An AREVA and Siemens Company

SURVEY PACKAGE

Survey Package ID: G4024 401B1

Survey Area Name: Structural Background Reference Area for SETF

Survey Unit Name: Structural Background Areas

Version: Revision 0, May 3, 2007

Prepared IAW:
SETF Sample and Analysis Plan, Rev. 0, March 2007

Prepared For:
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AREVA

Survey Package Cover Sheet

Survey Package Number:	G4024 401B1	Package Type:	Structure
Survey Area Name:	Structural Background Reference Area for SETF Building 4024		
Survey Unit Name:	Structures Background Reference Area		

Survey Package Preparation:

The survey package instructions are prepared and ready for implementation.

Prepared By: _____ Date 5/10/07
FSS/Characterization Design Engineer

Reviewed By: _____ Date 5/10/07
FSS/Characterization Manager (or designee)

Approved By: _____ Date 5/10/07
Project Manager

Survey Completion:

The survey package instructions were implemented and the survey measurements have been reviewed for completeness in accordance with the Sample and Analysis Plan. The data collected has been reviewed for completeness in accordance with the survey package instructions.

Reviewed By: _____ for J. McGehee Date: 11/30/07
FSS/Characterization Supervisor (or designee)

Reviewed By: N/A Date: _____
FSS/Characterization Data Anlysis Engineer

Reviewed By: _____ Date: 11/30/07
RP/FSS/Characterization Manager (or designee)

Approved By: _____ Date: 11/30/07
Project Manager

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Survey Area History

Survey Package Number:	G4024 401B1	Package Type:	Structure
Survey Area Name:	Structural Background Reference Area for SETF Building 4024		
Survey Unit Name:	Structures Background Reference Area		

Survey Area Description:

The purpose of this background study is to determine NORM contribution to direct measurements from structural materials in areas similar, but not associated with the SETF survey units.

Survey Area History Information:

The local background determination will serve as the baseline for evaluating survey measurement results and survey reference values. Because the background study results will be used in the evaluation of the onsite survey data, measurements, sampling, sample preparation, and sample analysis will be similar to those to be used for the onsite measurements. Basis information and guidance for conducting a background survey can be found in Section 4.5 of the MARSSIM and in Ref. 7.15, Appendix A, Section A.3, Volume II of the NUREG-1757, Selection of Background Reference Areas and Background Reference Materials.

Survey Unit Description and History

Survey Package Number: G4024 401B1 Package Type: Structure

LC1: G4024 Survey Area Name: Structural Background Reference Area for SETF Building 4024

LC2: 401B1 Survey Unit Name: Structures Background Reference Area

LC3 - Surface Category (P1-3) and Associated Area:

LC3_P1_3	Surface Description	Dimensions (Yes or No)	Total Area (m2)
FL1	Floor Surface	No	0
PA1	Paved Areas	No	0
WL1	Lower Wall Surfaces	No	0

Work Breakdown Structure Information:

WBS ID: 10401 Characterization and Confirmatory Survey Activities

Survey Unit Description:

Areas similar but not associated with the SETF survey units or any other radiological operations.

Survey Unit Historical Information: Operational History, etc.

Typical nuclides found in significant levels in background materials (soil, sediments, building materials, etc.) include some of the potential COC, i.e., from the naturally occurring uranium in addition to naturally occurring radioactive materials (NORM) thorium, and actinium series, but not Co-60 or Eu-152. The background study will be performed on structural surfaces and environmental soil areas which have common characteristics with the samples to be collected from the SETF survey unit structural surfaces and environmental soil areas but which are unaffected by radioactive material storage or operations. The background soil and sediment samples will be analyzed by radionuclide specific analysis (e.g., alpha and gamma spectroscopy) to determine the radionuclides and their concentration in the natural background.

Direct alpha and direct beta measurements for material background will be taken on construction materials, which are expected to include: metal, painted concrete and bare concrete. These construction materials contain various amounts of NORM, as discussed above, that add to the gross activity direct alpha and direct beta measurements. The data collected during the background study will be reviewed for trends, and statistics performed on the various data sets for each material surveyed. The background data will be used for evaluation of the

Survey Unit Description and History

Survey Package Number: G4024 401B1 Package Type: Structure

LC1: G4024 Survey Area Name: Structural Background Reference Area for SETF Building 4024

LC2: 401B1 Survey Unit Name: Structures Background Reference Area

survey data collected from the subject survey units. Data collected from the SETF survey units will be compared to the background data to determine if it is statistically different during the data evaluation and review described in Section 4.2.7.

Additional Information Regarding Survey Unit Classification:

Inside RCA? No

Coolant? No

Spills? No

Survey Package References

Survey Package Number:	G4024 401B1	Package Type:	Structure
Survey Area Name:	Structural Background Reference Area for SETF Building 4024		
Survey Unit Name:	Structures Background Reference Area		

References:

1. Sample and Analysis Plan for the SETF D&D Surveys, Rev 0, March 2007, AREVA
2. Quality Assurance Project Plan for the SETF D&D Surveys, Rev 0, March 2007, AREVA
3. Health and Safety Plan for the SETF D&D Project, March 2007, AREVA
4. MARSSIM, Multi-Agency Radiation Survey and Site Investigation Manual, EPA402-R-97-016 (NUREG-1575), August 2000

Survey Safety Requirements

Survey Package Number:	G4024 401B1	Package Type:	Structure
Survey Area Name:	Structural Background Reference Area for SETF Building 4024		
Survey Unit Name:	Structures Background Reference Area		

Safety Requirement and Considerations:

1. This area contains or may contain physical slip, trip and fall hazards, and watch for poisonous snakes and insects.

Survey Support Requirements

Survey Package Number:	G4024 401B1	Package Type:	Structure
Survey Area Name:	Structural Background Reference Area for SETF Building 4024		
Survey Unit Name:	Structures Background Reference Area		

Survey Support Requirements and Considerations:

1. Review Job Hazard Analysis prepared for surveys of radiologically clean areas.

Survey Package Procedures

Survey Package Number:	G4024 401B1	Package Type:	Structure
Survey Area Name:	Structural Background Reference Area for SETF Building 4024		
Survey Unit Name:	Structures Background Reference Area		

Survey Package Procedures:

1. DD-CS-011 Operation of Ludlum Model 2350 Data Logger
2. DD-CS-014 Bulk Material and Core Bore Sampling
3. DD-RP-010 Portable Instrument Procedure
4. DD-CS-001 Sample Identification and Chain of Custody

General Survey Package Instructions

Survey Package Number:	G4024 401B1	Package Type:	Structure
Survey Area Name:	Structural Background Reference Area for SETF Building 4024		
Survey Unit Name:	Structures Background Reference Area		

1. Perform measurements and collect samples of sufficient quantity to determine NORM contribution to direct measurements from structural materials in areas similar, but not associated with the SETF survey units.

   Operate instruments for background study and survey direct measurements and sample analysis such that measurement and/or analysis sensitivities or minimum detectable concentrations (MDCs) are ALARA or, as a minimum less than the derived concentration guideline levels (DCGLs).

2. The survey is to aid in evaluating contribution from NORM in materials of construction and soil on direct measurement levels from areas similar but not associated with the SETF survey units.

   Upon completion of the initial survey specified in this survey package, the data will be analyzed and a determination will be made as to whether or not the area is suitable for use as background reference area.

3. If materials that are potentially hazardous are encountered during the survey, note this in the item description under "material" and report the location of the material to the FSS/Characterization Manager and EH&S Manager.

4. The number of measurements and/or samples prescribed are minimum number required.

   Survey maps for the areas contained in this survey unit are located in Appendix A.

5. Mark each measurement location with a stake or survey flag and include LC5 and/or LC6 code as appropriate.

6. The M2350 data logger(s) are to be downloaded into the Measure Database at completion of survey or at end of shift at a minimum.

7. All samples are to be logged into the Sample Database at completion of survey or at end of shift at a minimum.

   Note any problems, comments, or other information pertinent to the data or sample collection under the "FIELD NOTES" section.

Specific Survey Package Instructions

Survey Package Number:	G4024 401B1	Package Type:	Structure
Survey Area Name:	Structural Background Reference Area for SETF Building 4024		
Survey Unit Name:	Structures Background Reference Area		

1. **Beta Scan**

   Perform a beta scan survey of accessible surfaces of the interior and exterior surfaces of the building as described below. Scans should be biased toward areas of highest activity (e.g. pits, cracks, doorways, etc.).

   Use a Model 44-116 or equal detector. The scans shall be performed by moving at a maximum rate of one detector width per second while listening to the audible output of the instrument. For interior surfaces and/or exterior surfaces of the building, perform a scan survey of 9 m2 the accessible floor and lower 2 meters of wall surfaces at each SML. Note any areas of elevated activity on the appropriate survey drawing contained in Appendix A. No scan surveys will be required on the building exterior surfaces above 2 meters if the scan of the lower walls does not identify areas of elevated activity. Do not log scan results.

Specific Survey Package Instructions

Survey Package Number:	G4024 401B1	Package Type:	Structure
Survey Area Name:	Structural Background Reference Area for SETF Building 4024		
Survey Unit Name:	Structures Background Reference Area		

2. **Direct Beta**

Perform direct beta measurements at any locations of elevated activity identified during the scan. If no areas of elevated activity are identified, collect direct beta measurements as directed below.

Use a Model 44-116 or equal detector. A minimum of 30 direct beta measurements will be collected on the surfaces of the building and at locations with the most potential for contamination and where the measurement geometry is most appropriate. If no areas of elevated activity are identified during the scan survey, measurements will be distributed on the building surfaces as follows:

Direct Beta Measurements on Asphalt, Bare Concrete and Metal Surfaces (18 on each material) - 54 total
Direct Alpha Measurements on Asphalt, Bare Concrete and Metal Surfaces (18 on each material) - 54 total
Contact Gamma Measurement on Asphalt, Bare Concrete and Metal Surfaces (18 on each material) - 54 total
1 Meter Gamma Exposure Rate on Asphalt, Bare Concrete and Metal Surfaces (18 on each material) - 54 total

Note the location of each measurement on the appropriate survey drawing contained in Appendix A. Mark each measurement location with an appropriate label, including the LC5 and LC6 code.

With the background shield installed, perform a 60 second "C" count to determine the field background. Using the field MDA verification sheet, adjust the count time to ensure that the MDC is less than 900 dpm/100 square centimeters.

Collect three pre-survey and three post survey shielded background counts. If pre-survey background counts in the survey unit are within +/- 20% of mean, use LMI Model 44-116 detector with the M2350 in the scaler mode with a 60 second count time and code the measurement LC4_P4 as "G," for Field Background and LC4_P5 as "A" for Average Background application (per measurement). If otherwise, collect a single shielded background at each of the direct beta measurement locations, code the measurement LC4_P4 as "G," field background and LC4_P5 as "S" for Single Background (per measurement).

Specific Survey Package Instructions

Survey Package Number:	G4024 401B1	Package Type:	Structure
Survey Area Name:	Structural Background Reference Area for SETF Building 4024		
Survey Unit Name:	Structures Background Reference Area		

For the direct measurement, use LMI Model 44-116 detector with the M2350 in the scaler mode with a 60 second count time and code the measurement LC4_P4 as "F," for Field Count and LC4_P5 as "A" for Average Background application or "S" for Single Background (per measurement) as appropriate.

3. **Direct Alpha**

   Perform direct alpha measurement at each of the direct beta measurement locations.

   Use a Model 43-90 or equal detector. With the background shield installed, perform a 2 minute "C" count to determine the field background. Using the field MDA verification sheet, adjust the count time to ensure that the MDA is less than 75 dpm/100 square centimeters.

   Use Model 43-90 detector with the same background protocol and codes as with the direct beta measurements.

4. **Contact Gamma**

   Perform contact gamma measurement at each of the direct beta measurement locations.

   Use Model 44-10, the M2350 in the scaler mode with a 12 second count time and code the measurement LC4_P4 as "F," for Field Count.

5. **Exposure Rate**

   Perform gamma exposure rate measurement at one (1) meter distance from each contact gamma measurement location.

   Use Model 44-10, the M2350 in the scaler mode with a 12 second count time and code the measurement LC4_P4 as "F," for Field Count.

Survey Package Location Codes

Survey Package Number G4024 401B1 **Package Type:** Structure

LC1: G4024 **Survey Area Name:** Structural Background Reference Area for SETF Building 4024

LC2: 401B1 **Survey Unit Name:** Structures Background Reference Area

Class Description: Non-Impacted Structure

Reason Description: B1 Background Survey

LC3_P1-3 and Surface Category: FL1 Floor Surface

LC3_P45 Material Description

M1 Metal
C1 Concrete (Bare)

LC4_P13 - Detector Type, Analysis Codes, and Measurement/Samples Quantity

Measurement	LC4 P13 Code	Model	Description	Qty Prescribed	Qty Collected	Collected By (Initials)
Contact Gamma				18	16	[illegible]
	G01	44-10	2"x2" NaI(Tl) Gamma Scintillator			
Direct Alpha				18	16	[illegible]
	A04	43-89A	Alpha Scintillator			
	A03	43-90	Alpha Scintillator			
Direct Beta				18	16	[illegible]
	B14	43-89B	Beta Scintillator			
	B02	44-116	Beta Scintillator			
Exposure Rate				18	16	[illegible]
	G02	44-10	2"x2" NaI(Tl) Gamma Scintillator			

LC3_P1-3 and Surface Category: PA1 Asphalt or Concrete Paved Areas

LC3_P45 Material Description

A1 Asphalt

Survey Package Location Codes

Survey Package Number G4024 401B1 **Package Type:** Structure

LC1: G4024 **Survey Area Name:** Structural Background Reference Area for SETF Building 4024

LC2: 401B1 **Survey Unit Name:** Structures Background Reference Area

Class Description: Non-Impacted Structure

Reason Description: B1 Background Survey

LC4_P13 - Detector Type, Analysis Codes, and Measurement/Samples Quantity

Measurement	LC4 P13 Code	Model	Description	Qty Prescribed	Qty Collected	Collected By (Initials)
Contact Gamma				18	18	[illegible]
	G01	44-10	2"x2" NaI(Tl) Gamma Scintillator			
Direct Alpha				18	18	[illegible]
	A04	43-89A	Alpha Scintillator			
	A03	43-90	Alpha Scintillator			
Direct Beta				18	36	[illegible]
	B14	43-89B	Beta Scintillator			
	B02	44-116	Beta Scintillator			
Exposure Rate				18	18	[illegible]
	G02	44-10	2"x2" NaI(Tl) Gamma Scintillator			

LC3_P1-3 and Surface Category: WL1 Lower Wall Surfaces

LC3_P45 Material Description

M1 Metal
C1 Concrete (Bare)

Survey Package Location Codes

Survey Package Number G4024 401B1 Package Type: Structure

LC1: G4024 Survey Area Name: Structural Background Reference Area for SETF Building 4024

LC2: 401B1 Survey Unit Name: Structures Background Reference Area

Class Description: Non-Impacted Structure

Reason Description: B1 Background Survey

LC4_P13 - Detector Type, Analysis Codes, and Measurement/Samples Quantity

Measurement	LC4 P13 Code	Model	Description	Qty Prescribed	Qty Collected	Collected By (Initials)
Contact Gamma				18	18	a
	G01	44-10	2"x2" NaI(Tl) Gamma Scintillator			
Direct Alpha				18	18	a
	A04	43-89A	Alpha Scintillator			
	A03	43-90	Alpha Scintillator			
Direct Beta				18	18	a
	B14	43-89B	Beta Scintillator			
	B02	44-116	Beta Scintillator			
Exposure Rate				18	18	a
	G02	44-10	2"x2" NaI(Tl) Gamma Scintillator			

Survey Package Location Codes

Survey Package Number G4024 401B1 **Package Type:** Structure

LC1: G4024 **Survey Area Name:** Structural Background Reference Area for SETF Building 4024

LC2: 401B1 **Survey Unit Name:** Structures Background Reference Area

Class Description: Non-Impacted Structure

Reason Description: B1 Background Survey

LC4_P4 - Count Type	LC4_P5 - Background Mode Codes
A Pre-use Background Check	A Average Background
B Pre-use Source Check	N Background Not Required
C Post-use Background Check	S Single Background
D Post-use Source Check	
F Field Count	
G Field Background	
S Field Scan	

Survey Field Notes: **Additional information regarding the performance of the survey, measurements, sample collection, etc. Use additional pages as needed for field notes.**

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Survey Package Cover Sheet

Survey Package Number:	G4024 401B1	Package Type:	Structure
Survey Area Name:	Structural Background Reference Area for SETF Building 4024		
Survey Unit Name:	Structures Background Reference Area		

Survey Package Preparation:

The survey package instructions are prepared and ready for implementation.

Prepared By: [signature] Date 5/3/07
FSS/Characterization Design Engineer

Reviewed By: _____ Date _____
FSS/Characterization Manager (or designee)

Approved By: [signature] Date 5/3/07
Project Manager

Survey Completion:

The survey package instructions were implemented and the survey measurements have been reviewed for completeness in accordance with the Sample and Analysis Plan. The data collected has been reviewed for completeness in accordance with the survey package instructions.

Reviewed By: _____ Date: _____
FSS/Characterization Supervisor (or designee)

Reviewed By: _____ Date: _____
FSS/Characterization Data Anlysis Engineer

N/A

Reviewed By: _____ Date: _____
RP/FSS/Characterization Manager (or designee)

Approved By: _____ Date: _____
Project Manager

Total Package Remarks

5/10/07

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Survey Unit Name:	Structures Background Reference Area		

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7.0	General Survey Package Instruction	10
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12.0	Appendix C, Survey Results	

Survey Area History

Survey Package Number:	G4024 401B1	Package Type:	Structure
Survey Area Name:	Structural Background Reference Area for SETF Building 4024		
Survey Unit Name:	Structures Background Reference Area		

Survey Area Description:

The purpose of this background study is to determine NORM contribution to direct measurements from structural materials in areas similar, but not associated with the SETF survey units.

Survey Area History Information:

The local background determination will serve as the baseline for evaluating survey measurement results and survey reference values. Because the background study results will be used in the evaluation of the onsite survey data, measurements, sampling, sample preparation, and sample analysis will be similar to those to be used for the onsite measurements. Basis information and guidance for conducting a background survey can be found in Section 4.5 of the MARSSIM and in Ref. 7.15, Appendix A, Section A.3, Volume II of the NUREG-1757, Selection of Background Reference Areas and Background Reference Materials.

Survey Unit Description and History

Survey Package Number: G4024 401B1 Package Type: Structure

LC1: G4024 Survey Area Name: Structural Background Reference Area for SETF Building 4024

LC2: 401B1 Survey Unit Name: Structures Background Reference Area

LC3 - Surface Category (P1-3) and Associated Area:

LC3_P1_3	Surface Description	Dimensions (Yes or No)	Total Area (m2)
FL1	Floor Surface	No	0
WL1	Lower Wall Surfaces	No	0

Work Breakdown Structure Information:

WBS ID: 10401 Characterization and Confirmatory Survey Activities

Survey Unit Description:

Areas similar but not associated with the SETF survey units or any other radiological operations.

Survey Unit Historical Information: Operational History, etc.

Typical nuclides found in significant levels in background materials (soil, sediments, building materials, etc.) include some of the potential COC, i.e., from the naturally occurring uranium in addition to naturally occurring radioactive materials (NORM) thorium, and actinium series, but not Co-60 or Eu-152. The background study will be performed on structural surfaces and environmental soil areas which have common characteristics with the samples to be collected from the SETF survey unit structural surfaces and environmental soil areas but which are unaffected by radioactive material storage or operations. The background soil and sediment samples will be analyzed by radionuclide specific analysis (e.g., alpha and gamma spectroscopy) to determine the radionuclides and their concentration in the natural background.

Direct alpha and direct beta measurements for material background will be taken on construction materials, which are expected to include: metal, painted concrete and bare concrete. These construction materials contain various amounts of NORM, as discussed above, that add to the gross activity direct alpha and direct beta measurements. The data collected during the background study will be reviewed for trends, and statistics performed on the various data sets for each material surveyed. The background data will be used for evaluation of the survey data collected from the subject survey units. Data collected from the SETF survey units

Survey Unit Description and History

Survey Package Number: G4024 401B1 Package Type: Structure

LC1: G4024 Survey Area Name: Structural Background Reference Area for SETF Building 4024

LC2: 401B1 Survey Unit Name: Structures Background Reference Area

will be compared to the background data to determine if it is statistically different during the data evaluation and review described in Section 4.2.7.

Additional Information Regarding Survey Unit Classification:

Inside RCA? No

Coolant? No

Spills? No

Survey Package References

Survey Package Number:	G4024 401B1	Package Type:	Structure
Survey Area Name:	Structural Background Reference Area for SETF Building 4024		
Survey Unit Name:	Structures Background Reference Area		

References:

1. Sample and Analysis Plan for the SETF D&D Surveys, Rev 0, March 2007, AREVA
2. Quality Assurance Project Plan for the SETF D&D Surveys, Rev 0, March 2007, AREVA
3. Health and Safety Plan for the SETF D&D Project, March 2007, AREVA
4. MARSSIM, Multi-Agency Radiation Survey and Site Investigation Manual, EPA402-R-97-016 (NUREG-1575), August 2000

Survey Safety Requirements

Survey Package Number:	G4024 401B1	Package Type:	Structure
Survey Area Name:	Structural Background Reference Area for SETF Building 4024		
Survey Unit Name:	Structures Background Reference Area		

Safety Requirement and Considerations:

1. This area contains or may contain physical slip, trip and fall hazards, and watch for poisonous snakes and insects.

Survey Support Requirements

Survey Package Number:	G4024 401B1	Package Type:	Structure
Survey Area Name:	Structural Background Reference Area for SETF Building 4024		
Survey Unit Name:	Structures Background Reference Area		

Survey Support Requirements and Considerations:

1. Review Job Hazard Analysis prepared for surveys of radiologically clean areas.

Survey Package Procedures

Survey Package Number:	G4024 401B1	Package Type:	Structure
Survey Area Name:	Structural Background Reference Area for SETF Building 4024		
Survey Unit Name:	Structures Background Reference Area		

Survey Package Procedures:

1. DD-CS-011 Operation of Ludlum Model 2350 Data Logger
2. DD-CS-014 Bulk Material and Core Bore Sampling
3. DD-RP-010 Portable Instrument Procedure
4. DD-CS-001 Sample Identification and Chain of Custody

General Survey Package Instructions

Survey Package Number:	G4024 401B1	Package Type:	Structure
Survey Area Name:	Structural Background Reference Area for SETF Building 4024		
Survey Unit Name:	Structures Background Reference Area		

1. Perform measurements and collect samples of sufficient quantity to determine NORM contribution to direct measurements from structural materials in areas similar, but not associated with the SETF survey units.

   Operate instruments for background study and survey direct measurements and sample analysis such that measurement and/or analysis sensitivities or minimum detectable concentrations (MDCs) are ALARA or, as a minimum less than the derived concentration guideline levels (DCGLs).

2. The survey is to aid in evaluating contribution from NORM in materials of construction and soil on direct measurement levels from areas similar but not associated with the SETF survey units.

   Upon completion of the initial survey specified in this survey package, the data will be analyzed and a determination will be made as to whether or not the area is suitable for use as background reference area.

3. If materials that are potentially hazardous are encountered during the survey, note this in the item description under "material" and report the location of the material to the FSS/Characterization Manager and EH&S Manager.

4. The number of measurements and/or samples prescribed are minimum number required.

   Survey maps for the areas contained in this survey unit are located in Appendix A.

5. Mark each measurement location with a stake or survey flag and include LC5 and/or LC6 code as appropriate.

6. The M2350 data logger(s) are to be downloaded into the Measure Database at completion of survey or at end of shift at a minimum.

7. All samples are to be logged into the Sample Database at completion of survey or at end of shift at a minimum.

   Note any problems, comments, or other information pertinent to the data or sample collection under the "FIELD NOTES" section.

Specific Survey Package Instructions

Survey Package Number:	G4024 401B1	Package Type:	Structure
Survey Area Name:	Structural Background Reference Area for SETF Building 4024		
Survey Unit Name:	Structures Background Reference Area		

1. **Beta Scan**

   Perform a beta scan survey of accessible surfaces of the interior and exterior surfaces of the building as described below. Scans should be biased toward areas of highest activity (e.g. pits, cracks, doorways, etc.).

   Use a Model 44-116 or equal detector. The scans shall be performed by moving at a maximum rate of one detector width per second while listening to the audible output of the instrument. For interior surfaces and/or exterior surfaces of the building, perform a scan survey of 9 m2 the accessible floor and lower 2 meters of wall surfaces at each SML. Note any areas of elevated activity on the appropriate survey drawing contained in Appendix A. No scan surveys will be required on the building exterior surfaces above 2 meters if the scan of the lower walls does not identify areas of elevated activity. Do not log scan results.

Specific Survey Package Instructions

Survey Package Number:	G4024 401B1	Package Type:	Structure
Survey Area Name:	Structural Background Reference Area for SETF Building 4024		
Survey Unit Name:	Structures Background Reference Area		

2. **Direct Beta**

Perform direct beta measurements at any locations of elevated activity identified during the scan. If no areas of elevated activity are identified, collect direct beta measurements as directed below.

Use a Model 44-116 or equal detector. A minimum of 30 direct beta measurements will be collected on the surfaces of the building and at locations with the most potential for contamination and where the measurement geometry is most appropriate. If no areas of elevated activity are identified during the scan survey, measurements will be distributed on the building surfaces as follows:

Direct Beta Measurements on Bare Concrete and Metal Surfaces (18 on each material) - 36 total
Direct Alpha Measurements on Bare Concrete and Metal Surfaces (18 on each material) - 36 total
Contact Gamma Measurement on Bare Concrete and Metal Surfaces (18 on each material) - 36 total
1 Meter Gamma Exposure Rate on Bare Concrete and Metal Surfaces (18 on each material) - 36 total

Note the location of each measurement on the appropriate survey drawing contained in Appendix A. Mark each measurement location with an appropriate label, including the LC5 and LC6 code.

With the background shield installed, perform a 60 second "C" count to determine the field background. Using the field MDA verification sheet, adjust the count time to ensure that the MDC is less than 900 dpm/100 square centimeters.

Collect three pre-survey and three post survey shielded background counts. If pre-survey background counts in the survey unit are within +/- 20% of mean, use LMI Model 44-116 detector with the M2350 in the scaler mode with a 60 second count time and code the measurement LC4_P4 as "G," for Field Background and LC4_P5 as "A" for Average Background application (per measurement). If otherwise, collect a single shielded background at each of the direct beta measurement locations, code the measurement LC4_P4 as "G," field background and LC4_P5 as "S" for Single Background (per measurement).

Specific Survey Package Instructions

Survey Package Number:	G4024 401B1	Package Type:	Structure
Survey Area Name:	Structural Background Reference Area for SETF Building 4024		
Survey Unit Name:	Structures Background Reference Area		

For the direct measurement, use LMI Model 44-116 detector with the M2350 in the scaler mode with a 60 second count time and code the measurement LC4_P4 as "F," for Field Count and LC4_P5 as "A" for Average Background application or "S" for Single Background (per measurement) as appropriate.

3. **Direct Alpha**

   Perform direct alpha measurement at each of the direct beta measurement locations.

   Use a Model 43-90 or equal detector. With the background shield installed, perform a 2 minute "C" count to determine the field background. Using the field MDA verification sheet, adjust the count time to ensure that the MDA is less than 75 dpm/100 square centimeters.

   Use Model 43-90 detector with the same background protocol and codes as with the direct beta measurements.

4. **Contact Gamma**

   Perform contact gamma measurement at each of the direct beta measurement locations.

   Use Model 44-10, the M2350 in the scaler mode with a 12 second count time and code the measurement LC4_P4 as "F," for Field Count.

5. **Exposure Rate**

   Perform gamma exposure rate measurement at one (1) meter distance from each contact gamma measurement location.

   Use Model 44-10, the M2350 in the scaler mode with a 12 second count time and code the measurement LC4_P4 as "F," for Field Count.

Survey Package Location Codes

Survey Package Number G4024 401B1 Package Type: Structure

LC1: G4024 Survey Area Name: Structural Background Reference Area for SETF Building 4024

LC2: 401B1 Survey Unit Name: Structures Background Reference Area

Class Description: Non-Impacted Structure

Reason Description: B1 Background Survey

LC3_P1-3 and Surface Category: FL1 Floor Surface

LC3_P45 Material Description

M1 Metal
C1 Concrete (Bare)

LC4_P13 - Detector Type, Analysis Codes, and Measurement/Samples Quantity

Measurement	LC4 P13 Code	Model	Description	Qty Prescribed	Qty Collected	Collected By (Initials)
Contact Gamma				18	_____	_____
	G01	44-10	2"x2" NaI(Tl) Gamma Scintillator			
Direct Alpha				18	_____	_____
	A04	43-89A	Alpha Scintillator			
	A03	43-90	Alpha Scintillator			
Direct Beta				18	_____	_____
	B14	43-89B	Beta Scintillator			
	B02	44-116	Beta Scintillator			
Exposure Rate				18	_____	_____
	G02	44-10	2"x2" NaI(Tl) Gamma Scintillator			

LC3_P1-3 and Surface Category: WL1 Lower Wall Surfaces

LC3_P45 Material Description

M1 Metal
C1 Concrete (Bare)

Survey Package Location Codes

Survey Package Number G4024 401B1 Package Type: Structure

LC1: G4024 Survey Area Name: Structural Background Reference Area for SETF Building 4024

LC2: 401B1 Survey Unit Name: Structures Background Reference Area

Class Description: Non-Impacted Structure

Reason Description: B1 Background Survey

LC4_P13 - Detector Type, Analysis Codes, and Measurement/Samples Quantity

Measurement	LC4 P13 Code	Model	Description	Qty Prescribed	Qty Collected	Collected By (Initials)
Contact Gamma				18	_____	_____
	G01	44-10	2"x2" NaI(Tl) Gamma Scintillator			
Direct Alpha				18	_____	_____
	A04	43-89A	Alpha Scintillator			
	A03	43-90	Alpha Scintillator			
Direct Beta				18	_____	_____
	B14	43-89B	Beta Scintillator			
	B02	44-116	Beta Scintillator			
Exposure Rate				18	_____	_____
	G02	44-10	2"x2" NaI(Tl) Gamma Scintillator			

Survey Package Location Codes

Survey Package Number G4024 401B1 **Package Type:** Structure

LC1: G4024 **Survey Area Name:** Structural Background Reference Area for SETF Building 4024

LC2: 401B1 **Survey Unit Name:** Structures Background Reference Area

Class Description: Non-Impacted Structure

Reason Description: B1 Background Survey

LC4_P4 - Count Type	LC4_P5 - Background Mode Codes
A Pre-use Background Check	A Average Background
B Pre-use Source Check	N Background Not Required
C Post-use Background Check	S Single Background
D Post-use Source Check	
F Field Count	
G Field Background	
S Field Scan	

Survey Field Notes: **Additional information regarding the performance of the survey, measurements, sample collection, etc. Use additional pages as needed for field notes.**

Survey Package Appendix A – Drawings

Survey Package:	A4024 401B1	Package: Structure
Survey Area Name:	Structural Background Reference Area for SETF Building 4024	
Survey Unit Name:	Structures Background Areas	

Survey Package Appendix A - Drawings

Survey Package Appendix A – Drawings

Survey Package Appendix B – Photographs

Survey Package:	G4024 401B1	Package:	Structure
Survey Area Name:	Structures Background Reference Area for SETF Building 4024		
Survey Unit Name:	Structures Background Areas		

Survey Package Appendix B - Photographs

Survey Package Appendix B – Photographs

Survey Package Appendix C – Survey Results

Survey Package: G4024 401B1 Package: Structure
Survey Area Name: Structures Background Reference Area for SETF Building 4024
Survey Unit Name: Structures Background Areas

Section	Title	Total Pages
1.0	Annotated Drawings	—
2.0	Measurement Results – Direct Beta Measurements	7
3.0	Measurement Results – Direct Alpha Measurements	3
4.0	Measurement Results – Exposure Rate Measurements	6
5.0	Sample Analysis Results – Alpha/Beta Counter	0
6.0	Sample Analysis Results – Gamma Spectroscopy	0
7.0	Sample Analysis Results – Alpha Spectroscopy	0

Survey Package Appendix C – Survey Results

Survey Package:	G4024 401B1	Package: Structure
Survey Area Name:	Structures Background Reference Area for SETF Building 4024	
Survey Unit Name:	Structures Background Areas	

Section 1.0
Annotated Drawings
__ Pages

Survey Package Appendix C – Survey Results

Survey Package:	G4024 401B1	Package:	Structure
Survey Area Name:	Structures Background Reference Area for SETF Building 4024		
Survey Unit Name:	Structures Background Areas		

Section 2.0
Measurement Results – Direct Beta Measurements
7 Pages

Measurement Database Download Report

Direct Beta Measurements

5/13/2007

Download ID	Station Number	User ID	Download Date	Download Time	Survey Package ID	Detector Model Number	Detector Serial Number	4 pi Beta Efficiency	ActiveArea (cm2)
DL050707-003	2	JLM3848	5/7/2007	4:30 PM	G4024 401B1	44-116	222981	0.146	125

Package ID	M2350 Serial Number	User ID	Detector Serial Number	Detector Setup Number	Sample No	Date	Time	Logged Count	Count Time (secs)	Logging Mode	Window OnOroff	Scaler Alarm	LC1	LC2	LC3	LC4	LC5	LC6	L7	Measurement Location Number	Gross Beta (dpm/ 100cm2)
EZ259 DRT01	98648	JEJ5742	222981	0	4	5/7/2007	9:33:18 AM	2.27E+03	600	1	0	31	EZ259	DRT01	WL1M1	B02AA	LAB01	1		0	1243
EZ259 DRT01	98648	JEJ5742	222981	0	5	5/7/2007	9:36:42 AM	3.16E+03	60	1	0	31	EZ259	DRT01	WL1M1	B02BA	LAB01	1		0	17321
EZ259 DRT01	98648	JEJ5742	222981	0	6	5/7/2007	9:38:08 AM	3.21E+03	60	1	0	31	EZ259	DRT01	WL1M1	B02BA	LAB01	2		0	17573
EZ259 DRT01	98648	JEJ5742	222981	0	7	5/7/2007	9:39:30 AM	3.02E+03	60	1	0	31	EZ259	DRT01	WL1M1	B02BA	LAB01	3		0	16526
G4024 401B1	98648	JEJ5742	222981	0	8	5/7/2007	12:58:08 PM	2.65E+02	60	1	0	31	G4024	401B1	FL1C1	B02GA	FL1	1		0	1452
G4024 401B1	98648	JEJ5742	222981	0	9	5/7/2007	12:59:20 PM	2.90E+02	60	1	0	31	G4024	401B1	FL1C1	B02GA	FL1	2		0	1589
G4024 401B1	98648	JEJ5742	222981	0	10	5/7/2007	1:00:34 PM	3.02E+02	60	1	0	31	G4024	401B1	FL1C1	B02GA	FL1	3		0	1655
G4024 401B1	98648	JEJ5742	222981	0	11	5/7/2007	1:02:06 PM	3.87E+02	60	1	0	31	G4024	401B1	FL1C1	B02FA	FL1	1		0	2121
G4024 401B1	98648	JEJ5742	222981	0	12	5/7/2007	1:04:08 PM	3.87E+02	60	1	0	31	G4024	401B1	FL1C1	B02FA	FL1	2		0	2121
G4024 401B1	98648	JEJ5742	222981	0	13	5/7/2007	1:05:38 PM	3.84E+02	60	1	0	31	G4024	401B1	FL1C1	B02FA	FL1	3		0	2104
G4024 401B1	98648	JEJ5742	222981	0	14	5/7/2007	1:07:10 PM	4.21E+02	60	1	0	31	G4024	401B1	FL1C1	B02FA	FL1	4		0	2307
G4024 401B1	98648	JEJ5742	222981	0	15	5/7/2007	1:08:50 PM	4.02E+02	60	1	0	31	G4024	401B1	FL1C1	B02FA	FL1	5		0	2203
G4024 401B1	98648	JEJ5742	222981	0	16	5/7/2007	1:11:04 PM	3.76E+02	60	1	0	31	G4024	401B1	FL1C1	B02FA	FL1	6		0	2060
G4024 401B1	98648	JEJ5742	222981	0	17	5/7/2007	1:12:36 PM	4.73E+02	60	1	0	31	G4024	401B1	FL1C1	B02FA	FL1	7		0	2592
G4024 401B1	98648	JEJ5742	222981	0	18	5/7/2007	1:14:00 PM	4.26E+02	60	1	0	31	G4024	401B1	FL1C1	B02FA	FL1	8		0	2334
G4024 401B1	98648	JEJ5742	222981	0	19	5/7/2007	1:15:40 PM	4.06E+02	60	1	0	31	G4024	401B1	FL1C1	B02FA	FL1	9		0	2225
G4024 401B1	98648	JEJ5742	222981	0	20	5/7/2007	1:17:56 PM	2.91E+02	60	1	0	31	G4024	401B1	WL1M1	B02FA	WL1	1		0	1595
G4024 401B1	98648	JEJ5742	222981	0	21	5/7/2007	1:19:30 PM	3.02E+02	60	1	0	31	G4024	401B1	WL1M1	B02FA	WL1	2		0	1655
G4024 401B1	98648	JEJ5742	222981	0	22	5/7/2007	1:20:52 PM	2.59E+02	60	1	0	31	G4024	401B1	WL1M1	B02FA	WL1	3		0	1419

Measurement Database Download Report

Direct Beta Measurements

5/13/2007

Download ID	Station Number	User ID	Download Date	Download Time	Survey Package ID	Detector Model Number	Detector Serial Number	4 pi Beta Efficiency	ActiveArea (cm2)
DL050707-003	2	JLM3848	5/7/2007	4:30 PM	G4024 401B1	44-116	222981	0.146	125

Package ID	M2350 Serial Number	User ID	Detector Serial Number	Detector Setup Number	Sample No	Date	Time	Logged Count	Count Time (secs)	Logging Mode	Window OnOroff	Scaler Alarm	LC1	LC2	LC3	LC4	LC5	LC6	L7	Measurement Location Number	Gross Beta (dpm/ 100cm2)
G4024 401B1	98648	JEJ5742	222981	0	23	5/7/2007	1:22:10 PM	2.46E+02	60	1	0	31	G4024	401B1	WL1M1	B02FA	WL1	4		0	1348
G4024 401B1	98648	JEJ5742	222981	0	24	5/7/2007	1:23:26 PM	2.92E+02	60	1	0	31	G4024	401B1	WL1M1	B02FA	WL1	5		0	1600
G4024 401B1	98648	JEJ5742	222981	0	25	5/7/2007	1:24:40 PM	2.94E+02	60	1	0	31	G4024	401B1	WL1M1	B02FA	WL1	6		0	1611
G4024 401B1	98648	JEJ5742	222981	0	26	5/7/2007	1:26:24 PM	2.42E+02	60	1	0	31	G4024	401B1	WL1M1	B02FA	WL1	7		0	1326
G4024 401B1	98648	JEJ5742	222981	0	27	5/7/2007	1:27:50 PM	2.32E+02	60	1	0	31	G4024	401B1	WL1M1	B02FA	WL1	8		0	1271
G4024 401B1	98648	JEJ5742	222981	0	28	5/7/2007	1:29:08 PM	2.78E+02	60	1	0	31	G4024	401B1	WL1M1	B02FA	WL1	9		0	1523
G4024 401B1	98648	JEJ5742	222981	0	29	5/7/2007	1:30:52 PM	2.89E+02	60	1	0	31	G4024	401B1	WL1M1	B02GA	WL1	1		0	1584
G4024 401B1	98648	JEJ5742	222981	0	30	5/7/2007	1:31:58 PM	2.77E+02	60	1	0	31	G4024	401B1	WL1M1	B02GA	WL1	2		0	1518
G4024 401B1	98648	JEJ5742	222981	3	105	5/7/2007	2:27:08 PM	4.51E+02	60	1	0	31	G4024	401B1	FL1C1	B02FA	FL1	1		0	2471
G4024 401B1	98648	JEJ5742	222981	3	106	5/7/2007	2:28:20 PM	3.91E+02	60	1	0	31	G4024	401B1	FL1C1	B02FA	FL1	2		0	2142
G4024 401B1	98648	JEJ5742	222981	3	107	5/7/2007	2:29:48 PM	4.38E+02	60	1	0	31	G4024	401B1	FL1C1	B02FA	FL1	3		0	2400
G4024 401B1	98648	JEJ5742	222981	3	108	5/7/2007	2:31:10 PM	3.93E+02	60	1	0	31	G4024	401B1	FL1C1	B02FA	FL1	4		0	2153
G4024 401B1	98648	JEJ5742	222981	3	109	5/7/2007	2:32:32 PM	4.53E+02	60	1	0	31	G4024	401B1	FL1C1	B02FA	FL1	5		0	2482
G4024 401B1	98648	JEJ5742	222981	3	110	5/7/2007	2:33:52 PM	3.91E+02	60	1	0	31	G4024	401B1	FL1C1	B02FA	FL1	6		0	2142
G4024 401B1	98648	JEJ5742	222981	3	111	5/7/2007	2:35:20 PM	3.73E+02	60	1	0	31	G4024	401B1	FL1C1	B02FA	FL1	7		0	2044
G4024 401B1	98648	JEJ5742	222981	3	112	5/7/2007	2:36:54 PM	4.24E+02	60	1	0	31	G4024	401B1	FL1C1	B02FA	FL1	8		0	2323
G4024 401B1	98648	JEJ5742	222981	3	113	5/7/2007	2:38:04 PM	4.00E+02	60	1	0	31	G4024	401B1	FL1C1	B02FA	FL1	9		0	2192
G4024 401B1	98648	JEJ5742	222981	3	114	5/7/2007	2:40:08 PM	2.96E+02	60	1	0	31	G4024	401B1	WL1M1	B02FA	WL1	1		0	1622
G4024 401B1	98648	JEJ5742	222981	3	115	5/7/2007	2:41:46 PM	2.80E+02	60	1	0	31	G4024	401B1	WL1M1	B02FA	WL1	2		0	1534

Measurement Database Download Report

Direct Beta Measurements

5/13/2007

Download ID	Station Number	User ID	Download Date	Download Time	Survey Package ID	Detector Model Number	Detector Serial Number	4 pi Beta Efficiency	ActiveArea (cm2)
DL050707-003	2	JLM3848	5/7/2007	4:30 PM	G4024 401B1	44-116	222981	0.146	125

Package ID	M2350 Serial Number	User ID	Detector Serial Number	Detector Setup Number	Sample No	Date	Time	Logged Count	Count Time (secs)	Logging Mode	Window OnOroff	Scaler Alarm	LC1	LC2	LC3	LC4	LC5	LC6	L7	Measurement Location Number	Gross Beta (dpm/ 100cm2)
G4024 401B1	98648	JEJ5742	222981	3	116	5/7/2007	2:43:06 PM	2.81E+02	60	1	0	31	G4024	401B1	WL1M1	B02FA	WL1	3		0	1540
G4024 401B1	98648	JEJ5742	222981	3	117	5/7/2007	2:44:24 PM	2.60E+02	60	1	0	31	G4024	401B1	WL1M1	B02FA	WL1	4		0	1425
G4024 401B1	98648	JEJ5742	222981	3	118	5/7/2007	2:46:10 PM	2.68E+02	60	1	0	31	G4024	401B1	WL1M1	B02FA	WL1	5		0	1468
G4024 401B1	98648	JEJ5742	222981	3	119	5/7/2007	2:47:40 PM	2.52E+02	60	1	0	31	G4024	401B1	WL1M1	B02FA	WL1	6		0	1381
G4024 401B1	98648	JEJ5742	222981	3	120	5/7/2007	2:49:02 PM	2.59E+02	60	1	0	31	G4024	401B1	WL1M1	B02FA	WL1	7		0	1419
G4024 401B1	98648	JEJ5742	222981	3	121	5/7/2007	2:50:24 PM	2.02E+02	60	1	0	31	G4024	401B1	WL1M1	B02FA	WL1	8		0	1107
G4024 401B1	98648	JEJ5742	222981	3	122	5/7/2007	2:51:46 PM	2.66E+02	60	1	0	31	G4024	401B1	WL1M1	B02FA	WL1	9		0	1458
G4024 401B1	98648	JEJ5742	222981	3	123	5/7/2007	2:54:32 PM	3.05E+02	60	1	0	31	G4024	401B1	WL1M1	B02GA	WL1	1		0	1671
G4024 401B1	98648	JEJ5742	222981	3	124	5/7/2007	2:55:48 PM	3.06E+02	60	1	0	31	G4024	401B1	WL1M1	B02GA	WL1	2		0	1677
G4024 401B1	98648	JEJ5742	222981	3	125	5/7/2007	2:57:00 PM	3.54E+02	60	1	0	31	G4024	401B1	WL1M1	B02GA	WL1	3		0	1940
EZ259 DRT02	98648	JEJ5742	222981	3	126	5/7/2007	3:24:48 PM	2.34E+03	600	1	0	31	EZ259	DRT02	WL1M1	B02CA	WL1	1		0	1280
EZ259 DRT02	98648	JEJ5742	222981	3	127	5/7/2007	3:27:26 PM	3.04E+03	60	1	0	31	EZ259	DRT02	WL1M1	B02DA	WL1	1		0	16668
EZ259 DRT02	98648	JEJ5742	222981	3	128	5/7/2007	3:28:50 PM	3.35E+03	60	1	0	31	EZ259	DRT02	WL1M1	B02DA	WL1	2		0	18340
EZ259 DRT02	98648	JEJ5742	222981	3	129	5/7/2007	3:30:08 PM	3.14E+03	60	1	0	31	EZ259	DRT02	WL1M1	B02DA	WL1	3		0	17195

Reviewed By: Joe Lung Date: 5-14-07 Approved By: [signature] Date: 5/14/07

Measurement Database Download Report

Direct Beta Measurements

5/14/2007

Download ID	Station Number	User ID	Download Date	Download Time	Survey Package ID	Detector Model Number	Detector Serial Number	4 pi Beta Efficiency	ActiveArea (cm2)
DL051007-003	2	JLM3848	5/10/2007	4:28 PM	G4024 401B1	44-116	222981	0.146	125

Package ID	M2350 Serial Number	User ID	Detector Serial Number	Detector Setup Number	Sample No	Date	Time	Logged Count	Count Time (secs)	Logging Mode	Window OnOroff	Scaler Alarm	LC1	LC2	LC3	LC4	LC5	LC6	L7	Measurement Location Number	Gross Beta (dpm/ 100cm2)
EZ259 DRT01	98648	JEJ5742	222981	3	0	5/10/2007	12:48:58 PM	2.60E+03	600	1	0	46	EZ259	DRT01	LA1A1	B02AA	LAB01	1		0	1426
EZ259 DRT01	98648	JEJ5742	222981	3	1	5/10/2007	12:55:14 PM	3.30E+03	60	1	0	46	EZ259	DRT01	LA1A1	B02BA	LAB01	1		0	18071
EZ259 DRT01	98648	JEJ5742	222981	3	2	5/10/2007	12:56:40 PM	3.57E+03	60	1	0	46	EZ259	DRT01	LA1A1	B02BA	LAB01	2		0	19578
EZ259 DRT01	98648	JEJ5742	222981	3	3	5/10/2007	12:58:08 PM	3.27E+03	60	1	0	46	EZ259	DRT01	LA1A1	B02BA	LAB01	3		0	17934
G4024 401B1	98648	JEJ5742	222981	3	4	5/10/2007	1:27:50 PM	3.69E+02	60	1	0	46	G4024	401B1	PA1A1	B02GA	A1	1		0	2022
G4024 401B1	98648	JEJ5742	222981	3	5	5/10/2007	1:29:04 PM	5.46E+02	60	1	0	46	G4024	401B1	PA1A1	B02GA	A1	2		0	2992
G4024 401B1	98648	JEJ5742	222981	3	6	5/10/2007	1:30:14 PM	5.28E+02	60	1	0	46	G4024	401B1	PA1A1	B02GA	A1	3		0	2893
G4024 401B1	98648	JEJ5742	222981	3	7	5/10/2007	1:36:04 PM	5.83E+02	60	1	0	46	G4024	401B1	PA1A1	B02FA	A1	1		0	3195
G4024 401B1	98648	JEJ5742	222981	3	8	5/10/2007	1:37:36 PM	5.92E+02	60	1	0	46	G4024	401B1	PA1A1	B02FA	A1	2		0	3244
G4024 401B1	98648	JEJ5742	222981	3	9	5/10/2007	1:38:54 PM	6.08E+02	60	1	0	46	G4024	401B1	PA1A1	B02FA	A1	3		0	3332
G4024 401B1	98648	JEJ5742	222981	3	10	5/10/2007	1:40:16 PM	5.78E+02	60	1	0	46	G4024	401B1	PA1A1	B02FA	A1	4		0	3167
G4024 401B1	98648	JEJ5742	222981	3	11	5/10/2007	1:41:40 PM	6.13E+02	60	1	0	46	G4024	401B1	PA1A1	B02FA	A1	5		0	3359
G4024 401B1	98648	JEJ5742	222981	3	12	5/10/2007	1:43:04 PM	5.87E+02	60	1	0	46	G4024	401B1	PA1A1	B02FA	A1	6		0	3216
G4024 401B1	98648	JEJ5742	222981	3	13	5/10/2007	1:44:30 PM	6.52E+02	60	1	0	46	G4024	401B1	PA1A1	B02FA	A1	7		0	3573
G4024 401B1	98648	JEJ5742	222981	3	14	5/10/2007	1:45:56 PM	6.40E+02	60	1	0	46	G4024	401B1	PA1A1	B02FA	A1	8		0	3507
G4024 401B1	98648	JEJ5742	222981	3	15	5/10/2007	1:47:20 PM	5.84E+02	60	1	0	46	G4024	401B1	PA1A1	B02FA	A1	9		0	3200
G4024 401B1	98648	JEJ5742	222981	3	16	5/10/2007	1:48:46 PM	6.43E+02	60	1	0	46	G4024	401B1	PA1A1	B02FA	A1	10		0	3523
G4024 401B1	98648	JEJ5742	222981	3	17	5/10/2007	1:50:18 PM	6.24E+02	60	1	0	46	G4024	401B1	PA1A1	B02FA	A1	11		0	3419
G4024 401B1	98648	JEJ5742	222981	3	18	5/10/2007	1:51:38 PM	6.96E+02	60	1	0	46	G4024	401B1	PA1A1	B02FA	A1	12		0	3814

Measurement Database Download Report

Direct Beta Measurements

5/14/2007

Download ID	Station Number	User ID	Download Date	Download Time	Survey Package ID	Detector Model Number	Detector Serial Number	4 pi Beta Efficiency	ActiveArea (cm2)
DL051007-003	2	JLM3848	5/10/2007	4:28 PM	G4024 401B1	44-116	222981	0.146	125

Package ID	M2350 Serial Number	User ID	Detector Serial Number	Detector Setup Number	Sample No	Date	Time	Logged Count	Count Time (secs)	Logging Mode	Window OnOroff	Scaler Alarm	LC1	LC2	LC3	LC4	LC5	LC6	L7	Measurement Location Number	Gross Beta (dpm/ 100cm2)
G4024 401B1	98648	JEJ5742	222981	3	19	5/10/2007	1:53:04 PM	6.41E+02	60	1	0	46	G4024	401B1	PA1A1	B02FA	A1	13		0	3512
G4024 401B1	98648	JEJ5742	222981	3	20	5/10/2007	1:54:26 PM	7.05E+02	60	1	0	46	G4024	401B1	PA1A1	B02FA	A1	14		0	3863
G4024 401B1	98648	JEJ5742	222981	3	21	5/10/2007	1:56:30 PM	6.73E+02	60	1	0	46	G4024	401B1	PA1A1	B02FA	A1	15		0	3688
G4024 401B1	98648	JEJ5742	222981	3	22	5/10/2007	1:58:08 PM	7.42E+02	60	1	0	46	G4024	401B1	PA1A1	B02FA	A1	16		0	4066
G4024 401B1	98648	JEJ5742	222981	3	23	5/10/2007	1:59:38 PM	7.12E+02	60	1	0	46	G4024	401B1	PA1A1	B02FA	A1	17		0	3901
G4024 401B1	98648	JEJ5742	222981	3	24	5/10/2007	2:01:04 PM	6.98E+02	60	1	0	46	G4024	401B1	PA1A1	B02FA	A1	18		0	3825
G4024 401B1	98648	JEJ5742	222981	3	27	5/10/2007	2:07:50 PM	6.41E+02	60	1	0	46	G4024	401B1	PA1A1	B02GA	A1	1		0	3512
G4024 401B1	98648	JEJ5742	222981	3	28	5/10/2007	2:08:58 PM	6.50E+02	60	1	0	46	G4024	401B1	PA1A1	B02GA	A1	2		0	3562
G4024 401B1	98648	JEJ5742	222981	3	29	5/10/2007	2:10:10 PM	6.32E+02	60	1	0	46	G4024	401B1	PA1A1	B02GA	A1	3		0	3463
EZ259 DRT02	98648	JEJ5742	222981	3	31	5/10/2007	2:45:22 PM	3.02E+03	600	1	0	46	EZ259	DRT02	PA1A1	B02CA	LAB01	1		0	1655
EZ259 DRT02	98648	JEJ5742	222981	3	32	5/10/2007	2:49:32 PM	3.18E+03	60	1	0	46	EZ259	DRT02	PA1A1	B02DA	LAB01	1		0	17447
EZ259 DRT02	98648	JEJ5742	222981	3	33	5/10/2007	2:50:52 PM	3.44E+03	60	1	0	46	EZ259	DRT02	PA1A1	B02DA	LAB01	2		0	18860
EZ259 DRT02	98648	JEJ5742	222981	3	34	5/10/2007	2:52:12 PM	3.29E+03	60	1	0	46	EZ259	DRT02	PA1A1	B02DA	LAB01	3		0	18011

Reviewed By: Joe [illegible] Date: 5-15-07 Approved By: [illegible] Date: 5/15/07

Measurement Database Download Report

Direct Beta Measurements

5/15/2007

Download ID	Station Number	User ID	Download Date	Download Time	Survey Package ID	Detector Model Number	Detector Serial Number	4 pi Beta Efficiency	ActiveArea (cm2)
DL051407-002	2	JLM3848	5/14/2007	7:06 PM	G4024 401B1	43-89B	199355B	0.112	125

Package ID	M2350 Serial Number	User ID	Detector Serial Number	Detector Setup Number	Sample No	Date	Time	Logged Count	Count Time (secs)	Logging Mode	Window OnOroff	Scaler Alarm	LC1	LC2	LC3	LC4	LC5	LC6	L7	Measurement Location Number	Gross Beta (dpm/ 100cm2)
EZ259 DRT01	126195	JLW1061	199355B	13	4	5/14/2007	12:08:58 PM	3.28E+03	600	1	0	49	EZ259	DRT01	FL1C1	B14AA	LAB01	1		0	2341
EZ259 DRT01	126195	JLW1061	199355B	13	5	5/14/2007	12:11:32 PM	3.04E+03	60	1	0	49	EZ259	DRT01	FL1C1	B14BA	LAB01	1		0	21693
EZ259 DRT01	126195	JLW1061	199355B	13	6	5/14/2007	12:13:42 PM	2.78E+03	60	1	0	49	EZ259	DRT01	FL1C1	B14BA	LAB01	2		0	19836
EZ259 DRT01	126195	JLW1061	199355B	13	7	5/14/2007	12:15:30 PM	2.79E+03	60	1	0	49	EZ259	DRT01	FL1C1	B14BA	LAB01	3		0	19936
G4024 401B1	126195	JLW1061	199355B	13	52	5/14/2007	2:14:16 PM	4.73E+02	60	1	0	49	G4024	401B1	PA1A1	B14GA	B-436	1		0	3379
G4024 401B1	126195	JLW1061	199355B	13	53	5/14/2007	2:15:24 PM	4.90E+02	60	1	0	49	G4024	401B1	PA1A1	B14GA	B-436	2		0	3500
G4024 401B1	126195	JLW1061	199355B	13	54	5/14/2007	2:16:38 PM	5.11E+02	60	1	0	49	G4024	401B1	PA1A1	B14GA	B-436	3		0	3650
G4024 401B1	126195	JLW1061	199355B	13	55	5/14/2007	2:18:20 PM	6.46E+02	60	1	0	49	G4024	401B1	PA1A1	B14FA	B-436	1		0	4614
G4024 401B1	126195	JLW1061	199355B	13	56	5/14/2007	2:19:36 PM	6.09E+02	60	1	0	49	G4024	401B1	PA1A1	B14FA	B-436	2		0	4350
G4024 401B1	126195	JLW1061	199355B	13	57	5/14/2007	2:20:52 PM	6.69E+02	60	1	0	49	G4024	401B1	PA1A1	B14FA	B-436	3		0	4779
G4024 401B1	126195	JLW1061	199355B	13	58	5/14/2007	2:22:06 PM	6.11E+02	60	1	0	49	G4024	401B1	PA1A1	B14FA	B-436	4		0	4364
G4024 401B1	126195	JLW1061	199355B	13	59	5/14/2007	2:23:24 PM	6.99E+02	60	1	0	49	G4024	401B1	PA1A1	B14FA	B-436	5		0	4993
G4024 401B1	126195	JLW1061	199355B	13	60	5/14/2007	2:24:46 PM	6.33E+02	60	1	0	49	G4024	401B1	PA1A1	B14FA	B-436	6		0	4521
G4024 401B1	126195	JLW1061	199355B	13	61	5/14/2007	2:26:06 PM	7.26E+02	60	1	0	49	G4024	401B1	PA1A1	B14FA	B-436	7		0	5186
G4024 401B1	126195	JLW1061	199355B	13	62	5/14/2007	2:27:24 PM	7.31E+02	60	1	0	49	G4024	401B1	PA1A1	B14FA	B-436	8		0	5221
G4024 401B1	126195	JLW1061	199355B	13	63	5/14/2007	2:28:40 PM	7.19E+02	60	1	0	49	G4024	401B1	PA1A1	B14FA	B-436	9		0	5136
G4024 401B1	126195	JLW1061	199355B	13	64	5/14/2007	2:30:10 PM	7.74E+02	60	1	0	49	G4024	401B1	PA1A1	B14FA	B-436	10		0	5529
G4024 401B1	126195	JLW1061	199355B	13	65	5/14/2007	2:31:28 PM	7.33E+02	60	1	0	49	G4024	401B1	PA1A1	B14FA	B-436	11		0	5236
G4024 401B1	126195	JLW1061	199355B	13	66	5/14/2007	2:32:48 PM	7.42E+02	60	1	0	49	G4024	401B1	PA1A1	B14FA	B-436	12		0	5300

Measurement Database Download Report

Direct Beta Measurements

5/15/2007

Download ID	Station Number	User ID	Download Date	Download Time	Survey Package ID	Detector Model Number	Detector Serial Number	4 pi Beta Efficiency	ActiveArea (cm2)
DL051407-002	2	JLM3848	5/14/2007	7:06 PM	G4024 401B1	43-89B	199355B	0.112	125

Package ID	M2350 Serial Number	User ID	Detector Serial Number	Detector Setup Number	Sample No	Date	Time	Logged Count	Count Time (secs)	Logging Mode	Window OnOroff	Scaler Alarm	LC1	LC2	LC3	LC4	LC5	LC6	L7	Measurement Location Number	Gross Beta (dpm/ 100cm2)
G4024 401B1	126195	JLW1061	199355B	13	67	5/14/2007	2:34:22 PM	7.49E+02	60	1	0	49	G4024	401B1	PA1A1	B14FA	B-436	13		0	5350
G4024 401B1	126195	JLW1061	199355B	13	68	5/14/2007	2:35:44 PM	7.87E+02	60	1	0	49	G4024	401B1	PA1A1	B14FA	B-436	14		0	5621
G4024 401B1	126195	JLW1061	199355B	13	69	5/14/2007	2:37:06 PM	7.87E+02	60	1	0	49	G4024	401B1	PA1A1	B14FA	B-436	15		0	5621
G4024 401B1	126195	JLW1061	199355B	13	70	5/14/2007	2:38:28 PM	8.13E+02	60	1	0	49	G4024	401B1	PA1A1	B14FA	B-436	16		0	5807
G4024 401B1	126195	JLW1061	199355B	13	71	5/14/2007	2:39:48 PM	8.28E+02	60	1	0	49	G4024	401B1	PA1A1	B14FA	B-436	17		0	5914
G4024 401B1	126195	JLW1061	199355B	13	72	5/14/2007	2:41:08 PM	8.28E+02	60	1	0	49	G4024	401B1	PA1A1	B14FA	B-436	18		0	5914
G4024 401B1	126195	JLW1061	199355B	13	73	5/14/2007	2:42:54 PM	7.22E+02	60	1	0	49	G4024	401B1	PA1A1	B14GA	B-436	1		0	5157
G4024 401B1	126195	JLW1061	199355B	13	74	5/14/2007	2:44:08 PM	7.10E+02	60	1	0	49	G4024	401B1	PA1A1	B14GA	B-436	2		0	5071
G4024 401B1	126195	JLW1061	199355B	13	75	5/14/2007	2:45:18 PM	7.29E+02	60	1	0	49	G4024	401B1	PA1A1	B14GA	B-436	3		0	5207
EZ259 DRT02	126195	JLW1061	199355B	13	76	5/14/2007	3:39:12 PM	3.69E+03	600	1	0	49	EZ259	DRT02	PA1A1	B14CA	LAB01	1		0	2634
EZ259 DRT02	126195	JLW1061	199355B	13	77	5/14/2007	3:43:36 PM	2.89E+03	60	1	0	49	EZ259	DRT02	PA1A1	B14DA	LAB01	1		0	20657
EZ259 DRT02	126195	JLW1061	199355B	13	78	5/14/2007	3:45:02 PM	2.69E+03	60	1	0	49	EZ259	DRT02	PA1A1	B14DA	LAB01	2		0	19243
EZ259 DRT02	126195	JLW1061	199355B	13	79	5/14/2007	3:46:38 PM	2.85E+03	60	1	0	49	EZ259	DRT02	PA1A1	B14DA	LAB01	3		0	20379

Reviewed By: _____ Date: 5-16-07 Approved By: _____ Date: 5/16/07

Survey Package Appendix C – Survey Results

Survey Package:	G4024 401B1	Package:	Structure
Survey Area Name:	Structures Background Reference Area for SETF Building 4024		
Survey Unit Name:	Structures Background Areas		

Section 3.0
Measurement Results – Direct Alpha Measurements
5 Pages

Measurement Database Download Report

Direct Alpha Measurements

5/13/2007

Download ID	Station Number	User ID	Download Date	Download Time	Survey Package ID	Detector Model Number	Detector Serial Number	4 pi Alpha Efficiency	ActiveArea (cm2)
DL050707-001	2	JLM3848	5/7/2007	4:08 PM	G4024 401B1	43-90	249011	0.173	125

Package ID	M2350 Serial Number	User ID	Detector Serial Number	Detector Setup Number	Sample No	Date	Time	Logged Count	Count Time (secs)	Logging Mode	Window OnOroff	Scaler Alarm	LC1	LC2	LC3	LC4	LC5	LC6	L7	Measurement Location Number	Gross Alpha (dpm/ 100cm2)
FS440 DRT01	126195	JLW1061	249011	0	0	5/7/2007	12:14:40 PM	1.10E+01	600	1	0	32	FS440	DRT01	WL1M1	A03AA	LAB01	1		0	5
FS440 DRT01	126195	JLW1061	249011	0	1	5/7/2007	12:19:16 PM	3.20E+03	60	1	0	32	FS440	DRT01	WL1M1	A03BA	LAB01	1		0	14793
FS440 DRT01	126195	JLW1061	249011	0	2	5/7/2007	12:20:40 PM	3.27E+03	60	1	0	32	FS440	DRT01	WL1M1	A03BA	LAB01	2		0	15098
FS440 DRT01	126195	JLW1061	249011	0	3	5/7/2007	12:22:10 PM	3.05E+03	60	1	0	32	FS440	DRT01	WL1M1	A03BA	LAB01	3		0	14104
G4024 401B1	126195	JLW1061	249011	0	4	5/7/2007	4:12:52 PM	0.00E+00	60	1	0	32	G4024	401B1	FL1C1	A03GA	FL1	1		0	0
G4024 401B1	126195	JLW1061	249011	0	5	5/7/2007	4:14:00 PM	1.00E+00	60	1	0	32	G4024	401B1	FL1C1	A03GA	FL1	2		0	5
G4024 401B1	126195	JLW1061	249011	0	6	5/7/2007	4:15:10 PM	0.00E+00	60	1	0	32	G4024	401B1	FL1C1	A03GA	FL1	3		0	0
G4024 401B1	126195	JLW1061	249011	0	7	5/7/2007	4:17:02 PM	5.00E+00	60	1	0	32	G4024	401B1	FL1C1	A03FA	FL1	1		0	23
G4024 401B1	126195	JLW1061	249011	0	8	5/7/2007	4:18:34 PM	7.00E+00	60	1	0	32	G4024	401B1	FL1C1	A03FA	FL1	2		0	32
G4024 401B1	126195	JLW1061	249011	0	9	5/7/2007	4:20:02 PM	1.00E+00	60	1	0	32	G4024	401B1	FL1C1	A03FA	FL1	3		0	5
G4024 401B1	126195	JLW1061	249011	0	10	5/7/2007	4:21:32 PM	4.00E+00	60	1	0	32	G4024	401B1	FL1C1	A03FA	FL1	4		0	18
G4024 401B1	126195	JLW1061	249011	0	11	5/7/2007	4:23:02 PM	4.00E+00	60	1	0	32	G4024	401B1	FL1C1	A03FA	FL1	5		0	18
G4024 401B1	126195	JLW1061	249011	0	12	5/7/2007	4:24:50 PM	4.00E+00	60	1	0	32	G4024	401B1	FL1C1	A03FA	FL1	6		0	18
G4024 401B1	126195	JLW1061	249011	0	13	5/7/2007	4:26:40 PM	6.00E+00	60	1	0	32	G4024	401B1	FL1C1	A03FA	FL1	7		0	28
G4024 401B1	126195	JLW1061	249011	0	14	5/7/2007	4:28:10 PM	1.00E+00	60	1	0	32	G4024	401B1	FL1C1	A03FA	FL1	8		0	5
G4024 401B1	126195	JLW1061	249011	0	15	5/7/2007	4:29:36 PM	4.00E+00	60	1	0	32	G4024	401B1	FL1C1	A03FA	FL1	9		0	18
G4024 401B1	126195	JLW1061	249011	0	16	5/7/2007	4:34:00 PM	0.00E+00	60	1	0	32	G4024	401B1	WL1M1	A03FA	WL1	1		0	0
G4024 401B1	126195	JLW1061	249011	0	17	5/7/2007	4:35:12 PM	4.00E+00	60	1	0	32	G4024	401B1	WL1M1	A03FA	WL1	2		0	18
G4024 401B1	126195	JLW1061	249011	0	18	5/7/2007	4:36:36 PM	0.00E+00	60	1	0	32	G4024	401B1	WL1M1	A03FA	WL1	3		0	0

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Direct Alpha Measurements

5/13/2007

Download ID	Station Number	User ID	Download Date	Download Time	Survey Package ID	Detector Model Number	Detector Serial Number	4 pi Alpha Efficiency	ActiveArea (cm2)
DL050707-001	2	JLM3848	5/7/2007	4:08 PM	G4024 401B1	43-90	249011	0.173	125

Package ID	M2350 Serial Number	User ID	Detector Serial Number	Detector Setup Number	Sample No	Date	Time	Logged Count	Count Time (secs)	Loggmg Mode	Window OnOroff	Scaler Alarm	LC1	LC2	LC3	LC4	LC5	LC6	L7	Measurement Location Number	Gross Alpha (dpm/ 100cm2)
G4024 401B1	126195	JLW1061	249011	0	19	5/7/2007	4:37:58 PM	1.00E+00	60	1	0	32	G4024	401B1	WL1M1	A03FA	WL1	4		0	5
G4024 401B1	126195	JLW1061	249011	0	20	5/7/2007	4:39:16 PM	6.00E+00	60	1	0	32	G4024	401B1	WL1M1	A03FA	WL1	5		0	28
G4024 401B1	126195	JLW1061	249011	0	21	5/7/2007	4:40:38 PM	2.00E+00	60	1	0	32	G4024	401B1	WL1M1	A03FA	WL1	6		0	9
G4024 401B1	126195	JLW1061	249011	0	22	5/7/2007	4:42:04 PM	3.00E+00	60	1	0	32	G4024	401B1	WL1M1	A03FA	WL1	7		0	14
G4024 401B1	126195	JLW1061	249011	0	23	5/7/2007	4:43:30 PM	1.00E+00	60	1	0	32	G4024	401B1	WL1M1	A03FA	WL1	8		0	5
G4024 401B1	126195	JLW1061	249011	0	24	5/7/2007	4:45:12 PM	2.00E+00	60	1	0	32	G4024	401B1	WL1M1	A03FA	WL1	9		0	9
G4024 401B1	126195	JLW1061	249011	0	25	5/7/2007	4:46:56 PM	0.00E+00	60	1	0	32	G4024	401B1	WL1M1	A03GA	WL1	1		0	0
G4024 401B1	126195	JLW1061	249011	0	26	5/7/2007	4:48:24 PM	1.00E+00	60	1	0	32	G4024	401B1	WL1M1	A03GA	WL1	2		0	5
G4024 401B1	126195	JLW1061	249011	0	27	5/7/2007	4:49:36 PM	3.00E+00	60	1	0	32	G4024	401B1	WL1M1	A03GA	WL1	3		0	14
G4024 401B1	126195	JLW1061	249011	0	28	5/7/2007	5:41:10 PM	5.00E+00	60	1	0	32	G4024	401B1	FL1C1	A03FA	FL1	1		0	23
G4024 401B1	126195	JLW1061	249011	0	29	5/7/2007	5:42:36 PM	0.00E+00	60	1	0	32	G4024	401B1	FL1C1	A03FA	FL1	2		0	0
G4024 401B1	126195	JLW1061	249011	0	30	5/7/2007	5:43:58 PM	1.00E+00	60	1	0	32	G4024	401B1	FL1C1	A03FA	FL1	3		0	5
G4024 401B1	126195	JLW1061	249011	0	31	5/7/2007	5:45:26 PM	3.00E+00	60	1	0	32	G4024	401B1	FL1C1	A03FA	FL1	4		0	14
G4024 401B1	126195	JLW1061	249011	0	32	5/7/2007	5:46:46 PM	2.00E+00	60	1	0	32	G4024	401B1	FL1C1	A03FA	FL1	5		0	9
G4024 401B1	126195	JLW1061	249011	0	33	5/7/2007	5:48:04 PM	5.00E+00	60	1	0	32	G4024	401B1	FL1C1	A03FA	FL1	6		0	23
G4024 401B1	126195	JLW1061	249011	0	34	5/7/2007	5:49:26 PM	2.00E+00	60	1	0	32	G4024	401B1	FL1C1	A03FA	FL1	7		0	9
G4024 401B1	126195	JLW1061	249011	0	35	5/7/2007	5:50:58 PM	5.00E+00	60	1	0	32	G4024	401B1	FL1C1	A03FA	FL1	8		0	23
G4024 401B1	126195	JLW1061	249011	0	36	5/7/2007	5:52:22 PM	2.00E+00	60	1	0	32	G4024	401B1	FL1C1	A03FA	FL1	9		0	9
G4024 401B1	126195	JLW1061	249011	0	37	5/7/2007	5:54:42 PM	0.00E+00	60	1	0	32	G4024	401B1	WL1M1	A03FA	WL1	1		0	0

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Direct Alpha Measurements

5/13/2007

Download ID	Station Number	User ID	Download Date	Download Time	Survey Package ID	Detector Model Number	Detector Serial Number	4 pi Alpha Efficiency	ActiveArea (cm2)
DL050707-001	2	JLM3848	5/7/2007	4:08 PM	G4024 401B1	43-90	249011	0.173	125

Package ID	M2350 Serial Number	User ID	Detector Serial Number	Detector Setup Number	Sample No	Date	Time	Logged Count	Count Time (secs)	Logging Mode	Window OnOroff	Scaler Alarm	LC1	LC2	LC3	LC4	LC5	LC6	L7	Measurement Location Number	Gross Alpha (dpm/ 100cm2)
G4024 401B1	126195	JLW1061	249011	0	38	5/7/2007	5:56:16 PM	1.00E+00	60	1	0	32	G4024	401B1	WL1M1	A03FA	WL1	2		0	5
G4024 401B1	126195	JLW1061	249011	0	39	5/7/2007	5:57:40 PM	2.00E+00	60	1	0	32	G4024	401B1	WL1M1	A03FA	WL1	3		0	9
G4024 401B1	126195	JLW1061	249011	0	40	5/7/2007	5:59:24 PM	5.00E+00	60	1	0	32	G4024	401B1	WL1M1	A03FA	WL1	4		0	23
G4024 401B1	126195	JLW1061	249011	0	41	5/7/2007	6:00:42 PM	0.00E+00	60	1	0	32	G4024	401B1	WL1M1	A03FA	WL1	5		0	0
G4024 401B1	126195	JLW1061	249011	0	42	5/7/2007	6:02:06 PM	2.00E+00	60	1	0	32	G4024	401B1	WL1M1	A03FA	WL1	6		0	9
G4024 401B1	126195	JLW1061	249011	0	43	5/7/2007	6:03:38 PM	0.00E+00	60	1	0	32	G4024	401B1	WL1M1	A03FA	WL1	7		0	0
G4024 401B1	126195	JLW1061	249011	0	44	5/7/2007	6:05:36 PM	3.00E+00	60	1	0	32	G4024	401B1	WL1M1	A03FA	WL1	8		0	14
G4024 401B1	126195	JLW1061	249011	0	45	5/7/2007	6:07:06 PM	1.00E+00	60	1	0	32	G4024	401B1	WL1M1	A03FA	WL1	9		0	5
G4024 401B1	126195	JLW1061	249011	0	46	5/7/2007	6:09:20 PM	2.00E+00	60	1	0	32	G4024	401B1	WL1M1	A03GA	WL1	1		0	9
G4024 401B1	126195	JLW1061	249011	0	47	5/7/2007	6:10:38 PM	0.00E+00	60	1	0	32	G4024	401B1	WL1M1	A03GA	WL1	2		0	0
G4024 401B1	126195	JLW1061	249011	0	48	5/7/2007	6:11:50 PM	1.00E+00	60	1	0	32	G4024	401B1	WL1M1	A03GA	WL1	3		0	5
FS440 DRT02	126195	JLW1061	249011	0	49	5/7/2007	6:40:28 PM	7.00E+00	600	1	0	32	FS440	DRT02	WL1M1	A03CA	LAB01	1		0	3
FS440 DRT02	126195	JLW1061	249011	0	50	5/7/2007	6:43:26 PM	3.23E+03	60	1	0	32	FS440	DRT02	WL1M1	A03DA	LAB01	1		0	14950
FS440 DRT02	126195	JLW1061	249011	0	51	5/7/2007	6:44:54 PM	3.23E+03	60	1	0	32	FS440	DRT02	WL1M1	A03DA	LAB01	2		0	14913
FS440 DRT02	126195	JLW1061	249011	0	52	5/7/2007	6:46:36 PM	3.08E+03	60	1	0	32	FS440	DRT02	WL1M1	A03DA	LAB01	3		0	14234

Reviewed By: [signature] Date: 5-14-07 Approved By: [signature] Date: 5/14/07

Measurement Database Download Report

Direct Alpha Measurements

5/13/2007

Download ID	Station Number	User ID	Download Date	Download Time	Survey Package ID	Detector Model Number	Detector Serial Number	4 pi Alpha Efficiency	ActiveArea (cm2)
DL051007-001	2	JLM3848	5/10/2007	4:08 PM	G4024 401B1	43-90	249011	0.173	125

Package ID	M2350 Serial Number	User ID	Detector Serial Number	Detector Setup Number	Sample No	Date	Time	Logged Count	Count Time (secs)	Logging Mode	Window OnOroff	Scaler Alarm	LC1	LC2	LC3	LC4	LC5	LC6	L7	Measurement Location Number	Gross Alpha (dpm/ 100cm2)
FS440 DRT01	126195	JLW1061	249011	0	0	5/10/2007	4:04:42 PM	4.00E+00	600	1	0	44	FS440	DRT01	LA1A1	A03AA	LAB01	1		0	2
FS440 DRT01	126195	JLW1061	249011	0	1	5/10/2007	4:17:52 PM	3.23E+03	60	1	0	44	FS440	DRT01	LA1A1	A03BA	LAB01	1		0	14955
FS440 DRT01	126195	JLW1061	249011	0	2	5/10/2007	4:20:18 PM	3.15E+03	60	1	0	44	FS440	DRT01	LA1A1	A03BA	LAB01	2		0	14580
FS440 DRT01	126195	JLW1061	249011	0	3	5/10/2007	4:22:00 PM	3.04E+03	60	1	0	44	FS440	DRT01	LA1A1	A03BA	LAB01	3		0	14076
G4024 401B1	126195	JLW1061	249011	0	4	5/10/2007	4:41:30 PM	8.00E+00	60	1	0	44	G4024	401B1	PA1A1	A03GA	A1	1		0	37
G4024 401B1	126195	JLW1061	249011	0	5	5/10/2007	4:46:22 PM	9.00E+00	60	1	0	44	G4024	401B1	PA1A1	A03GA	A1	2		0	42
G4024 401B1	126195	JLW1061	249011	0	6	5/10/2007	4:47:40 PM	1.00E+00	60	1	0	44	G4024	401B1	PA1A1	A03GA	A1	3		0	5
G4024 401B1	126195	JLW1061	249011	0	7	5/10/2007	4:50:22 PM	6.00E+00	60	1	0	44	G4024	401B1	PA1A1	A03FA	A1	1		0	28
G4024 401B1	126195	JLW1061	249011	0	8	5/10/2007	4:51:52 PM	9.00E+00	60	1	0	44	G4024	401B1	PA1A1	A03FA	A1	2		0	42
G4024 401B1	126195	JLW1061	249011	0	9	5/10/2007	4:53:12 PM	6.00E+00	60	1	0	44	G4024	401B1	PA1A1	A03FA	A1	3		0	28
G4024 401B1	126195	JLW1061	249011	0	10	5/10/2007	4:54:34 PM	5.00E+00	60	1	0	44	G4024	401B1	PA1A1	A03FA	A1	4		0	23
G4024 401B1	126195	JLW1061	249011	0	11	5/10/2007	4:56:02 PM	8.00E+00	60	1	0	44	G4024	401B1	PA1A1	A03FA	A1	5		0	37
G4024 401B1	126195	JLW1061	249011	0	12	5/10/2007	4:57:24 PM	6.00E+00	60	1	0	44	G4024	401B1	PA1A1	A03FA	A1	6		0	28
G4024 401B1	126195	JLW1061	249011	0	13	5/10/2007	4:58:52 PM	3.00E+00	60	1	0	44	G4024	401B1	PA1A1	A03FA	A1	7		0	14
G4024 401B1	126195	JLW1061	249011	0	14	5/10/2007	5:00:16 PM	9.00E+00	60	1	0	44	G4024	401B1	PA1A1	A03FA	A1	8		0	42
G4024 401B1	126195	JLW1061	249011	0	15	5/10/2007	5:01:40 PM	7.00E+00	60	1	0	44	G4024	401B1	PA1A1	A03FA	A1	9		0	32
G4024 401B1	126195	JLW1061	249011	0	16	5/10/2007	5:03:12 PM	7.00E+00	60	1	0	44	G4024	401B1	PA1A1	A03FA	A1	10		0	32
G4024 401B1	126195	JLW1061	249011	0	17	5/10/2007	5:04:38 PM	8.00E+00	60	1	0	44	G4024	401B1	PA1A1	A03FA	A1	11		0	37
G4024 401B1	126195	JLW1061	249011	0	18	5/10/2007	5:05:58 PM	9.00E+00	60	1	0	44	G4024	401B1	PA1A1	A03FA	A1	12		0	42

Measurement Database Download Report

Direct Alpha Measurements

5/13/2007

Download ID	Station Number	User ID	Download Date	Download Time	Survey Package ID	Detector Model Number	Detector Serial Number	4 pi Alpha Efficiency	ActiveArea (cm2)
DL051007-001	2	JLM3848	5/10/2007	4:08 PM	G4024 401B1	43-90	249011	0.173	125

Package ID	M2350 Serial Number	User ID	Detector Serial Number	Detector Setup Number	Sample No	Date	Time	Logged Count	Count Time (secs)	Logging Mode	Window OnOroff	Scaler Alarm	LC1	LC2	LC3	LC4	LC5	LC6	L7	Measurement Location Number	Gross Alpha (dpm/ 100cm2)
G4024 401B1	126195	JLW1061	249011	0	19	5/10/2007	5:07:22 PM	7.00E+00	60	1	0	44	G4024	401B1	PA1A1	A03FA	A1	13		0	32
G4024 401B1	126195	JLW1061	249011	0	20	5/10/2007	5:08:42 PM	1.00E+01	60	1	0	44	G4024	401B1	PA1A1	A03FA	A1	14		0	46
G4024 401B1	126195	JLW1061	249011	0	21	5/10/2007	5:10:54 PM	8.00E+00	60	1	0	44	G4024	401B1	PA1A1	A03FA	A1	15		0	37
G4024 401B1	126195	JLW1061	249011	0	22	5/10/2007	5:12:26 PM	1.50E+01	60	1	0	44	G4024	401B1	PA1A1	A03FA	A1	16		0	69
G4024 401B1	126195	JLW1061	249011	0	23	5/10/2007	5:13:54 PM	8.00E+00	60	1	0	44	G4024	401B1	PA1A1	A03FA	A1	17		0	37
G4024 401B1	126195	JLW1061	249011	0	24	5/10/2007	5:15:24 PM	9.00E+00	60	1	0	44	G4024	401B1	PA1A1	A03FA	A1	18		0	42
G4024 401B1	126195	JLW1061	249011	0	25	5/10/2007	5:18:32 PM	4.00E+00	60	1	0	44	G4024	401B1	PA1A1	A03GA	A1	1		0	18
G4024 401B1	126195	JLW1061	249011	0	26	5/10/2007	5:19:40 PM	1.00E+00	60	1	0	44	G4024	401B1	PA1A1	A03GA	A1	2		0	5
G4024 401B1	126195	JLW1061	249011	0	27	5/10/2007	5:20:48 PM	0.00E+00	60	1	0	44	G4024	401B1	PA1A1	A03GA	A1	3		0	0
FS440 DRT02	126195	JLW1061	249011	0	28	5/10/2007	5:59:58 PM	1.10E+01	600	1	0	44	FS440	DRT02	PA1A1	A03CA	LAB01	1		0	5
FS440 DRT02	126195	JLW1061	249011	0	29	5/10/2007	6:10:00 PM	3.21E+03	60	1	0	44	FS440	DRT02	PA1A1	A03DA	LAB01	1		0	14853
FS440 DRT02	126195	JLW1061	249011	0	30	5/10/2007	6:11:16 PM	3.22E+03	60	1	0	44	FS440	DRT02	PA1A1	A03DA	LAB01	2		0	14876
FS440 DRT02	126195	JLW1061	249011	0	31	5/10/2007	6:12:34 PM	3.09E+03	60	1	0	44	FS440	DRT02	PA1A1	A03DA	LAB01	3		0	14280

Reviewed By: Joe Long Date: 5-14-07 Approved By: John McGehee Date: 5/14/07

Survey Package Appendix C – Survey Results

Survey Package:	G4024 401B1	Package: Structure
Survey Area Name:	Structures Background Reference Area for SETF Building 4024	
Survey Unit Name:	Structures Background Areas	

Section 4.0
Measurement Results – Exposure Rate Measurements
6 Pages

Measurement Database Download Report
Exposure Rate Measurements

5/13/2007

Download ID	Station Number	User ID	Download Date	Download Time	Survey Package ID	Detector Model Number	Detector Serial Number	Gamma Cal Factor
DL050707-002	2	JLM3848	5/7/2007	4:20 PM	G4024 401B1	44-10	162404	5.36E+10

Package ID	M2350 Serial Number	User ID	Detector Serial Number	Detector Setup Number	Sample No	Date	Time	Logged Count	Count Time (secs)	Logging Mode	Window OnOroff	Scaler Alarm	LC1	LC2	LC3	LC4	LC5	LC6	L7	Measurement Location Number	Exposure Rate uR/hr
CS313 DRT01	98648	JEJ5742	162404	12	0	5/7/2007	9:03:00 AM	1.27E+05	600	1	0	31	CS313	DRT01	WL1M1	G01AA	LAB01	1		0	1.42E+01
CS313 DRT01	98648	JEJ5742	162404	12	1	5/7/2007	9:14:34 AM	5.96E+05	30	1	0	31	CS313	DRT01	WL1M1	G01BA	LAB01	1		0	1.33E+03
CS313 DRT01	98648	JEJ5742	162404	12	2	5/7/2007	9:16:28 AM	2.88E+04	30	1	0	31	CS313	DRT01	WL1M1	G01BA	LAB01	2		0	6.44E+01
CS313 DRT01	98648	JEJ5742	162404	12	3	5/7/2007	9:18:10 AM	1.77E+04	30	1	0	31	CS313	DRT01	WL1M1	G01BA	LAB01	3		0	3.96E+01
G4024 401B1	98648	JEJ5742	162404	12	32	5/7/2007	1:35:00 PM	2.01E+03	12	1	0	31	G4024	401B1	FL1C1	G01FA	FL1	1		0	1.13E+01
G4024 401B1	98648	JEJ5742	162404	12	33	5/7/2007	1:35:32 PM	1.95E+03	12	1	0	31	G4024	401B1	FL1C1	G02FA	FL1	1		0	1.09E+01
G4024 401B1	98648	JEJ5742	162404	12	34	5/7/2007	1:36:08 PM	1.97E+03	12	1	0	31	G4024	401B1	FL1C1	G01FA	FL1	2		0	1.10E+01
G4024 401B1	98648	JEJ5742	162404	12	35	5/7/2007	1:36:32 PM	1.89E+03	12	1	0	31	G4024	401B1	FL1C1	G02FA	FL1	2		0	1.06E+01
G4024 401B1	98648	JEJ5742	162404	12	36	5/7/2007	1:37:12 PM	1.94E+03	12	1	0	31	G4024	401B1	FL1C1	G01FA	FL1	3		0	1.09E+01
G4024 401B1	98648	JEJ5742	162404	12	37	5/7/2007	1:37:40 PM	1.67E+03	12	1	0	31	G4024	401B1	FL1C1	G02FA	FL1	3		0	9.32E+00
G4024 401B1	98648	JEJ5742	162404	12	38	5/7/2007	1:38:46 PM	1.82E+03	12	1	0	31	G4024	401B1	FL1C1	G01FA	FL1	4		0	1.02E+01
G4024 401B1	98648	JEJ5742	162404	12	39	5/7/2007	1:39:06 PM	1.75E+03	12	1	0	31	G4024	401B1	FL1C1	G02FA	FL1	4		0	9.77E+00
G4024 401B1	98648	JEJ5742	162404	12	40	5/7/2007	1:39:40 PM	1.80E+03	12	1	0	31	G4024	401B1	FL1C1	G01FA	FL1	5		0	1.00E+01
G4024 401B1	98648	JEJ5742	162404	12	41	5/7/2007	1:40:10 PM	1.62E+03	12	1	0	31	G4024	401B1	FL1C1	G02FA	FL1	5		0	9.04E+00
G4024 401B1	98648	JEJ5742	162404	12	42	5/7/2007	1:40:54 PM	1.87E+03	12	1	0	31	G4024	401B1	FL1C1	G01FA	FL1	6		0	1.04E+01
G4024 401B1	98648	JEJ5742	162404	12	43	5/7/2007	1:41:20 PM	1.57E+03	12	1	0	31	G4024	401B1	FL1C1	G02FA	FL1	6		0	8.76E+00
G4024 401B1	98648	JEJ5742	162404	12	44	5/7/2007	1:41:56 PM	1.94E+03	12	1	0	31	G4024	401B1	FL1C1	G01FA	FL1	7		0	1.09E+01
G4024 401B1	98648	JEJ5742	162404	12	45	5/7/2007	1:42:26 PM	1.71E+03	12	1	0	31	G4024	401B1	FL1C1	G02FA	FL1	7		0	9.58E+00
G4024 401B1	98648	JEJ5742	162404	12	46	5/7/2007	1:42:52 PM	2.01E+03	12	1	0	31	G4024	401B1	FL1C1	G01FA	FL1	8		0	1.12E+01
G4024 401B1	98648	JEJ5742	162404	12	47	5/7/2007	1:43:16 PM	1.83E+03	12	1	0	31	G4024	401B1	FL1C1	G02FA	FL1	8		0	1.02E+01
G4024 401B1	98648	JEJ5742	162404	12	48	5/7/2007	1:43:46 PM	1.87E+03	12	1	0	31	G4024	401B1	FL1C1	G01FA	FL1	9		0	1.05E+01
G4024 401B1	98648	JEJ5742	162404	12	49	5/7/2007	1:44:10 PM	1.48E+03	12	1	0	31	G4024	401B1	FL1C1	G02FA	FL1	9		0	8.29E+00
G4024 401B1	98648	JEJ5742	162404	12	50	5/7/2007	1:45:14 PM	1.95E+03	12	1	0	31	G4024	401B1	WL1M1	G01FA	WL1	1		0	1.09E+01
G4024 401B1	98648	JEJ5742	162404	12	51	5/7/2007	1:45:38 PM	1.72E+03	12	1	0	31	G4024	401B1	WL1M1	G02FA	WL1	1		0	9.61E+00
G4024 401B1	98648	JEJ5742	162404	12	52	5/7/2007	1:46:06 PM	1.86E+03	12	1	0	31	G4024	401B1	WL1M1	G01FA	WL1	2		0	1.04E+01
G4024 401B1	98648	JEJ5742	162404	12	53	5/7/2007	1:46:30 PM	1.78E+03	12	1	0	31	G4024	401B1	WL1M1	G02FA	WL1	2		0	9.96E+00

Measurement Database Download Report
Exposure Rate Measurements

5/13/2007

Download ID	Station Number	User ID	Download Date	Download Time	Survey Package ID	Detector Model Number	Detector Serial Number	Gamma Cal Factor
DL050707-002	2	JLM3848	5/7/2007	4:20 PM	G4024 401B1	44-10	162404	5.36E+10

Package ID	M2350 Serial Number	User ID	Detector Serial Number	Detector Setup Number	Sample No	Date	Time	Logged Count	Count Time (secs)	Logging Mode	Window OnOroff	Scaler Alarm	LC1	LC2	LC3	LC4	LC5	LC6	L7	Measurement Location Number	Exposure Rate uR/hr
G4024 401B1	98648	JEJ5742	162404	12	54	5/7/2007	1:47:02 PM	1.61E+03	12	1	0	31	G4024	401B1	WL1M1	G01FA	WL1	3		0	8.98E+00
G4024 401B1	98648	JEJ5742	162404	12	55	5/7/2007	1:47:26 PM	1.65E+03	12	1	0	31	G4024	401B1	WL1M1	G02FA	WL1	3		0	9.21E+00
G4024 401B1	98648	JEJ5742	162404	12	56	5/7/2007	1:47:54 PM	1.59E+03	12	1	0	31	G4024	401B1	WL1M1	G01FA	WL1	4		0	8.88E+00
G4024 401B1	98648	JEJ5742	162404	12	57	5/7/2007	1:48:20 PM	1.71E+03	12	1	0	31	G4024	401B1	WL1M1	G02FA	WL1	4		0	9.54E+00
G4024 401B1	98648	JEJ5742	162404	12	58	5/7/2007	1:48:52 PM	1.30E+03	12	1	0	31	G4024	401B1	WL1M1	G01FA	WL1	5		0	7.29E+00
G4024 401B1	98648	JEJ5742	162404	12	59	5/7/2007	1:49:16 PM	1.33E+03	12	1	0	31	G4024	401B1	WL1M1	G02FA	WL1	5		0	7.45E+00
G4024 401B1	98648	JEJ5742	162404	12	60	5/7/2007	1:49:52 PM	1.37E+03	12	1	0	31	G4024	401B1	WL1M1	G01FA	WL1	6		0	7.65E+00
G4024 401B1	98648	JEJ5742	162404	12	61	5/7/2007	1:50:14 PM	1.70E+03	12	1	0	31	G4024	401B1	WL1M1	G02FA	WL1	6		0	9.53E+00
G4024 401B1	98648	JEJ5742	162404	12	62	5/7/2007	1:50:46 PM	1.44E+03	12	1	0	31	G4024	401B1	WL1M1	G01FA	WL1	7		0	8.07E+00
G4024 401B1	98648	JEJ5742	162404	12	63	5/7/2007	1:51:12 PM	1.69E+03	12	1	0	31	G4024	401B1	WL1M1	G02FA	WL1	7		0	9.44E+00
G4024 401B1	98648	JEJ5742	162404	12	64	5/7/2007	1:51:44 PM	1.34E+03	12	1	0	31	G4024	401B1	WL1M1	G01FA	WL1	8		0	7.47E+00
G4024 401B1	98648	JEJ5742	162404	12	66	5/7/2007	1:52:52 PM	1.38E+03	12	1	0	31	G4024	401B1	WL1M1	G02FA	WL1	8		0	7.72E+00
G4024 401B1	98648	JEJ5742	162404	12	67	5/7/2007	1:53:18 PM	1.47E+03	12	1	0	31	G4024	401B1	WL1M1	G01FA	WL1	9		0	8.21E+00
G4024 401B1	98648	JEJ5742	162404	12	68	5/7/2007	1:53:42 PM	1.53E+03	12	1	0	31	G4024	401B1	WL1M1	G02FA	WL1	9		0	8.53E+00
G4024 401B1	98648	JEJ5742	162404	12	69	5/7/2007	2:04:52 PM	2.94E+03	12	1	0	31	G4024	401B1	FL1C1	G01FA	FL1	1		0	1.64E+01
G4024 401B1	98648	JEJ5742	162404	12	70	5/7/2007	2:05:14 PM	2.85E+03	12	1	0	31	G4024	401B1	FL1C1	G02FA	FL1	1		0	1.60E+01
G4024 401B1	98648	JEJ5742	162404	12	71	5/7/2007	2:05:44 PM	2.95E+03	12	1	0	31	G4024	401B1	FL1C1	G01FA	FL1	2		0	1.65E+01
G4024 401B1	98648	JEJ5742	162404	12	72	5/7/2007	2:06:10 PM	2.87E+03	12	1	0	31	G4024	401B1	FL1C1	G02FA	FL1	2		0	1.60E+01
G4024 401B1	98648	JEJ5742	162404	12	73	5/7/2007	2:06:40 PM	2.72E+03	12	1	0	31	G4024	401B1	FL1C1	G01FA	FL1	3		0	1.52E+01
G4024 401B1	98648	JEJ5742	162404	12	74	5/7/2007	2:07:04 PM	2.62E+03	12	1	0	31	G4024	401B1	FL1C1	G02FA	FL1	3		0	1.47E+01
G4024 401B1	98648	JEJ5742	162404	12	75	5/7/2007	2:07:36 PM	2.83E+03	12	1	0	31	G4024	401B1	FL1C1	G01FA	FL1	4		0	1.58E+01
G4024 401B1	98648	JEJ5742	162404	12	76	5/7/2007	2:08:00 PM	2.90E+03	12	1	0	31	G4024	401B1	FL1C1	G02FA	FL1	4		0	1.62E+01
G4024 401B1	98648	JEJ5742	162404	12	77	5/7/2007	2:08:24 PM	2.99E+03	12	1	0	31	G4024	401B1	FL1C1	G01FA	FL1	5		0	1.67E+01
G4024 401B1	98648	JEJ5742	162404	12	78	5/7/2007	2:08:52 PM	2.91E+03	12	1	0	31	G4024	401B1	FL1C1	G02FA	FL1	5		0	1.63E+01
G4024 401B1	98648	JEJ5742	162404	12	79	5/7/2007	2:09:26 PM	2.82E+03	12	1	0	31	G4024	401B1	FL1C1	G01FA	FL1	6		0	1.58E+01
G4024 401B1	98648	JEJ5742	162404	12	80	5/7/2007	2:09:52 PM	2.50E+03	12	1	0	31	G4024	401B1	FL1C1	G02FA	FL1	6		0	1.40E+01

Measurement Database Download Report
Exposure Rate Measurements

5/13/2007

Download ID	Station Number	User ID	Download Date	Download Time	Survey Package ID	Detector Model Number	Detector Serial Number	Gamma Cal Factor
DL050707-002	2	JLM3848	5/7/2007	4:20 PM	G4024 401B1	44-10	162404	5.36E+10

Package ID	M2350 Serial Number	User ID	Detector Serial Number	Detector Setup Number	Sample No	Date	Time	Logged Count	Count Time (secs)	Logging Mode	Window OnOroff	Scaler Alarm	LC1	LC2	LC3	LC4	LC5	LC6	L7	Measurement Location Number	Exposure Rate uR/hr
G4024 401B1	98648	JEJ5742	162404	12	81	5/7/2007	2:10:26 PM	2.81E+03	12	1	0	31	G4024	401B1	FL1C1	G01FA	FL1	7		0	1.57E+01
G4024 401B1	98648	JEJ5742	162404	12	82	5/7/2007	2:10:50 PM	2.30E+03	12	1	0	31	G4024	401B1	FL1C1	G02FA	FL1	7		0	1.29E+01
G4024 401B1	98648	JEJ5742	162404	12	83	5/7/2007	2:11:16 PM	2.79E+03	12	1	0	31	G4024	401B1	FL1C1	G01FA	FL1	8		0	1.56E+01
G4024 401B1	98648	JEJ5742	162404	12	84	5/7/2007	2:11:38 PM	2.63E+03	12	1	0	31	G4024	401B1	FL1C1	G02FA	FL1	8		0	1.47E+01
G4024 401B1	98648	JEJ5742	162404	12	85	5/7/2007	2:12:06 PM	2.65E+03	12	1	0	31	G4024	401B1	FL1C1	G01FA	FL1	9		0	1.48E+01
G4024 401B1	98648	JEJ5742	162404	12	86	5/7/2007	2:12:30 PM	2.45E+03	12	1	0	31	G4024	401B1	FL1C1	G02FA	FL1	9		0	1.37E+01
G4024 401B1	98648	JEJ5742	162404	12	87	5/7/2007	2:14:12 PM	2.52E+03	12	1	0	31	G4024	401B1	WL1M1	G01FA	WL1	1		0	1.41E+01
G4024 401B1	98648	JEJ5742	162404	12	88	5/7/2007	2:14:34 PM	2.52E+03	12	1	0	31	G4024	401B1	WL1M1	G02FA	WL1	1		0	1.41E+01
G4024 401B1	98648	JEJ5742	162404	12	89	5/7/2007	2:15:22 PM	2.20E+03	12	1	0	31	G4024	401B1	WL1M1	G01FA	WL1	2		0	1.23E+01
G4024 401B1	98648	JEJ5742	162404	12	90	5/7/2007	2:15:48 PM	2.33E+03	12	1	0	31	G4024	401B1	WL1M1	G02FA	WL1	2		0	1.30E+01
G4024 401B1	98648	JEJ5742	162404	12	91	5/7/2007	2:16:22 PM	2.34E+03	12	1	0	31	G4024	401B1	WL1M1	G01FA	WL1	3		0	1.31E+01
G4024 401B1	98648	JEJ5742	162404	12	92	5/7/2007	2:16:44 PM	2.35E+03	12	1	0	31	G4024	401B1	WL1M1	G02FA	WL1	3		0	1.31E+01
G4024 401B1	98648	JEJ5742	162404	12	93	5/7/2007	2:17:14 PM	2.17E+03	12	1	0	31	G4024	401B1	WL1M1	G01FA	WL1	4		0	1.21E+01
G4024 401B1	98648	JEJ5742	162404	12	94	5/7/2007	2:17:38 PM	2.49E+03	12	1	0	31	G4024	401B1	WL1M1	G02FA	WL1	4		0	1.39E+01
G4024 401B1	98648	JEJ5742	162404	12	95	5/7/2007	2:18:06 PM	2.06E+03	12	1	0	31	G4024	401B1	WL1M1	G01FA	WL1	5		0	1.15E+01
G4024 401B1	98648	JEJ5742	162404	12	96	5/7/2007	2:18:30 PM	2.55E+03	12	1	0	31	G4024	401B1	WL1M1	G02FA	WL1	5		0	1.42E+01
G4024 401B1	98648	JEJ5742	162404	12	97	5/7/2007	2:19:16 PM	1.87E+03	12	1	0	31	G4024	401B1	WL1M1	G01FA	WL1	6		0	1.05E+01
G4024 401B1	98648	JEJ5742	162404	12	98	5/7/2007	2:20:36 PM	2.41E+03	12	1	0	31	G4024	401B1	WL1M1	G02FA	WL1	6		0	1.35E+01
G4024 401B1	98648	JEJ5742	162404	12	99	5/7/2007	2:21:04 PM	2.29E+03	12	1	0	31	G4024	401B1	WL1M1	G01FA	WL1	7		0	1.28E+01
G4024 401B1	98648	JEJ5742	162404	12	100	5/7/2007	2:21:38 PM	2.52E+03	12	1	0	31	G4024	401B1	WL1M1	G02FA	WL1	7		0	1.41E+01
G4024 401B1	98648	JEJ5742	162404	12	101	5/7/2007	2:22:10 PM	2.01E+03	12	1	0	31	G4024	401B1	WL1M1	G01FA	WL1	8		0	1.12E+01
G4024 401B1	98648	JEJ5742	162404	12	102	5/7/2007	2:22:34 PM	2.43E+03	12	1	0	31	G4024	401B1	WL1M1	G02FA	WL1	8		0	1.36E+01
G4024 401B1	98648	JEJ5742	162404	12	103	5/7/2007	2:23:12 PM	2.38E+03	12	1	0	31	G4024	401B1	WL1M1	G01FA	WL1	9		0	1.33E+01
G4024 401B1	98648	JEJ5742	162404	12	104	5/7/2007	2:23:38 PM	2.56E+03	12	1	0	31	G4024	401B1	WL1M1	G02FA	WL1	9		0	1.43E+01
CS313 DRT02	98648	JEJ5742	162404	12	130	5/8/2007	7:05:28 AM	1.12E+05	600	1	0	31	CS313	DRT02	WL1M1	G01CA	LAB01	1		0	1.25E+01
CS313 DRT02	98648	JEJ5742	162404	12	131	5/8/2007	7:10:32 AM	5.91E+05	30	1	0	31	CS313	DRT02	WL1M1	G01DA	LAB01	1		0	1.32E+03

Measurement Database Download Report
Exposure Rate Measurements

5/13/2007

Download ID	Station Number	User ID	Download Date	Download Time	Survey Package ID	Detector Model Number	Detector Serial Number	Gamma Cal Factor
DL050707-002	2	JLM3848	5/7/2007	4:20 PM	G4024 401B1	44-10	162404	5.36E+10

Package ID	M2350 Serial Number	User ID	Detector Serial Number	Detector Setup Number	Sample No	Date	Time	Logged Count	Count Time (secs)	Logging Mode	Window OnOroff	Scaler Alarm	LC1	LC2	LC3	LC4	LC5	LC6	L7	Measurement Location Number	Exposure Rate uR/hr
CS313 DRT02	98648	JEJ5742	162404	12	132	5/8/2007	7:12:28 AM	2.91E+04	30	1	0	31	CS313	DRT02	WL1M1	G01DA	LAB01	2		0	6.51E+01
CS313 DRT02	98648	JEJ5742	162404	12	133	5/8/2007	7:17:48 AM	1.71E+04	30	1	0	31	CS313	DRT02	WL1M1	G01DA	LAB01	3		0	3.83E+01

Reviewed By: Joe Lucy Date: 5-14-07 Approved By: John McGehee Date: 5/14/07

Measurement Database Download Report
Exposure Rate Measurements

5/10/2007

Download ID	Station Number	User ID	Download Date	Download Time	Survey Package ID	Detector Model Number	Detector Serial Number	Gamma Cal Factor
DL051007-002	2	JLM3848	5/10/2007	4:18 PM	G4024 401B1	44-10	162404	5.36E+10

Package ID	M2350 Serial Number	User ID	Detector Serial Number	Detector Setup Number	Sample No	Date	Time	Logged Count	Count Time (secs)	Logging Mode	Window OnOroff	Scaler Alarm	LC1	LC2	LC3	LC4	LC5	LC6	L7	Measurement Location Number	Exposure Rate uR/hr
CS313 DRT01	95359	JEJ5742	162404	0	0	5/10/2007	12:42:08 PM	1.05E+05	600	1	0	45	CS313	DRT01	LA1A1	G01AA	LAB01	1		0	1.17E+01
CS313 DRT01	95359	JEJ5742	162404	0	1	5/10/2007	12:44:58 PM	5.60E+05	30	1	0	45	CS313	DRT01	LA1A1	G01BA	LAB01	1		0	1.25E+03
CS313 DRT01	95359	JEJ5742	162404	0	2	5/10/2007	12:47:24 PM	2.73E+04	30	1	0	45	CS313	DRT01	LA1A1	G01BA	LAB01	2		0	6.12E+01
CS313 DRT01	95359	JEJ5742	162404	0	3	5/10/2007	12:48:46 PM	1.68E+04	30	1	0	45	CS313	DRT01	LA1A1	G01BA	LAB01	3		0	3.76E+01
G4024 401B1	95359	JEJ5742	162404	0	4	5/10/2007	1:25:22 PM	2.69E+03	12	1	0	45	G4024	401B1	PA1A1	G01FA	A1	1		0	1.50E+01
G4024 401B1	95359	JEJ5742	162404	0	5	5/10/2007	1:26:06 PM	2.62E+03	12	1	0	45	G4024	401B1	PA1A1	G02FA	A1	1		0	1.46E+01
G4024 401B1	95359	JEJ5742	162404	0	6	5/10/2007	1:26:40 PM	2.78E+03	12	1	0	45	G4024	401B1	PA1A1	G01FA	A1	2		0	1.55E+01
G4024 401B1	95359	JEJ5742	162404	0	7	5/10/2007	1:27:18 PM	2.57E+03	12	1	0	45	G4024	401B1	PA1A1	G02FA	A1	2		0	1.44E+01
G4024 401B1	95359	JEJ5742	162404	0	8	5/10/2007	1:27:52 PM	2.70E+03	12	1	0	45	G4024	401B1	PA1A1	G01FA	A1	3		0	1.51E+01
G4024 401B1	95359	JEJ5742	162404	0	9	5/10/2007	1:28:22 PM	2.54E+03	12	1	0	45	G4024	401B1	PA1A1	G02FA	A1	3		0	1.42E+01
G4024 401B1	95359	JEJ5742	162404	0	10	5/10/2007	1:28:50 PM	2.73E+03	12	1	0	45	G4024	401B1	PA1A1	G01FA	A1	4		0	1.53E+01
G4024 401B1	95359	JEJ5742	162404	0	11	5/10/2007	1:29:18 PM	2.64E+03	12	1	0	45	G4024	401B1	PA1A1	G02FA	A1	4		0	1.48E+01
G4024 401B1	95359	JEJ5742	162404	0	12	5/10/2007	1:29:46 PM	2.61E+03	12	1	0	45	G4024	401B1	PA1A1	G01FA	A1	5		0	1.46E+01
G4024 401B1	95359	JEJ5742	162404	0	13	5/10/2007	1:30:10 PM	2.72E+03	12	1	0	45	G4024	401B1	PA1A1	G02FA	A1	5		0	1.52E+01
G4024 401B1	95359	JEJ5742	162404	0	14	5/10/2007	1:30:40 PM	2.67E+03	12	1	0	45	G4024	401B1	PA1A1	G01FA	A1	6		0	1.49E+01
G4024 401B1	95359	JEJ5742	162404	0	15	5/10/2007	1:31:08 PM	2.56E+03	12	1	0	45	G4024	401B1	PA1A1	G02FA	A1	6		0	1.43E+01
G4024 401B1	95359	JEJ5742	162404	0	16	5/10/2007	1:31:46 PM	2.77E+03	12	1	0	45	G4024	401B1	PA1A1	G01FA	A1	7		0	1.55E+01
G4024 401B1	95359	JEJ5742	162404	0	17	5/10/2007	1:32:14 PM	2.75E+03	12	1	0	45	G4024	401B1	PA1A1	G02FA	A1	7		0	1.54E+01
G4024 401B1	95359	JEJ5742	162404	0	18	5/10/2007	1:33:28 PM	2.69E+03	12	1	0	45	G4024	401B1	PA1A1	G01FA	A1	8		0	1.51E+01
G4024 401B1	95359	JEJ5742	162404	0	19	5/10/2007	1:33:50 PM	2.71E+03	12	1	0	45	G4024	401B1	PA1A1	G02FA	A1	8		0	1.52E+01
G4024 401B1	95359	JEJ5742	162404	0	20	5/10/2007	1:34:24 PM	2.60E+03	12	1	0	45	G4024	401B1	PA1A1	G01FA	A1	9		0	1.45E+01
G4024 401B1	95359	JEJ5742	162404	0	21	5/10/2007	1:34:50 PM	2.56E+03	12	1	0	45	G4024	401B1	PA1A1	G02FA	A1	9		0	1.43E+01
G4024 401B1	95359	JEJ5742	162404	0	22	5/10/2007	1:35:20 PM	2.70E+03	12	1	0	45	G4024	401B1	PA1A1	G01FA	A1	10		0	1.51E+01
G4024 401B1	95359	JEJ5742	162404	0	23	5/10/2007	1:35:50 PM	2.58E+03	12	1	0	45	G4024	401B1	PA1A1	G02FA	A1	10		0	1.44E+01
G4024 401B1	95359	JEJ5742	162404	0	24	5/10/2007	1:36:22 PM	2.68E+03	12	1	0	45	G4024	401B1	PA1A1	G01FA	A1	11		0	1.50E+01
G4024 401B1	95359	JEJ5742	162404	0	25	5/10/2007	1:36:50 PM	2.44E+03	12	1	0	45	G4024	401B1	PA1A1	G02FA	A1	11		0	1.36E+01

Measurement Database Download Report
Exposure Rate Measurements

5/10/2007

Download ID	Station Number	User ID	Download Date	Download Time	Survey Package ID	Detector Model Number	Detector Serial Number	Gamma Cal Factor
DL051007-002	2	JLM3848	5/10/2007	4:18 PM	G4024 401B1	44-10	162404	5.36E+10

Package ID	M2350 Serial Number	User ID	Detector Serial Number	Detector Setup Number	Sample No	Date	Time	Logged Count	Count Time (secs)	Logging Mode	Window OnOroff	Scaler Alarm	LC1	LC2	LC3	LC4	LC5	LC6	L7	Measurement Location Number	Exposure Rate uR/hr
G4024 401B1	95359	JEJ5742	162404	0	26	5/10/2007	1:37:44 PM	2.49E+03	12	1	0	45	G4024	401B1	PA1A1	G01FA	A1	12		0	1.39E+01
G4024 401B1	95359	JEJ5742	162404	0	27	5/10/2007	1:38:08 PM	2.43E+03	12	1	0	45	G4024	401B1	PA1A1	G02FA	A1	12		0	1.36E+01
G4024 401B1	95359	JEJ5742	162404	0	28	5/10/2007	1:39:08 PM	2.49E+03	12	1	0	45	G4024	401B1	PA1A1	G01FA	A1	13		0	1.39E+01
G4024 401B1	95359	JEJ5742	162404	0	29	5/10/2007	1:40:10 PM	2.46E+03	12	1	0	45	G4024	401B1	PA1A1	G02FA	A1	13		0	1.38E+01
G4024 401B1	95359	JEJ5742	162404	0	30	5/10/2007	1:40:48 PM	2.55E+03	12	1	0	45	G4024	401B1	PA1A1	G01FA	A1	14		0	1.42E+01
G4024 401B1	95359	JEJ5742	162404	0	31	5/10/2007	1:41:34 PM	2.55E+03	12	1	0	45	G4024	401B1	PA1A1	G02FA	A1	14		0	1.42E+01
G4024 401B1	95359	JEJ5742	162404	0	32	5/10/2007	1:42:10 PM	2.65E+03	12	1	0	45	G4024	401B1	PA1A1	G01FA	A1	15		0	1.48E+01
G4024 401B1	95359	JEJ5742	162404	0	33	5/10/2007	1:42:38 PM	2.63E+03	12	1	0	45	G4024	401B1	PA1A1	G02FA	A1	15		0	1.47E+01
G4024 401B1	95359	JEJ5742	162404	0	34	5/10/2007	1:43:16 PM	2.48E+03	12	1	0	45	G4024	401B1	PA1A1	G01FA	A1	16		0	1.39E+01
G4024 401B1	95359	JEJ5742	162404	0	35	5/10/2007	1:43:42 PM	2.32E+03	12	1	0	45	G4024	401B1	PA1A1	G02FA	A1	16		0	1.30E+01
G4024 401B1	95359	JEJ5742	162404	0	36	5/10/2007	1:44:12 PM	2.41E+03	12	1	0	45	G4024	401B1	PA1A1	G01FA	A1	17		0	1.35E+01
G4024 401B1	95359	JEJ5742	162404	0	37	5/10/2007	1:44:34 PM	2.23E+03	12	1	0	45	G4024	401B1	PA1A1	G02FA	A1	17		0	1.25E+01
G4024 401B1	95359	JEJ5742	162404	0	38	5/10/2007	1:45:10 PM	2.37E+03	12	1	0	45	G4024	401B1	PA1A1	G01FA	A1	18		0	1.33E+01
G4024 401B1	95359	JEJ5742	162404	0	39	5/10/2007	1:45:32 PM	2.35E+03	12	1	0	45	G4024	401B1	PA1A1	G02FA	A1	18		0	1.31E+01
CS313 DRT02	95359	JEJ5742	162404	0	40	5/10/2007	2:35:36 PM	1.22E+05	600	1	0	45	CS313	DRT02	PA1A1	G01CA	LAB01	1		0	1.37E+01
CS313 DRT02	95359	JEJ5742	162404	0	41	5/10/2007	2:38:40 PM	5.71E+05	30	1	0	45	CS313	DRT02	PA1A1	G01DA	LAB01	1		0	1.28E+03
CS313 DRT02	95359	JEJ5742	162404	0	42	5/10/2007	2:40:24 PM	2.58E+04	30	1	0	45	CS313	DRT02	PA1A1	G01DA	LAB01	2		0	5.77E+01
CS313 DRT02	95359	JEJ5742	162404	0	43	5/10/2007	2:42:06 PM	1.71E+04	30	1	0	45	CS313	DRT02	PA1A1	G01DA	LAB01	3		0	3.83E+01

Reviewed By: Joe [illegible] Date: 5-11-07 Approved By: John McWhe Date: 5/13/07

Survey Package Appendix C – Survey Results

Survey Package:	G4024 401B1	Package: Structure
Survey Area Name:	Structures Background Reference Area for SETF Building 4024	
Survey Unit Name:	Structures Background Areas	

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Sample Analysis Results – Alpha/Beta Counter
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Survey Package Appendix C – Survey Results

Survey Package:	G4024 401B1	Package: Structure
Survey Area Name:	Structures Background Reference Area for SETF Building 4024	
Survey Unit Name:	Structures Background Areas	

Section 6.0
Sample Analysis Results – Gamma Spectroscopy
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Survey Package Appendix C – Survey Results

Survey Package:	G4024 401B1	Package:	Structure
Survey Area Name:	Structures Background Reference Area for SETF Building 4024		
Survey Unit Name:	Structures Background Areas		

Section 7.0
Sample Analysis Results – Alpha Spectroscopy
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