/04	SAC-4	1196	NA	01/28/05	0.333	NA	10.0	NA	R
4	514510	10/29/04	Electra	1245	DP-6	02/23/05	0.223	NA	48.0	NA	T
11	514510	11/01/04	Electra	2172	DP-6	12/30/04	0.220	NA	48.0	NA	I

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

194

Survey Area: C

Survey Unit: 707037

Building: 707

Description: B707 1st floor "B" module area floor surfaces between columns J-K, 3-5

### Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707037PRP-N001	3	1.5	N/A	
707037PRP-N002	3	0.0	N/A	
707037PRP-N003	3	1.5	N/A	
707037PRP-N004	3	0.0	N/A	
707037PRP-N005	3	0.0	N/A	
707037PRP-N006	3	1.5	N/A	
707037PRP-N007	3	0.0	N/A	
707037PRP-N008	3	1.5	N/A	
707037PRP-N009	3	1.5	N/A	
707037PRP-N010	3	3.0	N/A	
707037PRP-N011	3	1.5	N/A	
707037PRP-N012	3	3.0	N/A	
707037PRP-N013	3	3.0	N/A	
707037PRP-N014	3	0.0	N/A	
707037PRP-N015	3	0.0	N/A	

Comments:

195

Survey Area: C

Survey Unit: 707037

Building: 707

Description: B707 1st floor "B" module area floor surfaces between columns J-K, 3-5

### Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707037PRP-N001	1	80.9	N/A	
707037SRP-N002	11	46.5	N/A	
707037PRP-N003	1	46.6	N/A	
707037QRP-N003	4	34.3	N/A	
707037SRP-N004	11	37.7	N/A	
707037PRP-N005	1	62.1	N/A	
707037PRP-N006	1	59.3	N/A	
707037PRP-N007	1	46.6	N/A	
707037PRP-N008	1	33.9	N/A	
707037SRP-N009	11	42.1	N/A	
707037SRP-N010	11	49.2	N/A	
707037PRP-N011	1	31.1	N/A	
707037PRP-N012	1	52.7	N/A	
707037PRP-N013	1	49.9	N/A	
707037PRP-N014	1	78.1	N/A	
707037PRP-N015	1	52.7	N/A	
707037QRP-N015	4	55.4	N/A	

Comments: 100% of assessable floor surfaces scanned. All readings <300 dpm/100 cm<sup>2</sup>.

196

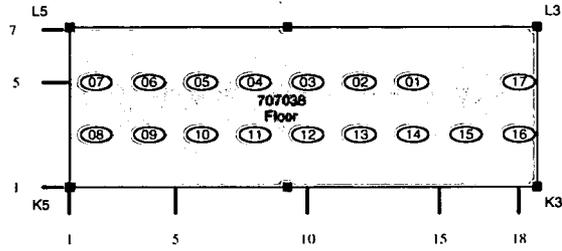
ATTACHMENT B21

Survey Unit 707038 Survey Data and Maps

**RADIOLOGICAL CLOSEOUT SURVEY FOR THE 707 CLUSTER**

Survey Area: C      Survey Unit: 707038      Classification: 1  
Building: 707  
Survey Unit Description: First floor (B module)  
Total Floor Area: 108 sq. m      Total Area: 108 sq. m      Grid Size: 2 x 2 sq.m

**SURVEY UNIT 707038 - MAP 1 OF 1**



Survey Area: C

Survey Unit: 707038

Building: 707

Description: B707 1st floor "B" module area floor surfaces between columns K-L, 3-5

## Rocky Flats Environmental Technology Site Final Radiological Survey Summary Results

### Total Surface Activity Measurements

Nbr Random Measurements Required: 17

Nbr Biased Measurements Required: 0

Nbr QC Required: 2

Nbr Random Measurements Performed: 17

Nbr Biased Measurements Performed: 0

Nbr QC Performed: 2

#### Alpha

Maximum:	64.5 dpm/100cm <sup>2</sup>
Minimum:	-1.4 dpm/100cm <sup>2</sup>
Mean:	23.7 dpm/100cm <sup>2</sup>
Standard Deviation:	21.1
QC Maximum:	57.5 dpm/100cm <sup>2</sup>
QC Minimum:	27.5 dpm/100cm <sup>2</sup>
QC Mean:	42.5 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>W</sub> :	100.0 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>EMC</sub> :	300.0 dpm/100cm <sup>2</sup>

### Removable Surface Activity Measurements

Nbr Random Measurements Required: 17

Nbr Biased Measurements Required: 0

Nbr Random Measurements Performed: 17

Nbr Biased Measurements Performed: 0

#### Alpha

Maximum:	4.2 dpm/100cm <sup>2</sup>
Minimum:	-0.3 dpm/100cm <sup>2</sup>
Mean:	1.1 dpm/100cm <sup>2</sup>
Standard Deviation:	1.5
Transuranic DCGL <sub>W</sub> :	20.0 dpm/100cm <sup>2</sup>

### Media Sample Results

Nbr Random Required: 0

Nbr Biased Required: 0

Nbr Random Collected: 0

Nbr Biased Collected: 0

Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.

Survey Area: C

Survey Unit: 707038

Building: 707

Description: B707 1st floor "B" module area floor surfaces between columns K-L, 3-5

### Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency		A-Priori MDA (dpm/100cm <sup>2</sup> )		Survey Type
							Alpha	Beta	Alpha	Beta	
1	514510	10/26/04	Electra	1245	DP-6	02/23/05	0.223	NA	48.0	NA	T
2	516375	10/26/04	Electra	2383	DP-6	12/30/04	0.220	NA	48.0	NA	T
3	514510	10/26/04	SAC-4	1474	NA	11/03/04	0.333	NA	10.0	NA	R

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

Survey Area: C

Survey Unit: 707038

Building: 707

Description: B707 1st floor "B" module area floor surfaces between columns K-L, 3-5

### Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707038PRP-N001	3	4.2	N/A	
707038PRP-N002	3	-0.3	N/A	
707038PRP-N003	3	2.7	N/A	
707038PRP-N004	3	1.2	N/A	
707038PRP-N005	3	1.2	N/A	
707038PRP-N006	3	1.2	N/A	
707038PRP-N007	3	1.2	N/A	
707038PRP-N008	3	-0.3	N/A	
707038PRP-N009	3	-0.3	N/A	
707038PRP-N010	3	-0.3	N/A	
707038PRP-N011	3	2.7	N/A	
707038PRP-N012	3	-0.3	N/A	
707038PRP-N013	3	1.2	N/A	
707038PRP-N014	3	-0.3	N/A	
707038PRP-N015	3	4.2	N/A	
707038PRP-N016	3	-0.3	N/A	
707038PRP-N017	3	1.2	N/A	

Comments:

200

Survey Area: C

Survey Unit: 707038

Building: 707

Description: B707 1st floor "B" module area floor surfaces between columns K-L, 3-5

### Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707038PRP-N001	1	49.3	N/A	
707038PRP-N002	1	19.7	N/A	
707038PRP-N003	1	40.3	N/A	
707038PRP-N004	1	16.5	N/A	
707038PRP-N005	1	10.7	N/A	
707038PRP-N006	1	28.7	N/A	
707038QRP-N006	2	27.5	N/A	
707038PRP-N007	1	-1.4	N/A	
707038PRP-N008	1	13.4	N/A	
707038PRP-N009	1	22.4	N/A	
707038PRP-N010	1	7.6	N/A	
707038PRP-N011	1	-1.4	N/A	
707038PRP-N012	1	7.6	N/A	
707038PRP-N013	1	-1.4	N/A	
707038PRP-N014	1	64.5	N/A	
707038QRP-N014	2	57.5	N/A	
707038PRP-N015	1	22.4	N/A	
707038PRP-N016	1	46.6	N/A	
707038PRP-N017	1	58.2	N/A	

Comments: 100% of the accesible floor surfaces were scanned. All values <300 dpm/100 cm2.

200

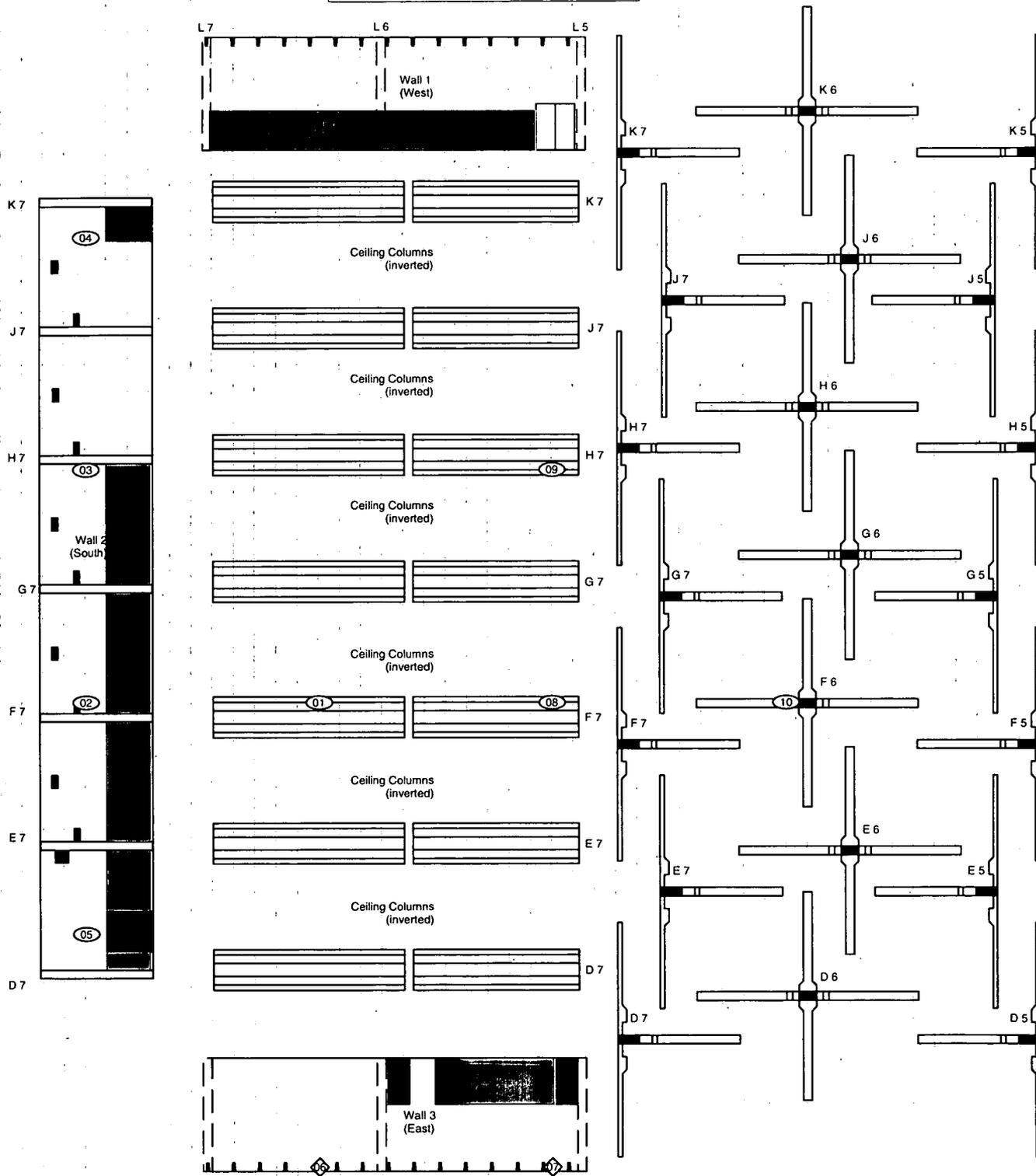
ATTACHMENT B22

Survey Unit 707039 Survey Data and Maps

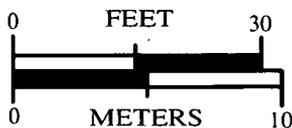
# RADIOLOGICAL CLOSEOUT SURVEY FOR THE 707 CLUSTER

Survey Area: C      Survey Unit: 707039      Classification: 2  
 Building: 707  
 Survey Unit Description: First floor (C module)  
 Total Floor Area: 0 sq. m      Total Area: 2000 sq. m      Grid Size: 11 x 11 sq. m.

## SURVEY UNIT 707039 - MAP 1 OF 2



Scanned Area



**SURVEY MAP LEGEND**

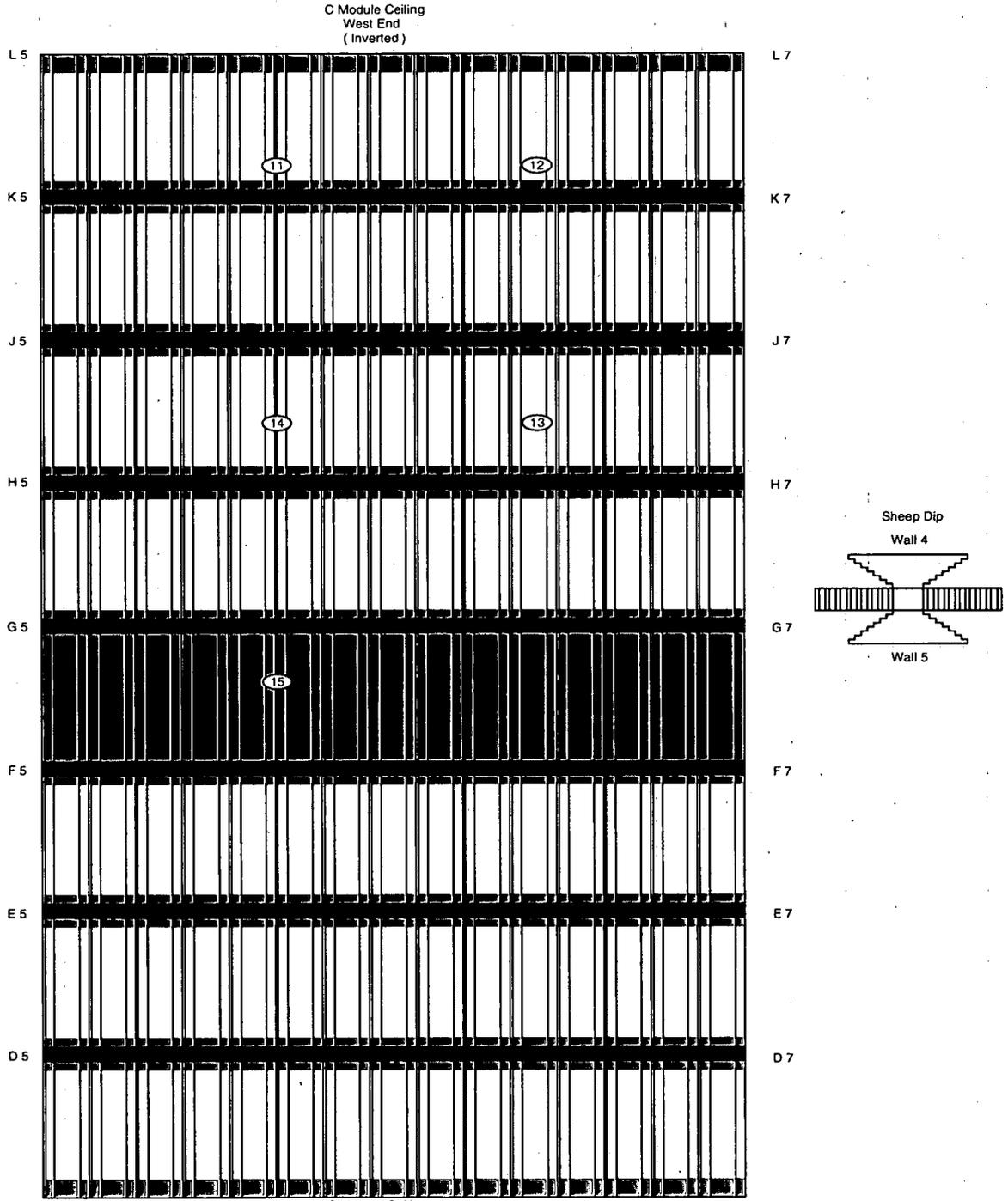
- Smear & TSC Location
- Smear, TSC & Sample Location
- Open/Inaccessible Area
- Area in Another Location

203

**RADIOLOGICAL CLOSEOUT SURVEY FOR THE 707 CLUSTER**

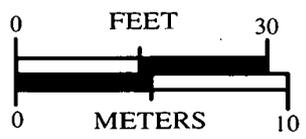
Survey Area: C      Survey Unit: 707039      Classification: 2  
 Building: 707  
 Survey Unit Description: First floor (C module)  
 Total Floor Area: 0 sq. m      Total Area: 2000 sq. m      Grid Size: 11 x 11 sq. m

**SURVEY UNIT 707039 - MAP 2 OF 2**



C Module Ceiling  
East End  
(Inverted)

Scanned Area



**SURVEY MAP LEGEND**

- Smear & TSC Location
- ◇ Smear, TSC & Sample Location
- Open/Inaccessible Area
- Area in Another Location

204

Survey Area: C

Survey Unit: 707039

Building: 707

Description: B707 1st floor "C" module area walls and ceiling

## Rocky Flats Environmental Technology Site Final Radiological Survey Summary Results

### Total Surface Activity Measurements

Nbr Random Measurements Required: 15

Nbr Biased Measurements Required: 9

Nbr QC Required: 2

Nbr Random Measurements Performed: 15

Nbr Biased Measurements Performed: 9

Nbr QC Performed: 2

#### Alpha

Maximum:	57.4 dpm/100cm <sup>2</sup>
Minimum:	15.0 dpm/100cm <sup>2</sup>
Mean:	37.5 dpm/100cm <sup>2</sup>
Standard Deviation:	11.6
QC Maximum:	43.6 dpm/100cm <sup>2</sup>
QC Minimum:	40.8 dpm/100cm <sup>2</sup>
QC Mean:	42.2 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>w</sub> :	100.0 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>EMC</sub> :	300.0 dpm/100cm <sup>2</sup>

### Removable Surface Activity Measurements

Nbr Random Measurements Required: 15

Nbr Biased Measurements Required: 9

Nbr Random Measurements Performed: 15

Nbr Biased Measurements Performed: 9

#### Alpha

Maximum:	2.4 dpm/100cm <sup>2</sup>
Minimum:	-0.6 dpm/100cm <sup>2</sup>
Mean:	0.3 dpm/100cm <sup>2</sup>
Standard Deviation:	1.2
Transuranic DCGL <sub>w</sub> :	20.0 dpm/100cm <sup>2</sup>

### Media Sample Results

Nbr Random Required: 0

Nbr Biased Required: 0

Nbr Random Collected: 0

Nbr Biased Collected: 0

Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.

205

Survey Area: C

Survey Unit: 707039

Building: 707

Description: B707 1st floor "C" module area walls and ceiling

### Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency		A-Priori MDA (dpm/100cm <sup>2</sup> )		Survey Type
							Alpha	Beta	Alpha	Beta	
1	513185	10/29/04	Electra	1100	DP-6	02/28/05	0.219	NA	48.0	NA	T/S
2	514510	10/29/04	Electra	2166	DP-6	01/22/05	0.213	NA	48.0	NA	T/S
3	514510	10/29/04	SAC-4	1057	NA	04/05/05	0.333	NA	10.0	NA	R

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

206

Survey Area: C

Survey Unit: 707039

Building: 707

Description: B707 1st floor "C" module area walls and ceiling

### Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707039PRP-N001	3	2.4	N/A	
707039PRP-N002	3	-0.6	N/A	
707039PRP-N003	3	0.9	N/A	
707039PRP-N004	3	-0.6	N/A	
707039PRP-N005	3	-0.6	N/A	
707039PRP-N006	3	-0.6	N/A	
707039PRP-N007	3	0.9	N/A	
707039PRP-N008	3	-0.6	N/A	
707039PRP-N009	3	0.9	N/A	
707039PRP-N010	3	-0.6	N/A	
707039PRP-N011	3	2.4	N/A	
707039PRP-N012	3	0.9	N/A	
707039PRP-N013	3	0.9	N/A	
707039PRP-N014	3	-0.6	N/A	
707039PRP-N015	3	0.9	N/A	

207

Survey Area: C

Survey Unit: 707039

Building: 707

Description: B707 1st floor "C" module area walls and ceiling

### Biased Removable Surface Activity Data Sheet

Biased Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707039PBP-N016	3	-0.6	N/A	
707039PBP-N017	3	-0.6	N/A	
707039PBP-N018	3	-0.6	N/A	
707039PBP-N019	3	-0.6	N/A	
707039PBP-N020	3	-0.6	N/A	
707039PBP-N021	3	2.4	N/A	
707039PBP-N022	3	2.4	N/A	
707039PBP-N023	3	-0.6	N/A	
707039PBP-N024	3	-0.6	N/A	

Comments:

208

Survey Area: C

Survey Unit: 707039

Building: 707

Description: B707 1st floor "C" module area walls and ceiling

### Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707039PRP-N001	1	48.3	N/A	
707039PRP-N002	1	36.4	N/A	
707039PRP-N003	1	27.3	N/A	
707039PRP-N004	1	33.2	N/A	
707039PRP-N005	1	39.2	N/A	
707039QRP-N005	2	40.8	N/A	
707039PRP-N006	1	45.6	N/A	
707039PRP-N007	1	57.4	N/A	
707039PRP-N008	1	18.2	N/A	
707039PRP-N009	1	45.6	N/A	
707039PRP-N010	1	57.4	N/A	
707039PRP-N011	1	48.3	N/A	
707039PRP-N012	1	42.4	N/A	
707039PRP-N013	1	42.4	N/A	
707039PRP-N014	1	30.0	N/A	
707039PRP-N015	1	30.0	N/A	
707039QRP-N023	2	43.6	N/A	

209

Survey Area: C

Survey Unit: 707039

Building: 707

Description: B707 1st floor "C" module area walls and ceiling

### Biased Total Surface Activity Data Sheet

Biased Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707039PBP-N016	1	36.4	N/A	
707039PBP-N017	1	36.4	N/A	
707039PBP-N018	1	45.6	N/A	
707039PBP-N019	1	54.7	N/A	
707039PBP-N020	1	15.0	N/A	
707039PBP-N021	1	30.0	N/A	
707039PBP-N022	1	24.1	N/A	
707039PBP-N023	1	33.2	N/A	
707039PBP-N024	1	24.1	N/A	

Comments: >25% of lower walls and >10% of upper walls and ceiling scanned. All readings <300 dpm/100 cm<sup>2</sup>

210

ATTACHMENT B23

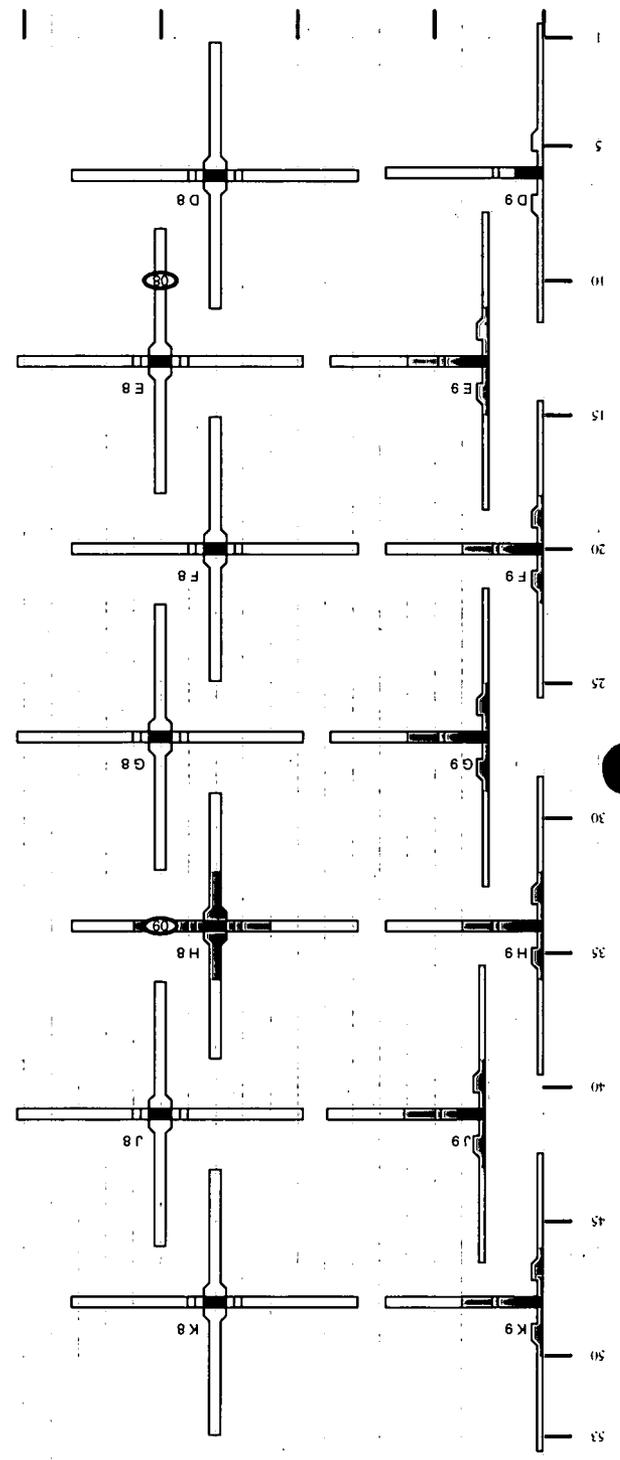
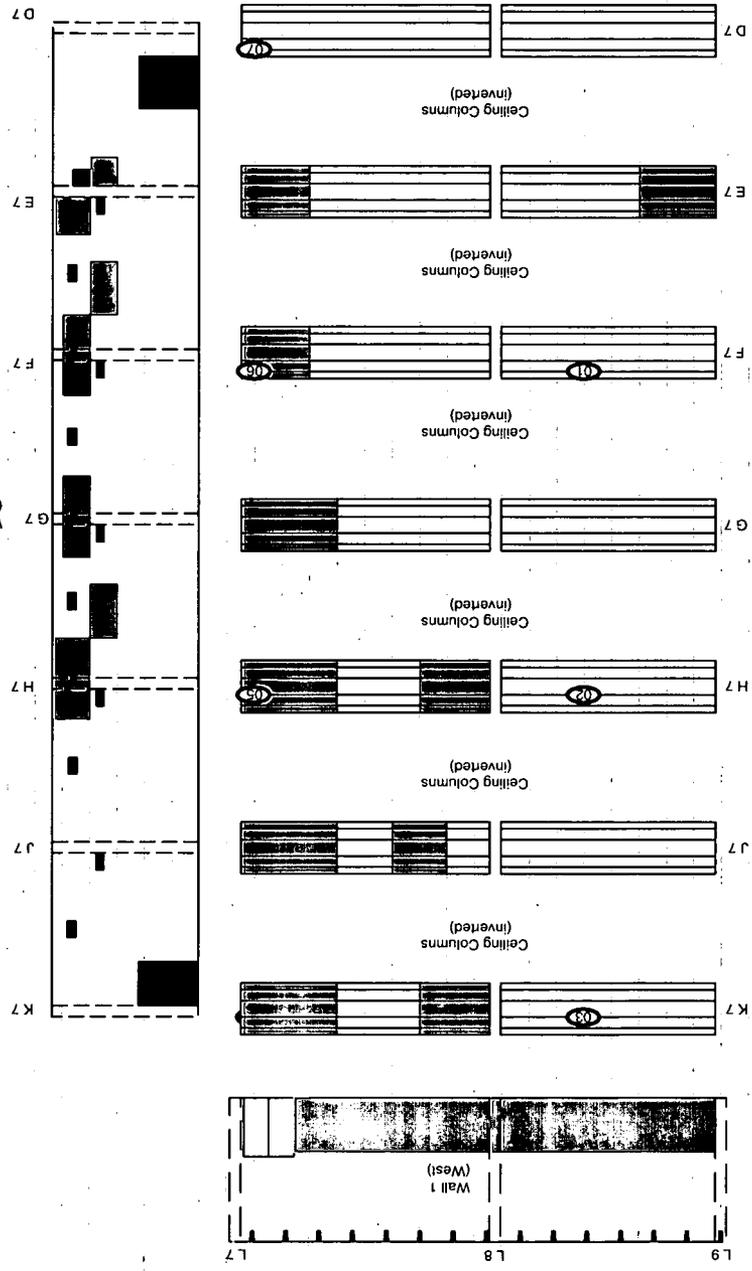
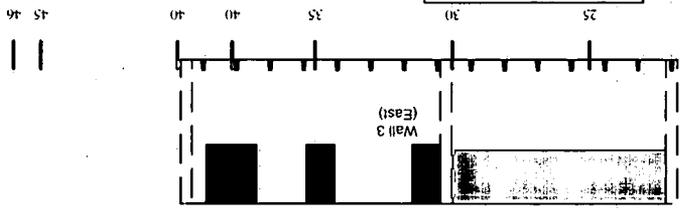
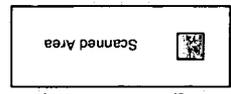
Survey Unit 707048 Survey Data and Maps

212



**SURVEY MAP LEGEND**

- Area to Analyze Location
- (Inverted) Scanned Area
- ◇ (Inverted) Sample Location
- (Inverted) Sample & TSC Location



SURVEY UNIT 707048 - MAP 1 OF 3

**RADIOLOGICAL CLOSEOUT SURVEY FOR THE 707 CLUSTER**

Survey Area: C      Survey Unit: 707048      Classification: 2

Building: 707

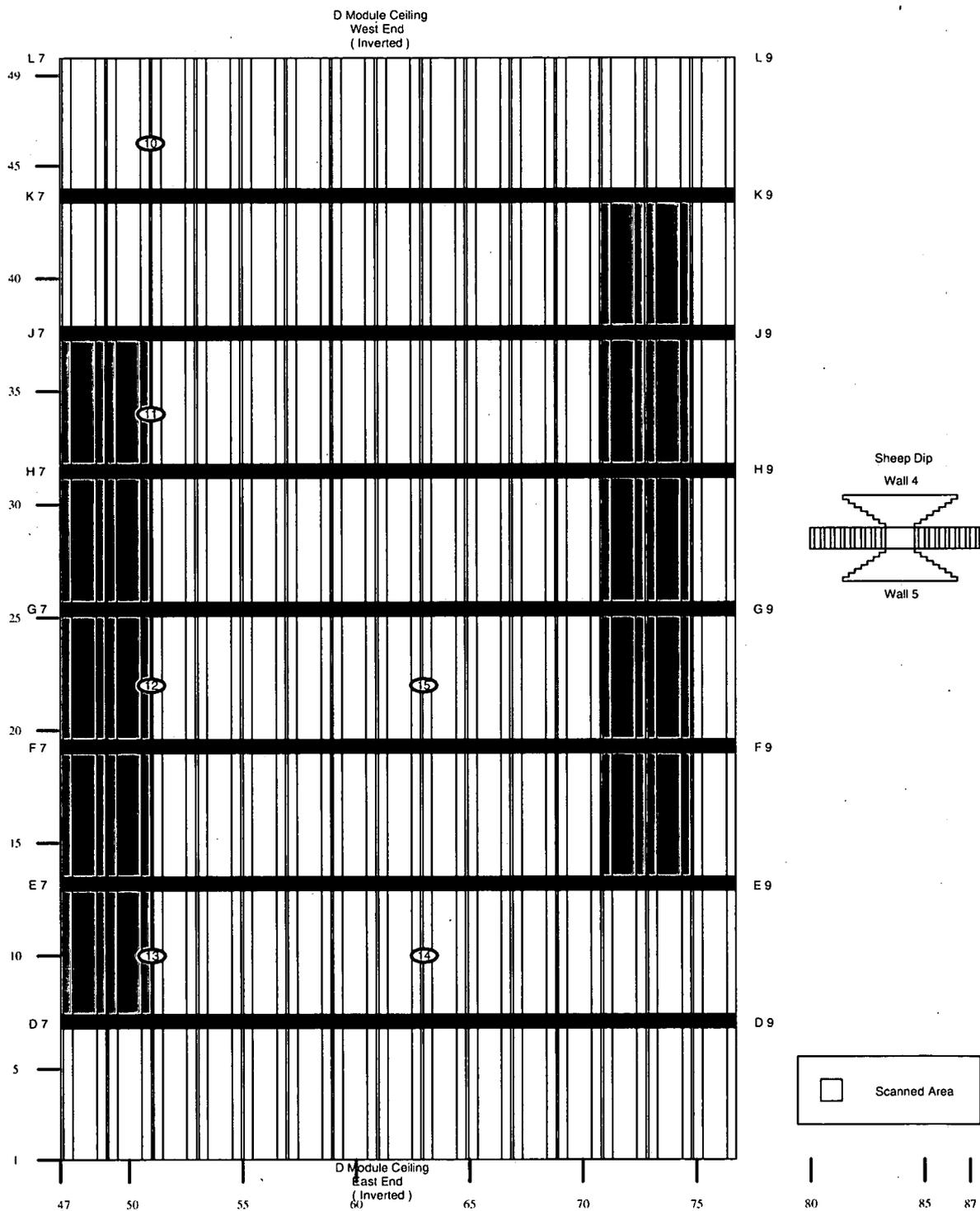
Survey Unit Description: First floor (D module)

Total Floor Area: 0 sq. m      Total Area: 2415 sq. m      Grid Size: 12 x 12 sq. m.

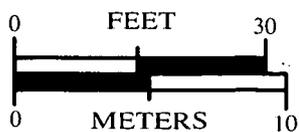
**RADIOLOGICAL CLOSEOUT SURVEY FOR THE 707 CLUSTER**

Survey Area: C      Survey Unit: 707048      Classification: 2  
 Building: 707  
 Survey Unit Description: First floor (D module)  
 Total Floor Area: 0 sq. m      Total Area: 2415 sq. m      Grid Size: 12 x 12 sq. m

**SURVEY UNIT 707048 - MAP 2 OF 3**



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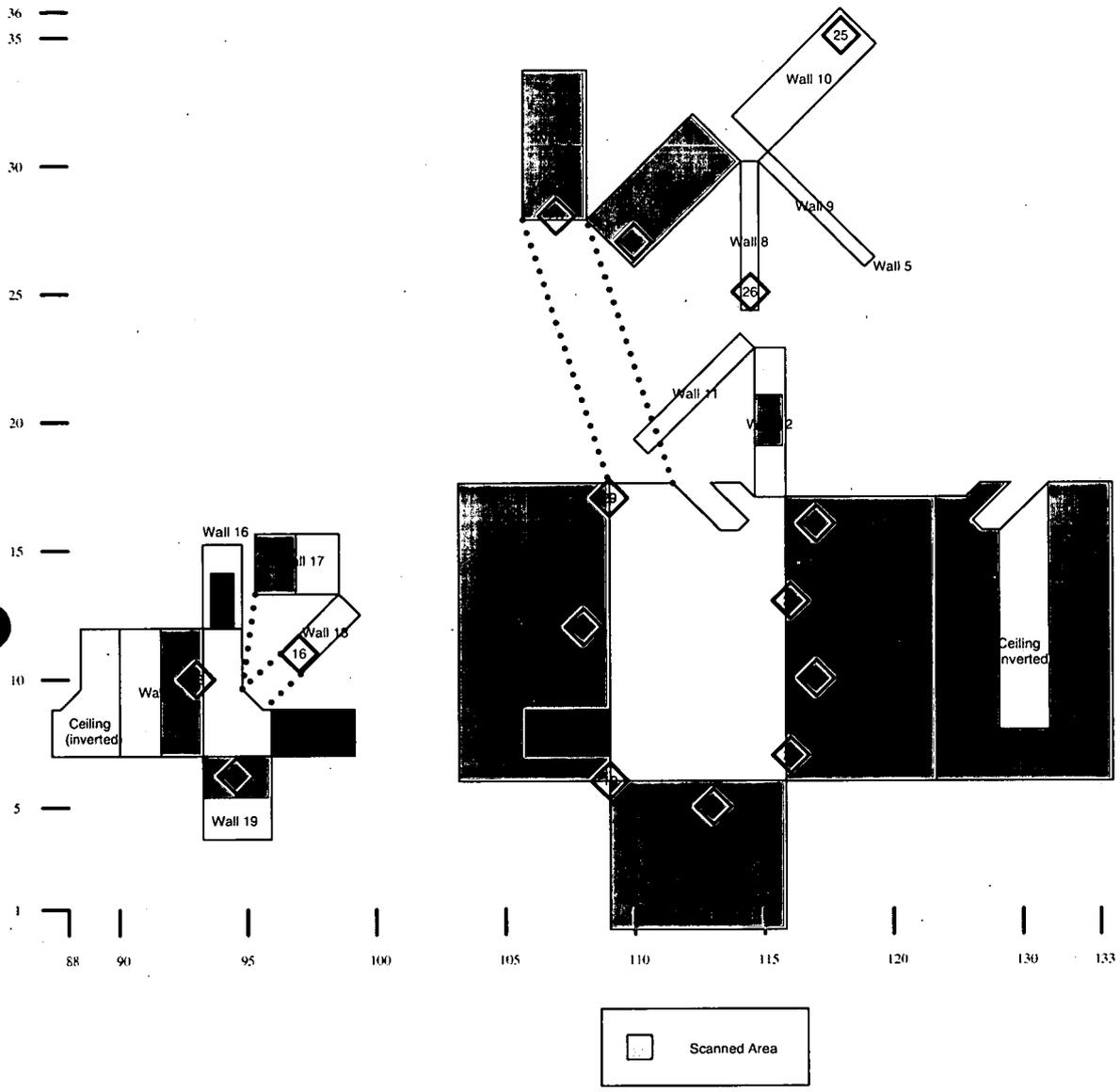
**SURVEY MAP LEGEND**

- Smear & TSC Location
- Smear, TSC & Sample Location
- Open/Inaccessible Area
- Area in Another Location

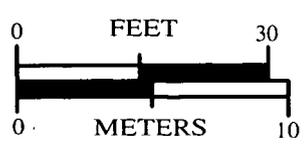
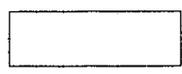
**RADIOLOGICAL CLOSEOUT SURVEY FOR THE 707 CLUSTER**

Survey Area: C      Survey Unit: 707048      Classification: 2  
 Building: 707  
 Survey Unit Description: First floor (D module)  
 Total Floor Area: 0 sq. m      Total Area: 2415 sq. m      Grid Size: 12 x 12 sq.m

**SURVEY UNIT 707048 - MAP 3 OF 3**



214



**SURVEY MAP LEGEND**

- Smear & TSC Location
- Smear, TSC & Sample Location
- Open/Inaccessible Area
- Area in Another Location

Survey Area: C

Survey Unit: 707048

Building: 707

Description: B707 1st floor "D" module wall and ceiling surfaces (includes room 167 vault)

## Rocky Flats Environmental Technology Site Final Radiological Survey Summary Results

### Total Surface Activity Measurements

Nbr Random Measurements Required: 15  
Nbr Random Measurements Performed: 15

Nbr Biased Measurements Required: 15  
Nbr Biased Measurements Performed: 15

Nbr QC Required: 2  
Nbr QC Performed: 2

#### Alpha

Maximum:	53.8 dpm/100cm <sup>2</sup>
Minimum:	-18.3 dpm/100cm <sup>2</sup>
Mean:	13.4 dpm/100cm <sup>2</sup>
Standard Deviation:	15.8
QC Maximum:	15.1 dpm/100cm <sup>2</sup>
QC Minimum:	9.3 dpm/100cm <sup>2</sup>
QC Mean:	12.2 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>w</sub> :	100.0 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>EMC</sub> :	300.0 dpm/100cm <sup>2</sup>

### Removable Surface Activity Measurements

Nbr Random Measurements Required: 15  
Nbr Random Measurements Performed: 15

Nbr Biased Measurements Required: 15  
Nbr Biased Measurements Performed: 15

#### Alpha

Maximum:	4.5 dpm/100cm <sup>2</sup>
Minimum:	0.0 dpm/100cm <sup>2</sup>
Mean:	1.3 dpm/100cm <sup>2</sup>
Standard Deviation:	1.4
Transuranic DCGL <sub>w</sub> :	20.0 dpm/100cm <sup>2</sup>

### Media Sample Results

Nbr Random Required: 13  
Nbr Random Collected: 13

Nbr Biased Required: 0  
Nbr Biased Collected: 0

#### Uranium

Maximum:	NA dpm/100cm <sup>2</sup>
Minimum:	NA dpm/100cm <sup>2</sup>
Mean:	NA dpm/100cm <sup>2</sup>
Standard Deviation:	NA
Uranium DCGL <sub>w</sub> :	5,000 dpm/100cm <sup>2</sup>
Uranium DCGL <sub>EMC</sub> :	15,000 dpm/100cm <sup>2</sup>

#### Transuranic

Maximum:	52 dpm/100cm <sup>2</sup>
Minimum:	1 dpm/100cm <sup>2</sup>
Mean:	22 dpm/100cm <sup>2</sup>
Standard Deviation:	14
Transuranic DCGL <sub>w</sub> :	100 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>EMC</sub> :	300 dpm/100cm <sup>2</sup>

Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.

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Survey Area: C

Survey Unit: 707048

Building: 707

Description: B707 1st floor "D" module wall and ceiling surfaces (includes room 167 vault)

### Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency		A-Priori MDA (dpm/100cm <sup>2</sup> )		Survey Type
							Alpha	Beta	Alpha	Beta	
1	511510	08/12/04	Electra	1259	DP-6	10/22/04	0.224	NA	48.0	NA	T/S
2	509552	08/12/04	SAC-4	957	NA	11/05/04	0.333	NA	10.0	NA	R
3	511510	08/12/04	Electra	3128	DP-6	10/26/04	0.222	NA	48.0	NA	T/S
4	511510	08/13/04	SAC-4	957	NA	11/05/04	0.333	NA	10.0	NA	R
5	509552	08/13/04	Electra	3128	DP-6	10/26/04	0.222	NA	48.0	NA	T/S
6	514510	10/27/04	Electra	4412	DP-6	12/29/04	0.210	NA	48.0	NA	T/S
7	514510	10/27/04	SAC-4	1196	NA	01/28/05	0.333	NA	10.0	NA	R

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

216

Survey Area: C

Survey Unit: 707048

Building: 707

Description: B707 1st floor "D" module wall and ceiling surfaces (includes room 167 vault)

### Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707048PRP-N001	2	0.0	N/A	
707048PRP-N002	2	1.5	N/A	
707048PRP-N003	2	0.0	N/A	
707048PRP-N004	7	2.7	N/A	
707048PRP-N005	2	4.5	N/A	
707048PRP-N006	2	1.5	N/A	
707048PRP-N007	7	1.2	N/A	
707048PRP-N008	2	0.0	N/A	
707048PRP-N009	2	0.0	N/A	
707048PRP-N010	7	2.7	N/A	
707048PRP-N011	7	4.2	N/A	
707048PRP-N012	2	0.0	N/A	
707048PRP-N013	2	3.0	N/A	
707048PRP-N014	2	0.0	N/A	
707048PRP-N015	2	0.0	N/A	

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Survey Area: C

Survey Unit: 707048

Building: 707

Description: B707 1st floor "D" module wall and ceiling surfaces (includes room 167 vault)

### Biased Removable Surface Activity Data Sheet

Biased Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707048PBP-N016	4	1.5	N/A	
707048PBP-N017	4	0.0	N/A	
707048PBP-N018	4	0.0	N/A	
707048PBP-N019	4	1.5	N/A	
707048PBP-N020	4	3.0	N/A	
707048PBP-N021	4	0.0	N/A	
707048PBP-N022	4	1.5	N/A	
707048PBP-N023	4	1.5	N/A	
707048PBP-N024	4	1.5	N/A	
707048PBP-N025	4	3.0	N/A	
707048PBP-N026	4	1.5	N/A	
707048PBP-N027	4	1.5	N/A	
707048PBP-N028	4	0.0	N/A	
707048PBP-N029	4	0.0	N/A	
707048PBP-N030	4	0.0	N/A	

Comments:

218

Survey Area: C

Survey Unit: 707048

Building: 707

Description: B707 1st floor "D" module wall and ceiling surfaces (includes room 167 vault)

### Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707048PRP-N001	1	8.5	N/A	
707048QRP-N001	3	9.3	N/A	
707048PRP-N002	1	11.6	N/A	
707048PRP-N003	1	26.3	N/A	
707048PRP-N004	6	32.7	N/A	
707048PRP-N005	1	8.5	N/A	
707048PRP-N006	1	-0.4	N/A	
707048PRP-N007	6	29.3	N/A	
707048PRP-N008	1	2.7	N/A	
707048QRP-N008	3	15.1	N/A	
707048PRP-N009	1	20.5	N/A	
707048PRP-N010	6	19.8	N/A	
707048PRP-N011	6	23.1	N/A	
707048PRP-N012	1	38.4	N/A	
707048PRP-N013	1	17.4	N/A	
707048PRP-N014	1	17.4	N/A	
707048PRP-N015	1	14.3	N/A	

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Survey Area: C

Survey Unit: 707048

Building: 707

Description: B707 1st floor "D" module wall and ceiling surfaces (includes room 167 vault)

### Biased Total Surface Activity Data Sheet

Biased Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707048PBP-N016	5	38.4	N/A	
707048PBP-N017	5	5.6	N/A	
707048PBP-N018	5	-9.3	N/A	
707048PBP-N019	5	53.8	N/A	
707048PBP-N020	5	8.7	N/A	
707048PBP-N021	5	5.6	N/A	
707048PBP-N022	5	5.6	N/A	
707048PBP-N023	5	-18.3	N/A	
707048PBP-N024	5	29.4	N/A	
707048PBP-N025	5	5.6	N/A	
707048PBP-N026	5	-0.3	N/A	
707048PBP-N027	5	-9.3	N/A	
707048PBP-N028	5	8.7	N/A	
707048PBP-N029	5	6.9	N/A	
707048PBP-N030	5	-0.3	N/A	

Comments: >25% of the lower walls and >10% of upper walls and ceiling surfaces was scanned. All values were <300 dpm/100 cm<sup>2</sup>.

220

Survey Area: C

Survey Unit: 707048

Building: 707

Description: B707 1st.floor "D" module wall and ceiling surfaces (includes room 167 vault)

## Media Samples Data Sheet

Site Sample ID / Nbr ----- Description	Nuclide	Sample (dpm)	Sample MDA (dpm)	Surface Area (in <sup>2</sup> )	Sample Nuclide (dpm/100cm <sup>2</sup> )	Sample Nuclide MDA (dpm/100cm <sup>2</sup> )	Sample Total (dpm/100cm <sup>2</sup> )
MED00191 16 Wall	U234 U235 U238 Pu239/240 Am241	NA NA NA 23.1 3.3	NA NA NA 100.8 14.4	26.3	NA NA NA 14 2	NA NA NA 59 9	Uranium NA Transuranic 16
MED00205 17 Wall	U234 U235 U238 Pu239/240 Am241	NA NA NA 67.2 9.6	NA NA NA 123.2 17.6	26.3	NA NA NA 40 6	NA NA NA 73 10	Uranium NA Transuranic 45
MED00206 18 Wall	U234 U235 U238 Pu239/240 Am241	NA NA NA 35.0 5.0	NA NA NA 44.8 6.4	26.3	NA NA NA 21 3	NA NA NA 26 4	Uranium NA Transuranic 24
MED00207 19 Wall	U234 U235 U238 Pu239/240 Am241	NA NA NA 21.0 3.0	NA NA NA 105.0 15.0	26.3	NA NA NA 12 2	NA NA NA 62 9	Uranium NA Transuranic 14
MED00208 20 Wall	U234 U235 U238 Pu239/240 Am241	NA NA NA 33.6 4.8	NA NA NA 105.7 15.1	26.3	NA NA NA 20 3	NA NA NA 62 9	Uranium NA Transuranic 23
MED00209 21 Wall	U234 U235 U238 Pu239/240 Am241	NA NA NA 23.8 3.4	NA NA NA 100.8 14.4	26.3	NA NA NA 14 2	NA NA NA 59 9	Uranium NA Transuranic 16
MED00211 23 Wall	U234 U235 U238 Pu239/240 Am241	NA NA NA 23.1 3.3	NA NA NA 42.0 6.0	26.3	NA NA NA 14 2	NA NA NA 25 4	Uranium NA Transuranic 16

Comments: 2 media samples were >100 dpm/100 cm<sup>2</sup>. These points were located on a wall that was reclassified and shaved.

Survey Area: C

Survey Unit: 707048

Building: 707

Description: B707 1st floor "D" module wall and ceiling surfaces (includes room 167 vault)

## Media Samples Data Sheet

Site Sample ID / Nbr Description	Nuclide	Sample (dpm)	Sample MDA (dpm)	Surface Area (in <sup>2</sup> )	Sample Nuclide (dpm/100cm <sup>2</sup> )	Sample Nuclide MDA (dpm/100cm <sup>2</sup> )	Sample Total (dpm/100cm <sup>2</sup> )
MED00212 24 Wall	U234	NA	NA	26.3	NA	NA	Uranium NA Transuranic 11
	U235	NA	NA		NA	NA	
	U238	NA	NA		NA	NA	
	Pu239/240	16.1	121.1		10	71	
	Am241	2.3	17.3		1	10	
MED00213 25 Wall	U234	NA	NA	26.3	NA	NA	Uranium NA Transuranic 26
	U235	NA	NA		NA	NA	
	U238	NA	NA		NA	NA	
	Pu239/240	38.5	102.9		23	61	
	Am241	5.5	14.7		3	9	
MED00214 26 Wall	U234	NA	NA	26.3	NA	NA	Uranium NA Transuranic 1
	U235	NA	NA		NA	NA	
	U238	NA	NA		NA	NA	
	Pu239/240	0.7	101.5		0	60	
	Am241	0.1	14.5		0	9	
MED00215 27 Wall	U234	NA	NA	26.3	NA	NA	Uranium NA Transuranic 27
	U235	NA	NA		NA	NA	
	U238	NA	NA		NA	NA	
	Pu239/240	39.9	87.5		24	52	
	Am241	5.7	12.5		3	7	
MED00216 28 Wall	U234	NA	NA	26.3	NA	NA	Uranium NA Transuranic 52
	U235	NA	NA		NA	NA	
	U238	NA	NA		NA	NA	
	Pu239/240	77.0	60.9		45	36	
	Am241	11.0	8.7		7	5	
MED00218 30 Wall	U234	NA	NA	26.3	NA	NA	Uranium NA Transuranic 15
	U235	NA	NA		NA	NA	
	U238	NA	NA		NA	NA	
	Pu239/240	22.4	108.5		13	64	
	Am241	3.2	15.5		2	9	

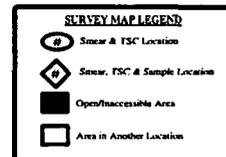
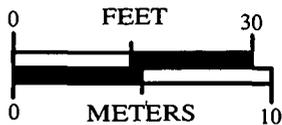
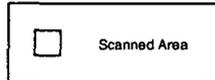
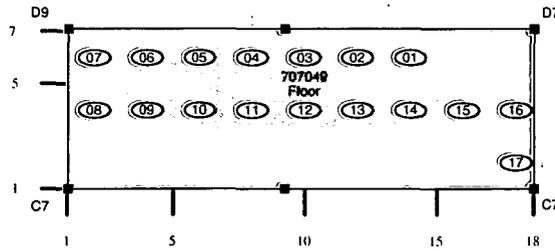
ATTACHMENT B24

Survey Unit 707049 Survey Data and Maps

**RADIOLOGICAL CLOSEOUT SURVEY FOR THE 707 CLUSTER**

Survey Area: C      Survey Unit: 707049      Classification: 1  
Building: 707  
Survey Unit Description: First floor (D module)  
Total Floor Area: 108 sq. m      Total Area: 108 sq. m      Grid Size: 2 x 2 sq.m

**SURVEY UNIT 707049 - MAP 1 OF 1**



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Survey Area: C

Survey Unit: 707049

Building: 707

Description: B707 1st floor "D" module floor surfaces - Columns C-D, 7-9

## Rocky Flats Environmental Technology Site Final Radiological Survey Summary Results

### Total Surface Activity Measurements

Nbr Random Measurements Required: 17

Nbr Biased Measurements Required: 0

Nbr QC Required: 2

Nbr Random Measurements Performed: 17

Nbr Biased Measurements Performed: 0

Nbr QC Performed: 2

#### Alpha

Maximum:	72.9 dpm/100cm <sup>2</sup>
Minimum:	-0.2 dpm/100cm <sup>2</sup>
Mean:	23.0 dpm/100cm <sup>2</sup>
Standard Deviation:	19.9
QC Maximum:	48.0 dpm/100cm <sup>2</sup>
QC Minimum:	25.0 dpm/100cm <sup>2</sup>
QC Mean:	36.5 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>w</sub> :	100.0 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>EMC</sub> :	300.0 dpm/100cm <sup>2</sup>

### Removable Surface Activity Measurements

Nbr Random Measurements Required: 17

Nbr Biased Measurements Required: 0

Nbr Random Measurements Performed: 17

Nbr Biased Measurements Performed: 0

#### Alpha

Maximum:	3.0 dpm/100cm <sup>2</sup>
Minimum:	0.0 dpm/100cm <sup>2</sup>
Mean:	1.2 dpm/100cm <sup>2</sup>
Standard Deviation:	1.3
Transuranic DCGL <sub>w</sub> :	20.0 dpm/100cm <sup>2</sup>

### Media Sample Results

Nbr Random Required: 0

Nbr Biased Required: 0

Nbr Random Collected: 0

Nbr Biased Collected: 0

*Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.*

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Survey Area: C

Survey Unit: 707049

Building: 707

Description: B707 1st floor "D" module floor surfaces - Columns C-D, 7-9

### Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency		A-Priori MDA (dpm/100cm <sup>2</sup> )		Survey Type
							Alpha	Beta	Alpha	Beta	
1	513185	10/15/04	Electra	4175	DP-6	04/06/05	0.212	NA	48.0	NA	T
2	514510	10/15/04	Electra	4173	DP-6	11/04/04	0.218	NA	48.0	NA	T
3	514510	10/15/04	SAC-4	760	NA	02/28/05	0.333	NA	10.0	NA	R
4	702058	10/24/04	Electra	2405	DP-6	03/20/05	0.200	NA	48.0	NA	T
5	701418	10/24/04	Electra	1246	DP-6	01/26/05	0.222	NA	48.0	NA	T
6	702058	10/24/04	SAC-4	847	NA	01/09/05	0.333	NA	10.0	NA	R

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

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Survey Area: C

Survey Unit: 707049

Building: 707

Description: B707 1st floor "D" module floor surfaces - Columns C-D, 7-9

### Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707049PRP-N001	3	3.0	N/A	
707049PRP-N002	3	3.0	N/A	
707049PRP-N003	3	0.0	N/A	
707049PRP-N004	3	0.0	N/A	
707049PRP-N005	3	1.5	N/A	
707049PRP-N006	3	0.0	N/A	
707049PRP-N007	3	0.0	N/A	
707049PRP-N008	3	0.0	N/A	
707049PRP-N009	3	1.5	N/A	
707049PRP-N010	3	1.5	N/A	
707049PRP-N011	3	3.0	N/A	
707049PRP-N012	3	3.0	N/A	
707049PRP-N013	3	3.0	N/A	
707049PRP-N014	3	1.5	N/A	
707049PRP-N015	3	0.0	N/A	
707049PRP-N016	6	0.0	N/A	
707049PRP-N017	6	0.0	N/A	

Comments:

227

Survey Area: C

Survey Unit: 707049

Building: 707

Description: B707 1st floor "D" module floor surfaces - Columns C-D, 7-9

### Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707049PRP-N001	1	16.8	N/A	
707049PRP-N002	1	28.1	N/A	
707049PRP-N003	1	29.5	N/A	
707049QRP-N003	2	25.0	N/A	
707049PRP-N004	1	7.3	N/A	
707049PRP-N005	1	21.5	N/A	
707049PRP-N006	1	20.1	N/A	
707049PRP-N007	1	13.9	N/A	
707049PRP-N008	1	2.6	N/A	
707049PRP-N009	1	15.4	N/A	
707049PRP-N010	1	7.3	N/A	
707049PRP-N011	1	-0.2	N/A	
707049PRP-N012	1	23.4	N/A	
707049PRP-N013	1	37.5	N/A	
707049QRP-N013	2	48.0	N/A	
707049PRP-N014	1	26.2	N/A	
707049PRP-N015	1	5.9	N/A	
707049PRP-N016	4	72.9	N/A	
707049PRP-N017	5	63.0	N/A	

Comments: 100% of the accessible floor surfaces were scanned. All values <300 dpm/100cm<sup>2</sup>.

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ATTACHMENT B25

Survey Unit 707050 Survey Data and Maps

# Investigation Documentation

Survey Unit: 707050

Investigation #	Surface Floor, Wall, Ceiling etc.	Location	"As Found" (dpm/100 cm <sup>2</sup> )	Remediation Performed? (Yes/No)	"As Left" (dpm) <sup>Note 1</sup>	9-Point Done? (Yes/No)	meter <sup>2</sup> Average (dpm/100 cm <sup>2</sup> )
1	Floor	E8	1233	Yes	186	Yes	<100

Note 1 = total activity per 600 cm<sup>2</sup> probe

Maximum

186.4

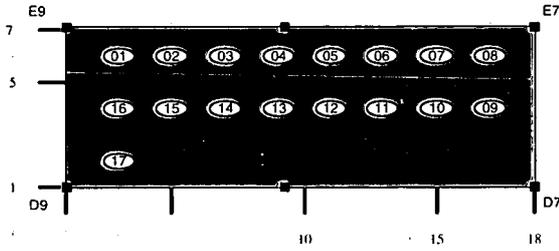
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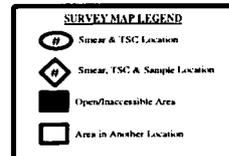
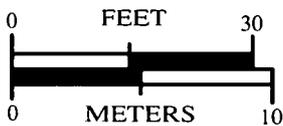
**RADIOLOGICAL CLOSEOUT SURVEY FOR THE 707 CLUSTER**

Survey Area: C      Survey Unit: 707050      Classification: 1  
Building: 707  
Survey Unit Description: First floor (D module)  
Total Floor Area: 108 sq. m      Total Area: 108 sq. m      Grid Size: 2 x 2 sq.m

**SURVEY UNIT 707050 - MAP 1 OF 1**



■ Scanned Area



Survey Area: C

Survey Unit: 707050

Building: 707

Description: B707 1st floor "D" module area - Between columns D-E, 7-9

## Rocky Flats Environmental Technology Site Final Radiological Survey Summary Results

### Total Surface Activity Measurements

Nbr Random Measurements Required: 17

Nbr Biased Measurements Required: 0

Nbr QC Required: 2

Nbr Random Measurements Performed: 17

Nbr Biased Measurements Performed: 0

Nbr QC Performed: 2

#### Alpha

Maximum:	59.0 dpm/100cm <sup>2</sup>
Minimum:	9.5 dpm/100cm <sup>2</sup>
Mean:	27.0 dpm/100cm <sup>2</sup>
Standard Deviation:	12.3
QC Maximum:	18.9 dpm/100cm <sup>2</sup>
QC Minimum:	13.2 dpm/100cm <sup>2</sup>
QC Mean:	16.1 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>LW</sub> :	100.0 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>EMC</sub> :	300.0 dpm/100cm <sup>2</sup>

### Removable Surface Activity Measurements

Nbr Random Measurements Required: 17

Nbr Biased Measurements Required: 0

Nbr Random Measurements Performed: 17

Nbr Biased Measurements Performed: 0

#### Alpha

Maximum:	1.5 dpm/100cm <sup>2</sup>
Minimum:	0.0 dpm/100cm <sup>2</sup>
Mean:	0.4 dpm/100cm <sup>2</sup>
Standard Deviation:	0.7
Transuranic DCGL <sub>LW</sub> :	20.0 dpm/100cm <sup>2</sup>

### Media Sample Results

Nbr Random Required: 0

Nbr Biased Required: 0

Nbr Random Collected: 0

Nbr Biased Collected: 0

*Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.*

Survey Area: C

Survey Unit: 707050

Building: 707

Description: B707 1st floor "D" module area - Between columns D-E, 7-9

### Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency		A-Priori MDA (dpm/100cm <sup>2</sup> )		Survey Type
							Alpha	Beta	Alpha	Beta	
1	702377	08/08/04	Electra	1100	DP-6	09/02/04	0.214	NA	48.0	NA	T
2	600137	08/08/04	Electra	1543	DP-6	09/09/04	0.227	NA	48.0	NA	T
3	600137	08/08/04	SAC-4	1469	NA	11/27/04	0.333	NA	10.0	NA	R
4	600137	08/08/04	SAC-4	957	NA	11/05/04	0.330	NA	10.0	NA	R

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

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Survey Area: C

Survey Unit: 707050

Building: 707

Description: B707 1st floor "D" module area - Between columns D-E, 7-9

### Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707050PRP-N001	3	0.0	N/A	
707050PRP-N002	4	0.0	N/A	
707050PRP-N003	3	0.0	N/A	
707050PRP-N004	4	0.0	N/A	
707050PRP-N005	3	1.5	N/A	
707050PRP-N006	4	0.0	N/A	
707050PRP-N007	3	0.0	N/A	
707050PRP-N008	4	1.5	N/A	
707050PRP-N009	3	1.5	N/A	
707050PRP-N010	4	1.5	N/A	
707050PRP-N011	3	0.0	N/A	
707050PRP-N012	4	0.0	N/A	
707050PRP-N013	3	0.0	N/A	
707050PRP-N014	4	1.5	N/A	
707050PRP-N015	3	0.0	N/A	
707050PRP-N016	4	0.0	N/A	
707050PRP-N017	3	0.0	N/A	

Comments:

233

Survey Area: C

Survey Unit: 707050

Building: 707

Description: B707 1st floor "D" module area - Between columns D-E, 7-9

### Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707050PRP-N001	2	31.6	N/A	
707050PRP-N002	2	18.3	N/A	
707050PRP-N003	2	36.0	N/A	
707050PRP-N004	1	24.9	N/A	
707050PRP-N005	1	18.8	N/A	
707050QRP-N005	2	13.2	N/A	
707050PRP-N006	1	24.9	N/A	
707050PRP-N007	1	18.8	N/A	
707050PRP-N008	1	21.6	N/A	
707050PRP-N009	1	59.0	N/A	
707050PRP-N010	1	24.9	N/A	
707050PRP-N011	1	46.8	N/A	
707050QRP-N011	2	18.9	N/A	
707050PRP-N012	1	21.6	N/A	
707050PRP-N013	1	9.5	N/A	
707050PRP-N014	1	40.3	N/A	
707050PRP-N015	1	18.8	N/A	
707050PRP-N016	1	24.9	N/A	
707050PRP-N017	1	18.8	N/A	

Comments: Scanned 100% of the accessible floor surfaces. All values after remediation <300 dpm/100 cm<sup>2</sup>.

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ATTACHMENT B26

Survey Unit 707051 Survey Data and Maps

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# Investigation Documentation

Survey Unit: 707051

Investigation Number	Surface Floor, Wall, Ceiling etc.	Location	"As Found" (dpm/100 cm <sup>2</sup> )	Remediation Performed? (Yes/No)	"As Left" (dpm) <sup>Note 1</sup>	"As Left" (dpm/100 cm <sup>2</sup> )	9-Point Done? (Yes/No)	meter <sup>2</sup> Average (dpm/100 cm <sup>2</sup> )
1	Floor	F8	1179	Yes	N/A	9	No	<100
2	Floor	E8	544	Yes	N/A	9	No	<100
3	Floor	E8	4800	Yes	N/A	36	No	<100

Note 1 = total activity per 600 cm<sup>2</sup> probe

Maximum

36.2

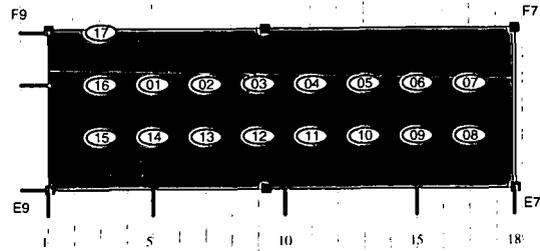
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236

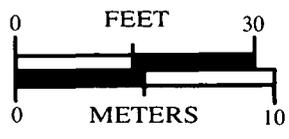
# RADIOLOGICAL CLOSEOUT SURVEY FOR THE 707 CLUSTER

Survey Area: C      Survey Unit: 707051      Classification: 1  
Building: 707  
Survey Unit Description: First floor (D module)  
Total Floor Area: 108 sq. m      Total Area: 108 sq. m      Grid Size: 2 x 2 sq.m

## SURVEY UNIT 707051 - MAP 1 OF 1



■ Scanned Area



**SURVEY MAP LEGEND**

- Solar & TSC Location
- ◇ Solar, TSC & Sample Location
- Open/Inaccessible Area
- Area in Another Location

237

Survey Area: C

Survey Unit: 707051

Building: 707

Description: B707 1st floor "D" module floor surfaces between columns E-F, 7-9

## Rocky Flats Environmental Technology Site Final Radiological Survey Summary Results

### Total Surface Activity Measurements

Nbr Random Measurements Required: 17

Nbr Biased Measurements Required: 0

Nbr QC Required: 2

Nbr Random Measurements Performed: 17

Nbr Biased Measurements Performed: 0

Nbr QC Performed: 2

#### Alpha

Maximum:	54.8 dpm/100cm <sup>2</sup>
Minimum:	1.2 dpm/100cm <sup>2</sup>
Mean:	29.4 dpm/100cm <sup>2</sup>
Standard Deviation:	14.5
QC Maximum:	42.7 dpm/100cm <sup>2</sup>
QC Minimum:	22.0 dpm/100cm <sup>2</sup>
QC Mean:	32.4 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>w</sub> :	100.0 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>EMC</sub> :	300.0 dpm/100cm <sup>2</sup>

### Removable Surface Activity Measurements

Nbr Random Measurements Required: 17

Nbr Biased Measurements Required: 0

Nbr Random Measurements Performed: 17

Nbr Biased Measurements Performed: 0

#### Alpha

Maximum:	1.5 dpm/100cm <sup>2</sup>
Minimum:	-0.3 dpm/100cm <sup>2</sup>
Mean:	0.2 dpm/100cm <sup>2</sup>
Standard Deviation:	0.7
Transuranic DCGL <sub>w</sub> :	20.0 dpm/100cm <sup>2</sup>

### Media Sample Results

Nbr Random Required: 0

Nbr Biased Required: 0

Nbr Random Collected: 0

Nbr Biased Collected: 0

Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.

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Survey Area: C

Survey Unit: 707051

Building: 707

Description: B707 1st floor "D" module floor surfaces between columns E-F, 7-9

### Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency		A-Priori MDA (dpm/100cm <sup>2</sup> )		Survey Type
							Alpha	Beta	Alpha	Beta	
1	701822	08/08/04	Electra	1259	DP-6	10/22/04	0.224	NA	48.0	NA	T
2	520363	08/08/04	Electra	1543	DP-6	09/09/04	0.227	NA	48.0	NA	T
3	520363	08/08/04	SAC-4	1473	NA	01/29/05	0.333	NA	10.0	NA	R
4	520363	08/08/04	SAC-4	1284	NA	01/29/05	0.333	NA	10.0	NA	R
5	520363	08/08/04	SAC-4	1265	NA	09/15/04	0.333	NA	10.0	NA	R

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

239

Survey Area: C

Survey Unit: 707051

Building: 707

Description: B707 1st floor "D" module floor surfaces between columns E-F, 7-9

### Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707051PRP-N001	5	1.2	N/A	
707051PRP-N002	4	-0.3	N/A	
707051PRP-N003	5	-0.3	N/A	
707051PRP-N004	3	0.0	N/A	
707051PRP-N005	4	-0.3	N/A	
707051PRP-N006	5	-0.3	N/A	
707051PRP-N007	5	1.2	N/A	
707051PRP-N008	4	-0.3	N/A	
707051PRP-N009	3	0.0	N/A	
707051PRP-N010	3	0.0	N/A	
707051PRP-N011	4	-0.3	N/A	
707051PRP-N012	4	-0.3	N/A	
707051PRP-N013	5	1.2	N/A	
707051PRP-N014	3	0.0	N/A	
707051PRP-N015	3	0.0	N/A	
707051PRP-N016	5	1.2	N/A	
707051PRP-N017	3	1.5	N/A	

Comments:

240

Survey Area: C

Survey Unit: 707051

Building: 707

Description: B707 1st floor "D" module floor surfaces between columns E-F, 7-9

### Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707051PRP-N001	1	31.1	N/A	
707051PRP-N002	1	52.1	N/A	
707051PRP-N003	1	28.0	N/A	
707051PRP-N004	1	13.3	N/A	
707051PRP-N005	1	22.2	N/A	
707051QRP-N005	2	22.0	N/A	
707051PRP-N006	1	10.2	N/A	
707051PRP-N007	1	1.2	N/A	
707051PRP-N008	1	19.1	N/A	
707051QRP-N008	2	42.7	N/A	
707051PRP-N009	1	28.0	N/A	
707051PRP-N010	1	45.9	N/A	
707051PRP-N011	1	26.7	N/A	
707051PRP-N012	1	36.9	N/A	
707051PRP-N013	1	43.2	N/A	
707051PRP-N014	1	54.8	N/A	
707051PRP-N015	1	28.0	N/A	
707051PRP-N016	1	22.2	N/A	
707051PRP-N017	1	36.9	N/A	

Comments: Scanned 100% of the accessible floor surfaces. All values after remediation <300 dpm/100 cm<sup>2</sup>.

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ATTACHMENT B27

Survey Unit 707052 Survey Data and Maps

# Investigation Documentation

Survey Unit: 707052

Investigation Number	Surface Floor, Wall, Ceiling etc.	Location	"As Found" (dpm/100 cm <sup>2</sup> )	Remediation Performed? (Yes/No)	"As Left" (dpm) <sup>Note 1</sup>	"As Left" (dpm/100 cm <sup>2</sup> )	9-Point Done? (Yes/No)	meter <sup>2</sup> Average (dpm/100 cm <sup>2</sup> )
1	Floor	G9	5791	Yes	208	N/A	No	<100
2	Floor	G9	1682	Yes	266	N/A	No	<100

Note 1 = total activity per 600 cm<sup>2</sup> probe

Maximum 266.2

<100

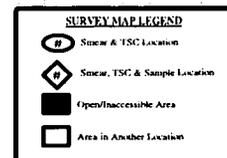
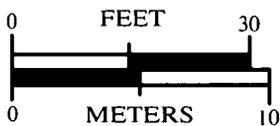
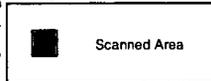
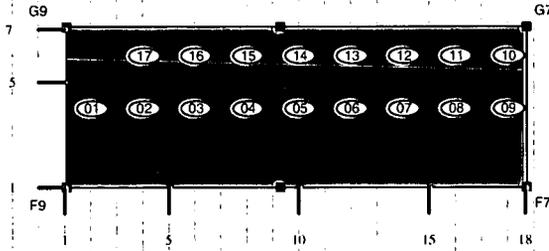
243

**RADIOLOGICAL CLOSEOUT SURVEY FOR THE 707 CLUSTER**

Survey Area: C      Survey Unit: 707052      Classification: 1  
Building: 707  
Survey Unit Description: First floor (D module)

Total Floor Area: 108 sq. m      Total Area: 108 sq. m      Grid Size: 2 x 2 sq.m

SURVEY UNIT 707052 - MAP 1 OF 1



Survey Area: C

Survey Unit: 707052

Building: 707

Description: B707 1st floor "D" module floor area between columns F-G, 7-9

## Rocky Flats Environmental Technology Site Final Radiological Survey Summary Results

### Total Surface Activity Measurements

Nbr Random Measurements Required: 17

Nbr Biased Measurements Required: 0

Nbr QC Required: 2

Nbr Random Measurements Performed: 17

Nbr Biased Measurements Performed: 0

Nbr QC Performed: 2

#### Alpha

Maximum:	87.7 dpm/100cm <sup>2</sup>
Minimum:	8.9 dpm/100cm <sup>2</sup>
Mean:	31.6 dpm/100cm <sup>2</sup>
Standard Deviation:	19.8
QC Maximum:	23.5 dpm/100cm <sup>2</sup>
QC Minimum:	14.7 dpm/100cm <sup>2</sup>
QC Mean:	19.1 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>w</sub> :	100.0 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>EMC</sub> :	300.0 dpm/100cm <sup>2</sup>

### Removable Surface Activity Measurements

Nbr Random Measurements Required: 17

Nbr Biased Measurements Required: 0

Nbr Random Measurements Performed: 17

Nbr Biased Measurements Performed: 0

#### Alpha

Maximum:	4.5 dpm/100cm <sup>2</sup>
Minimum:	0.0 dpm/100cm <sup>2</sup>
Mean:	1.4 dpm/100cm <sup>2</sup>
Standard Deviation:	1.2
Transuranic DCGL <sub>w</sub> :	20.0 dpm/100cm <sup>2</sup>

### Media Sample Results

Nbr Random Required: 0

Nbr Biased Required: 0

Nbr Random Collected: 0

Nbr Biased Collected: 0

*Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.*

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Survey Area: C

Survey Unit: 707052

Building: 707

Description: B707 1st floor "D" module floor area between columns F-G, 7-9

### Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency		A-Priori MDA (dpm/100cm <sup>2</sup> )		Survey Type
							Alpha	Beta	Alpha	Beta	
1	712600	08/08/04	Electra	4680	DP-6	08/20/04	0.228	NA	48.0	NA	T
2	711749	08/08/04	SAC-4	1469	NA	11/27/04	0.333	NA	10.0	NA	R
3	711749	08/08/04	SAC-4	957	NA	11/05/04	0.333	NA	10.0	NA	R
4	711749	08/08/04	Electra	4412	DP-6	12/29/04	0.208	NA	48.0	NA	T
5	712467	08/08/04	Electra	1436	NA	01/21/05	0.227	NA	48.0	NA	Q

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

246

Survey Area: C

Survey Unit: 707052

Building: 707

Description: B707 1st floor "D" module floor area between columns F-G, 7-9

### Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707052PRP-N001	2	3.0	N/A	
707052PRP-N002	3	0.0	N/A	
707052PRP-N003	2	0.0	N/A	
707052PRP-N004	3	1.5	N/A	
707052PRP-N005	2	0.0	N/A	
707052PRP-N006	3	1.5	N/A	
707052PRP-N007	2	1.5	N/A	
707052PRP-N008	3	1.5	N/A	
707052PRP-N009	2	1.5	N/A	
707052PRP-N010	3	0.0	N/A	
707052PRP-N011	2	4.5	N/A	
707052PRP-N012	3	1.5	N/A	
707052PRP-N013	2	0.0	N/A	
707052PRP-N014	3	1.5	N/A	
707052PRP-N015	2	3.0	N/A	
707052PRP-N016	3	1.5	N/A	
707052PRP-N017	2	1.5	N/A	

Comments:

247

Survey Area: C

Survey Unit: 707052

Building: 707

Description: B707 1st floor "D" module floor area between columns F-G, 7-9

### Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707052PRP-N001	1	11.4	N/A	
707052PRP-N002	1	14.5	N/A	
707052PRP-N003	1	46.5	N/A	
707052PRP-N004	1	29.0	N/A	
707052PRP-N005	1	87.7	N/A	
707052PRP-N006	1	37.7	N/A	
707052PRP-N007	1	23.3	N/A	
707052QRP-N007	5	23.5	N/A	
707052PRP-N008	1	14.5	N/A	
707052PRP-N009	5	11.6	N/A	
707052PRP-N010	5	8.9	N/A	
707052PRP-N011	5	46.8	N/A	
707052PRP-N012	5	23.5	N/A	
707052PRP-N013	4	43.3	N/A	
707052PRP-N014	4	40.5	N/A	
707052PRP-N015	4	43.3	N/A	
707052PRP-N016	4	17.9	N/A	
707052PRP-N017	4	37.1	N/A	
707052QRP-N017	5	14.7	N/A	

Comments: A 100% scan was performed on all accessible surfaces. All scan values <300 dpm/100 cm<sup>2</sup>.

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ATTACHMENT B28

Survey Unit 707053 Survey Data and Maps

# Investigation Documentation

Survey Unit: 707053

Investigation Number	Surface Floor, Wall, Ceiling etc.	Location	"As Found" (dpm/100 cm <sup>2</sup> )	Remediation Performed? (Yes/No)	"As Left" (dpm) <sup>Note 1</sup>	"As Left" (dpm/100 cm <sup>2</sup> )	9-Point Done? (Yes/No)	meter <sup>2</sup> Average (dpm/100 cm <sup>2</sup> )
1	Floor	G-9	1543	Yes	279	N/A	No	<100
2	Floor	G-9	358	Yes	195	N/A	No	<100
3	Floor	G-9	5826	Yes	78	N/A	No	<100
4	Floor	G-9	574	Yes	240	N/A	No	<100
5	Floor	G-9	440	Yes	N/A	74	No	<100
6	Floor	G-9	2880	Yes	260	N/A	No	<100
7	Floor	H-9	500	No	N/A	59	Yes	5
8	Floor	H-9	7400	Yes	N/A	19	No	N/A
9	Floor	H-9	540	No	N/A	68	Yes	10
10	Floor	H-8	428	Yes	195	N/A	No	<100
11	Floor	H-8	921	Yes	182	N/A	No	<100
12	Floor	G-9	505	Yes	130	N/A	No	<100

Note 1 = total activity per 600 cm<sup>2</sup> probe

Maximum 279

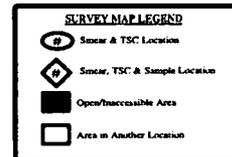
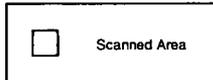
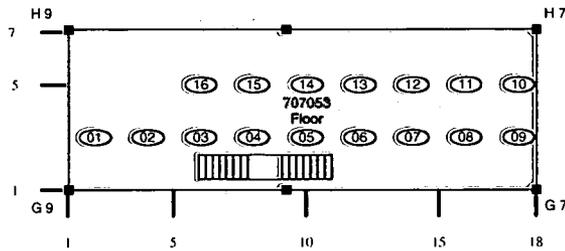
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250

**RADIOLOGICAL CLOSEOUT SURVEY FOR THE 707 CLUSTER**

Survey Area: C      Survey Unit: 707053      Classification: 1  
Building: 707  
Survey Unit Description: First floor (D module)  
Total Floor Area: 105 sq. m      Total Area: 105 sq. m      Grid Size: 2 x 2 sq.m

**SURVEY UNIT 707053 - MAP 1 OF 1**



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Survey Area: C

Survey Unit: 707053

Building: 707

Description: B707 1st floor "D" module floor surfaces between columns G-H, 7-9

## Rocky Flats Environmental Technology Site Final Radiological Survey Summary Results

### Total Surface Activity Measurements

Nbr Random Measurements Required: 16

Nbr Biased Measurements Required: 0

Nbr QC Required: 2

Nbr Random Measurements Performed: 16

Nbr Biased Measurements Performed: 0

Nbr QC Performed: 2

#### Alpha

Maximum:	56.4 dpm/100cm <sup>2</sup>
Minimum:	15.1 dpm/100cm <sup>2</sup>
Mean:	37.9 dpm/100cm <sup>2</sup>
Standard Deviation:	12.1
QC Maximum:	60.4 dpm/100cm <sup>2</sup>
QC Minimum:	22.0 dpm/100cm <sup>2</sup>
QC Mean:	41.2 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>w</sub> :	100.0 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>EMC</sub> :	300.0 dpm/100cm <sup>2</sup>

### Removable Surface Activity Measurements

Nbr Random Measurements Required: 16

Nbr Biased Measurements Required: 0

Nbr Random Measurements Performed: 16

Nbr Biased Measurements Performed: 0

#### Alpha

Maximum:	3.0 dpm/100cm <sup>2</sup>
Minimum:	-1.5 dpm/100cm <sup>2</sup>
Mean:	-0.2 dpm/100cm <sup>2</sup>
Standard Deviation:	1.3
Transuranic DCGL <sub>w</sub> :	20.0 dpm/100cm <sup>2</sup>

### Media Sample Results

Nbr Random Required: 0

Nbr Biased Required: 0

Nbr Random Collected: 0

Nbr Biased Collected: 0

*Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.*

252

Survey Area: C

Survey Unit: 707053

Building: 707

Description: B707 1st floor "D" module floor surfaces between columns G-H, 7-9

### Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency		A-Priori MDA (dpm/100cm <sup>2</sup> )		Survey Type
							Alpha	Beta	Alpha	Beta	
1	600868	08/08/04	Electra	4679	DP-6	01/23/05	0.222	NA	48.0	NA	T
2	701822	08/08/04	Electra	1259	DP-6	10/22/04	0.224	NA	48.0	NA	T
3	520363	08/08/04	Electra	1543	DP-6	09/09/04	0.227	NA	48.0	NA	T
4	520363	08/08/04	SAC-4	1473	NA	01/29/05	0.333	NA	10.0	NA	R
5	520363	08/08/04	SAC-4	1284	NA	01/29/05	0.333	NA	10.0	NA	R
6	520363	08/08/04	SAC-4	1265	NA	09/15/04	0.333	NA	10.0	NA	R
7	511510	10/12/04	Electra	1384	DP-6	01/16/05	0.216	NA	48.0	NA	I

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

253

Survey Area: C

Survey Unit: 707053

Building: 707

Description: B707 1st floor "D" module floor surfaces between columns G-H, 7-9

### Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707053PRP-N001	4	0.0	N/A	
707053PRP-N002	5	-0.9	N/A	
707053PRP-N003	6	-0.3	N/A	
707053PRP-N004	4	-1.5	N/A	
707053PRP-N005	5	-0.9	N/A	
707053PRP-N006	6	-0.3	N/A	
707053PRP-N007	4	-1.5	N/A	
707053PRP-N008	5	-0.9	N/A	
707053PRP-N009	6	-0.3	N/A	
707053PRP-N010	4	3.0	N/A	
707053PRP-N011	5	-0.9	N/A	
707053PRP-N012	6	-0.3	N/A	
707053PRP-N013	4	1.5	N/A	
707053PRP-N014	5	2.1	N/A	
707053PRP-N015	6	-0.3	N/A	
707053PRP-N016	4	-1.5	N/A	

Comments:

254

Survey Area: C

Survey Unit: 707053

Building: 707

Description: B707 1st floor "D" module floor surfaces between columns G-H, 7-9

### Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707053PRP-N001	1	33.1	N/A	
707053PRP-N002	1	27.3	N/A	
707053PRP-N003	1	42.2	N/A	
707053PRP-N004	1	54.3	N/A	
707053PRP-N005	1	36.3	N/A	
707053PRP-N006	1	30.0	N/A	
707053QRP-N006	3	22.0	N/A	
707053PRP-N007	1	48.0	N/A	
707053PRP-N008	1	51.2	N/A	
707053PRP-N009	1	15.1	N/A	
707053PRP-N010	2	35.9	N/A	
707053PRP-N011	2	38.5	N/A	
707053PRP-N012	2	56.4	N/A	
707053PRP-N013	2	53.7	N/A	
707053QRP-N013	3	60.4	N/A	
707053PRP-N014	2	29.6	N/A	
707053SRP-N015	7	30.9	N/A	
707053PRP-N016	2	23.8	N/A	

Comments: 100% scan performed on the accessible floor surface. All values < 300 dpm/100 cm2 after remediation.

255

ATTACHMENT B29

Survey Unit 707054 Survey Data and Maps

# Investigation Documentation

Survey Unit: 707054

Investigation Number	Surface Floor, Wall, Ceiling etc.	Location	"As Found" (dpm/100 cm <sup>2</sup> )	Remediation Performed? (Yes/No)	"As Left" (dpm) <sup>Note 1</sup>	"As Left" (dpm/100 cm <sup>2</sup> )	9-Point Done? (Yes/No)	meter <sup>2</sup> Average (dpm/100 cm <sup>2</sup> )
1	Floor	H-8	584	Yes	279	N/A	No	<100

Note 1 = total activity per 600 cm<sup>2</sup> probe

Maximum

257

**RADIOLOGICAL CLOSEOUT SURVEY FOR THE 707 CLUSTER**

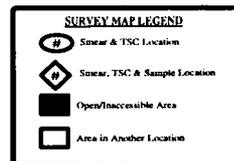
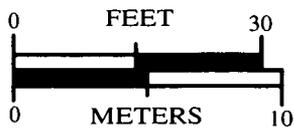
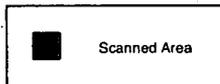
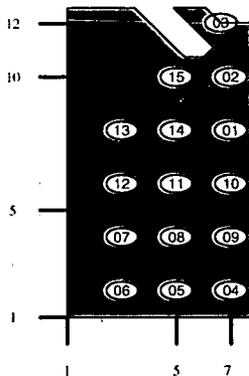
Survey Area: 1      Survey Unit: 707015      Classification: 2

Building: 707

Survey Unit Description: First floor- NDT vault - Room 167

Total Floor Area: 76 sq. m      Total Area: 76 sq. m      Random Start Grid Size: 2 x 2 sq. m

**SURVEY UNIT 707015 - MAP 1 OF 1**



258

Survey Area: C

Survey Unit: 707054

Building: 707

Description: B707 1st floor "D" module floor surfaces between columns H-J, 7-9

## Rocky Flats Environmental Technology Site Final Radiological Survey Summary Results

### Total Surface Activity Measurements

Nbr Random Measurements Required: 17

Nbr Biased Measurements Required: 0

Nbr QC Required: 2

Nbr Random Measurements Performed: 17

Nbr Biased Measurements Performed: 0

Nbr QC Performed: 2

#### Alpha

Maximum:	70.7 dpm/100cm <sup>2</sup>
Minimum:	-2.8 dpm/100cm <sup>2</sup>
Mean:	32.2 dpm/100cm <sup>2</sup>
Standard Deviation:	24.1
QC Maximum:	52.8 dpm/100cm <sup>2</sup>
QC Minimum:	37.0 dpm/100cm <sup>2</sup>
QC Mean:	44.9 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>w</sub> :	100.0 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>EMC</sub> :	300.0 dpm/100cm <sup>2</sup>

### Removable Surface Activity Measurements

Nbr Random Measurements Required: 17

Nbr Biased Measurements Required: 0

Nbr Random Measurements Performed: 17

Nbr Biased Measurements Performed: 0

#### Alpha

Maximum:	-0.3 dpm/100cm <sup>2</sup>
Minimum:	-0.6 dpm/100cm <sup>2</sup>
Mean:	-0.4 dpm/100cm <sup>2</sup>
Standard Deviation:	0.2
Transuranic DCGL <sub>w</sub> :	20.0 dpm/100cm <sup>2</sup>

### Media Sample Results

Nbr Random Required: 0

Nbr Biased Required: 0

Nbr Random Collected: 0

Nbr Biased Collected: 0

Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.

Survey Area: C

Survey Unit: 707054

Building: 707

Description: B707 1st floor "D" module floor surfaces between columns H-J, 7-9

### Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency		A-Priori MDA (dpm/100cm <sup>2</sup> )		Survey Type
							Alpha	Beta	Alpha	Beta	
1	511827	08/08/04	Electra	4681	DP-6	01/14/05	0.210	NA	48.0	NA	T
2	511827	08/08/04	Electra	1245	DP-6	09/04/04	0.215	NA	48.0	NA	T
3	511233	08/08/04	Electra	1245	DP-6	09/04/04	0.215	NA	48.0	NA	T
4	511233	08/08/04	SAC-4	1473	NA	01/29/05	0.333	NA	10.0	NA	R
5	511233	08/08/04	SAC-4	1284	NA	01/29/05	0.333	NA	10.0	NA	R

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

260

Survey Area: C

Survey Unit: 707054

Building: 707

Description: B707 1st floor "D" module floor surfaces between columns H-J, 7-9

### Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707054PRP-N001	4	-0.3	N/A	
707054PRP-N002	5	-0.6	N/A	
707054PRP-N003	4	-0.3	N/A	
707054PRP-N004	5	-0.6	N/A	
707054PRP-N005	4	-0.3	N/A	
707054PRP-N006	5	-0.6	N/A	
707054PRP-N007	4	-0.3	N/A	
707054PRP-N008	5	-0.6	N/A	
707054PRP-N009	4	-0.3	N/A	
707054PRP-N010	5	-0.6	N/A	
707054PRP-N011	4	-0.3	N/A	
707054PRP-N012	5	-0.6	N/A	
707054PRP-N013	4	-0.3	N/A	
707054PRP-N014	5	-0.6	N/A	
707054PRP-N015	4	-0.3	N/A	
707054PRP-N016	5	-0.6	N/A	
707054PRP-N017	4	-0.3	N/A	

Comments:

261

Survey Area: C

Survey Unit: 707054

Building: 707

Description: B707 1st floor "D" module floor surfaces between columns H-J, 7-9

### Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707054PRP-N001	1	48.8	N/A	
707054PRP-N002	1	64.5	N/A	
707054PRP-N003	1	48.8	N/A	
707054PRP-N004	1	39.3	N/A	
707054PRP-N005	1	29.8	N/A	
707054PRP-N006	1	36.0	N/A	
707054PRP-N007	1	48.8	N/A	
707054PRP-N008	1	26.4	N/A	
707054QRP-N008	3	37.0	N/A	
707054PRP-N009	1	55.0	N/A	
707054QRP-0009	3	52.8	N/A	
707054PRP-N010	1	48.8	N/A	
707054PRP-N011	1	70.7	N/A	
707054PRP-N012	2	-2.8	N/A	
707054PRP-N013	2	-2.8	N/A	
707054PRP-N014	2	0.5	N/A	
707054PRP-N015	2	15.8	N/A	
707054PRP-N016	2	-2.8	N/A	
707054PRP-N017	2	21.9	N/A	

Comments: Scanned 100% of accessible floor surfaces. All values <300 dpm/100 cm2.

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ATTACHMENT B30

Survey Unit 707055 Survey Data and Maps

# Investigation Documentation

Survey Unit: 707055

Investigation Number	Surface Floor, Wall, Ceiling etc.	Location	"As Found" (dpm/100 cm <sup>2</sup> )	Remediation Performed? (Yes/No)	"As Left" (dpm) <sup>Note 1</sup>	"As Left" (dpm/100 cm <sup>2</sup> )	9-Point Done? (Yes/No)	meter <sup>2</sup> Average (dpm/100 cm <sup>2</sup> )
1	Floor	K-9	508	Yes	136	N/A	No	<100
2	Floor	K-9	505	Yes	78	N/A	No	<100

Note 1 = total activity per 600 cm<sup>2</sup> probe

Maximum 136.4

264



Survey Area: C

Survey Unit: 707055

Building: 707

Description: B707 1st floor "D" module floor surfaces between columns J-K, 7-9

## Rocky Flats Environmental Technology Site Final Radiological Survey Summary Results

### Total Surface Activity Measurements

Nbr Random Measurements Required: 17

Nbr Biased Measurements Required: 0

Nbr QC Required: 2

Nbr Random Measurements Performed: 17

Nbr Biased Measurements Performed: 0

Nbr QC Performed: 2

#### Alpha

Maximum:	57.2 dpm/100cm <sup>2</sup>
Minimum:	10.0 dpm/100cm <sup>2</sup>
Mean:	36.5 dpm/100cm <sup>2</sup>
Standard Deviation:	11.9
QC Maximum:	39.2 dpm/100cm <sup>2</sup>
QC Minimum:	26.6 dpm/100cm <sup>2</sup>
QC Mean:	32.9 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>w</sub> :	100.0 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>EMC</sub> :	300.0 dpm/100cm <sup>2</sup>

### Removable Surface Activity Measurements

Nbr Random Measurements Required: 17

Nbr Biased Measurements Required: 0

Nbr Random Measurements Performed: 17

Nbr Biased Measurements Performed: 0

#### Alpha

Maximum:	4.2 dpm/100cm <sup>2</sup>
Minimum:	-0.6 dpm/100cm <sup>2</sup>
Mean:	0.6 dpm/100cm <sup>2</sup>
Standard Deviation:	1.3
Transuranic DCGL <sub>w</sub> :	20.0 dpm/100cm <sup>2</sup>

### Media Sample Results

Nbr Random Required: 0

Nbr Biased Required: 0

Nbr Random Collected: 0

Nbr Biased Collected: 0

*Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.*

Survey Area: C

Survey Unit: 707055

Building: 707

Description: B707 1st floor "D" module floor surfaces between columns J-K, 7-9

### Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency		A-Priori MDA (dpm/100cm <sup>2</sup> )		Survey Type
							Alpha	Beta	Alpha	Beta	
1	510391	08/08/04	Electra	3977	DP-6	01/31/05	0.212	NA	48.0	NA	T
2	600638	08/08/04	Electra	4409	DP-6	01/31/05	0.227	NA	48.0	NA	T
3	510391	08/08/04	SAC-4	1473	NA	01/29/05	0.333	NA	10.0	NA	R
4	600638	08/08/04	SAC-4	1284	NA	01/29/05	0.333	NA	10.0	NA	R
5	516375	10/29/04	Electra	1245	DP-6	02/23/05	0.223	NA	48.0	NA	T
6	514510	10/29/04	Electra	2166	DP-6	01/22/05	0.213	NA	48.0	NA	T
7	514510	10/29/04	SAC-4	1473	NA	01/29/05	0.333	NA	10.0	NA	R

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

267

Survey Area: C

Survey Unit: 707055

Building: 707

Description: B707 1st floor "D" module floor surfaces between columns J-K, 7-9

### Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707055PRP-N001	7	-0.3	N/A	
707055PRP-N002	7	-0.3	N/A	
707055PRP-N003	7	-0.3	N/A	
707055PRP-N004	7	1.2	N/A	
707055PRP-N005	7	1.2	N/A	
707055PRP-N006	7	2.7	N/A	
707055PRP-N007	7	-0.3	N/A	
707055PRP-N008	7	1.2	N/A	
707055PRP-N009	4	-0.6	N/A	
707055PRP-N010	4	-0.6	N/A	
707055PRP-N011	4	0.9	N/A	
707055PRP-N012	4	-0.6	N/A	
707055PRP-N013	3	1.2	N/A	
707055PRP-N014	3	1.2	N/A	
707055PRP-N015	3	4.2	N/A	
707055PRP-N016	3	-0.3	N/A	
707055PRP-N017	3	-0.3	N/A	

Comments:

268

Survey Area: C

Survey Unit: 707055

Building: 707

Description: B707 1st floor "D" module floor surfaces between columns J-K, 7-9

### Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707055PRP-N001	5	35.2	N/A	
707055QRP-N001	6	39.2	N/A	
707055PRP-N002	5	23.6	N/A	
707055PRP-N003	5	47.3	N/A	
707055PRP-N004	5	47.3	N/A	
707055PRP-N005	5	20.4	N/A	
707055PRP-N006	5	29.4	N/A	
707055PRP-N007	5	26.3	N/A	
707055PRP-N008	5	32.6	N/A	
707055PRP-N009	2	37.3	N/A	
707055PRP-N010	2	43.0	N/A	
707055PRP-N011	2	40.4	N/A	
707055PRP-N012	2	49.2	N/A	
707055QRP-N012	6	26.6	N/A	
707055PRP-N013	1	44.9	N/A	
707055PRP-N014	1	35.5	N/A	
707055PRP-N015	1	10.0	N/A	
707055PRP-N016	1	41.6	N/A	
707055PRP-N017	1	57.2	N/A	

Comments: 100% of accessible floor surfaces scanned. All values <300 dpm/100 cm2.

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ATTACHMENT B31

Survey Unit 707056 Survey Data and Maps

# Investigation Documentation

Survey Unit: 707056

Investigation Number	Surface Floor, Wall, Ceiling etc.	Location	"As Found" (dpm/100 cm <sup>2</sup> )	Remediation Performed? (Yes/No)	"As Left" (dpm) <sup>Note 1</sup>	"As Left" (dpm/100 cm <sup>2</sup> )	9-Point Done? (Yes/No)	meter <sup>2</sup> Average (dpm/100 cm <sup>2</sup> )
1	Floor	K-8	420	Yes	N/A	39	No	<100

Note 1 = total activity per 600 cm<sup>2</sup> probe

Maximum 

38.9
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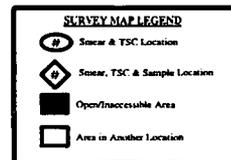
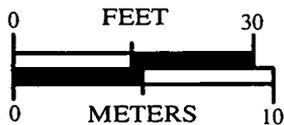
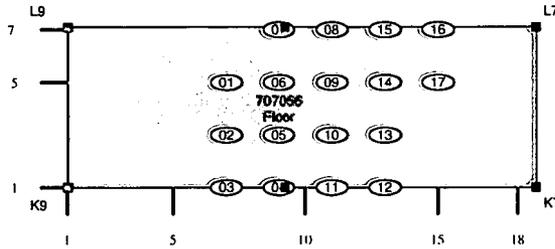
271

**RADIOLOGICAL CLOSEOUT SURVEY FOR THE 707 CLUSTER**

Survey Area: C      Survey Unit: 707056      Classification: 1  
Building: 707  
Survey Unit Description: First floor (D module)

Total Floor Area: 108 sq. m      Total Area: 108 sq. m      Grid Size: 2 x 2 sq.m

**SURVEY UNIT 707056 - MAP 1 OF 1**



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Survey Area: C

Survey Unit: 707056

Building: 707

Description: B707 1st floor "D" module floor surfaces between columns K-L, 7-9

## Rocky Flats Environmental Technology Site Final Radiological Survey Summary Results

### Total Surface Activity Measurements

Nbr Random Measurements Required: 17  
Nbr Random Measurements Performed: 17

Nbr Biased Measurements Required: 0  
Nbr Biased Measurements Performed: 0

Nbr QC Required: 2  
Nbr QC Performed: 2

#### Alpha

Maximum:	89.1 dpm/100cm <sup>2</sup>
Minimum:	20.0 dpm/100cm <sup>2</sup>
Mean:	47.4 dpm/100cm <sup>2</sup>
Standard Deviation:	18.2
QC Maximum:	-17.8 dpm/100cm <sup>2</sup>
QC Minimum:	-29.6 dpm/100cm <sup>2</sup>
QC Mean:	-23.7 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>w</sub> :	100.0 dpm/100cm <sup>2</sup>
Transuranic DCGL <sub>EMC</sub> :	300.0 dpm/100cm <sup>2</sup>

### Removable Surface Activity Measurements

Nbr Random Measurements Required: 17  
Nbr Random Measurements Performed: 17

Nbr Biased Measurements Required: 0  
Nbr Biased Measurements Performed: 0

#### Alpha

Maximum:	5.7 dpm/100cm <sup>2</sup>
Minimum:	-0.3 dpm/100cm <sup>2</sup>
Mean:	1.6 dpm/100cm <sup>2</sup>
Standard Deviation:	1.5
Transuranic DCGL <sub>w</sub> :	20.0 dpm/100cm <sup>2</sup>

### Media Sample Results

Nbr Random Required: 0  
Nbr Random Collected: 0

Nbr Biased Required: 0  
Nbr Biased Collected: 0

Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.

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Survey Area: C

Survey Unit: 707056

Building: 707

Description: B707 1st floor "D" module floor surfaces between columns K-L, 7-9

### Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency		A-Priori MDA (dpm/100cm <sup>2</sup> )		Survey Type
							Alpha	Beta	Alpha	Beta	
1	601035	08/08/04	Electra	3985	DP-6	09/16/04	0.223	NA	48.0	NA	T
2	600757	08/08/04	Electra	4398	DP-6	01/29/05	0.213	NA	48.0	NA	T
3	601035	08/08/04	SAC-4	1473	NA	01/29/05	0.333	NA	10.0	NA	R
5	516375	10/29/04	Electra	2166	DP-6	01/22/05	0.213	NA	48.0	NA	T
6	514510	10/29/04	SAC-4	1473	NA	01/29/05	0.333	NA	10.0	NA	R
11	514510	11/01/04	Electra	2172	DP-6	12/30/04	0.220	NA	48.0	NA	I

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

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Survey Area: C

Survey Unit: 707056

Building: 707

Description: B707 1st floor "D" module floor surfaces between columns K-L, 7-9

### Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707056PRP-N001	3	2.7	N/A	
707056PRP-N002	3	2.7	N/A	
707056PRP-N003	3	2.7	N/A	
707056PRP-N004	6	1.2	N/A	
707056PRP-N005	6	2.7	N/A	
707056PRP-N006	6	5.7	N/A	
707056PRP-N007	6	1.2	N/A	
707056PRP-N008	6	1.2	N/A	
707056PRP-N009	6	1.2	N/A	
707056PRP-N010	6	-0.3	N/A	
707056PRP-N011	6	-0.3	N/A	
707056PRP-N012	6	-0.3	N/A	
707056PRP-N013	6	2.7	N/A	
707056PRP-N014	6	1.2	N/A	
707056PRP-N015	6	1.2	N/A	
707056PRP-N016	6	-0.3	N/A	
707056PRP-N017	6	1.2	N/A	

Comments:

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Survey Area: C

Survey Unit: 707056

Building: 707

Description: B707 1st floor "D" module floor surfaces between columns K-L, 7-9

### Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm <sup>2</sup> )	Net Beta (dpm/100cm <sup>2</sup> )	
707056PRP-N001	1	41.7	N/A	
707056PRP-N002	1	21.1	N/A	
707056QRP-N002	2	-17.8	N/A	
707056PRP-N003	1	50.7	N/A	
707056QRP-N003	2	-29.6	N/A	
707056PRP-N004	5	20.0	N/A	
707056PRP-N005	5	29.4	N/A	
707056PRP-N006	5	60.9	N/A	
707056PRP-N007	5	60.9	N/A	
707056SRP-N008	11	42.2	N/A	
707056PRP-N009	5	38.8	N/A	
707056PRP-N010	5	32.7	N/A	
707056PRP-N011	5	67.0	N/A	
707056PRP-N012	5	44.9	N/A	
707056PRP-N013	5	57.6	N/A	
707056PRP-N014	5	89.1	N/A	
707056PRP-N015	5	67.0	N/A	
707056PRP-N016	5	48.2	N/A	
707056PRP-N017	5	32.7	N/A	

Comments: 100% of accessible floor surfaces scanned. All values <300 dpm/100 cm<sup>2</sup>.

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