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SURVEY PACKAGE

Survey Package ID: C4024 102C1

Survey Area Name: SETF, Building 4024

Survey Unit Name: SGTCC Test Cell B-104

Version: Revision 0, April 20, 2007

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

Prepared For:
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Survey Package Cover Sheet

Survey Package Number:	C4024 102C1	Package Type:	Structure
Survey Area Name:	SETF, Building 4024		
Survey Unit Name:	SGTCC Test Cell B-104		

Survey Package Preparation:

The survey package instructions are prepared and ready for implementation

Prepared By: _____ Date 5/1/07
FSS/Characterization Design Engineer

Reviewed By: _____ Date 5/1/07
FSS/Characterization Manager (or designee)

Approved By: _____ Date 5/1/07
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: 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:	C4024 102C1	Package Type:	Structure
Survey Area Name:	SETF, Building 4024		
Survey Unit Name:	SGTCC Test Cell B-104		

Survey Area Description:

Erected in 1960 and enlarged in 1962, 4 unshielded SNAP reactors were tested in the SETF. The reactor systems and radioactive test equipment were removed at the end of testing, additional D&D operations were performed in 1978 and again in 2005.

Survey Area History Information:

SETF Facility Description
As constructed, the SETF consisted of three basic areas: the high bay, general support and mechanical/electrical support areas. In addition to the building areas, a paved yard surrounds the main building. All of the building areas except for test cells B-102 and B-104 of the sub grade test cell complex (SGTCC) have been surveyed and confirmed to be DM by the DHS-RHB.

The test cells have an aluminum liner, contain activated concrete and metal rebar from former reactor testing. In the yard area, other above grade support structures and below grade components such as radioactive solid, liquid, and gas storage tanks were once buried. The tanks were removed, but surveys showing the radiological condition of the remaining vaults are not available.

Survey Unit Description and History

Survey Package Number: C4024 102C1 Package Type: Structure

LC1: C4024 Survey Area Name: SETF, Building 4024

LC2: 102C1 Survey Unit Name: SGTCC Test Cell B-104

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

LC3_P1_3	Surface Description	Dimensions (Yes or No)	Total Area (m2)
CL1	Ceiling	No	0
CS1	Core Bore Sample	No	0
FL1	Floor Surface	No	0
SM1	Sump or Storage Tubes	No	0
WL1	Lower Wall Surfaces	No	0
WU1	Upper Wall Surfaces	No	0

Work Breakdown Structure Information:

WBS ID: 10401 Characterization and Confirmatory Survey Activities

Survey Unit Description:

Sub Grade Test Cell Complex, Test Cell B-104

Survey Unit Historical Information: Operational History, etc.

Sub Grade Test Cell Complex
The sub grade test cell complex (SGTCC) consists of the three parallel cells (two power test cells and the center transfer cell), a partial rear corridor which interconnects the cells, and the operating gallery, see drawings, Sub Grade Test Cell Complex. To ensure gas tightness, the cells were completely lined on the inside with 3/16 inch-thick aluminum plate. This plate was seal welded to T-bar anchors in the structural concrete. The top of the cells' 8 foot thick roof is at ground level and serves as the high bay floor. The subsurface construction of the facility allowed advantage to be taken of the natural shielding for neutron and gamma radiation attenuation provided by the earth and rock on four sides of the complex. The below grade structure side and rear walls were back-filled with earthen fill materials. The floor was cast on the bedrock. The side wall structural concrete is nominally 3 feet thick, the south wall concrete is 2 feet thick and the floor concrete varies from 6.5 to 8 feet thick as the rock elevation varies.

Survey Unit Description and History

Survey Package Number: C4024 102C1 Package Type: Structure

LC1: C4024 Survey Area Name: SETF, Building 4024

LC2: 102C1 Survey Unit Name: SGTCC Test Cell B-104

Concrete walls which separate the three cells are 4-1/2 feet thick; the transfer cell's front wall is 4-1/2 feet thick; and the front walls of the two test cells are 9 feet thick. A 3-feet-thick concrete partial wall was built across the rear of each test cell, creating a common corridor. Nine floor storage vaults were constructed in the floor of the corridor, three at the rear of each cell.

The 4 by 7 feet minimum dimension access doors between the operating gallery and each cell were stepped plugs of the same thickness as the shield walls which they penetrate and provided for personnel or equipment access to the cells. Tracks were provided in the floor, for the self-powered plugs to roll on. Two of these doors remain in the lower operating gallery area of the facility. The roof of each cell is penetrated by a 9 feet minimum diameter circular access port. The plugs filling this port are stepped for shielding purposes. To not exceed the capacity of the 20-ton gantry crane, the plugs are constructed in three layers to make up a total thickness of 8 feet. The center of the roof access plugs are penetrated by a 24 inch minimum diameter port with a single shield plug in each.

The roof, front face and walls separating cells from one another are all pierced by 8 inch and 10 inch minimum diameter stepped ports. Two other types of cell penetrations were provided; these are electrical and instrumentation conduits and "bent through tubes." The aluminum conduits run from the cell liner out through the walls or roof. Aluminum bent-design through-tubes of two sizes, 1-1/2 and 2 inch diameter penetrated the various walls.

The operating gallery is at two levels. The lower level is at the same elevation as the cell floors 28 feet below grade. The upper level is formed by a bolted steel floor 14 feet above the lower floor. The west end is partitioned off by a concrete wall that extends from the lower floor to the high bay floor. Personnel access to the gallery floors and equipment rooms is provided by a single stairway. Material and equipment was moved to either floor of the operating gallery by a 5-ton bridge crane.

Identity of Potential Contaminants
Radioactivity induced by testing SNAP reactors in the sub grade test cell complex was detected as documented in SAP Reference 7.5, Team Product Document No: RS-00025, Building 4024 Concrete Sampling, performed under the Closure of ETEC (R21-RS) Program (RS-00025 report). The RS-00025 report provides the results for concrete sampling in the SETF, Building 4024 conducted in 2003. The activity of 1 inch depth cores ranged from no detectable activity to 105 pCi/g of Europium-152 (Eu-152) and 9.4 pCi/g of Cobalt-60 (Co-60), the primary contaminants of concern (COC).

Survey Unit Description and History

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LC2: 102C1 Survey Unit Name: SGTCC Test Cell B-104

These results from the RS-00025 survey and were used to predict which concrete needs to be removed with radiological controls and managed as radioactive waste and which can be removed as decommissioning materials without radiological controls and shipped to a Class 1 landfill. According to the SAP Reference 7.6, Historical Site Assessment of Area IV Santa Susana Field Laboratory Ventura County, California (HSA), other potential radionuclide COCs in addition to Co-60 and Eu-152 include: Am-241, Cs-134, Cs-137, Eu-154, Fe-55, Fe-59, H-3, K-40, Mn-54, Na-22, Ni-63, Pu-238, Pu-239, Pu-240, Pu-241, Sr-90, Th-228, Th-230, Th-232, U-234, U-235, and U-238. These additional COCs will also be tested for during the confirmatory survey.

Additional Information Regarding Survey Unit Classification:

Inside RCA? Yes

Activated concrete and metal from SNAP reactor testing.

Coolant? No

Spills? No

Survey Package References

Survey Package Number:	C4024 102C1	Package Type:	Structure
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Survey Unit Name:	SGTCC Test Cell B-104		

References:

1. Sample and Analysis Plan for the SETF D&D Surveys, Rev 0, March 2007, AREVA
2. Health and Safety Plan for the SETF D&D Project, March 2007, AREVA
3. Quality Assurance Project Plan for the SETF D&D Surveys, Rev 0, 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:	C4024 102C1	Package Type:	Structure
Survey Area Name:	SETF, Building 4024		
Survey Unit Name:	SGTCC Test Cell B-104		

Safety Requirement and Considerations:

1. All work to be performed in accordance with the Job Hazard Analysis prepared for surveys of radiological areas.
2. All work to be performed in accordance with RWP prepared for surveys of radiological areas.

Survey Support Requirements

Survey Package Number:	C4024 102C1	Package Type:	Structure
Survey Area Name:	SETF, Building 4024		
Survey Unit Name:	SGTCC Test Cell B-104		

Survey Support Requirements and Considerations:

1. Other equipment as needed
2. Lighting and extension cords
3. Water control dykes
4. Submersible pump with tubing for feed water and clamps
5. 55 gal. drum and drum dolly
6. Wet and dry vacuum
7. Man lift, 26'
8. 14" Diamond Blade Cutoff Saw,
9. Equipment needed may include:
   Vacuum base Concrete Core Drill with 3" bit,
10. Boeing to provide crane operator as needed to place equipment in test cell.

Survey Package Procedures

Survey Package Number:	C4024 102C1	Package Type:	Structure
Survey Area Name:	SETF, Building 4024		
Survey Unit Name:	SGTCC Test Cell B-104		

Survey Package Procedures:

1.	DD-CS-001	Sample Identification and Chain of Custody
2.	DD-CS-011	Operation of Ludlum Model 2350 Data Logger
3.	DD-CS-014	Bulk Material and Core Bore Sampling
4.	DD-RP-010	Portable Instrument Procedure
5.	DD-RP-039	Quality Control of Counting Systems and Portable Counters
6.	DD-RP-049	Operation of the Ludlum Model 2929 Dual Channel Scaler

General Survey Package Instructions

Survey Package Number:	C4024 102C1	Package Type:	Structure
Survey Area Name:	SETF, Building 4024		
Survey Unit Name:	SGTCC Test Cell B-104		

1. Perform measurements and collect samples of sufficient quantity to confirm nature and depth of activation radioactivity from former operations at Building 4024and evaluate measurements and sample results for comparability to previous survey results.

   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 removal activities, waste management activities, and remediation planning.

   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 structure has been adequately characterized.

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

   Additional measurements may be required to bound the lateral/vertical extent of radiological contamination in the survey unit to an approximate 24" depth. Survey maps for each room contained in this survey unit are located in Appendix A.

5. Use the floor, wall or ceiling designation from drawings in the LC5 code of the M2350 to identify measurements by surface. Mark each measurement location with an appropriate label, including LC5 and LC6 code

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:	C4024 102C1	Package Type:	Structure
Survey Area Name:	SETF, Building 4024		
Survey Unit Name:	SGTCC Test Cell B-104		

1. **Contact Gamma**

   Gamma Scan - Perform a gamma scan survey of surfaces of the interior of the test cell.

   Use a Model 44-10 detector with collimator shield installed to focus field of view. 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 perform a 100% scan survey of floor, lower 2 meters of wall surfaces upper walls, and ceiling. Note any areas of highest and lowest activity on the appropriate survey drawing contained in Appendix A and mark at the SML. Do not log scan results.

2. **Gamma Contact**

   Perform contact gamma measurement at the locations of highest and lowest activity identified during the scan for each of the surfaces.

   Use Model 44-10 with collimator shield installed, the M2350 in the scaler mode with a 12 second count time and code the measurement LC4_P4 as "F," for Field Count. A minimum of 24 direct beta measurements will be collected on the surfaces of the test cell. Measurements will be distributed on the building surfaces as follows:

   Interior surfaces:
   Floor - 3
   Walls below 2 meters – 6
   Upper walls above 2 meters – 6
   Ceiling – 3
   Sumps and Storage Tubes - 6

Specific Survey Package Instructions

Survey Package Number:	C4024 102C1	Package Type:	Structure
Survey Area Name:	SETF, Building 4024		
Survey Unit Name:	SGTCC Test Cell B-104		

3. **Direct Beta**

Perform direct beta measurements at each of the contact gamma SMLs.

Use a Model 44-116 or equal detector. A minimum of 18 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.

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).

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.

4. **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.

Specific Survey Package Instructions

Survey Package Number:	C4024 102CI	Package Type:	Structure
Survey Area Name:	SETF, Building 4024		
Survey Unit Name:	SGTCC Test Cell B-104		

5. **A/B Smear**

   Collect a smear for removable alpha and beta contamination at each of the direct beta measurement locations.

   Collect the smear sample by wiping approximately 100 cm2 area for the sample. Combine and analyze by gamma spectroscopy A/B smear samples collected at locations where removable alpha was > 100 dpm/100 cm^2 or removable beta was >1000 dpm/100 cm^2.

6. **G-Spec Sample**

   G-Spec Core Bore Sample
   For core bore sample locations, the survey team will evaluate the SMLs from the scan and direct measurements to determine locations to perform core bore sampling using a vacuum based core drill with 3" diameter diamond bit.

   The core bores once obtained will be handled as follows:

   a) Marked for location and orientation to cell surface and placed in clean plastic wrapper
   b) Moved to a low background area
   c) Drawing developed to depict measurements and wafer locations
   d) Direct beta measurements performed on each end
   e) Axial gamma scan performed along length of core bore with collimated NaI(Tl) detector to indicate depth of activation
   f) Core will be sliced into approximate 0.5 inch thick slices (pucks)
   g) Pucks will be marked for location and have direct alpha and beta measurements performed on each end
   h) Step e. and f. will be repeated until direct measurement results are indistinguishable from background levels
   i) Results of data evaluations will be used to determine pucks to send to offsite laboratory for further isotopic analysis

   The samples will be packaged and field screened by the project team personnel, chain of custody forms and sample shipping paperwork completed, and sent to the offsite AREVA E-Lab for analysis.

Specific Survey Package Instructions

Survey Package Number:	C4024 102C1	Package Type:	Structure
Survey Area Name:	SETF, Building 4024		
Survey Unit Name:	SGTCC Test Cell B-104		

7. **G-Spec Sample**

G-Spec Material Sample, for sump and storage tube locations
If available, collect a sample from each location composed of loose materials, sediment or sludge to combine for one or two composite samples for gamma spectral analysis.

The samples in order of priority are as follows:
1 to 2 kg Soil/Sediment Samples for Gamma Spectroscopy, if an amount to produce >/= 125 g of dry sample cannot be obtained, collect materials for a composite sample for the survey unit.

The sample may include a bulk material sample for a petri dish and/or 250 ml marinelli beaker sample.

To achieve the analysis MDC desired, the laboratory requested sample sizes (an amount of soil) that will yield 500 grams of dried soil. The wet soil amount can vary significantly depending on its moisture content. If the desired sample size cannot be obtained, the minimum sample size to achieve an analysis MDC is an amount of wet soil (~1 kg) that will produce 125g of dried soil.

If an amount to produce 125g of dried soil cannot be obtained, combine and analyze by gamma spectroscopy smear sample results showing > 100 alpha or >1000 beta dpm/100cm^2.

Survey Package Location Codes

Survey Package Number C4024 102C1 Package Type: Structure

LC1: C4024 Survey Area Name: SETF, Building 4024

LC2: 102C1 Survey Unit Name: SGTCC Test Cell B-104

Class Description: Impacted Class 1 Structure

Reason Description: C1 Characterization Survey

LC3_P1-3 and Surface Category: CL1 Ceiling surfaces (including back surfaces)

LC3_P45 Material Description

G1 Miscellaneous Material
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)
A/B Smear				3	3	N/A
	L01	A/B Smear Analysis	Alpha/Beta Counter			
Contact Gamma				3	3	
	G01	44-10	2"x2" NaI(Tl) Gamma Scintillator			
Direct Alpha				3	3	
	A04	43-89A	Alpha Scintillator			
	A03	43-90	Alpha Scintillator			
Direct Beta				3	3	
	B14	43-89B	Beta Scintillator			
	B02	44-116	Beta Scintillator			
G-Spec Sample				3	3	
	L05	GS Corebore Analysis	Gamma Spectrometry			

LC3_P1-3 and Surface Category: CS1 Core Bore Sample Surface of Wafers

Survey Package Location Codes

Survey Package Number C4024 102C1 Package Type: Structure

LC1: C4024 *Survey Area Name: SETF, Building 4024*

LC2: 102C1 *Survey Unit Name:* SGTCC Test Cell B-104

Class Description: Impacted Class 1 Structure

Reason Description: C1 Characterization Survey

LC3_P45 Material Description

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				40	40	WR
	G01	44-10	2"x2" NaI(Tl) Gamma Scintillator			
Direct Alpha				10	10	
	A04	43-89A	Alpha Scintillator			
	A03	43-90	Alpha Scintillator			
Direct Beta				10	10	
	B14	43-89B	Beta Scintillator			
	B02	44-116	Beta Scintillator			
G-Spec Sample				10	10	
	L05	GS Corebore Analysis	Gamma Spectrometry			

LC3_P1-3 and Surface Category: FL1 Floor Surface

LC3_P45 Material Description

M1 Metal
C1 Concrete (Bare)
G1 Miscellaneous Material

Survey Package Location Codes

Survey Package Number C4024 102C1 Package Type: Structure

LC1: C4024 Survey Area Name: SETF, Building 4024

LC2: 102C1 Survey Unit Name: SGTCC Test Cell B-104

Class Description: Impacted Class 1 Structure

Reason Description: C1 Characterization Survey

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

Measurement	LC4 P13 Code	Model	Description	Qty Prescribed	Qty Collected	Collected By (Initials)
A/B Smear				3	3	WA
	L01	A/B Smear Analysis	Alpha/Beta Counter			
Contact Gamma				3	3	
	G01	44-10	2"x2" NaI(Tl) Gamma Scintillator			
Direct Alpha				3	3	
	A04	43-89A	Alpha Scintillator			
	A03	43-90	Alpha Scintillator			
Direct Beta				3	3	
	B14	43-89B	Beta Scintillator			
	B02	44-116	Beta Scintillator			
G-Spec Sample				3	3	
	L05	GS Corebore Analysis	Gamma Spectrometry			

LC3_P1-3 and Surface Category: SM1 Sump or Storage Tubes

LC3_P45 Material Description

G1 Miscellaneous Material
M1 Metal
C1 Concrete (Bare)

Survey Package Location Codes

Survey Package Number C4024 102C1 Package Type: Structure

LC1: C4024 *Survey Area Name: SETF, Building 4024*

LC2: 102C1 Survey Unit Name: SGTCC Test Cell B-104

Class Description: Impacted Class 1 Structure

Reason Description: C1 Characterization Survey

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

Measurement	LC4 P13 Code	Model	Description	Qty Prescribed	Qty Collected	Collected By (Initials)
A/B Smear				6	6	MA
	L01	A/B Smear Analysis	Alpha/Beta Counter			
Direct Alpha				6	6	
	A04	43-89A	Alpha Scintillator			
	A03	43-90	Alpha Scintillator			
Direct Beta				6	6	
	B14	43-89B	Beta Scintillator			
	B02	44-116	Beta Scintillator			
G-Spec Sample				2	2	
	L04	GS Material Analysis	Gamma Spectrometry			

LC3_P1-3 and Surface Category: WL1 Lower Wall Surfaces

LC3_P45 Material Description

C1 Concrete (Bare)
G1 Miscellaneous Material
M1 Metal

Survey Package Location Codes

Survey Package Number C4024 102C1 Package Type: Structure

LC1: C4024 Survey Area Name: SETF, Building 4024

LC2: 102C1 Survey Unit Name: SGTCC Test Cell B-104

Class Description: Impacted Class 1 Structure

Reason Description: C1 Characterization Survey

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

Measurement	LC4 P13 Code	Model	Description	Qty Prescribed	Qty Collected	Collected By (Initials)
A/B Smear				6	6	NA
	L01	A/B Smear Analysis	Alpha/Beta Counter			
Contact Gamma				6	6	
	G01	44-10	2"x2" NaI(Tl) Gamma Scintillator			
Direct Alpha				6	6	
	A04	43-89A	Alpha Scintillator			
	A03	43-90	Alpha Scintillator			
Direct Beta				6	6	
	B14	43-89B	Beta Scintillator			
	B02	44-116	Beta Scintillator			
G-Spec Sample				6	6	
	L05	GS Corebore Analysis	Gamma Spectrometry			

LC3_P1-3 and Surface Category: WU1 Upper Wall Surfaces

LC3_P45 Material Description

M1 Metal
C1 Concrete (Bare)
G1 Miscellaneous Material

Survey Package Location Codes

Survey Package Number C4024 102C1 Package Type: Structure

LC1: C4024 Survey Area Name: SETF, Building 4024

LC2: 102C1 Survey Unit Name: SGTCC Test Cell B-104

Class Description: Impacted Class 1 Structure

Reason Description: C1 Characterization Survey

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

Measurement	LC4 P13 Code	Model	Description	Qty Prescribed	Qty Collected	Collected By (Initials)
A/B Smear				6	6	N/R
	L01	A/B Smear Analysis	Alpha/Beta Counter			
Contact Gamma				6	6	
	G01	44-10	2"x2" NaI(Tl) Gamma Scintillator			
Direct Alpha				6	6	
	A04	43-89A	Alpha Scintillator			
	A03	43-90	Alpha Scintillator			
Direct Beta				6	6	
	B14	43-89B	Beta Scintillator			
	B02	44-116	Beta Scintillator			
G-Spec Sample				6	6	
	L05	GS Corebore Analysis	Gamma Spectrometry			

Survey Package Location Codes

Survey Package Number C4024 102C1 Package Type: Structure

LC1: C4024 Survey Area Name: SETF, Building 4024

LC2: 102C1 Survey Unit Name: SGTCC Test Cell B-104

Class Description: Impacted Class 1 Structure

Reason Description: C1 Characterization 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 Cover Sheet

Survey Package Number:	C4024 102C1	Package Type:	Structure
Survey Area Name:	SETF, Building 4024		
Survey Unit Name:	SGTCC Test Cell B-104		

Survey Package Preparation:

The survey package instructions are prepared and ready for implementation.

Prepared By: _____ Date 4/23/07
FSS/Characterization Design Engineer

Reviewed By: _____ Date 4/23/07
FSS/Characterization Manager (or designee)

Approved By: _____ Date 4/23/07
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 T. McGehee Date: 11/30/07
FSS/Characterization Supervisor (or designee)

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

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

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

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Survey Area History

Survey Package Number:	C4024 102C1	Package Type:	Structure
Survey Area Name:	SETF, Building 4024		
Survey Unit Name:	SGTCC Test Cell B-104		

Survey Area Description:

Erected in 1960 and enlarged in 1962, 4 unshielded SNAP reactors were tested in the SETF. The reactor systems and radioactive test equipment were removed at the end of testing, additional D&D operations were performed in 1978 and again in 2005.

Survey Area History Information:

SETF Facility Description
As constructed, the SETF consisted of three basic areas: the high bay, general support and mechanical/electrical support areas. In addition to the building areas, a paved yard surrounds the main building. All of the building areas except for test cells B-102 and B-104 of the sub grade test cell complex (SGTCC) have been surveyed and confirmed to be DM by the DHS-RHB.

The test cells have an aluminum liner, contain activated concrete and metal rebar from former reactor testing. In the yard area, other above grade support structures and below grade components such as radioactive solid, liquid, and gas storage tanks were once buried. The tanks were removed, but surveys showing the radiological condition of the remaining vaults are not available.

Survey Unit Description and History

Survey Package Number: C4024 102C1 Package Type: Structure

LC1: C4024 Survey Area Name: SETF, Building 4024

LC2: 102C1 Survey Unit Name: SGTCC Test Cell B-104

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

LC3_P1_3	Surface Description	Dimensions (Yes or No)	Total Area (m2)
CL1	Ceiling	No	0
FL1	Floor Surface	No	0
SM1	Sump or Storage Tubes	No	0
WL1	Lower Wall Surfaces	No	0
WU1	Upper Wall Surfaces	No	0

Work Breakdown Structure Information:

WBS ID: 10401 Characterization and Confirmatory Survey Activities

Survey Unit Description:

Sub Grade Test Cell Complex, Test Cell B-104

Survey Unit Historical Information: Operational History, etc.

Sub Grade Test Cell Complex
The sub grade test cell complex (SGTCC) consists of the three parallel cells (two power test cells and the center transfer cell), a partial rear corridor which interconnects the cells, and the operating gallery, see drawings, Sub Grade Test Cell Complex. To ensure gas tightness, the cells were completely lined on the inside with 3/16 inch-thick aluminum plate. This plate was seal welded to T-bar anchors in the structural concrete. The top of the cells' 8 foot thick roof is at ground level and serves as the high bay floor. The subsurface construction of the facility allowed advantage to be taken of the natural shielding for neutron and gamma radiation attenuation provided by the earth and rock on four sides of the complex. The below grade structure side and rear walls were back-filled with earthen fill materials. The floor was cast on the bedrock. The side wall structural concrete is nominally 3 feet thick, the south wall concrete is 2 feet thick and the floor concrete varies from 6.5 to 8 feet thick as the rock elevation varies. Concrete walls which separate the three cells are 4-1/2 feet thick; the transfer cell's front wall is

Survey Unit Description and History

Survey Package Number: C4024 102C1 Package Type: Structure

LC1: C4024 Survey Area Name: SETF, Building 4024

LC2: 102C1 Survey Unit Name: SGTCC Test Cell B-104

4-1/2 feet thick; and the front walls of the two test cells are 9 feet thick. A 3-feet-thick concrete partial wall was built across the rear of each test cell, creating a common corridor. Nine floor storage vaults were constructed in the floor of the corridor, three at the rear of each cell.

The 4 by 7 feet minimum dimension access doors between the operating gallery and each cell were stepped plugs of the same thickness as the shield walls which they penetrate and provided for personnel or equipment access to the cells. Tracks were provided in the floor, for the self-powered plugs to roll on. Two of these doors remain in the lower operating gallery area of the facility. The roof of each cell is penetrated by a 9 feet minimum diameter circular access port. The plugs filling this port are stepped for shielding purposes. To not exceed the capacity of the 20-ton gantry crane, the plugs are constructed in three layers to make up a total thickness of 8 feet. The center of the roof access plugs are penetrated by a 24 inch minimum diameter port with a single shield plug in each.

The roof, front face and walls separating cells from one another are all pierced by 8 inch and 10 inch minimum diameter stepped ports. Two other types of cell penetrations were provided; these are electrical and instrumentation conduits and "bent through tubes." The aluminum conduits run from the cell liner out through the walls or roof. Aluminum bent-design through-tubes of two sizes, 1-1/2 and 2 inch diameter penetrated the various walls.

The operating gallery is at two levels. The lower level is at the same elevation as the cell floors 28 feet below grade. The upper level is formed by a bolted steel floor 14 feet above the lower floor. The west end is partitioned off by a concrete wall that extends from the lower floor to the high bay floor. Personnel access to the gallery floors and equipment rooms is provided by a single stairway. Material and equipment was moved to either floor of the operating gallery by a 5-ton bridge crane.

Identity of Potential Contaminants
Radioactivity induced by testing SNAP reactors in the sub grade test cell complex was detected as documented in SAP Reference 7.5, Team Product Document No: RS-00025, Building 4024 Concrete Sampling, performed under the Closure of ETEC (R21-RS) Program (RS-00025 report). The RS-00025 report provides the results for concrete sampling in the SETF, Building 4024 conducted in 2003. The activity of 1 inch depth cores ranged from no detectable activity to 105 pCi/g of Europium-152 (Eu-152) and 9.4 pCi/g of Cobalt-60 (Co-60), the primary contaminants of concern (COC).

These results from the RS-00025 survey and were used to predict which concrete needs to be

Survey Unit Description and History

Survey Package Number: C4024 102C1 Package Type: Structure

LC1: C4024 Survey Area Name: SETF, Building 4024

LC2: 102C1 Survey Unit Name: SGTCC Test Cell B-104

removed with radiological controls and managed as radioactive waste and which can be removed as decommissioning materials without radiological controls and shipped to a Class 1 landfill. According to the SAP Reference 7.6, Historical Site Assessment of Area IV Santa Susana Field Laboratory Ventura County, California (HSA), other potential radionuclide COCs in addition to Co-60 and Eu-152 include: Am-241, Cs-134, Cs-137, Eu-154, Fe-55, Fe-59, H-3, K-40, Mn-54, Na-22, Ni-63, Pu-238, Pu-239, Pu-240, Pu-241, Sr-90, Th-228, Th-230, Th-232, U-234, U-235, and U-238. These additional COCs will also be tested for during the confirmatory survey.

Additional Information Regarding Survey Unit Classification:

Inside RCA? Yes

Activated concrete and metal from SNAP reactor testing.

Coolant? No

Spills? No

Survey Package References

Survey Package Number:	C4024 102C1	Package Type:	Structure
Survey Area Name:	SETF, Building 4024		
Survey Unit Name:	SGTCC Test Cell B-104		

References:

1. Sample and Analysis Plan for the SETF D&D Surveys, Rev 0, March 2007, AREVA
2. Health and Safety Plan for the SETF D&D Project, March 2007, AREVA
3. Quality Assurance Project Plan for the SETF D&D Surveys, Rev 0, 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:	C4024 102C1	Package Type:	Structure
Survey Area Name:	SETF, Building 4024		
Survey Unit Name:	SGTCC Test Cell B-104		

Safety Requirement and Considerations:

1. All work to be performed in accordance with the Job Hazard Analysis prepared for surveys of radiological areas.
2. All work to be performed in accordance with RWP prepared for surveys of radiological areas.

Survey Support Requirements

Survey Package Number:	C4024 102C1	Package Type:	Structure
Survey Area Name:	SETF, Building 4024		
Survey Unit Name:	SGTCC Test Cell B-104		

Survey Support Requirements and Considerations:

1. Other equipment as needed
2. Lighting and extension cords
3. Water control dykes
4. Submersible pump with tubing for feed water and clamps
5. 55 gal. drum and drum dolly
6. Wet and dry vacuum
7. Man lift, 26'
8. 14" Diamond Blade Cutoff Saw,
9. Equipment needed may include:
   Vacuum base Concrete Core Drill with 3" bit,
10. Boeing to provide crane operator as needed to place equipment in test cell.

Survey Package Procedures

Survey Package Number:	C4024 102C1	Package Type:	Structure
Survey Area Name:	SETF, Building 4024		
Survey Unit Name:	SGTCC Test Cell B-104		

Survey Package Procedures:

1.	DD-CS-001	Sample Identification and Chain of Custody
2.	DD-CS-011	Operation of Ludlum Model 2350 Data Logger
3.	DD-CS-014	Bulk Material and Core Bore Sampling
4.	DD-RP-010	Portable Instrument Procedure
5.	DD-RP-039	Quality Control of Counting Systems and Portable Counters
6.	DD-RP-049	Operation of the Ludlum Model 2929 Dual Channel Scaler

General Survey Package Instructions

Survey Package Number:	C4024 102C1	Package Type:	Structure
Survey Area Name:	SETF, Building 4024		
Survey Unit Name:	SGTCC Test Cell B-104		

1. Perform measurements and collect samples of sufficient quantity to confirm nature and depth of activation radioactivity from former operations at Building 4024and evaluate measurements and sample results for comparability to previous survey results.

   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 removal activities, waste management activities, and remediation planning.

   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 structure has been adequately characterized.

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

   Additional measurements may be required to bound the lateral/vertical extent of radiological contamination in the survey unit to an approximate 24" depth. Survey maps for each room contained in this survey unit are located in Appendix A.

5. Use the floor, wall or ceiling designation from drawings in the LC5 code of the M2350 to identify measurements by surface. Mark each measurement location with an appropriate label, including LC5 and LC6 code.

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:	C4024 102C1	Package Type:	Structure
Survey Area Name:	SETF, Building 4024		
Survey Unit Name:	SGTCC Test Cell B-104		

1. **Contact Gamma**

   Gamma Scan - Perform a gamma scan survey of surfaces of the interior of the test cell.

   Use a Model 44-10 detector with collimator shield installed to focus field of view. 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 perform a 100% scan survey of floor, lower 2 meters of wall surfaces upper walls, and ceiling. Note any areas of highest and lowest activity on the appropriate survey drawing contained in Appendix A and mark at the SML. Do not log scan results.

2. **Gamma Contact**

   Perform contact gamma measurement at the locations of highest and lowest activity identified during the scan for each of the surfaces.

   Use Model 44-10 with collimator shield installed, the M2350 in the scaler mode with a 12 second count time and code the measurement LC4_P4 as "F," for Field Count. A minimum of 24 direct beta measurements will be collected on the surfaces of the test cell. Measurements will be distributed on the building surfaces as follows:

   Interior surfaces:
   Floor - 3
   Walls below 2 meters -- 6
   Upper walls above 2 meters – 6
   Ceiling – 3
   Sumps and Storage Tubes - 6

Specific Survey Package Instructions

Survey Package Number:	C4024 102C1	Package Type:	Structure
Survey Area Name:	SETF, Building 4024		
Survey Unit Name:	SGTCC Test Cell B-104		

3. **Direct Beta**

Perform direct beta measurements at each of the contact gamma SMLs.

Use a Model 44-116 or equal detector. A minimum of 18 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.

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).

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.

4. **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.

Specific Survey Package Instructions

Survey Package Number:	C4024 102C1	Package Type:	Structure
Survey Area Name:	SETF, Building 4024		
Survey Unit Name:	SGTCC Test Cell B-104		

5. **A/B Smear**

Collect a smear for removable alpha and beta contamination at each of the direct beta measurement locations.

Collect the smear sample by wiping approximately 100 cm2 area for the sample. Combine and analyze by gamma spectroscopy A/B smear samples collected at locations where removable alpha was > 100 dpm/100 cm^2 or removable beta was >1000 dpm/100 cm^2.

6. **G-Spec Sample**

G-Spec Core Bore Sample
For core bore sample locations, the survey team will evaluate the SMLs from the scan and direct measurements to determine locations to perform core bore sampling using a vacuum based core drill with 3" diameter diamond bit.

The core bores once obtained will be handled as follows:

a) Marked for location and orientation to cell surface and placed in clean plastic wrapper
b) Moved to a low background area
c) Drawing developed to depict measurements and wafer locations
d) Direct beta measurements performed on each end
e) Axial gamma scan performed along length of core bore with collimated NaI(Tl) detector to indicate depth of activation
f) Core will be sliced into approximate 0.5 inch thick slices (pucks)
g) Pucks will be marked for location and have direct alpha and beta measurements performed on each end
h) Step e. and f. will be repeated until direct measurement results are indistinguishable from background levels
i) Results of data evaluations will be used to determine pucks to send to offsite laboratory for further isotopic analysis

The samples will be packaged and field screened by the project team personnel, chain of custody forms and sample shipping paperwork completed, and sent to the offsite AREVA E-Lab for analysis.

Specific Survey Package Instructions

Survey Package Number:	C4024 102C1	Package Type:	Structure
Survey Area Name:	SETF, Building 4024		
Survey Unit Name:	SGTCC Test Cell B-104		

7. **G-Spec Sample**

G-Spec Material Sample, for sump and storage tube locations
If available, collect a sample from each location composed of loose materials, sediment or sludge to combine for one or two composite samples for gamma spectral analysis.

The samples in order of priority are as follows:
1 to 2 kg Soil/Sediment Samples for Gamma Spectroscopy, if an amount to produce >/= 125 g of dry sample cannot be obtained, collect materials for a composite sample for the survey unit.

The sample may include a bulk material sample for a petri dish and/or 250 ml marinelli beaker sample.

To achieve the analysis MDC desired, the laboratory requested sample sizes (an amount of soil) that will yield 500 grams of dried soil. The wet soil amount can vary significantly depending on its moisture content. If the desired sample size cannot be obtained, the minimum sample size to achieve an analysis MDC is an amount of wet soil (~1 kg) that will produce 125g of dried soil.

If an amount to produce 125g of dried soil cannot be obtained, combine and analyze by gamma spectroscopy smear sample results showing > 100 alpha or >1000 beta dpm/100cm^2.

Survey Package Location Codes

Survey Package Number C4024 102C1 Package Type: Structure

LC1: C4024 Survey Area Name: SETF, Building 4024

LC2: 102C1 **Survey Unit Name:** SGTCC Test Cell B-104

Class Description: Impacted Class 1 Structure

Reason Description: C1 Characterization Survey

LC3_P1-3 and Surface Category: CL1 Ceiling surfaces (including back surfaces)

LC3_P45 Material Description

M1 Metal
G1 Miscellaneous Material
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)
A/B Smear				3	~~10~~ 3	[illegible]
	L01	A/B Smear Analysis	Alpha/Beta Counter			
Contact Gamma				3	3	[illegible]
	G01	44-10	2"x2" NaI(Tl) Gamma Scintillator			
Direct Alpha				3	3	[illegible]
	A04	43-89A	Alpha Scintillator			
	A03	43-90	Alpha Scintillator			
Direct Beta				3	3	[illegible]
	B14	43-89B	Beta Scintillator			
	B02	44-116	Beta Scintillator			
G-Spec Sample				3	0	[illegible]
	L05	GS Corebore Analysis	Gamma Spectrometry			

LC3_P1-3 and Surface Category: FL1 Floor Surface

Survey Package Location Codes

Survey Package Number C4024 102C1 Package Type: Structure

LC1: C4024 Survey Area Name: SETF, Building 4024

LC2: 102C1 Survey Unit Name: SGTCC Test Cell B-104

Class Description: Impacted Class 1 Structure

Reason Description: C1 Characterization Survey

LC3_P45 Material Description

M1 Metal
G1 Miscellaneous Material
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)
A/B Smear				3	3	
	L01	A/B Smear Analysis	Alpha/Beta Counter			
Contact Gamma				3	3	
	G01	44-10	2"x2" NaI(Tl) Gamma Scintillator			
Direct Alpha				3	3	
	A04	43-89A	Alpha Scintillator			
	A03	43-90	Alpha Scintillator			
Direct Beta				3	3	
	B14	43-89B	Beta Scintillator			
	B02	44-116	Beta Scintillator			
G-Spec Sample				3	2	
	L05	GS Corebore Analysis	Gamma Spectrometry			

LC3_P1-3 and Surface Category: SM1 Sump or Storage Tubes

LC3_P45 Material Description

M1 Metal

Survey Package Location Codes

Survey Package Number C4024 102C1 Package Type: Structure

LC1: C4024 Survey Area Name: SETF, Building 4024

LC2: 102C1 Survey Unit Name: SGTCC Test Cell B-104

Class Description: Impacted Class 1 Structure

Reason Description: C1 Characterization Survey

G1 Miscellaneous Material
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)
A/B Smear				6	7	
	L01	A/B Smear Analysis	Alpha/Beta Counter			
Direct Alpha				6	7	
	A04	43-89A	Alpha Scintillator			
	A03	43-90	Alpha Scintillator			
Direct Beta				6	7	
	B14	43-89B	Beta Scintillator			
	B02	44-116	Beta Scintillator			
G-Spec Sample				2	0	
	L04	GS Material Analysis	Gamma Spectrometry			

LC3_P1-3 and Surface Category: WL1 Lower Wall Surfaces

LC3_P45 Material Description

M1 Metal
G1 Miscellaneous Material
C1 Concrete (Bare)

Survey Package Location Codes

Survey Package Number C4024 102C1 Package Type: Structure

LC1: C4024 Survey Area Name: SETF Building 4024

LC2: 102C1 Survey Unit Name: SGTCC Test Cell B-104

Class Description: Impacted Class 1 Structure

Reason Description: C1 Characterization Survey

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

Measurement	LC4 P13 Code	Model	Description	Qty Prescribed	Qty Collected	Collected By (Initials)
A/B Smear				6	6	
	L01	A/B Smear Analysis	Alpha/Beta Counter			
Contact Gamma				6	6	
	G01	44-10	2"x2" NaI(Tl) Gamma Scintillator			
Direct Alpha				6	6	
	A04	43-89A	Alpha Scintillator			
	A03	43-90	Alpha Scintillator			
Direct Beta				6	6	
	B14	43-89B	Beta Scintillator			
	B02	44-116	Beta Scintillator			
G-Spec Sample				6	2	
	L05	GS Corebore Analysis	Gamma Spectrometry			

LC3_P1-3 and Surface Category: WU1 Upper Wall Surfaces

LC3_P45 Material Description

M1 Metal
G1 Miscellaneous Material
C1 Concrete (Bare)

Survey Package Location Codes

Survey Package Number C4024 102C1 Package Type: Structure

LC1: C4024 Survey Area Name: SETF Building 4024

LC2: 102C1 Survey Unit Name: SGTCC Test Cell B-104

Class Description: Impacted Class 1 Structure

Reason Description: C1 Characterization Survey

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

Measurement	LC4 P13 Code	Model	Description	Qty Prescribed	Qty Collected	Collected By (Initials)
A/B Smear				6	6	~
	L01	A/B Smear Analysis	Alpha/Beta Counter			
Contact Gamma				6	6	~
	G01	44-10	2"x2" NaI(Tl) Gamma Scintillator			
Direct Alpha				6	6	~
	A04	43-89A	Alpha Scintillator			
	A03	43-90	Alpha Scintillator			
Direct Beta				6	6	~
	B14	43-89B	Beta Scintillator			
	B02	44-116	Beta Scintillator			
G-Spec Sample				6	4	~
	L05	GS Corebore Analysis	Gamma Spectrometry			

Survey Package Location Codes

Survey Package Number C4024 102C1 Package Type: Structure

LC1: C4024 Survey Area Name: SETF, Building 4024

LC2: 102C1 Survey Unit Name: SGTCC Test Cell B-104

Class Description: Impacted Class 1 Structure

Reason Description: C1 Characterization 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	

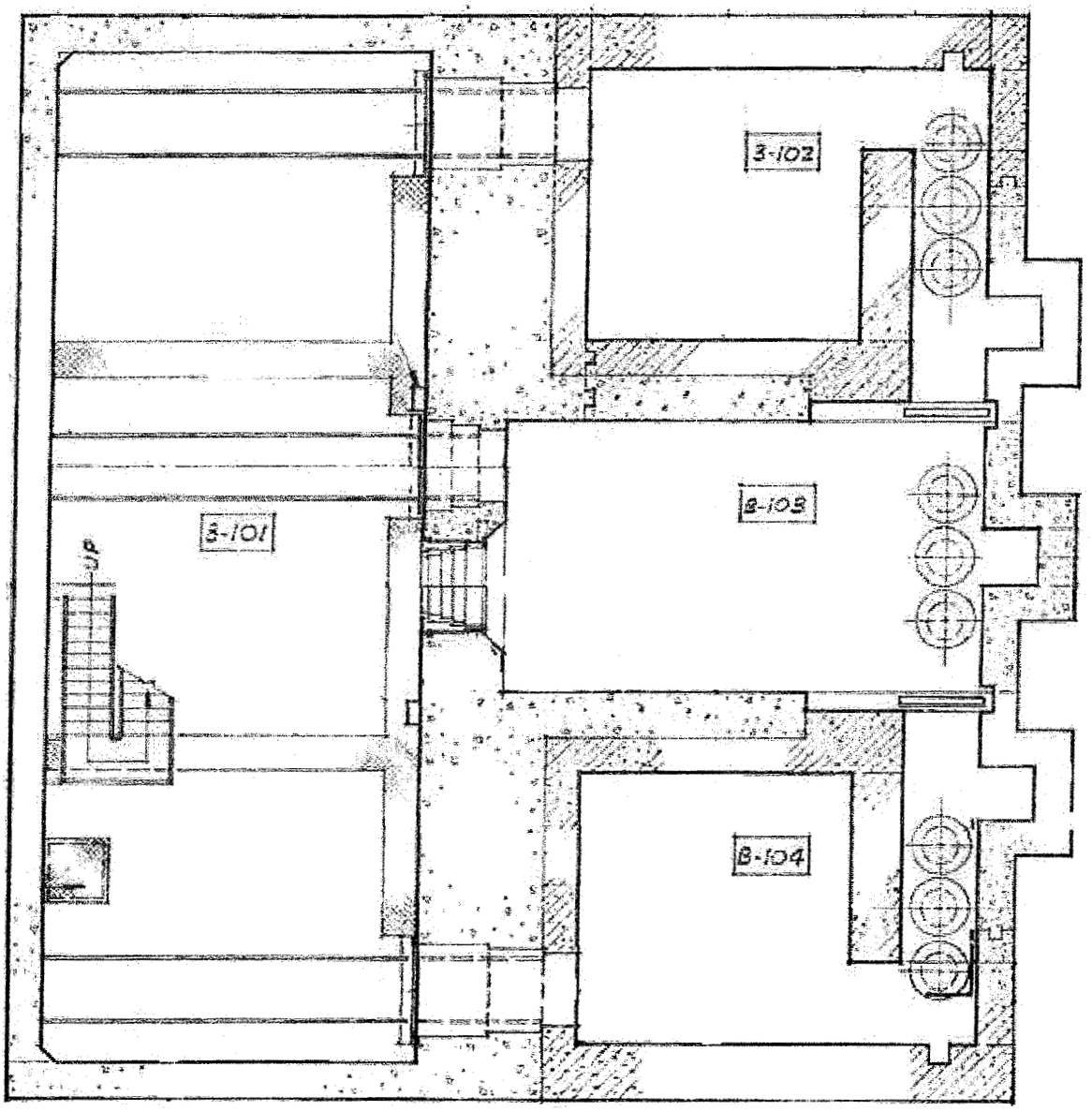
Survey Field Notes: **Additional information regarding the performance of the survey, measurements, sample collection, etc. Use additional pages as needed for field notes.**

Survey Package Appendix A – Drawings

Survey Package:	C4024 102C1	Package: Structure
Survey Area Name:	SETF, Building 4024	
Survey Unit Name:	SGTCC Test Cell B-104	

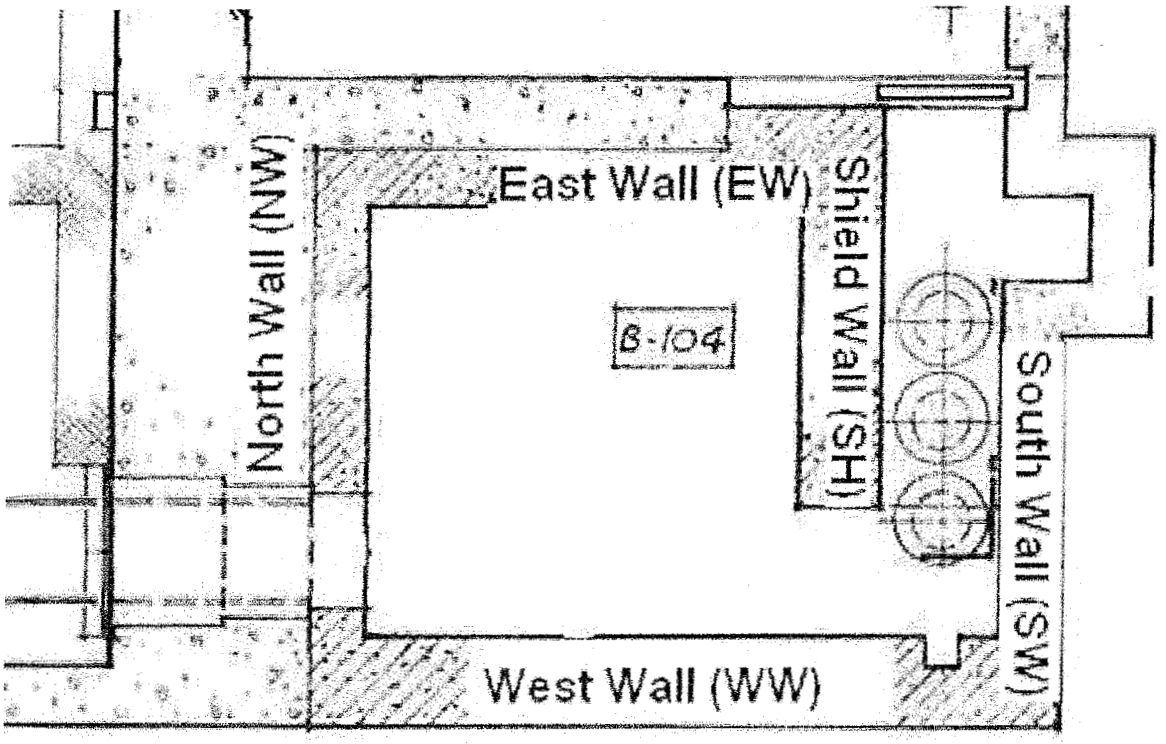
Survey Package Appendix A - Drawings

Survey Package Appendix A – Drawings



SETF, Basement Floor Plan (SGTCC)

Survey Package Appendix A – Drawings

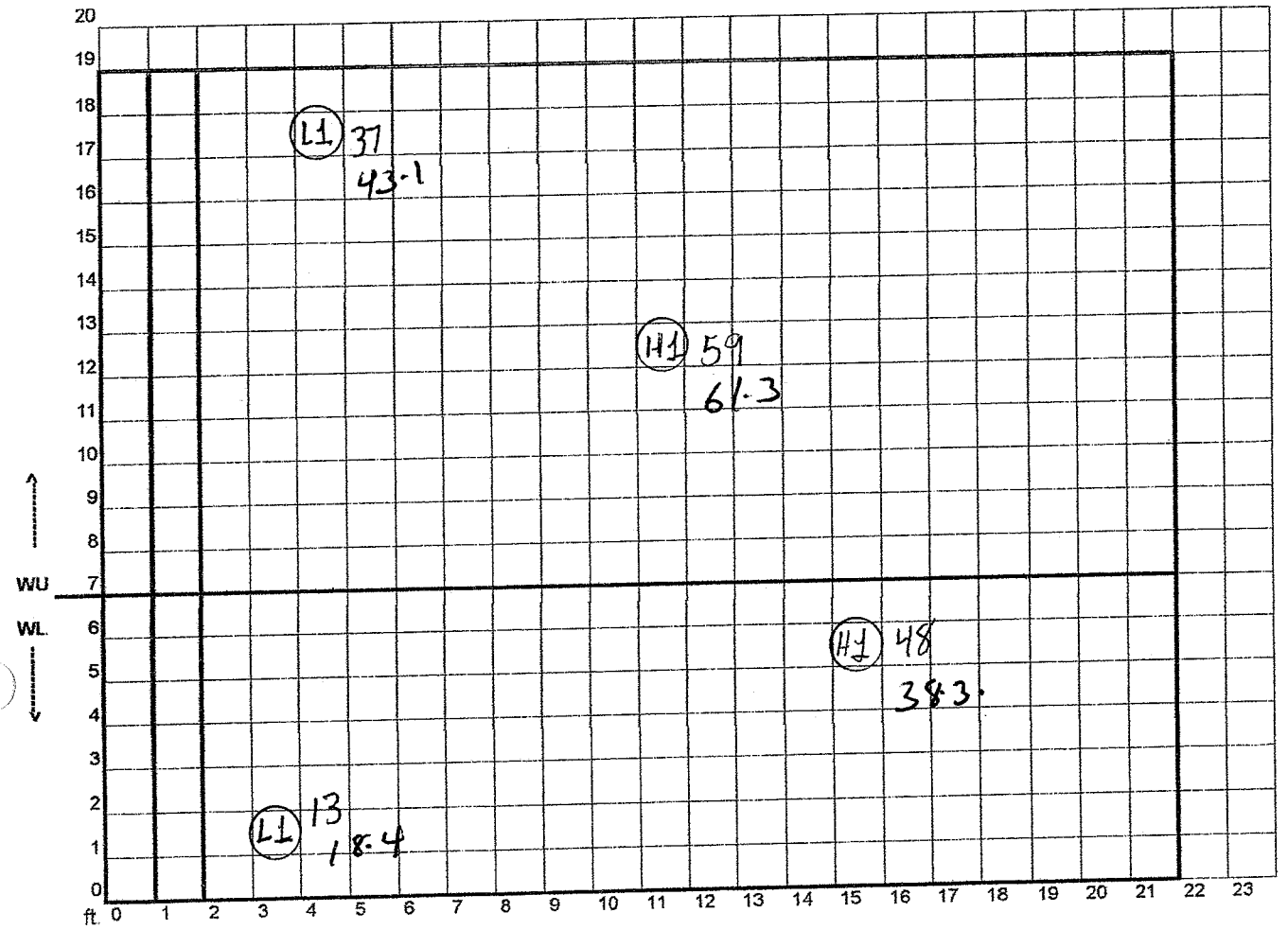


4/23/2007

SGTCC Room B-104
West Wall (L5=WW)

SGTCC Room B-104

West Wall (L5=WW)



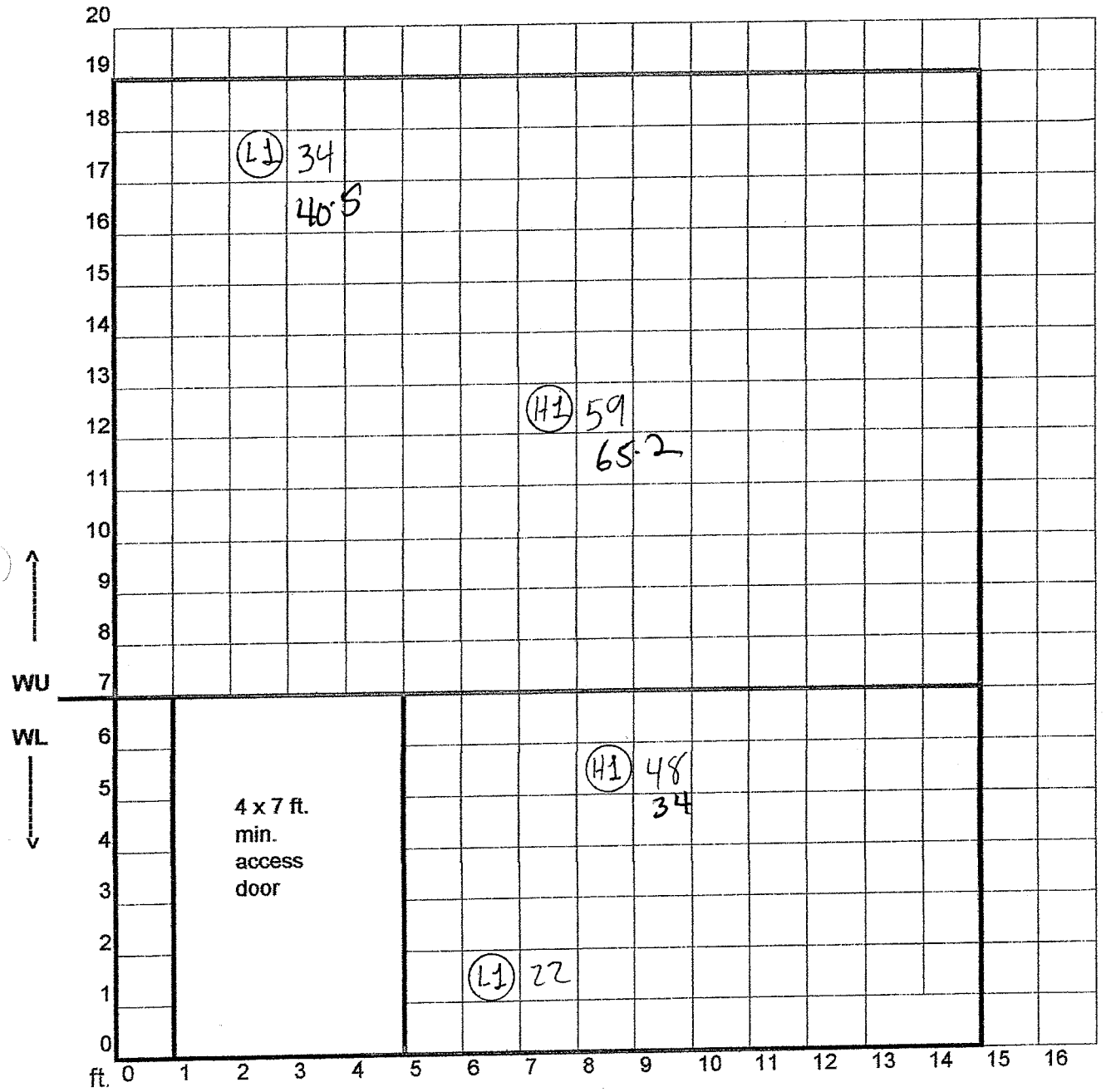
Note all readings are uR/hr

SGTCC Room B-104
North Wall (L5=NW)

4/23/2007

SGTCC Room B-104

North Wall (L5=NW)



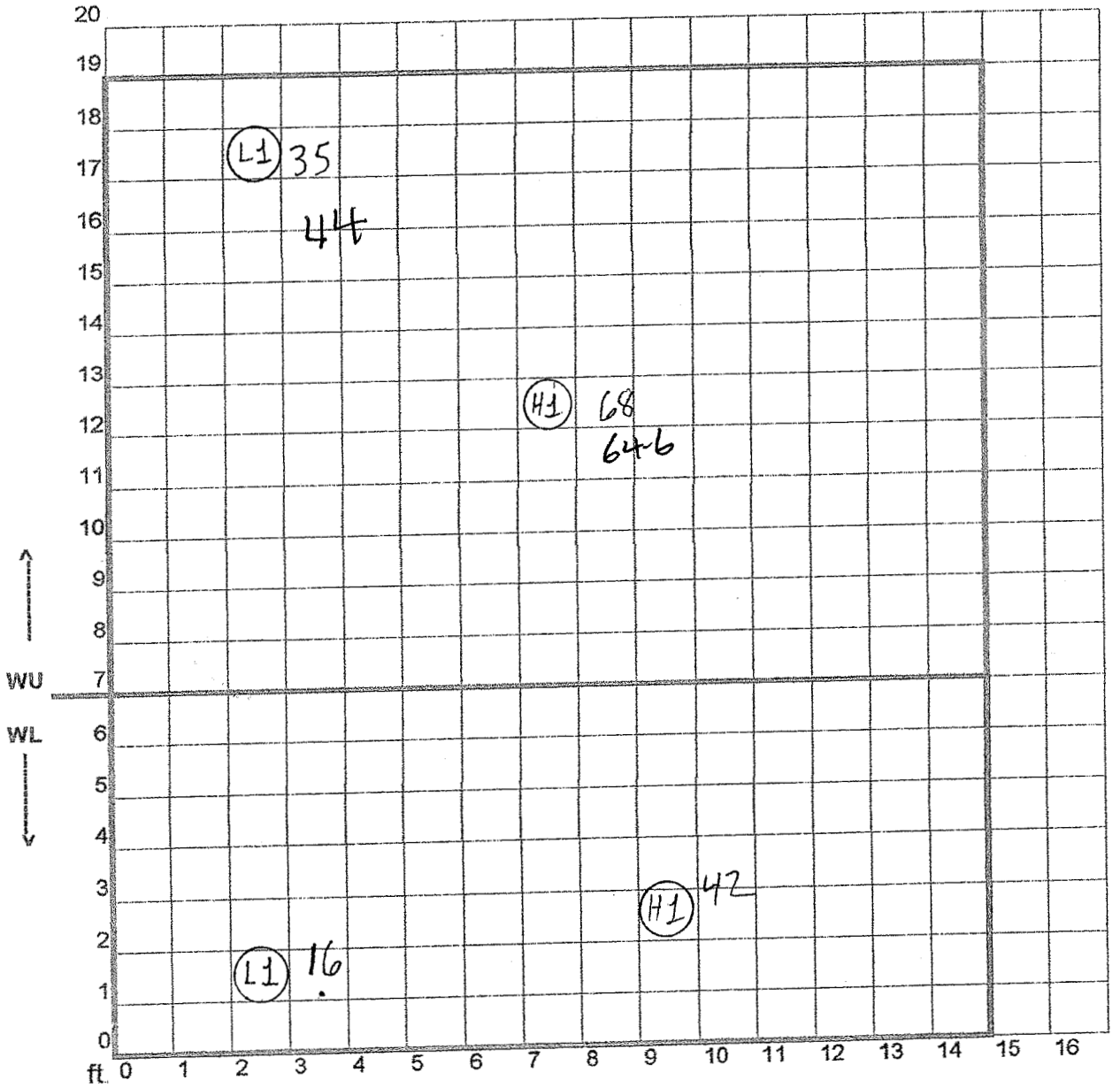
Note all readings are uR/hr

4/26/2007

SGTCC Room B-104
East Wall (L5=EW)

SGTCC Room B-104

East Wall (L5=EW)



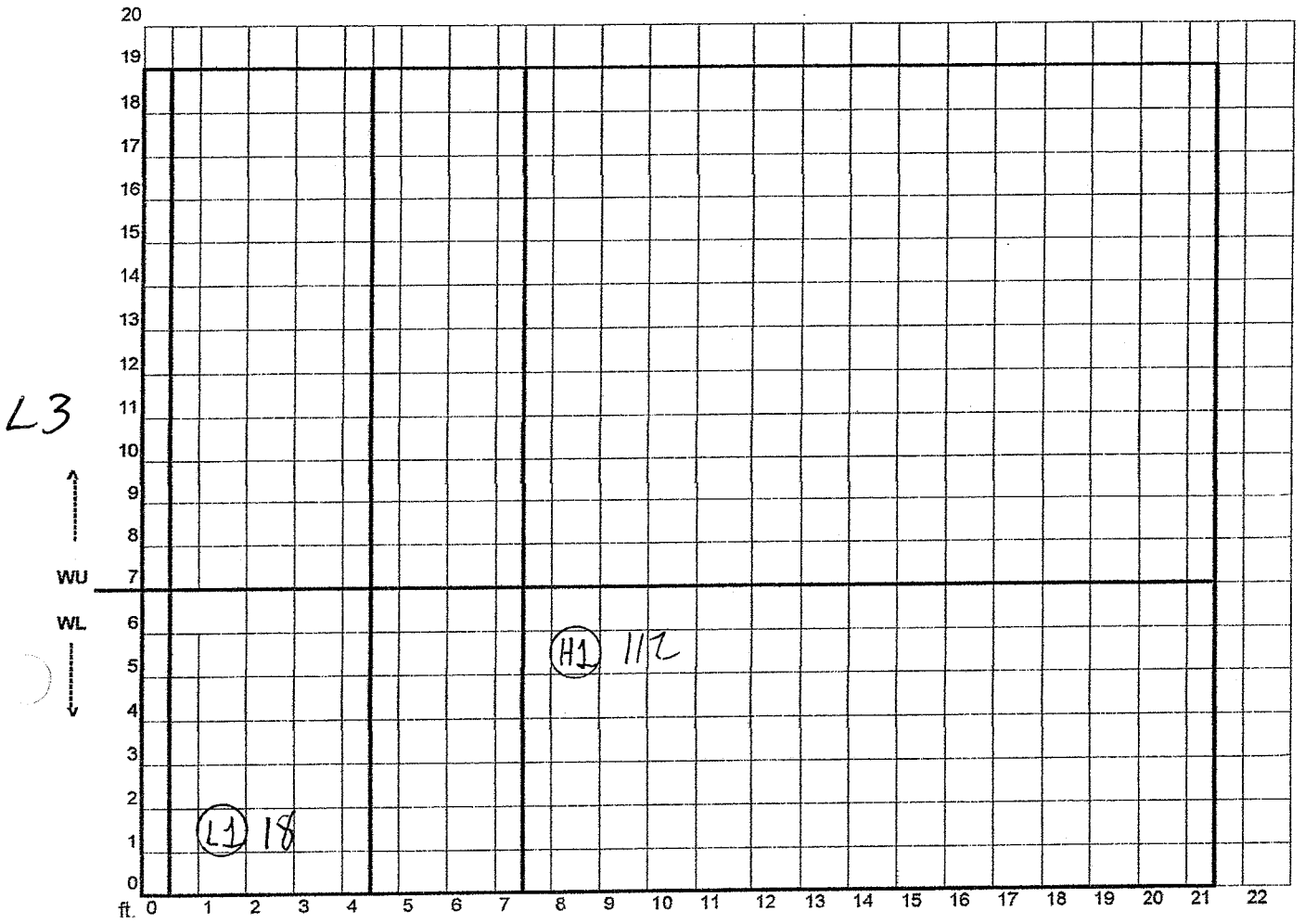
Note all readings are uR/hr

SGTCC Room B-104
South Wall (L5=SW)

4/23/2007

SGTCC Room B-104

South Wall (L5=SW)



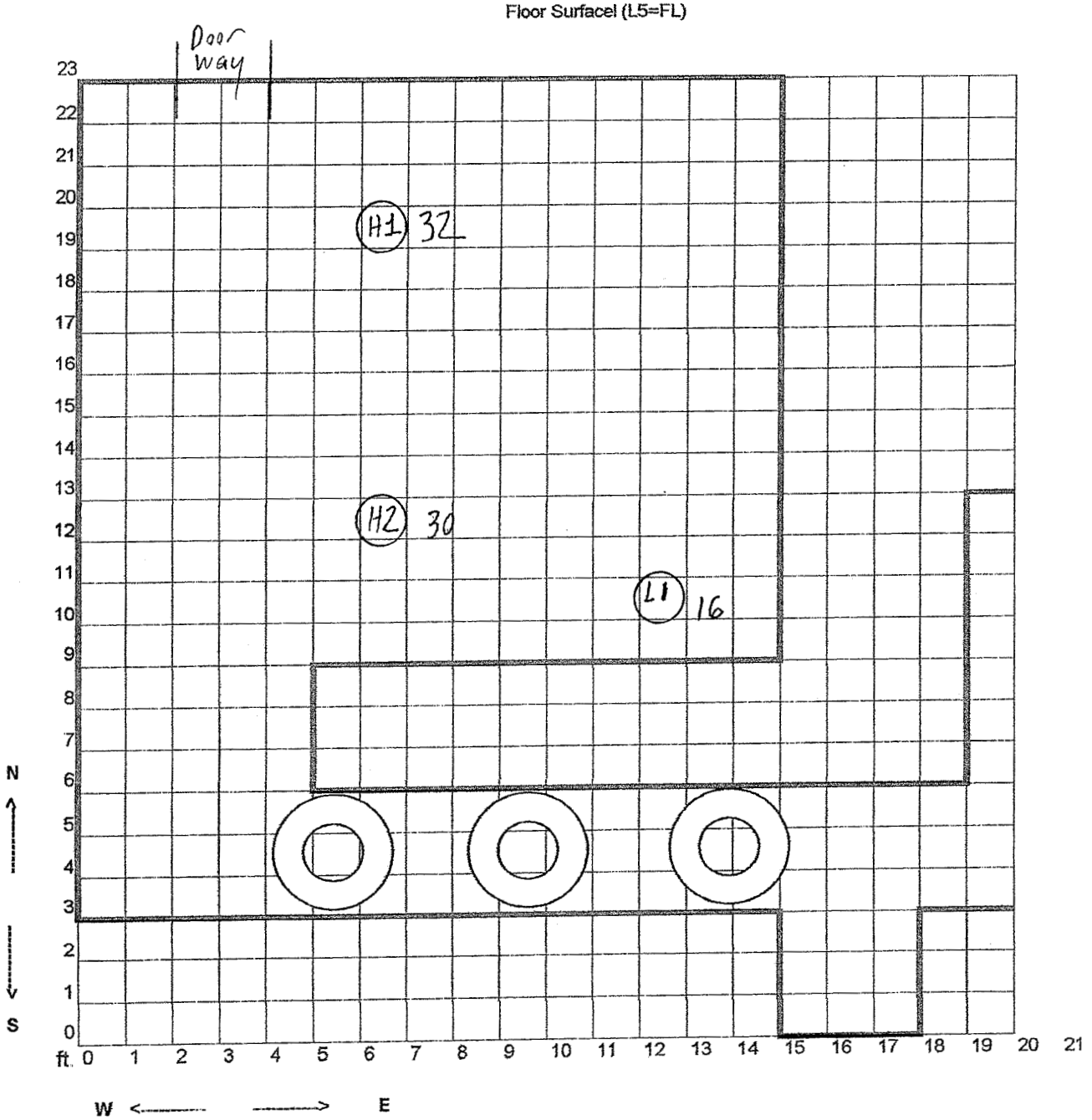
Note all readings are uR/hr

SGTCC Room B-104
Floor Surfacel (L5=FL)

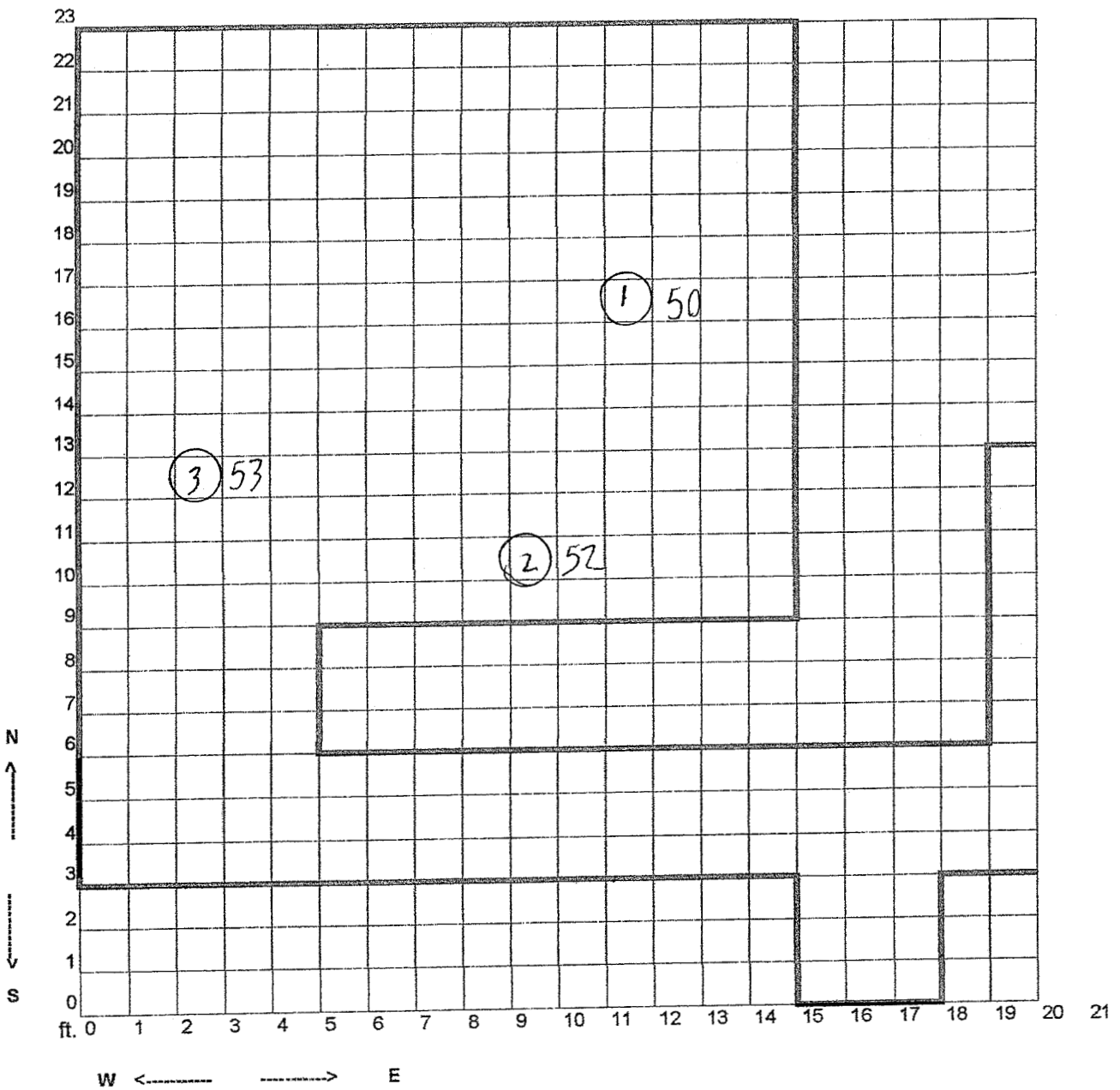
4/23/2007

SGTCC Room B-104

Floor Surfacel (L5=FL)



SGTCC Room B-104
Ceiling Surface (L5=CL)

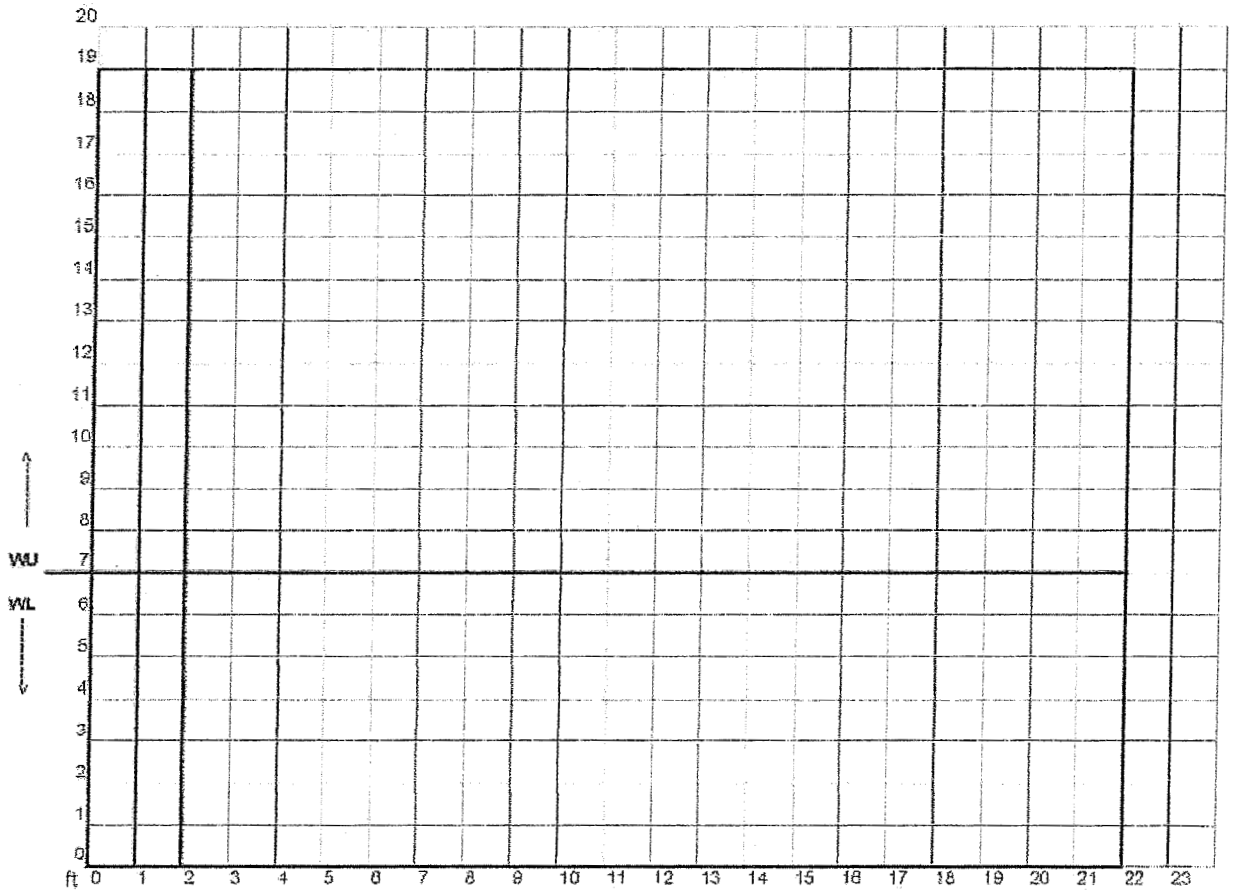


All readings are uR/hr

Survey Package Appendix A – Drawings

SGTCC Room B-104

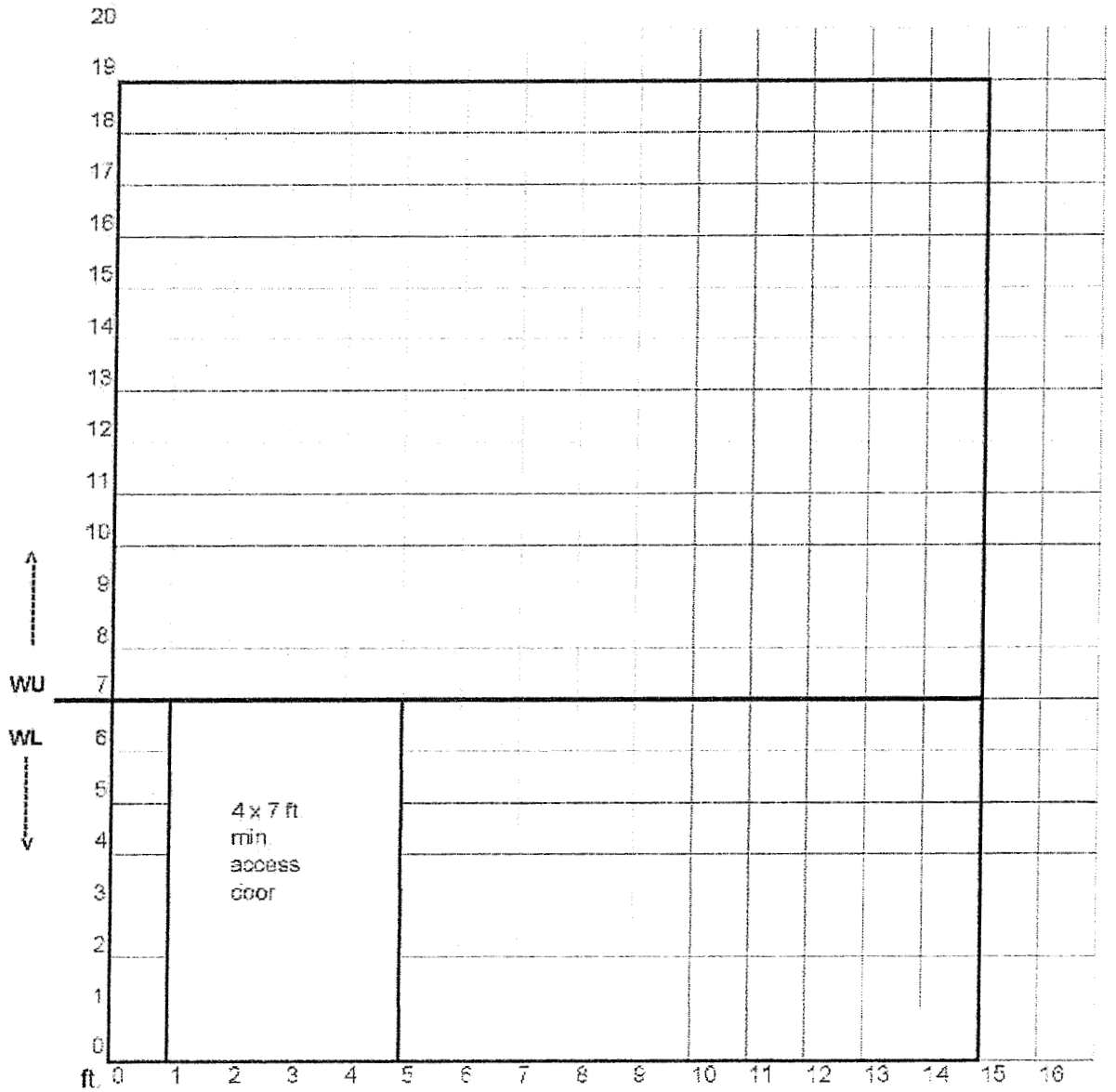
West Wall (L5=WW)



Survey Package Appendix A – Drawings

SGTCC Room B-104

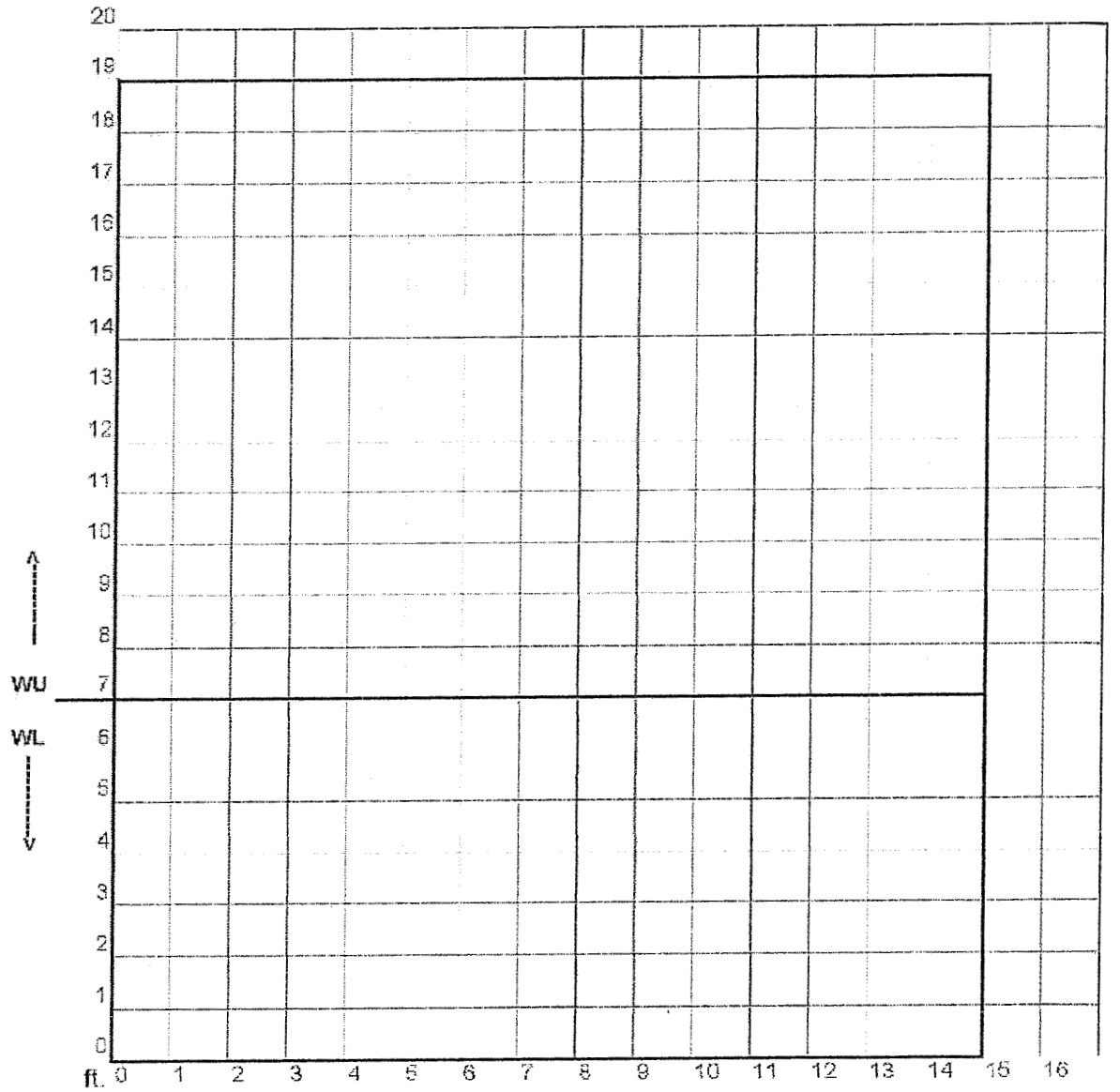
North Wall (L5=NW)



Survey Package Appendix A – Drawings

SGTCC Room B-104

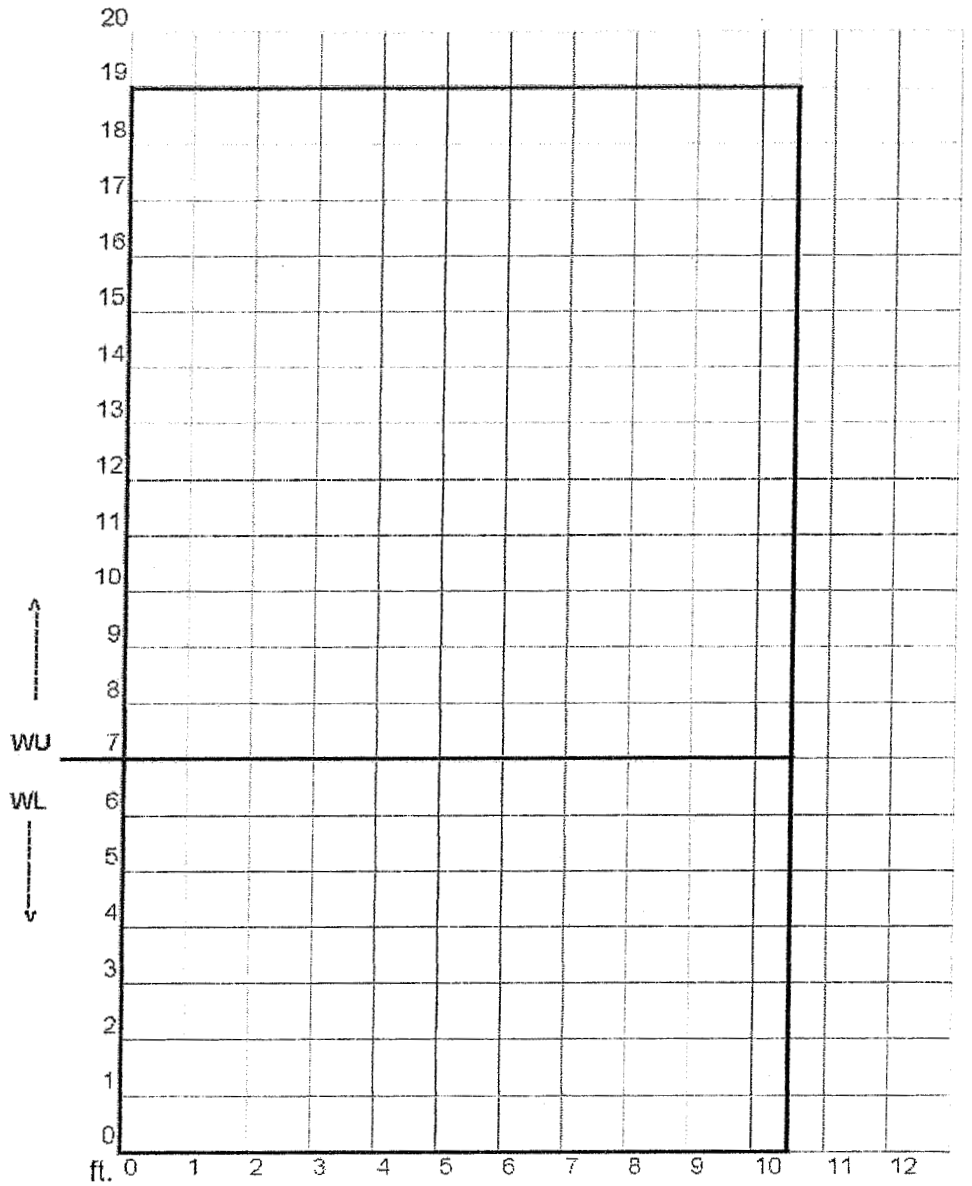
East Wall (L5=WW)



Survey Package Appendix A – Drawings

SGTCC Room B-104

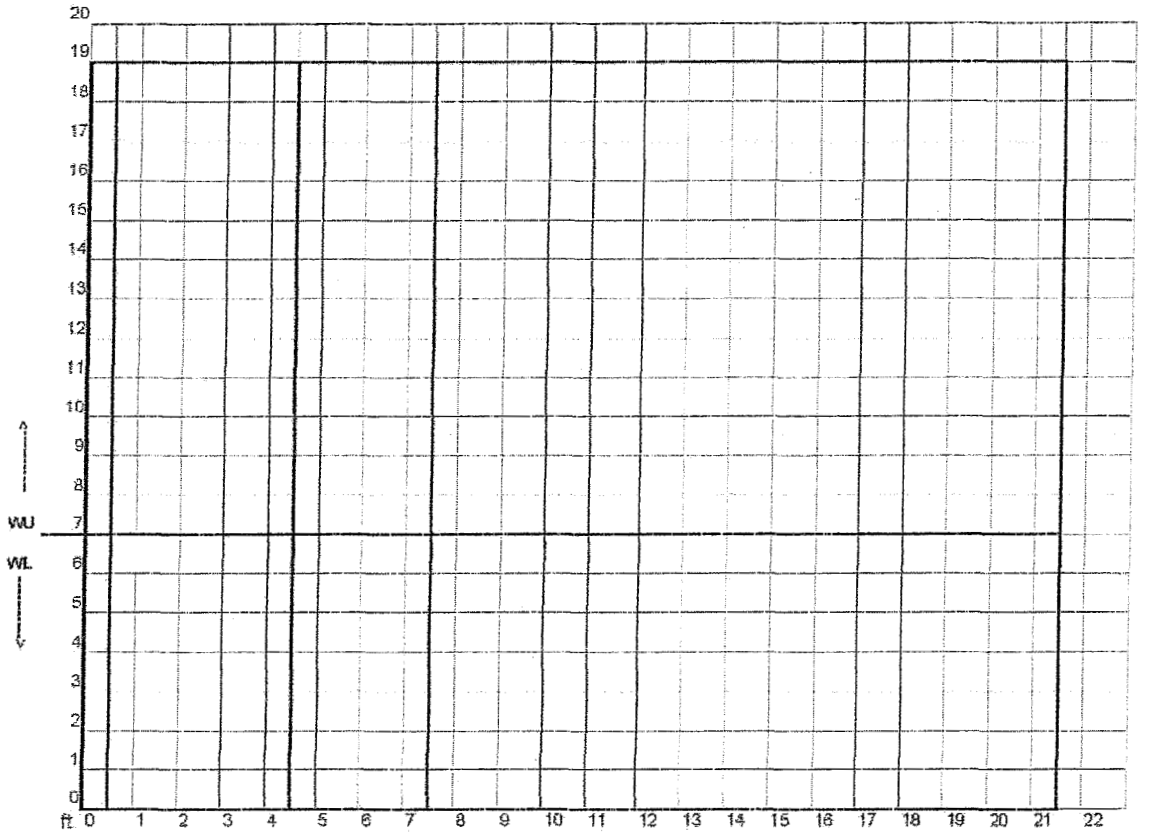
Shield Wall (L5=SHW)



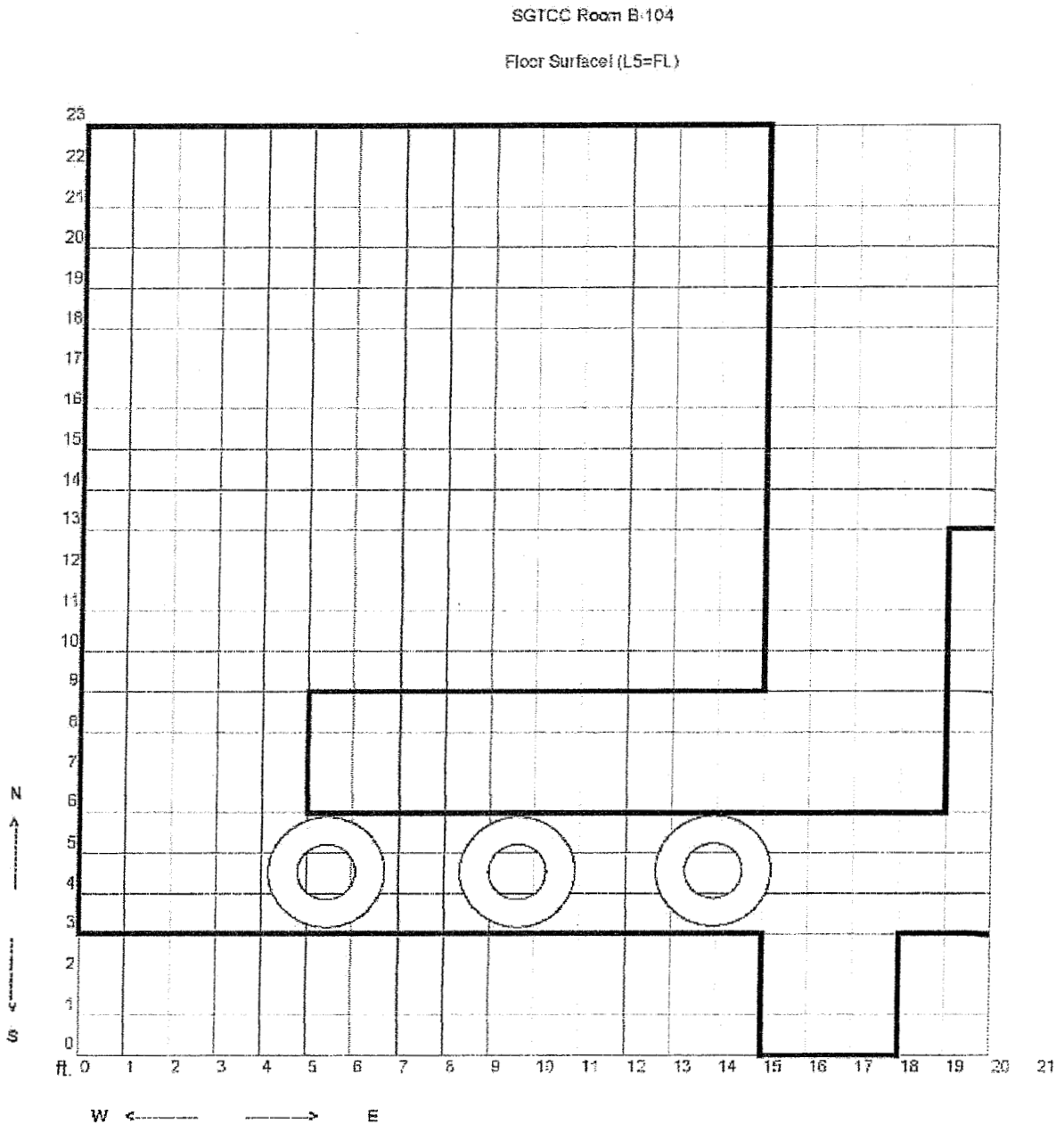
Survey Package Appendix A – Drawings

SGTCC Room B-104

South Wall (L5=SW)



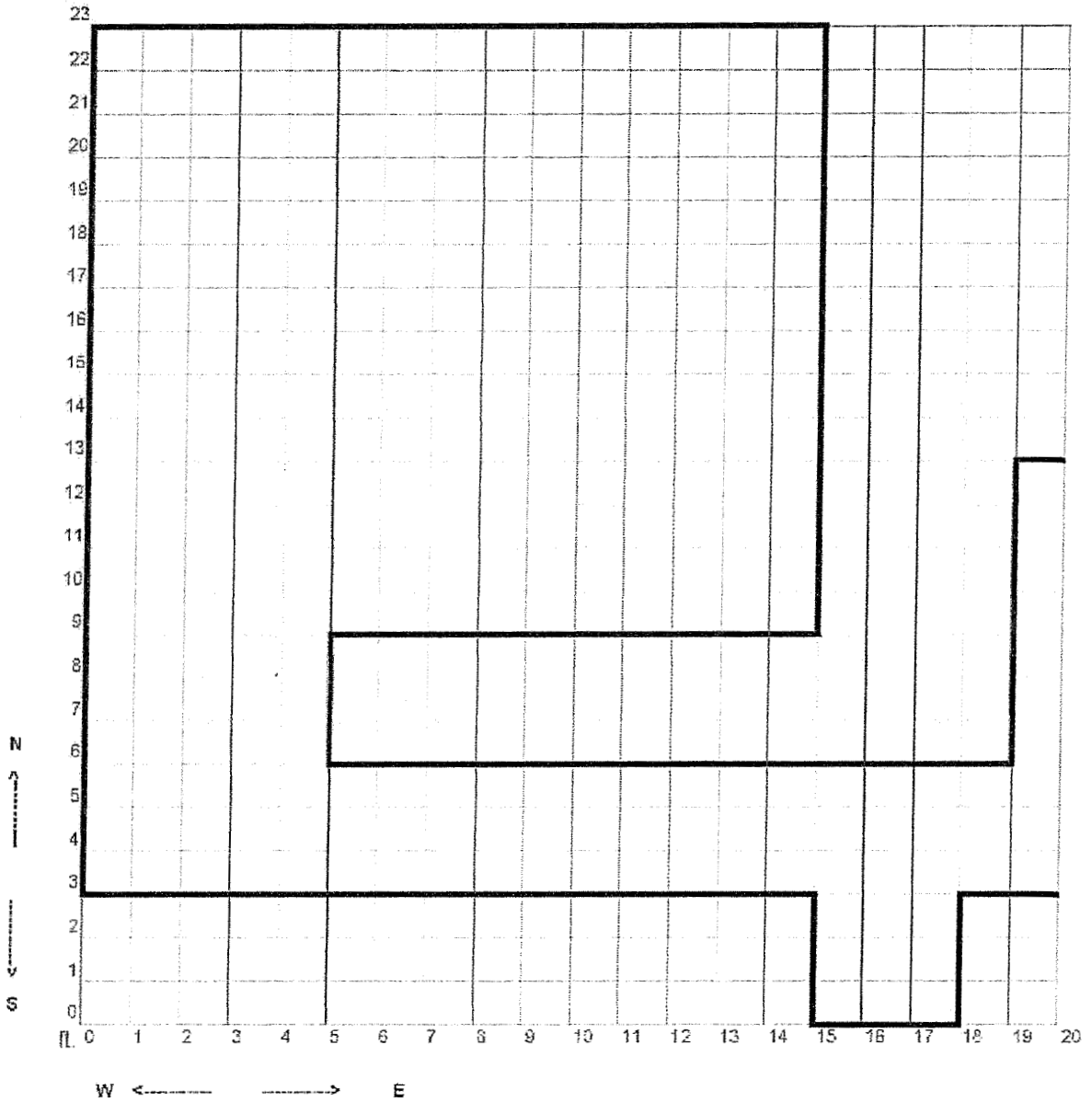
Survey Package Appendix A – Drawings



Survey Package Appendix A – Drawings

SGTCC Room B-104

Ceiling Surface (L5=CL)



Survey Package Appendix B – Photographs

Survey Package:	C4024 102C1	Package: Structure
Survey Area Name:	SETF, Building 4024	
Survey Unit Name:	SGTCC Test Cell B-104	

Survey Package Appendix B - Photographs

Survey Package Appendix B – Photographs

Survey Package Appendix C – Survey Results

Survey Package: C4024 102C1 Package: Structure
Survey Area Name: SETF Building 4024
Survey Unit Name: SGTCC Test Cell B-104

Section	Title	Total Pages
1.0	Annotated Drawings	N/A
2.0	Measurement Results – Direct Beta Measurements	9
3.0	Measurement Results – Direct Alpha Measurements	9
4.0	Measurement Results – Exposure Rate Measurements	11
5.0	Sample Analysis Results – Alpha/Beta Counter	8
6.0	Sample Analysis Results – Gamma Spectroscopy	23
7.0	Sample Analysis Results – Alpha Spectroscopy	20
	Sample Analysis Results – Supplemental	11

Survey Package Appendix C – Survey Results

Survey Package:	C4024 102C1	Package: Structure
Survey Area Name:	SETF, Building 4024	
Survey Unit Name:	SGTCC Test Cell B-104	

Section 1.0
Annotated Drawings
N/A Pages

Survey Package Appendix C – Survey Results

Survey Package:	C4024 102C1	Package: Structure
Survey Area Name:	SETF, Building 4024	
Survey Unit Name:	SGTCC Test Cell B-104	

Section 2.0
Measurement Results – Direct Beta Measurements
9 Pages

Measurement Database Download Report

Direct Beta Measurements

5/1/2007

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)
DL042507-002	1	JLM3848	4/25/2007	2:45 PM	C4024 102C1	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	0	4/23/2007	7:55:00 AM	2.36E+03	600	1	0	27	EZ259	DRT01	FL1M1	B02AA	LAB01	1		0	1292
EZ259 DRT01	98648	JEJ5742	222981	0	1	4/23/2007	7:58:54 AM	3.33E+03	60	1	0	27	EZ259	DRT01	FL1M1	B02BA	LAB01	1		0	18268
EZ259 DRT01	98648	JEJ5742	222981	0	2	4/23/2007	8:00:30 AM	3.73E+03	60	1	0	27	EZ259	DRT01	FL1M1	B02BA	LAB01	2		0	20433
EZ259 DRT01	98648	JEJ5742	222981	0	3	4/23/2007	8:02:06 AM	3.34E+03	60	1	0	27	EZ259	DRT01	FL1M1	B02BA	LAB01	3		0	18279
C4024 102C1	98648	JEJ5742	222981	0	4	4/23/2007	10:02:14 AM	1.29E+03	60	1	0	27	C4024	102C1	FL1M1	B02GA	FL1	1		0	7068
C4024 102C1	98648	JEJ5742	222981	0	5	4/23/2007	10:03:38 AM	1.25E+03	60	1	0	27	C4024	102C1	FL1M1	B02GA	FL1	2		0	6866
C4024 102C1	98648	JEJ5742	222981	0	6	4/23/2007	10:04:50 AM	1.32E+03	60	1	0	27	C4024	102C1	FL1M1	B02GA	FL1	3		0	7211
C4024 102C1	98648	JEJ5742	222981	0	7	4/23/2007	10:07:50 AM	1.27E+03	60	1	0	27	C4024	102C1	FL1M1	B02FA	H1	1		0	6942
C4024 102C1	98648	JEJ5742	222981	0	8	4/23/2007	10:09:38 AM	1.36E+03	60	1	0	27	C4024	102C1	FL1M1	B02FA	H1	2		0	7474
C4024 102C1	98648	JEJ5742	222981	0	9	4/23/2007	10:11:24 AM	8.94E+02	60	1	0	27	C4024	102C1	FL1M1	B02FA	L1	3		0	4899
C4024 102C1	98648	JEJ5742	222981	0	10	4/23/2007	10:18:16 AM	1.79E+03	60	1	0	27	C4024	102C1	WL1M1	B02FA	WWH1	4		0	9819
C4024 102C1	98648	JEJ5742	222981	0	11	4/23/2007	10:21:54 AM	1.87E+03	60	1	0	27	C4024	102C1	WL1M1	B02FA	NWH1	5		0	10236
C4024 102C1	98648	JEJ5742	222981	0	12	4/23/2007	10:24:46 AM	3.31E+03	60	1	0	27	C4024	102C1	WL1M1	B02FA	SHW1	6		0	18137
C4024 102C1	98648	JEJ5742	222981	0	13	4/23/2007	10:28:36 AM	9.25E+02	60	1	0	27	C4024	102C1	WL1M1	B02FA	EWL1	7		0	5068
C4024 102C1	98648	JEJ5742	222981	0	14	4/23/2007	10:30:52 AM	1.13E+03	60	1	0	27	C4024	102C1	WL1M1	B02FA	EWL2	8		0	6214
C4024 102C1	98648	JEJ5742	222981	0	15	4/23/2007	10:32:52 AM	7.03E+02	60	1	0	27	C4024	102C1	WL1M1	B02FA	WWL1	9		0	3852
C4024 102C1	98648	JEJ5742	222981	0	16	4/23/2007	11:13:46 AM	2.76E+02	60	1	0	27	C4024	102C1	SM1M1	B02FA	WST1	1		0	1512
C4024 102C1	98648	JEJ5742	222981	0	17	4/23/2007	11:25:30 AM	1.21E+02	60	1	0	27	C4024	102C1	SM1M1	B02FA	WST2	2		0	663

Measurement Database Download Report

Direct Beta Measurements

5/1/2007

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)
DL042507-002	1	JLM3848	4/25/2007	2:45 PM	C4024 102C1	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)
C4024 102C1	98648	JEJ5742	222981	0	18	4/23/2007	11:27:24 AM	2.35E+02	60	1	0	27	C4024	102C1	SM1M1	B02FA	WST2	3		0	1288
C4024 102C1	98648	JEJ5742	222981	0	19	4/23/2007	12:34:20 PM	2.35E+02	60	1	0	27	C4024	102C1	SM1M1	B02FA	WST3	4		0	1288
C4024 102C1	98648	JEJ5742	222981	0	20	4/23/2007	12:45:20 PM	4.51E+02	60	1	0	27	C4024	102C1	SM1C1	B02FA	SUMP	1		0	2471
C4024 102C1	98648	JEJ5742	222981	0	21	4/23/2007	12:52:14 PM	4.27E+02	60	1	0	27	C4024	102C1	SM1C1	B02FA	SUMP	2		0	2340
C4024 102C1	98648	JEJ5742	222981	0	22	4/23/2007	1:00:00 PM	3.51E+02	60	1	0	27	C4024	102C1	SM1C1	B02FA	SUMP	3		0	1923
C4024 102C1	98648	JEJ5742	222981	0	23	4/23/2007	1:05:38 PM	4.12E+02	60	1	0	27	C4024	102C1	SM1C1	B02FA	SUMP	4		0	2258
C4024 102C1	98648	JEJ5742	222981	0	24	4/23/2007	1:12:46 PM	2.67E+02	60	1	0	27	C4024	102C1	WL1M1	B02GA	WL1	1		0	1463
C4024 102C1	98648	JEJ5742	222981	0	25	4/23/2007	1:13:56 PM	2.52E+02	60	1	0	27	C4024	102C1	WL1M1	B02GA	WL1	2		0	1381
C4024 102C1	98648	JEJ5742	222981	0	26	4/23/2007	1:15:08 PM	2.91E+02	60	1	0	27	C4024	102C1	WL1M1	B02GA	WL1	3		0	1595
EZ259 DRT02	98648	JEJ5742	222981	0	27	4/23/2007	1:45:10 PM	2.35E+03	600	1	0	27	EZ259	DRT02	WL1M1	B02CA	LAB01	1		0	1288
EZ259 DRT02	98648	JEJ5742	222981	0	28	4/23/2007	2:19:54 PM	3.21E+03	60	1	0	27	EZ259	DRT02	WL1M1	B02DA	LAB01	1		0	17595
EZ259 DRT02	98648	JEJ5742	222981	0	29	4/23/2007	2:21:30 PM	3.59E+03	60	1	0	27	EZ259	DRT02	WL1M1	B02DA	LAB01	2		0	19666
EZ259 DRT02	98648	JEJ5742	222981	0	30	4/23/2007	2:23:02 PM	3.28E+03	60	1	0	27	EZ259	DRT02	WL1M1	B02DA	LAB01	3		0	17951

Reviewed By: _____ Date: 5-1-07 Approved By: _____ Date: 5/1/07

Measurement Database Download Report

Direct Beta Measurements

4/28/2007

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)
DL042507-006	2	JLM3848	4/25/2007	4:33 PM	C4024 102C1	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	0	4/25/2007	7:12:46 AM	2.39E+03	600	1	0	32	EZ259	DRT01	WU	B02AA	LAB01	1		0	1308
EZ259 DRT01	98648	JEJ5742	222981	0	1	4/25/2007	8:18:36 AM	3.14E+03	60	1	0	32	EZ259	DRT01	WU	B02BA	LAB01	1		0	17205
EZ259 DRT01	98648	JEJ5742	222981	0	2	4/25/2007	8:19:58 AM	3.51E+03	60	1	0	32	EZ259	DRT01	WU	B02BA	LAB01	2		0	19233
EZ259 DRT01	98648	JEJ5742	222981	0	3	4/25/2007	8:21:20 AM	3.38E+03	60	1	0	32	EZ259	DRT01	WU	B02BA	LAB01	1		0	18532
C4024 102C1	98648	JEJ5742	222981	3	4	4/25/2007	8:43:48 AM	3.94E+02	60	1	0	32	C4024	102C1	WU1M1	B02GA	WU1M1	1		0	2159
C4024 102C1	98648	JEJ5742	222981	3	5	4/25/2007	8:45:28 AM	4.78E+02	60	1	0	32	C4024	102C1	WU1M1	B02GA	WU1M1	2		0	2619
C4024 102C1	98648	JEJ5742	222981	3	6	4/25/2007	8:46:44 AM	4.57E+02	60	1	0	32	C4024	102C1	WU1M1	B02GA	WU1M1	3		0	2504
C4024 102C1	98648	JEJ5742	222981	3	16	4/25/2007	9:50:04 AM	2.00E+03	60	1	0	32	C4024	102C1	CL1M1	B02GS	CL1	1		0	10953
C4024 102C1	98648	JEJ5742	222981	3	17	4/25/2007	9:51:58 AM	2.18E+03	60	1	0	32	C4024	102C1	CL1M1	B02FS	CL1	1		0	11923
C4024 102C1	98648	JEJ5742	222981	3	18	4/25/2007	9:54:14 AM	1.84E+03	60	1	0	32	C4024	102C1	WU1M1	B02GS	WW	1		0	10077
C4024 102C1	98648	JEJ5742	222981	3	19	4/25/2007	9:55:56 AM	2.03E+03	60	1	0	32	C4024	102C1	WU1M1	B02FS	WW	1		0	11145
C4024 102C1	98648	JEJ5742	222981	3	20	4/25/2007	9:57:50 AM	2.27E+03	60	1	0	32	C4024	102C1	WU1M1	B02GS	WW	2		0	12422
C4024 102C1	98648	JEJ5742	222981	3	21	4/25/2007	9:59:18 AM	2.42E+03	60	1	0	32	C4024	102C1	WU1M1	B02FS	WW	2		0	13266
C4024 102C1	98648	JEJ5742	222981	3	22	4/25/2007	10:04:08 AM	1.76E+03	60	1	0	32	C4024	102C1	WU1M1	B02GS	NW	1		0	9622
C4024 102C1	98648	JEJ5742	222981	3	23	4/25/2007	10:05:36 AM	1.80E+03	60	1	0	32	C4024	102C1	WU1M1	B02FS	NW	1		0	9852
C4024 102C1	98648	JEJ5742	222981	3	24	4/25/2007	10:08:28 AM	2.38E+03	60	1	0	32	C4024	102C1	WU1M1	B02GS	NW	2		0	13052
C4024 102C1	98648	JEJ5742	222981	3	25	4/25/2007	10:10:08 AM	2.63E+03	60	1	0	32	C4024	102C1	WU1M1	B02FS	NW	2		0	14405
C4024 102C1	98648	JEJ5742	222981	3	26	4/25/2007	10:12:54 AM	2.40E+03	60	1	0	32	C4024	102C1	WU1M1	B02GS	EW	1		0	13156
C4024 102C1	98648	JEJ5742	222981	3	27	4/25/2007	10:14:30 AM	2.60E+03	60	1	0	32	C4024	102C1	WU1M1	B02FS	EW	1		0	14230

Measurement Database Download Report

Direct Beta Measurements

4/28/2007

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)
DL042507-006	2	JLM3848	4/25/2007	4:33 PM	C4024 102C1	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)
C4024 102C1	98648	JEJ5742	222981	3	28	4/25/2007	10:17:24 AM	1.88E+03	60	1	0	32	C4024	102C1	WU1M1	B02GS	EW	2		0	10296
C4024 102C1	98648	JEJ5742	222981	3	29	4/25/2007	10:18:54 AM	2.03E+03	60	1	0	32	C4024	102C1	WU1M1	B02FS	EW	2		0	11101
C4024 102C1	98648	JEJ5742	222981	3	30	4/25/2007	10:21:18 AM	1.98E+03	60	1	0	32	C4024	102C1	CL1M1	B02GS	ECL	1		0	10866
C4024 102C1	98648	JEJ5742	222981	3	31	4/25/2007	10:22:52 AM	2.16E+03	60	1	0	32	C4024	102C1	CL1M1	B02FS	ECL	1		0	11814
C4024 102C1	98648	JEJ5742	222981	3	32	4/25/2007	10:25:50 AM	2.06E+03	60	1	0	32	C4024	102C1	CL1M1	B02GS	CL1	2		0	11288
C4024 102C1	98648	JEJ5742	222981	3	33	4/25/2007	10:28:20 AM	2.18E+03	60	1	0	32	C4024	102C1	CL1M1	B02FS	CL1	2		0	11923
EZ259 DRT02	98648	JEJ5742	222981	0	34	4/25/2007	10:54:10 AM	2.52E+03	600	1	0	32	EZ259	DRT02	CL1M1	B02CA	LAB01	1		0	1382
EZ259 DRT02	98648	JEJ5742	222981	0	35	4/25/2007	10:57:22 AM	3.26E+03	60	1	0	32	EZ259	DRT02	CL1M1	B02DA	LAB01	1		0	17858
EZ259 DRT02	98648	JEJ5742	222981	0	36	4/25/2007	10:58:56 AM	3.48E+03	60	1	0	32	EZ259	DRT02	CL1M1	B02DA	LAB01	2		0	19063
EZ259 DRT02	98648	JEJ5742	222981	0	37	4/25/2007	11:00:38 AM	3.30E+03	60	1	0	32	EZ259	DRT02	CL1M1	B02DA	LAB01	1		0	18082

Reviewed By: J Johnson Date: 5-1-7 Approved By: [signature] Date: 5/1/07

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)
DL050307-003	2	JLM3848	5/3/2007	5:09 PM	C4024 102C1	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	5/3/2007	9:24:20 AM	2.14E+03	600	1	0	42	EZ259	DRT01	CS1C1	B02AA	LAB01	1		0	1172
EZ259 DRT01	98648	JEJ5742	222981	3	1	5/3/2007	9:31:28 AM	3.02E+03	60	1	0	42	EZ259	DRT01	CS1C1	B02BA	LAB01	1		0	16548
EZ259 DRT01	98648	JEJ5742	222981	3	2	5/3/2007	9:32:56 AM	3.31E+03	60	1	0	42	EZ259	DRT01	CS1C1	B02BA	LAB01	2		0	18159
EZ259 DRT01	98648	JEJ5742	222981	3	4	5/3/2007	9:35:44 AM	2.99E+03	60	1	0	42	EZ259	DRT01	CS1C1	B02BA	LAB01	3		0	16384
C4024 102C1	98648	JEJ5742	222981	3	5	5/3/2007	9:52:24 AM	2.31E+02	60	1	0	42	C4024	102C1	CS1C1	B02GA	CS1C1	1		0	1266
C4024 102C1	98648	JEJ5742	222981	3	6	5/3/2007	9:53:36 AM	2.60E+02	60	1	0	42	C4024	102C1	CS1C1	B02GA	CS1C1	2		0	1425
C4024 102C1	98648	JEJ5742	222981	3	7	5/3/2007	9:54:50 AM	2.56E+02	60	1	0	42	C4024	102C1	CS1C1	B02GA	CS1C1	3		0	1403
C4024 102C1	98648	JEJ5742	222981	3	8	5/3/2007	10:38:24 AM	4.36E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	SWH1	1		0	2389
C4024 102C1	98648	JEJ5742	222981	3	9	5/3/2007	10:39:48 AM	4.38E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	SWH1	2		0	2400
C4024 102C1	98648	JEJ5742	222981	3	10	5/3/2007	10:47:02 AM	5.06E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	SWH1	3		0	2773
C4024 102C1	98648	JEJ5742	222981	3	11	5/3/2007	10:48:16 AM	5.33E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	SWH1	4		0	2921
C4024 102C1	98648	JEJ5742	222981	3	12	5/3/2007	10:54:02 AM	7.69E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	SWH1	5		0	4214
C4024 102C1	98648	JEJ5742	222981	3	13	5/3/2007	10:55:18 AM	6.98E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	SWH1	6		0	3825
C4024 102C1	98648	JEJ5742	222981	3	14	5/3/2007	11:01:40 AM	4.51E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	NWH1	1		0	2471
C4024 102C1	98648	JEJ5742	222981	3	15	5/3/2007	11:02:54 AM	4.90E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	NWH1	2		0	2685
C4024 102C1	98648	JEJ5742	222981	3	16	5/3/2007	11:06:06 AM	2.68E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	NWH1	3		0	1468
C4024 102C1	98648	JEJ5742	222981	3	17	5/3/2007	11:07:30 AM	2.72E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	NWH1	4		0	1490
C4024 102C1	98648	JEJ5742	222981	3	18	5/3/2007	11:09:12 AM	2.36E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	NWH1	5		0	1293

Measurement Database Download Report

Direct Beta Measurements

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)
DL050307-003	2	JLM3848	5/3/2007	5:09 PM	C4024 102C1	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)
C4024 102C1	98648	JEJ5742	222981	3	19	5/3/2007	11:10:32 AM	2.20E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	NWH1	6		0	1205
C4024 102C1	98648	JEJ5742	222981	3	20	5/3/2007	11:14:44 AM	5.35E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	NWH1	7		0	2932
C4024 102C1	98648	JEJ5742	222981	3	21	5/3/2007	11:18:00 AM	3.01E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	NWH1	8		0	1649
C4024 102C1	98648	JEJ5742	222981	3	22	5/3/2007	11:19:40 AM	2.79E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	NWH1	9		0	1529
C4024 102C1	98648	JEJ5742	222981	3	23	5/3/2007	11:21:06 AM	2.97E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	NWH1	10		0	1627
C4024 102C1	98648	JEJ5742	222981	3	24	5/3/2007	11:27:26 AM	2.96E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	FL1C1	1		0	1622
C4024 102C1	98648	JEJ5742	222981	3	25	5/3/2007	11:28:40 AM	3.37E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	FL1C1	2		0	1847
C4024 102C1	98648	JEJ5742	222981	3	26	5/3/2007	11:30:30 AM	2.29E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	FL1C1	3		0	1255
C4024 102C1	98648	JEJ5742	222981	3	27	5/3/2007	11:31:48 AM	2.40E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	FL1C1	4		0	1315
C4024 102C1	98648	JEJ5742	222981	3	28	5/3/2007	11:33:36 AM	2.54E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	FL1C1	5		0	1392
C4024 102C1	98648	JEJ5742	222981	3	29	5/3/2007	11:35:10 AM	2.34E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	FL1C1	6		0	1282
C4024 102C1	98648	JEJ5742	222981	3	30	5/3/2007	11:37:34 AM	3.54E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	FL1C1	7		0	1940
C4024 102C1	98648	JEJ5742	222981	3	31	5/3/2007	11:39:30 AM	2.67E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	FL1C1	8		0	1463
C4024 102C1	98648	JEJ5742	222981	3	32	5/3/2007	11:41:14 AM	2.84E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	FL1C1	9		0	1556
C4024 102C1	98648	JEJ5742	222981	3	33	5/3/2007	11:42:36 AM	2.53E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	FL1C1	10		0	1386
C4024 102C1	98648	JEJ5742	222981	3	34	5/3/2007	12:34:20 PM	3.83E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	SWL1	1		0	2099
C4024 102C1	98648	JEJ5742	222981	3	35	5/3/2007	12:35:40 PM	3.77E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	SWL1	2		0	2066
C4024 102C1	98648	JEJ5742	222981	3	36	5/3/2007	12:39:14 PM	3.45E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	SWL1	3		0	1890

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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)
DL050307-003	2	JLM3848	5/3/2007	5:09 PM	C4024 102C1	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)
C4024 102C1	98648	JEJ5742	222981	3	37	5/3/2007	12:40:28 PM	3.30E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	SWL1	4		0	1808
C4024 102C1	98648	JEJ5742	222981	3	38	5/3/2007	12:42:04 PM	4.88E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	SWL1	5		0	2674
C4024 102C1	98648	JEJ5742	222981	3	39	5/3/2007	12:43:20 PM	4.84E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	SWL1	6		0	2652
C4024 102C1	98648	JEJ5742	222981	3	40	5/3/2007	12:47:44 PM	5.06E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	WWH1	1		0	2773
C4024 102C1	98648	JEJ5742	222981	3	41	5/3/2007	12:48:58 PM	5.36E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	WWH1	2		0	2937
C4024 102C1	98648	JEJ5742	222981	3	42	5/3/2007	12:51:22 PM	2.58E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	WWH1	3		0	1414
C4024 102C1	98648	JEJ5742	222981	3	43	5/3/2007	12:52:40 PM	2.49E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	WWH1	4		0	1364
C4024 102C1	98648	JEJ5742	222981	3	44	5/3/2007	12:54:20 PM	2.25E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	WWH1	5		0	1233
C4024 102C1	98648	JEJ5742	222981	3	45	5/3/2007	12:55:32 PM	2.43E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	WWH1	6		0	1332
C4024 102C1	98648	JEJ5742	222981	3	46	5/3/2007	1:00:24 PM	5.87E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	WWH1	7		0	3216
C4024 102C1	98648	JEJ5742	222981	3	47	5/3/2007	1:01:40 PM	4.32E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	WWH1	8		0	2367
C4024 102C1	98648	JEJ5742	222981	3	48	5/3/2007	1:05:20 PM	3.35E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	WWH1	9		0	1836
C4024 102C1	98648	JEJ5742	222981	3	49	5/3/2007	1:06:56 PM	3.10E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	WWH1	10		0	1699
C4024 102C1	98648	JEJ5742	222981	3	50	5/3/2007	1:08:50 PM	3.01E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	WWH1	11		0	1649
C4024 102C1	98648	JEJ5742	222981	3	51	5/3/2007	1:10:06 PM	2.59E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	WWH1	12		0	1419
C4024 102C1	98648	JEJ5742	222981	3	52	5/3/2007	1:14:16 PM	3.56E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	SWB21	1		0	1951
C4024 102C1	98648	JEJ5742	222981	3	53	5/3/2007	1:15:34 PM	3.50E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	SWB21	2		0	1918
C4024 102C1	98648	JEJ5742	222981	3	54	5/3/2007	1:18:16 PM	2.85E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	SWB21	3		0	1562
C4024 102C1	98648	JEJ5742	222981	3	55	5/3/2007	1:19:34 PM	3.19E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	SWB21	4		0	1748

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Direct Beta Measurements

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)
DL050307-003	2	JLM3848	5/3/2007	5:09 PM	C4024 102C1	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)
C4024 102C1	98648	JEJ5742	222981	3	56	5/3/2007	1:21:32 PM	1.22E+03	60	1	0	42	C4024	102C1	CS1C1	B02FA	SWB21	5		0	6690
C4024 102C1	98648	JEJ5742	222981	3	57	5/3/2007	1:22:52 PM	5.91E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	SWB21	6		0	3238
C4024 102C1	98648	JEJ5742	222981	3	58	5/3/2007	1:24:42 PM	5.89E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	SWB21	7		0	3227
C4024 102C1	98648	JEJ5742	222981	3	59	5/3/2007	1:26:00 PM	5.22E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	SWB21	8		0	2860
C4024 102C1	98648	JEJ5742	222981	3	60	5/3/2007	1:27:42 PM	3.84E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	SWB21	9		0	2104
C4024 102C1	98648	JEJ5742	222981	3	61	5/3/2007	1:29:08 PM	3.61E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	SWB21	10		0	1978
C4024 102C1	98648	JEJ5742	222981	3	62	5/3/2007	1:32:16 PM	3.23E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	NWB9	1		0	1770
C4024 102C1	98648	JEJ5742	222981	3	63	5/3/2007	1:33:30 PM	3.04E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	NWB9	2		0	1666
C4024 102C1	98648	JEJ5742	222981	3	64	5/3/2007	1:36:04 PM	5.08E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	NWB9	3		0	2784
C4024 102C1	98648	JEJ5742	222981	3	65	5/3/2007	1:37:20 PM	3.64E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	NWB9	4		0	1995
C4024 102C1	98648	JEJ5742	222981	3	66	5/3/2007	1:40:18 PM	3.47E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	NWB9	5		0	1901
C4024 102C1	98648	JEJ5742	222981	3	67	5/3/2007	1:41:34 PM	2.70E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	NWB9	6		0	1479
C4024 102C1	98648	JEJ5742	222981	3	68	5/3/2007	1:43:20 PM	3.19E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	NWB9	7		0	1748
C4024 102C1	98648	JEJ5742	222981	3	69	5/3/2007	1:44:38 PM	2.86E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	NWB9	8		0	1567
C4024 102C1	98648	JEJ5742	222981	3	70	5/3/2007	1:46:22 PM	2.36E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	NWB9	9		0	1293
C4024 102C1	98648	JEJ5742	222981	3	71	5/3/2007	1:47:42 PM	3.32E+02	60	1	0	42	C4024	102C1	CS1C1	B02FA	NWB9	10		0	1819
C4024 102C1	98648	JEJ5742	222981	3	72	5/3/2007	1:50:20 PM	2.41E+02	60	1	0	42	C4024	102C1	CS1C1	B02GA	CS1	1		0	1321
C4024 102C1	98648	JEJ5742	222981	3	73	5/3/2007	1:51:36 PM	2.34E+02	60	1	0	42	C4024	102C1	CS1C1	B02GA	CS1	2		0	1282
C4024 102C1	98648	JEJ5742	222981	3	74	5/3/2007	1:52:52 PM	2.78E+02	60	1	0	42	C4024	102C1	CS1C1	B02GA	CS1	3		0	1523

Measurement Database Download Report

Direct Beta Measurements

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)
DL050307-003	2	JLM3848	5/3/2007	5:09 PM	C4024 102C1	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 DRT02	98648	JEJ5742	222981	3	145	5/3/2007	3:38:08 PM	2.13E+03	600	1	0	42	EZ259	DRT02	CS1C1	B02CA	LAB01	1		0	1167
EZ259 DRT02	98648	JEJ5742	222981	3	146	5/3/2007	3:40:42 PM	2.97E+03	60	1	0	42	EZ259	DRT02	CS1C1	B02DA	LAB01	1		0	16268
EZ259 DRT02	98648	JEJ5742	222981	3	147	5/3/2007	3:42:20 PM	3.44E+03	60	1	0	42	EZ259	DRT02	CS1C1	B02DA	LAB01	2		0	18849
EZ259 DRT02	98648	JEJ5742	222981	3	148	5/3/2007	3:43:54 PM	3.04E+03	60	1	0	42	EZ259	DRT02	CS1C1	B02DA	LAB01	3		0	16674

Reviewed By: _____ Date: 5-5-07 Approved By: _____ Date: 5/15/07

Survey Package Appendix C – Survey Results

Survey Package:	C4024 102C1	Package: Structure
Survey Area Name:	SETF, Building 4024	
Survey Unit Name:	SGTCC Test Cell B-104	

Section 3.0
Measurement Results – Direct Alpha Measurements
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Direct Alpha Measurements

4/28/2007

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)
DL042507-001	2	JLM3848	4/25/2007	1:44 PM	C4024 102C1	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	4/23/2007	11:13:46 AM	7.00E+00	600	1	0	26	FS440	DRT01	WL1M1	A03AA	LAB01	1		0	3
FS440 DRT02	126195	JLW1061	249011	0	1	4/23/2007	11:26:52 AM	3.35E+03	60	1	0	26	FS440	DRT01	WL1M1	A03BA	LAB01	1		0	15510
FS440 DRT02	126195	JLW1061	249011	0	2	4/23/2007	11:28:42 AM	3.27E+03	60	1	0	26	FS440	DRT01	WL1M1	A03BA	LAB01	2		0	15112
FS440 DRT02	126195	JLW1061	249011	0	3	4/23/2007	11:30:38 AM	3.18E+03	60	1	0	26	FS440	DRT01	WL1M1	A03BA	LAB01	3		0	14691
C4024 102C1	126195	JLW1061	249011	3	4	4/23/2007	1:16:18 PM	0.00E+00	60	1	0	26	C4024	102C1	FL1M1	A03GA	FL1	1		0	0
C4024 102C1	126195	JLW1061	249011	3	5	4/23/2007	1:17:30 PM	5.00E+00	60	1	0	26	C4024	102C1	FL1M1	A03GA	FL1	2		0	23
C4024 102C1	126195	JLW1061	249011	3	6	4/23/2007	1:18:40 PM	2.00E+00	60	1	0	26	C4024	102C1	FL1M1	A03GA	FL1	3		0	9
C4024 102C1	126195	JLW1061	249011	3	7	4/23/2007	1:21:26 PM	4.00E+00	60	1	0	26	C4024	102C1	FL1M1	A03FA	H1	1		0	18
C4024 102C1	126195	JLW1061	249011	3	8	4/23/2007	1:23:28 PM	2.00E+00	60	1	0	26	C4024	102C1	FL1M1	A03FA	H2	1		0	9
C4024 102C1	126195	JLW1061	249011	3	9	4/23/2007	1:25:14 PM	3.00E+00	60	1	0	26	C4024	102C1	FL1M1	A03FA	L1	1		0	14
C4024 102C1	126195	JLW1061	249011	3	10	4/23/2007	1:31:36 PM	0.00E+00	60	1	0	26	C4024	102C1	WL1M1	A03FA	WWH1	1		0	0
C4024 102C1	126195	JLW1061	249011	3	11	4/23/2007	1:33:34 PM	0.00E+00	60	1	0	26	C4024	102C1	WL1M1	A03FA	NWH1	1		0	0
C4024 102C1	126195	JLW1061	249011	3	12	4/23/2007	1:36:02 PM	0.00E+00	60	1	0	26	C4024	102C1	WL1M1	A03FA	SHWL1	1		0	0
C4024 102C1	126195	JLW1061	249011	3	13	4/23/2007	1:38:58 PM	0.00E+00	60	1	0	26	C4024	102C1	WL1M1	A03FA	EWL1	1		0	0
C4024 102C1	126195	JLW1061	249011	3	14	4/23/2007	1:41:06 PM	0.00E+00	60	1	0	26	C4024	102C1	WL1M1	A03FA	EWL2	2		0	0
C4024 102C1	126195	JLW1061	249011	3	15	4/23/2007	1:43:02 PM	0.00E+00	60	1	0	26	C4024	102C1	WL1M1	A03FA	WWL	1		0	0
C4024 102C1	126195	JLW1061	249011	3	16	4/23/2007	2:31:54 PM	0.00E+00	60	1	0	26	C4024	102C1	SM1M1	A03FA	WST1	1		0	0
C4024 102C1	126195	JLW1061	249011	3	17	4/23/2007	2:44:22 PM	0.00E+00	60	1	0	26	C4024	102C1	SM1M1	A03FA	WST2	2		0	0
C4024 102C1	126195	JLW1061	249011	3	18	4/23/2007	3:51:02 PM	0.00E+00	60	1	0	26	C4024	102C1	SM1M1	A03FA	WST3	3		0	0

Measurement Database Download Report

Direct Alpha Measurements

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)
DL042507-001	2	JLM3848	4/25/2007	1:44 PM	C4024 102C1	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)
C4024 102C1	126195	JLW1061	249011	3	19	4/23/2007	4:01:44 PM	0.00E+00	60	1	0	26	C4024	102C1	SM1C1	A03FA	SUMP	1		0	0
C4024 102C1	126195	JLW1061	249011	3	20	4/23/2007	4:03:58 PM	0.00E+00	60	1	0	26	C4024	102C1	SM1C1	A03FA	SUMP	2		0	0
C4024 102C1	126195	JLW1061	249011	3	21	4/23/2007	4:14:40 PM	0.00E+00	60	1	0	26	C4024	102C1	SM1C1	A03FS	SUMP	3		0	0
C4024 102C1	126195	JLW1061	249011	3	22	4/23/2007	4:15:54 PM	0.00E+00	60	1	0	26	C4024	102C1	SM1C1	A03GS	SUMP	3		0	0
C4024 102C1	126195	JLW1061	249011	3	23	4/23/2007	4:21:54 PM	0.00E+00	60	1	0	26	C4024	102C1	SM1C1	A03FA	SUMP	4		0	0
C4024 102C1	126195	JLW1061	249011	3	24	4/23/2007	4:27:46 PM	0.00E+00	60	1	0	26	C4024	102C1	WL1M1	A03GA	WL1	1		0	0
C4024 102C1	126195	JLW1061	249011	3	25	4/23/2007	4:28:56 PM	0.00E+00	60	1	0	26	C4024	102C1	WL1M1	A03GA	WL1	2		0	0
C4024 102C1	126195	JLW1061	249011	3	26	4/23/2007	4:30:06 PM	0.00E+00	60	1	0	26	C4024	102C1	WL1M1	A03GA	WL1	3		0	0
C4024 102C1	126195	JLW1061	249011	3	27	4/23/2007	4:32:48 PM	0.00E+00	120	1	0	26	C4024	102C1	WL1M1	A03GS	WL1	1		0	0
FS440 102C1	126195	JLW1061	249011	0	28	4/23/2007	4:56:56 PM	5.00E+00	600	1	0	26	FS440	DRT02	WL1M1	A03CA	LAB01	1		0	2
FS440 102C1	126195	JLW1061	249011	0	29	4/23/2007	5:24:42 PM	3.25E+03	60	1	0	26	FS440	DRT02	WL1M1	A03DA	LAB01	1		0	15029
FS440 102C1	126195	JLW1061	249011	0	30	4/23/2007	5:26:10 PM	3.35E+03	60	1	0	26	FS440	DRT02	WL1M1	A03DA	LAB01	2		0	15491
FS440 102C1	126195	JLW1061	249011	0	31	4/23/2007	5:27:32 PM	3.19E+03	60	1	0	26	FS440	DRT02	WL1M1	A03DA	LAB01	3		0	14761

Reviewed By: _____ Date: _____ Approved By: _____ Date: _____

Measurement Database Download Report

Direct Alpha Measurements

4/28/2007

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)
DL042507-004	2	JLM3848	4/25/2007	3:58 PM	C4024 102C1	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	1	4/24/2007	10:56:02 AM	8.00E+00	600	1	0	30	FS440	DRT01	WU1M1	A03AA	LAB01	1		0	4
FS440 DRT01	126195	JLW1061	249011	0	2	4/24/2007	11:44:08 AM	3.13E+03	60	1	0	30	FS440	DRT01	WU1M1	A03BA	LAB01	1		0	14488
FS440 DRT01	126195	JLW1061	249011	0	3	4/24/2007	11:45:50 AM	3.19E+03	60	1	0	30	FS440	DRT01	WU1M1	A03BA	LAB01	2		0	14751
FS440 DRT01	126195	JLW1061	249011	0	4	4/24/2007	11:47:24 AM	3.26E+03	60	1	0	30	FS440	DRT01	WU1M1	A03BA	LAB01	3		0	15094
C4024 102C1	126195	JLW1061	249011	0	5	4/24/2007	5:31:06 PM	1.00E+00	60	1	0	30	C4024	102C1	WU1M1	A03GA	WLU	1		0	5
C4024 102C1	126195	JLW1061	249011	0	6	4/24/2007	5:32:22 PM	0.00E+00	60	1	0	30	C4024	102C1	WU1M1	A03GA	WLU	2		0	0
C4024 102C1	126195	JLW1061	249011	0	7	4/24/2007	5:33:44 PM	0.00E+00	60	1	0	30	C4024	102C1	WU1M1	A03GA	WLU	3		0	0
C4024 102C1	126195	JLW1061	249011	0	8	4/24/2007	5:50:08 PM	1.00E+00	60	1	0	30	C4024	102C1	WU1M1	A03FA	NWH1	1		0	5
C4024 102C1	126195	JLW1061	249011	0	9	4/24/2007	5:51:48 PM	4.00E+00	60	1	0	30	C4024	102C1	WU1M1	A03FA	NWL1	1		0	18
C4024 102C1	126195	JLW1061	249011	0	10	4/24/2007	5:53:24 PM	0.00E+00	60	1	0	30	C4024	102C1	WU1M1	A03FA	WWH1	1		0	0
C4024 102C1	126195	JLW1061	249011	0	11	4/24/2007	5:54:52 PM	2.00E+00	60	1	0	30	C4024	102C1	WU1M1	A03FA	WWL1	1		0	9
C4024 102C1	126195	JLW1061	249011	0	12	4/24/2007	5:56:34 PM	0.00E+00	60	1	0	30	C4024	102C1	WU1M1	A03FA	EWH1	1		0	0
C4024 102C1	126195	JLW1061	249011	0	13	4/24/2007	5:58:34 PM	3.00E+00	60	1	0	30	C4024	102C1	WU1M1	A03FA	EWL1	1		0	14
C4024 102C1	126195	JLW1061	249011	0	14	4/24/2007	6:00:58 PM	1.00E+00	60	1	0	30	C4024	102C1	CL1M1	A03FA	CLE1	1		0	5
C4024 102C1	126195	JLW1061	249011	0	15	4/24/2007	6:03:30 PM	3.00E+00	60	1	0	30	C4024	102C1	CL1M1	A03FA	CLS1	1		0	14
C4024 102C1	126195	JLW1061	249011	0	16	4/24/2007	6:06:56 PM	3.00E+00	60	1	0	30	C4024	102C1	CL1M1	A03FA	CLW1	1		0	14
C4024 102C1	126195	JLW1061	249011	0	17	4/24/2007	6:10:04 PM	1.00E+00	60	1	0	30	C4024	102C1	WU1M1	A03GA	WU	1		0	5
C4024 102C1	126195	JLW1061	249011	0	18	4/24/2007	6:11:16 PM	2.00E+00	60	1	0	30	C4024	102C1	WU1M1	A03GA	WU	2		0	9
C4024 102C1	126195	JLW1061	249011	0	19	4/24/2007	6:12:30 PM	0.00E+00	60	1	0	30	C4024	102C1	WU1M1	A03GA	WU	3		0	0

Measurement Database Download Report

Direct Alpha Measurements

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)
DL042507-004	2	JLM3848	4/25/2007	3:58 PM	C4024 102C1	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)
C4024 102C1	126195	JLW1061	249011	0	20	4/24/2007	6:14:06 PM	0.00E+00	60	1	0	30	C4024	102C1	WU1M1	A03FS	WU	1		0	0
C4024 102C1	126195	JLW1061	249011	0	21	4/24/2007	6:16:40 PM	0.00E+00	120	1	0	30	C4024	102C1	WU1M1	A03GS	WU	1		0	0
FS440 DRT02	126195	JLW1061	249011	0	22	4/25/2007	9:53:52 AM	4.00E+00	600	1	0	30	FS440	DRT02	WU1M1	A03CA	LAB01	1		0	2
FS440 DRT02	126195	JLW1061	249011	0	23	4/25/2007	9:59:04 AM	3.13E+03	60	1	0	30	FS440	DRT02	WU1M1	A03DA	LAB01	1		0	14474
FS440 DRT02	126195	JLW1061	249011	0	24	4/25/2007	10:00:34 AM	3.33E+03	60	1	0	30	FS440	DRT02	WU1M1	A03DA	LAB01	2		0	15380
FS440 DRT02	126195	JLW1061	249011	0	25	4/25/2007	10:02:04 AM	3.23E+03	60	1	0	30	FS440	DRT02	WU1M1	A03DA	LAB01	3		0	14955

Reviewed By: _____ Date: 5-1-07 Approved By: _____ Date: 5/1/07

Measurement Database Download Report

Direct Alpha Measurements

5/10/2007

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)
DL050307-002	2	JLM3848	5/3/2007	4:59 PM	C4024 102C1	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	5/3/2007	12:07:06 PM	1.00E+01	600	1	0	41	FS440	DRT01	CS1C1	A03AA	LAB01	1		0	5
FS440 DRT01	126195	JLW1061	249011	0	1	5/3/2007	12:13:58 PM	3.17E+03	60	1	0	41	FS440	DRT01	CS1C1	A03BA	LAB01	1		0	14636
FS440 DRT01	126195	JLW1061	249011	0	2	5/3/2007	12:15:16 PM	3.09E+03	60	1	0	41	FS440	DRT01	CS1C1	A03BA	LAB01	2		0	14303
FS440 DRT01	126195	JLW1061	249011	0	3	5/3/2007	12:17:30 PM	3.03E+03	60	1	0	41	FS440	DRT01	CS1C1	A03BA	LAB01	3		0	13998
C4024 102C1	126195	JLW1061	249011	0	4	5/3/2007	1:07:08 PM	0.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03GA	CS1	1		0	0
C4024 102C1	126195	JLW1061	249011	0	5	5/3/2007	1:08:24 PM	0.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03GA	CS1	2		0	0
C4024 102C1	126195	JLW1061	249011	0	6	5/3/2007	1:09:36 PM	8.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03GA	CS1	3		0	37
C4024 102C1	126195	JLW1061	249011	0	7	5/3/2007	1:55:34 PM	3.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	SWH1	1		0	14
C4024 102C1	126195	JLW1061	249011	0	8	5/3/2007	1:59:24 PM	4.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	SWH1	2		0	18
C4024 102C1	126195	JLW1061	249011	0	9	5/3/2007	2:04:16 PM	0.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	SWH1	3		0	0
C4024 102C1	126195	JLW1061	249011	0	10	5/3/2007	2:05:40 PM	0.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	SWH1	4		0	0
C4024 102C1	126195	JLW1061	249011	0	11	5/3/2007	2:11:12 PM	1.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	SWH1	5		0	5
C4024 102C1	126195	JLW1061	249011	0	12	5/3/2007	2:12:28 PM	2.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	SWH1	6		0	9
C4024 102C1	126195	JLW1061	249011	0	13	5/3/2007	2:19:30 PM	2.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	NWH1	1		0	9
C4024 102C1	126195	JLW1061	249011	0	14	5/3/2007	2:20:44 PM	2.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	NWH1	2		0	9
C4024 102C1	126195	JLW1061	249011	0	15	5/3/2007	2:23:08 PM	0.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	NWH1	3		0	0
C4024 102C1	126195	JLW1061	249011	0	16	5/3/2007	2:24:20 PM	0.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	NWH1	4		0	0
C4024 102C1	126195	JLW1061	249011	0	17	5/3/2007	2:26:10 PM	0.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	NWH1	5		0	0
C4024 102C1	126195	JLW1061	249011	0	18	5/3/2007	2:27:28 PM	0.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	NWH1	6		0	0

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)
DL050307-002	2	JLM3848	5/3/2007	4:59 PM	C4024 102C1	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)
C4024 102C1	126195	JLW1061	249011	0	19	5/3/2007	2:33:38 PM	1.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	NWH1	7		0	5
C4024 102C1	126195	JLW1061	249011	0	20	5/3/2007	2:34:54 PM	0.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	NWH1	8		0	0
C4024 102C1	126195	JLW1061	249011	0	21	5/3/2007	2:36:42 PM	2.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	NWH1	9		0	9
C4024 102C1	126195	JLW1061	249011	0	22	5/3/2007	2:37:58 PM	1.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	NWH1	10		0	5
C4024 102C1	126195	JLW1061	249011	0	23	5/3/2007	2:44:14 PM	0.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	FL1C1	1		0	0
C4024 102C1	126195	JLW1061	249011	0	24	5/3/2007	2:45:32 PM	1.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	FL1C1	2		0	5
C4024 102C1	126195	JLW1061	249011	0	25	5/3/2007	2:47:24 PM	0.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	FL1C1	3		0	0
C4024 102C1	126195	JLW1061	249011	0	26	5/3/2007	2:48:36 PM	0.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	FL1C1	4		0	0
C4024 102C1	126195	JLW1061	249011	0	27	5/3/2007	2:50:48 PM	1.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	FL1C1	5		0	5
C4024 102C1	126195	JLW1061	249011	0	28	5/3/2007	2:52:02 PM	0.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	FL1C1	6		0	0
C4024 102C1	126195	JLW1061	249011	0	29	5/3/2007	2:55:10 PM	1.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	FL1C1	7		0	5
C4024 102C1	126195	JLW1061	249011	0	30	5/3/2007	2:56:24 PM	0.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	FL1C1	8		0	0
C4024 102C1	126195	JLW1061	249011	0	31	5/3/2007	2:58:16 PM	1.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	FL1C1	9		0	5
C4024 102C1	126195	JLW1061	249011	0	32	5/3/2007	2:59:24 PM	2.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	FL1C1	10		0	9
C4024 102C1	126195	JLW1061	249011	0	33	5/3/2007	3:51:44 PM	1.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	SWL1	1		0	5
C4024 102C1	126195	JLW1061	249011	0	34	5/3/2007	3:52:56 PM	5.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	SWL1	2		0	23
C4024 102C1	126195	JLW1061	249011	0	35	5/3/2007	3:56:02 PM	6.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	SWL1	3		0	28
C4024 102C1	126195	JLW1061	249011	0	36	5/3/2007	3:57:18 PM	1.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	SWL1	4		0	5
C4024 102C1	126195	JLW1061	249011	0	37	5/3/2007	3:58:58 PM	0.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	SWL1	5		0	0

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)
DL050307-002	2	JLM3848	5/3/2007	4:59 PM	C4024 102C1	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)
C4024 102C1	126195	JLW1061	249011	0	38	5/3/2007	4:00:12 PM	0.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	SWL1	6		0	0
C4024 102C1	126195	JLW1061	249011	0	39	5/3/2007	4:04:38 PM	0.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	WWH1	1		0	0
C4024 102C1	126195	JLW1061	249011	0	40	5/3/2007	4:05:58 PM	1.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	WWH1	2		0	5
C4024 102C1	126195	JLW1061	249011	0	41	5/3/2007	4:08:12 PM	1.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	WWH1	3		0	5
C4024 102C1	126195	JLW1061	249011	0	42	5/3/2007	4:09:26 PM	0.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	WWH1	4		0	0
C4024 102C1	126195	JLW1061	249011	0	43	5/3/2007	4:11:10 PM	0.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	WWH1	5		0	0
C4024 102C1	126195	JLW1061	249011	0	44	5/3/2007	4:12:38 PM	1.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	WWH1	6		0	5
C4024 102C1	126195	JLW1061	249011	0	45	5/3/2007	4:17:18 PM	2.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	WWH1	7		0	9
C4024 102C1	126195	JLW1061	249011	0	46	5/3/2007	4:18:34 PM	1.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	WWH1	8		0	5
C4024 102C1	126195	JLW1061	249011	0	47	5/3/2007	4:22:34 PM	0.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	WWH1	9		0	0
C4024 102C1	126195	JLW1061	249011	0	48	5/3/2007	4:23:48 PM	2.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	WWH1	10		0	9
C4024 102C1	126195	JLW1061	249011	0	49	5/3/2007	4:25:42 PM	0.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	WWH1	11		0	0
C4024 102C1	126195	JLW1061	249011	0	50	5/3/2007	4:26:52 PM	0.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	WWH1	12		0	0
C4024 102C1	126195	JLW1061	249011	0	51	5/3/2007	4:31:30 PM	2.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	SWB21	1		0	9
C4024 102C1	126195	JLW1061	249011	0	52	5/3/2007	4:32:56 PM	7.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	SWB21	2		0	32
C4024 102C1	126195	JLW1061	249011	0	53	5/3/2007	4:35:16 PM	2.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	SWB21	3		0	9
C4024 102C1	126195	JLW1061	249011	0	54	5/3/2007	4:36:36 PM	0.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	SWB21	4		0	0
C4024 102C1	126195	JLW1061	249011	0	55	5/3/2007	4:38:30 PM	2.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	SWB21	5		0	9
C4024 102C1	126195	JLW1061	249011	0	56	5/3/2007	4:39:48 PM	1.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	SWB21	6		0	5

Measurement Database Download Report

Direct Alpha Measurements

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)
DL050307-002	2	JLM3848	5/3/2007	4:59 PM	C4024 102C1	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)
C4024 102C1	126195	JLW1061	249011	0	57	5/3/2007	4:41:38 PM	3.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	SWB21	7		0	14
C4024 102C1	126195	JLW1061	249011	0	58	5/3/2007	4:42:52 PM	0.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	SWB21	8		0	0
C4024 102C1	126195	JLW1061	249011	0	59	5/3/2007	4:45:00 PM	1.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	SWB21	9		0	5
C4024 102C1	126195	JLW1061	249011	0	60	5/3/2007	4:46:20 PM	3.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	SWB21	10		0	14
C4024 102C1	126195	JLW1061	249011	0	61	5/3/2007	4:49:46 PM	0.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	NWB9	1		0	0
C4024 102C1	126195	JLW1061	249011	0	63	5/3/2007	4:52:20 PM	0.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	NWB9	2		0	0
C4024 102C1	126195	JLW1061	249011	0	64	5/3/2007	4:53:54 PM	3.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	NWB9	3		0	14
C4024 102C1	126195	JLW1061	249011	0	65	5/3/2007	4:55:04 PM	2.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	NWB9	4		0	9
C4024 102C1	126195	JLW1061	249011	0	66	5/3/2007	4:57:16 PM	0.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	NWB9	5		0	0
C4024 102C1	126195	JLW1061	249011	0	67	5/3/2007	4:58:32 PM	1.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	NWB9	6		0	5
C4024 102C1	126195	JLW1061	249011	0	68	5/3/2007	5:00:18 PM	1.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	NWB9	7		0	5
C4024 102C1	126195	JLW1061	249011	0	69	5/3/2007	5:01:34 PM	2.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	NWB9	8		0	9
C4024 102C1	126195	JLW1061	249011	0	70	5/3/2007	5:03:32 PM	0.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	NWB9	9		0	0
C4024 102C1	126195	JLW1061	249011	0	71	5/3/2007	5:04:52 PM	3.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03FA	NWB9	10		0	14
C4024 102C1	126195	JLW1061	249011	0	72	5/3/2007	5:06:56 PM	0.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03GA	CS1	1		0	0
C4024 102C1	126195	JLW1061	249011	0	73	5/3/2007	5:08:08 PM	0.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03GA	CS1	2		0	0
C4024 102C1	126195	JLW1061	249011	0	74	5/3/2007	5:10:48 PM	0.00E+00	60	1	0	41	C4024	102C1	CS1C1	A03GA	CS1	3		0	0
FS440 DRT02	126195	JLW1061	249011	0	75	5/3/2007	6:18:26 PM	7.00E+00	600	1	0	41	FS440	DRT02	CS1C1	A03CA	LAB01	1		0	3
FS440 DRT02	126195	JLW1061	249011	0	76	5/3/2007	6:22:04 PM	3.18E+03	60	1	0	41	FS440	DRT02	CS1C1	A03DA	LAB01	1		0	14691

Measurement Database Download Report

Direct Alpha Measurements

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)
DL050307-002	2	JLM3848	5/3/2007	4:59 PM	C4024 102C1	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 DRT02	126195	JLW1061	249011	0	77	5/3/2007	6:23:18 PM	3.20E+03	60	1	0	41	FS440	DRT02	CS1C1	A03DA	LAB01	2		0	14775
FS440 DRT02	126195	JLW1061	249011	0	78	5/3/2007	6:25:16 PM	3.19E+03	60	1	0	41	FS440	DRT02	CS1C1	A03DA	LAB01	3		0	14742

Reviewed By: _____ Date: 5-17-07 Approved By: _____ Date: 5/13/07

Survey Package Appendix C – Survey Results

Survey Package:	C4024 102C1	Package: Structure
Survey Area Name:	SETF, Building 4024	
Survey Unit Name:	SGTCC Test Cell B-104	

Section 4.0
Measurement Results – Exposure Rate Measurements
11 Pages

Measurement Database Download Report
Exposure Rate Measurements

5/1/2007

Download ID	Station Number	User ID	Download Date	Download Time	Survey Package ID	Detector Model Number	Detector Serial Number	Gamma Cal Factor
DL042507-003	2	JLM3848	4/25/2007	3:28 PM	C4024 102C1	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	98638	JLW1061	162404	0	0	4/23/2007	7:53:22 AM	1.18E+05	600	1	0	28	CS313	DRT01	WL1M1	G01AA	LAB01	1		0	1.32E+01
CS313 DRT01	98638	JLW1061	162404	0	1	4/23/2007	8:10:44 AM	6.20E+05	30	1	0	28	CS313	DRT01	WL1M1	G01BA	LAB01	1		0	1.39E+03
CS313 DRT01	98638	JLW1061	162404	0	2	4/23/2007	8:12:18 AM	2.83E+04	30	1	0	28	CS313	DRT01	WL1M1	G01BA	LAB01	2		0	6.33E+01
CS313 DRT01	98638	JLW1061	162404	0	4	4/23/2007	8:14:54 AM	1.80E+04	30	1	0	28	CS313	DRT01	WL1M1	G01BA	LAB01	3		0	4.03E+01
C4024 102C1	98638	JLW1061	162404	3	5	4/23/2007	10:34:08 AM	4.79E+03	12	1	0	28	C4024	102C1	FL1M1	G01FA	H1	1		0	2.68E+01
C4024 102C1	98638	JLW1061	162404	3	6	4/23/2007	10:36:16 AM	4.79E+03	12	1	0	28	C4024	102C1	FL1M1	G01FA	H2	2		0	2.68E+01
C4024 102C1	98638	JLW1061	162404	3	7	4/23/2007	10:37:28 AM	3.38E+03	12	1	0	28	C4024	102C1	FL1M1	G01FA	LI	1		0	1.89E+01
C4024 102C1	98638	JLW1061	162404	3	8	4/23/2007	10:39:14 AM	6.85E+03	12	1	0	28	C4024	102C1	WL1M1	G01FA	WWH1	1		0	3.83E+01
C4024 102C1	98638	JLW1061	162404	3	9	4/23/2007	10:40:34 AM	6.08E+03	12	1	0	28	C4024	102C1	WL1M1	G01FA	NWH1	1		0	3.40E+01
C4024 102C1	98638	JLW1061	162404	3	10	4/23/2007	10:41:46 AM	1.75E+04	12	1	0	28	C4024	102C1	WL1M1	G01FA	SHW1	1		0	9.80E+01
C4024 102C1	98638	JLW1061	162404	3	11	4/23/2007	10:43:02 AM	3.43E+03	12	1	0	28	C4024	102C1	WL1M1	G01FA	EWL1	1		0	1.92E+01
C4024 102C1	98638	JLW1061	162404	3	12	4/23/2007	10:43:46 AM	2.82E+03	12	1	0	28	C4024	102C1	WL1M1	G01FA	EWL1	2		0	1.57E+01
C4024 102C1	98638	JLW1061	162404	3	13	4/23/2007	10:44:58 AM	3.29E+03	12	1	0	28	C4024	102C1	WL1M1	G01FA	WWL1	1		0	1.84E+01
C4024 102C1	98638	JLW1061	162404	3	14	4/23/2007	11:04:40 AM	8.27E+02	12	1	0	28	C4024	102C1	SM1M1	G01FA	WST1	1		0	4.63E+00
C4024 102C1	98638	JLW1061	162404	3	15	4/23/2007	11:23:26 AM	9.89E+02	12	1	0	28	C4024	102C1	SM1M1	G01FA	WST2	2		0	5.53E+00
C4024 102C1	98638	JLW1061	162404	3	16	4/23/2007	12:33:26 PM	7.58E+02	12	1	0	28	C4024	102C1	SM1M1	G01FA	WST3	3		0	4.24E+00
C4024 102C1	98638	JLW1061	162404	3	17	4/23/2007	12:41:42 PM	9.19E+02	12	1	0	28	C4024	102C1	SM1C1	G01FA	SUMP1	1		0	5.14E+00
C4024 102C1	98638	JLW1061	162404	3	18	4/23/2007	12:49:06 PM	1.02E+03	12	1	0	28	C4024	102C1	SM1C1	G01FA	SUMP1	2		0	5.68E+00
C4024 102C1	98638	JLW1061	162404	3	19	4/23/2007	1:00:00 PM	8.73E+02	12	1	0	28	C4024	102C1	SM1C1	G01FA	SUMP1	3		0	4.88E+00
C4024 102C1	98638	JLW1061	162404	3	20	4/23/2007	1:04:50 PM	9.52E+02	12	1	0	28	C4024	102C1	SM1C1	G01FA	SUMP1	4		0	5.33E+00
CS313 DRT02	98638	JLW1061	162404	3	22	4/23/2007	1:53:22 PM	1.13E+05	600	1	0	28	CS313	DRT02	FL1M1	G01BA	LAB01	1		0	1.27E+01
CS313 DRT02	98638	JLW1061	162404	3	24	4/23/2007	2:35:50 PM	4.95E+05	30	1	0	28	CS313	DRT02	FL1M1	G01DA	LAB01	1		0	1.11E+03
CS313 DRT02	98638	JLW1061	162404	3	25	4/23/2007	2:37:50 PM	2.96E+04	30	1	0	28	CS313	DRT02	FL1M1	G01DA	LAB01	2		0	6.62E+01

Measurement Database Download Report
Exposure Rate Measurements

5/1/2007

Download ID	Station Number	User ID	Download Date	Download Time	Survey Package ID	Detector Model Number	Detector Serial Number	Gamma Cal Factor
DL042507-003	2	JLM3848	4/25/2007	3:28 PM	C4024 102C1	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	98638	JLW1061	162404	3	26	4/23/2007	2:39:36 PM	1.70E+04	30	1	0	28	CS313	DRT02	FL1M1	G01DA	LAB01	3		0	3.80E+01

Reviewed By: Joe Lucy Date: 5-1-07 Approved By: John McGlen Date: 5/1/07

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Exposure Rate Measurements

4/26/2007

Download ID	Station Number	User ID	Download Date	Download Time	Survey Package ID	Detector Model Number	Detector Serial Number	Gamma Cal Factor
DL042507-005	2	JLM3848	4/25/2007	4:24 PM	C4024 102C1	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	98638	JLW1061	162404	0	0	4/24/2007	6:55:28 AM	1.07E+05	600	1	0	31	CS313	DRT01	WU1M1	G01AA	LAB01	1		0	1.19E+01
CS313 DRT01	98638	JLW1061	162404	0	1	4/24/2007	9:23:34 AM	5.58E+05	30	1	0	31	CS313	DRT01	WU1M1	G01BA	LAB01	1		0	1.25E+03
CS313 DRT01	98638	JLW1061	162404	0	3	4/24/2007	9:35:28 AM	2.95E+04	30	1	0	31	CS313	DRT01	WU1M1	G01BA	LAB01	2		0	6.59E+01
CS313 DRT01	98638	JLW1061	162404	0	5	4/24/2007	9:38:06 AM	1.77E+04	30	1	0	31	CS313	DRT01	WU1M1	G01BA	LAB01	3		0	3.95E+01
C4024 102C1	98638	JLW1061	162404	0	6	4/24/2007	1:30:06 PM	7.24E+03	12	1	0	31	C4024	102C1	WU1M1	G01FA	NL	1		0	4.05E+01
C4024 102C1	98638	JLW1061	162404	0	7	4/24/2007	1:34:00 PM	1.17E+04	12	1	0	31	C4024	102C1	WU1M1	G01FA	NH	1		0	6.52E+01
C4024 102C1	98638	JLW1061	162404	0	8	4/24/2007	1:37:32 PM	1.15E+04	12	1	0	31	C4024	102C1	WU1M1	G01FA	EH	1		0	6.46E+01
C4024 102C1	98638	JLW1061	162404	0	9	4/24/2007	1:41:14 PM	7.86E+03	12	1	0	31	C4024	102C1	WU1M1	G01FA	EL	1		0	4.40E+01
C4024 102C1	98638	JLW1061	162404	0	10	4/24/2007	1:45:50 PM	1.10E+04	12	1	0	31	C4024	102C1	WU1M1	G01FA	WH	1		0	6.13E+01
C4024 102C1	98638	JLW1061	162404	0	11	4/24/2007	1:50:52 PM	7.70E+03	12	1	0	31	C4024	102C1	WU1M1	G01FA	WL	1		0	4.31E+01
C4024 102C1	98638	JLW1061	162404	0	12	4/24/2007	1:53:34 PM	8.94E+03	12	1	0	31	C4024	102C1	CL1M1	G01FA	WI	1		0	5.00E+01
C4024 102C1	98638	JLW1061	162404	0	13	4/24/2007	1:58:20 PM	8.55E+03	12	1	0	31	C4024	102C1	CL1M1	G01FA	EI	1		0	4.78E+01
C4024 102C1	98638	JLW1061	162404	0	14	4/24/2007	2:01:48 PM	8.19E+03	12	1	0	31	C4024	102C1	CL1M1	G01FA	SI	1		0	4.58E+01
CS313 DRT02	98638	JLW1061	162404	0	15	4/25/2007	6:44:12 AM	1.19E+05	600	1	0	31	CS313	DRT02	CL1M1	G01CA	LAB01	1		0	1.34E+01
CS313 DRT02	98638	JLW1061	162404	0	16	4/25/2007	6:55:58 AM	5.75E+05	30	1	0	31	CS313	DRT02	CL1M1	G01DA	LAB01	1		0	1.29E+03
CS313 DRT02	98638	JLW1061	162404	0	17	4/25/2007	6:57:52 AM	2.91E+04	30	1	0	31	CS313	DRT02	CL1M1	G01DA	LAB01	2		0	6.51E+01
CS313 DRT02	98638	JLW1061	162404	0	18	4/25/2007	6:59:34 AM	1.91E+04	30	1	0	31	CS313	DRT02	CL1M1	G01DA	LAB01	3		0	4.27E+01

Reviewed By: J Lucy Date: 4-26-07 Approved By: John McCall Date: 4/26/07

Measurement Database Download Report
Exposure Rate Measurements

5/2/2007

Download ID	Station Number	User ID	Download Date	Download Time	Survey Package ID	Detector Model Number	Detector Serial Number	Gamma Cal Factor
DL050107-003	2	JLM3848	5/1/2007	4:15 PM	C4024 102C1	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	98638	JLW1061	162404	3	1	5/1/2007	11:30:28 AM	1.10E+05	600	1	0	38	CS313	DRT01	CS1C1	G01AA	LAB01	1		0	1.23E+01
CS313 DRT01	98638	JLW1061	162404	3	2	5/1/2007	12:20:00 PM	5.91E+05	30	1	0	38	CS313	DRT01	CS1C1	G01BA	LAB01	1		0	1.32E+03
CS313 DRT01	98638	JLW1061	162404	3	3	5/1/2007	12:24:44 PM	2.82E+04	30	1	0	38	CS313	DRT01	CS1C1	G01BA	LAB01	2		0	6.31E+01
CS313 DRT01	98638	JLW1061	162404	3	6	5/1/2007	12:30:54 PM	1.78E+04	30	1	0	38	CS313	DRT01	CS1C1	G01BA	LAB01	3		0	3.99E+01
C4024 102C1	98638	JLW1061	162404	3	7	5/1/2007	1:25:26 PM	5.08E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	BKG1	1		0	2.84E+00
C4024 102C1	98638	JLW1061	162404	3	8	5/1/2007	1:26:18 PM	7.28E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	NWH1	1		0	4.07E+00
C4024 102C1	98638	JLW1061	162404	3	9	5/1/2007	1:29:30 PM	7.54E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	NWH1	2		0	4.22E+00
C4024 102C1	98638	JLW1061	162404	3	10	5/1/2007	1:30:04 PM	6.58E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	NWH1	3		0	3.68E+00
C4024 102C1	98638	JLW1061	162404	3	11	5/1/2007	1:30:34 PM	5.96E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	NWH1	4		0	3.33E+00
C4024 102C1	98638	JLW1061	162404	3	12	5/1/2007	1:31:02 PM	6.57E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	NWH1	5		0	3.68E+00
C4024 102C1	98638	JLW1061	162404	3	13	5/1/2007	1:31:32 PM	5.77E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	NWH1	6		0	3.23E+00
C4024 102C1	98638	JLW1061	162404	3	14	5/1/2007	1:32:08 PM	5.36E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	NWH1	7		0	3.00E+00
C4024 102C1	98638	JLW1061	162404	3	15	5/1/2007	1:32:38 PM	5.47E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	NWH1	8		0	3.06E+00
C4024 102C1	98638	JLW1061	162404	3	16	5/1/2007	1:33:08 PM	5.43E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	NWH1	9		0	3.04E+00
C4024 102C1	98638	JLW1061	162404	3	17	5/1/2007	1:33:42 PM	4.68E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	NWH1	10		0	2.62E+00
C4024 102C1	98638	JLW1061	162404	3	18	5/1/2007	1:34:16 PM	5.24E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	NWH1	11		0	2.93E+00
C4024 102C1	98638	JLW1061	162404	3	19	5/1/2007	1:34:50 PM	5.04E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	NWH1	12		0	2.82E+00
C4024 102C1	98638	JLW1061	162404	3	20	5/1/2007	1:35:24 PM	4.75E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	NWH1	13		0	2.66E+00
C4024 102C1	98638	JLW1061	162404	3	21	5/1/2007	1:36:14 PM	5.47E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	NWH1	14		0	3.06E+00
C4024 102C1	98638	JLW1061	162404	3	22	5/1/2007	1:36:46 PM	4.95E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	NWH1	15		0	2.77E+00
C4024 102C1	98638	JLW1061	162404	3	23	5/1/2007	1:42:42 PM	8.55E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	WWH1	1		0	4.78E+00
C4024 102C1	98638	JLW1061	162404	3	24	5/1/2007	1:43:14 PM	8.27E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	WWH1	2		0	4.63E+00
C4024 102C1	98638	JLW1061	162404	3	25	5/1/2007	1:43:54 PM	8.00E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	WWH1	3		0	4.48E+00
C4024 102C1	98638	JLW1061	162404	3	26	5/1/2007	1:44:22 PM	6.95E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	WWH1	4		0	3.89E+00
C4024 102C1	98638	JLW1061	162404	3	27	5/1/2007	1:44:58 PM	6.03E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	WWH1	5		0	3.37E+00
C4024 102C1	98638	JLW1061	162404	3	28	5/1/2007	1:45:30 PM	5.63E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	WWH1	6		0	3.15E+00

Measurement Database Download Report
Exposure Rate Measurements

Download ID	Station Number	User ID	Download Date	Download Time	Survey Package ID	Detector Model Number	Detector Serial Number	Gamma Cal Factor
DL050107-003	2	JLM3848	5/1/2007	4:15 PM	C4024 102C1	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
C4024 102C1	98638	JLW1061	162404	3	29	5/1/2007	1:45:54 PM	5.62E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	WWH1	7		0	3.14E+00
C4024 102C1	98638	JLW1061	162404	3	30	5/1/2007	1:46:18 PM	5.63E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	WWH1	8		0	3.15E+00
C4024 102C1	98638	JLW1061	162404	3	31	5/1/2007	1:46:44 PM	5.80E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	WWH1	9		0	3.24E+00
C4024 102C1	98638	JLW1061	162404	3	32	5/1/2007	1:47:14 PM	5.19E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	WWH1	10		0	2.90E+00
C4024 102C1	98638	JLW1061	162404	3	33	5/1/2007	1:47:38 PM	5.20E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	WWH1	11		0	2.91E+00
C4024 102C1	98638	JLW1061	162404	3	34	5/1/2007	1:48:12 PM	5.45E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	WWH1	12		0	3.05E+00
C4024 102C1	98638	JLW1061	162404	3	35	5/1/2007	1:48:40 PM	5.47E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	WWH1	13		0	3.06E+00
C4024 102C1	98638	JLW1061	162404	3	36	5/1/2007	1:49:06 PM	5.21E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	WWH1	14		0	2.91E+00
C4024 102C1	98638	JLW1061	162404	3	37	5/1/2007	1:49:30 PM	5.16E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	WWH1	15		0	2.89E+00
C4024 102C1	98638	JLW1061	162404	3	38	5/1/2007	1:54:00 PM	6.05E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	FL1C1	1		0	3.38E+00
C4024 102C1	98638	JLW1061	162404	3	39	5/1/2007	1:54:28 PM	5.14E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	FL1C1	2		0	2.88E+00
C4024 102C1	98638	JLW1061	162404	3	40	5/1/2007	1:54:52 PM	5.99E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	FL1C1	3		0	3.35E+00
C4024 102C1	98638	JLW1061	162404	3	41	5/1/2007	1:55:32 PM	5.25E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	FL1C1	4		0	2.94E+00
C4024 102C1	98638	JLW1061	162404	3	42	5/1/2007	1:56:00 PM	5.12E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	FL1C1	5		0	2.86E+00
C4024 102C1	98638	JLW1061	162404	3	43	5/1/2007	1:56:26 PM	4.89E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	FL1C1	6		0	2.74E+00
C4024 102C1	98638	JLW1061	162404	3	44	5/1/2007	1:57:16 PM	5.06E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	FL1C1	7		0	2.83E+00
C4024 102C1	98638	JLW1061	162404	3	45	5/1/2007	1:57:46 PM	5.18E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	FL1C1	8		0	2.90E+00
C4024 102C1	98638	JLW1061	162404	3	46	5/1/2007	1:58:12 PM	4.81E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	FL1C1	9		0	2.69E+00
C4024 102C1	98638	JLW1061	162404	3	47	5/1/2007	1:58:40 PM	4.87E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	FL1C1	10		0	2.72E+00
C4024 102C1	98638	JLW1061	162404	3	48	5/1/2007	1:59:06 PM	4.50E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	FL1C1	11		0	2.52E+00
C4024 102C1	98638	JLW1061	162404	3	49	5/1/2007	1:59:34 PM	5.18E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	FL1C1	12		0	2.90E+00
C4024 102C1	98638	JLW1061	162404	3	50	5/1/2007	2:00:02 PM	4.65E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	FL1C1	13		0	2.60E+00
C4024 102C1	98638	JLW1061	162404	3	51	5/1/2007	2:00:32 PM	5.14E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	FL1C1	14		0	2.88E+00
C4024 102C1	98638	JLW1061	162404	3	52	5/1/2007	2:00:56 PM	5.09E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	FL1C1	15		0	2.85E+00
C4024 102C1	98638	JLW1061	162404	3	53	5/1/2007	2:04:24 PM	7.72E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	FL1C1	1		0	4.32E+00
C4024 102C1	98638	JLW1061	162404	3	54	5/1/2007	2:05:08 PM	1.01E+03	12	1	0	38	C4024	102C1	CS1C1	G01FA	FL1C1	2		0	5.65E+00

Measurement Database Download Report
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Download ID	Station Number	User ID	Download Date	Download Time	Survey Package ID	Detector Model Number	Detector Serial Number	Gamma Cal Factor
DL050107-003	2	JLM3848	5/1/2007	4:15 PM	C4024 102C1	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
C4024 102C1	98638	JLW1061	162404	3	55	5/1/2007	2:05:34 PM	1.03E+03	12	1	0	38	C4024	102C1	CS1C1	G01FA	FL1C1	3		0	5.77E+00
C4024 102C1	98638	JLW1061	162404	3	56	5/1/2007	2:06:00 PM	8.29E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	FL1C1	4		0	4.64E+00
C4024 102C1	98638	JLW1061	162404	3	57	5/1/2007	2:23:02 PM	1.25E+03	12	1	0	38	C4024	102C1	CS1C1	G01FA	SWB21	2		0	6.97E+00
C4024 102C1	98638	JLW1061	162404	3	58	5/1/2007	2:23:28 PM	1.36E+03	12	1	0	38	C4024	102C1	CS1C1	G01FA	SWB21	3		0	7.58E+00
C4024 102C1	98638	JLW1061	162404	3	59	5/1/2007	2:24:02 PM	1.65E+03	12	1	0	38	C4024	102C1	CS1C1	G01FA	SWB21	4		0	9.24E+00
C4024 102C1	98638	JLW1061	162404	3	60	5/1/2007	2:24:30 PM	1.60E+03	12	1	0	38	C4024	102C1	CS1C1	G01FA	SWB21	5		0	8.97E+00
C4024 102C1	98638	JLW1061	162404	3	61	5/1/2007	2:25:32 PM	1.09E+03	12	1	0	38	C4024	102C1	CS1C1	G01FA	SWB21	6		0	6.07E+00
C4024 102C1	98638	JLW1061	162404	3	62	5/1/2007	2:26:00 PM	9.02E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	SWB21	7		0	5.05E+00
C4024 102C1	98638	JLW1061	162404	3	63	5/1/2007	2:26:24 PM	7.70E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	SWB21	8		0	4.31E+00
C4024 102C1	98638	JLW1061	162404	3	64	5/1/2007	2:26:48 PM	7.50E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	SWB21	9		0	4.20E+00
C4024 102C1	98638	JLW1061	162404	3	65	5/1/2007	2:27:14 PM	6.62E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	SWB21	10		0	3.70E+00
C4024 102C1	98638	JLW1061	162404	3	66	5/1/2007	2:27:40 PM	5.99E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	SWB21	11		0	3.35E+00
C4024 102C1	98638	JLW1061	162404	3	67	5/1/2007	2:28:08 PM	5.31E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	SWB21	12		0	2.97E+00
C4024 102C1	98638	JLW1061	162404	3	68	5/1/2007	2:28:38 PM	5.66E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	SWB21	13		0	3.17E+00
C4024 102C1	98638	JLW1061	162404	3	69	5/1/2007	2:29:04 PM	5.27E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	SWB21	14		0	2.95E+00
C4024 102C1	98638	JLW1061	162404	3	70	5/1/2007	2:29:28 PM	5.37E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	SWB21	15		0	3.00E+00
C4024 102C1	98638	JLW1061	162404	3	71	5/1/2007	2:30:12 PM	5.36E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	SWB21	17		0	3.00E+00
C4024 102C1	98638	JLW1061	162404	3	72	5/1/2007	2:30:38 PM	5.51E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	SWB21	18		0	3.08E+00
C4024 102C1	98638	JLW1061	162404	3	73	5/1/2007	2:31:04 PM	5.36E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	SWB21	19		0	3.00E+00
C4024 102C1	98638	JLW1061	162404	3	74	5/1/2007	2:31:32 PM	5.00E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	SWB21	20		0	2.80E+00
C4024 102C1	98638	JLW1061	162404	3	75	5/1/2007	2:31:56 PM	4.86E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	SWB21	21		0	2.72E+00
C4024 102C1	98638	JLW1061	162404	3	76	5/1/2007	2:32:30 PM	5.28E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	SWB21	22		0	2.95E+00
C4024 102C1	98638	JLW1061	162404	3	77	5/1/2007	2:33:00 PM	4.97E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	SWB21	23		0	2.78E+00
C4024 102C1	98638	JLW1061	162404	3	78	5/1/2007	2:41:08 PM	6.88E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	SWL1	1		0	3.85E+00
C4024 102C1	98638	JLW1061	162404	3	79	5/1/2007	2:41:40 PM	7.42E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	SWL1	2		0	4.15E+00
C4024 102C1	98638	JLW1061	162404	3	80	5/1/2007	2:42:04 PM	7.54E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	SWL1	3		0	4.22E+00

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Exposure Rate Measurements

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Download ID	Station Number	User ID	Download Date	Download Time	Survey Package ID	Detector Model Number	Detector Serial Number	Gamma Cal Factor
DL050107-003	2	JLM3848	5/1/2007	4:15 PM	C4024 102C1	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
C4024 102C1	98638	JLW1061	162404	3	81	5/1/2007	2:42:28 PM	7.00E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	SWL1	4		0	3.92E+00
C4024 102C1	98638	JLW1061	162404	3	82	5/1/2007	2:42:50 PM	6.15E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	SWL1	5		0	3.44E+00
C4024 102C1	98638	JLW1061	162404	3	83	5/1/2007	2:49:42 PM	6.53E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	WWB9	1		0	3.65E+00
C4024 102C1	98638	JLW1061	162404	3	84	5/1/2007	2:50:08 PM	6.49E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	WWB9	2		0	3.63E+00
C4024 102C1	98638	JLW1061	162404	3	85	5/1/2007	2:50:30 PM	6.15E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	WWB9	3		0	3.44E+00
C4024 102C1	98638	JLW1061	162404	3	86	5/1/2007	2:50:54 PM	6.08E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	WWB9	4		0	3.40E+00
C4024 102C1	98638	JLW1061	162404	3	87	5/1/2007	2:51:16 PM	5.41E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	WWB9	5		0	3.03E+00
C4024 102C1	98638	JLW1061	162404	3	88	5/1/2007	2:51:38 PM	5.40E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	WWB9	6		0	3.02E+00
C4024 102C1	98638	JLW1061	162404	3	89	5/1/2007	2:51:56 PM	5.93E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	WWB9	7		0	3.32E+00
C4024 102C1	98638	JLW1061	162404	3	90	5/1/2007	2:52:16 PM	5.17E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	WWB9	8		0	2.89E+00
C4024 102C1	98638	JLW1061	162404	3	91	5/1/2007	2:52:38 PM	4.74E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	WWB9	9		0	2.65E+00
C4024 102C1	98638	JLW1061	162404	3	92	5/1/2007	2:52:58 PM	5.03E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	WWB9	10		0	2.81E+00
C4024 102C1	98638	JLW1061	162404	3	93	5/1/2007	2:53:18 PM	4.83E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	WWB9	11		0	2.70E+00
C4024 102C1	98638	JLW1061	162404	3	94	5/1/2007	2:53:38 PM	4.51E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	WWB9	12		0	2.52E+00
C4024 102C1	98638	JLW1061	162404	3	95	5/1/2007	2:53:58 PM	4.85E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	WWB9	13		0	2.71E+00
C4024 102C1	98638	JLW1061	162404	3	96	5/1/2007	2:54:16 PM	4.58E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	WWB9	14		0	2.56E+00
C4024 102C1	98638	JLW1061	162404	3	97	5/1/2007	2:55:12 PM	4.93E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	WWB9	16		0	2.76E+00
C4024 102C1	98638	JLW1061	162404	3	98	5/1/2007	2:55:32 PM	4.88E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	WWB9	17		0	2.73E+00
C4024 102C1	98638	JLW1061	162404	3	99	5/1/2007	2:55:54 PM	5.02E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	WWB9	18		0	2.81E+00
C4024 102C1	98638	JLW1061	162404	3	100	5/1/2007	2:56:14 PM	4.31E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	WWB9	19		0	2.41E+00
C4024 102C1	98638	JLW1061	162404	3	101	5/1/2007	2:56:32 PM	4.88E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	WWB9	20		0	2.73E+00
C4024 102C1	98638	JLW1061	162404	3	102	5/1/2007	2:56:58 PM	4.80E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	WWB9	21		0	2.69E+00
C4024 102C1	98638	JLW1061	162404	3	103	5/1/2007	2:57:20 PM	4.36E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	WWB9	22		0	2.44E+00
C4024 102C1	98638	JLW1061	162404	3	104	5/1/2007	2:57:40 PM	4.39E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	WWB9	23		0	2.46E+00
C4024 102C1	98638	JLW1061	162404	3	105	5/1/2007	2:58:02 PM	4.88E+02	12	1	0	38	C4024	102C1	CS1C1	G01FA	WWB9	24		0	2.73E+00
CS313 DRT02	98638	JLW1061	162404	3	106	5/1/2007	3:13:38 PM	1.24E+05	600	1	0	38	CS313	DRT02	CS1C1	G01CA	LAB01	1		0	1.39E+01

Measurement Database Download Report
Exposure Rate Measurements

5/2/2007

Download ID	Station Number	User ID	Download Date	Download Time	Survey Package ID	Detector Model Number	Detector Serial Number	Gamma Cal Factor
DL050107-003	2	JLM3848	5/1/2007	4:15 PM	C4024 102C1	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	98638	JLW1061	162404	3	107	5/1/2007	3:20:14 PM	6.12E+05	30	1	0	38	CS313	DRT02	CS1C1	G01DA	LAB01	1		0	1.37E+03
CS313 DRT02	98638	JLW1061	162404	3	108	5/1/2007	3:22:34 PM	2.88E+04	30	1	0	38	CS313	DRT02	CS1C1	G01DA	LAB01	2		0	6.45E+01
CS313 DRT02	98638	JLW1061	162404	3	109	5/1/2007	3:24:08 PM	1.79E+04	30	1	0	38	CS313	DRT02	CS1C1	G01DA	LAB01	3		0	4.00E+01

Reviewed By: _____ Date: 5-3-07 Approved By: _____ Date: 5/3/07

Measurement Database Download Report
Exposure Rate Measurements

5/14/2007

Download ID	Station Number	User ID	Download Date	Download Time	Survey Package ID	Detector Model Number	Detector Serial Number	Gamma Cal Factor
DL050307-004	2	JLM3848	5/3/2007	5:31 PM	C4024 102C1	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
C4024 102C1	98648	JEJ5742	162404	12	75	5/3/2007	1:58:24 PM	6.65E+02	12	1	0	42	C4024	102C1	CS1C1	G01FA	BKG	1		0	3.72E+00
C4024 102C1	98648	JEJ5742	162404	12	76	5/3/2007	1:59:44 PM	8.60E+02	12	1	0	42	C4024	102C1	CS1C1	G01FA	NWB9	1		0	4.81E+00
C4024 102C1	98648	JEJ5742	162404	12	77	5/3/2007	2:00:08 PM	8.99E+02	12	1	0	42	C4024	102C1	CS1C1	G01FA	NWB9	2		0	5.03E+00
C4024 102C1	98648	JEJ5742	162404	12	78	5/3/2007	2:00:36 PM	1.82E+03	12	1	0	42	C4024	102C1	CS1C1	G01FA	NWB9	3		0	1.02E+01
C4024 102C1	98648	JEJ5742	162404	12	79	5/3/2007	2:01:16 PM	1.21E+03	12	1	0	42	C4024	102C1	CS1C1	G01FA	NWB9	4		0	6.79E+00
C4024 102C1	98648	JEJ5742	162404	12	80	5/3/2007	2:01:56 PM	8.65E+02	12	1	0	42	C4024	102C1	CS1C1	G01FA	NWB9	5		0	4.84E+00
C4024 102C1	98648	JEJ5742	162404	12	81	5/3/2007	2:02:22 PM	6.74E+02	12	1	0	42	C4024	102C1	CS1C1	G01FA	NWB9	6		0	3.77E+00
C4024 102C1	98648	JEJ5742	162404	12	82	5/3/2007	2:03:00 PM	5.94E+02	12	1	0	42	C4024	102C1	CS1C1	G01FA	NWB9	7		0	3.32E+00
C4024 102C1	98648	JEJ5742	162404	12	83	5/3/2007	2:03:34 PM	6.10E+02	12	1	0	42	C4024	102C1	CS1C1	G01FA	NWB9	8		0	3.41E+00
C4024 102C1	98648	JEJ5742	162404	12	84	5/3/2007	2:04:06 PM	5.99E+02	12	1	0	42	C4024	102C1	CS1C1	G01FA	NWB9	9		0	3.35E+00
C4024 102C1	98648	JEJ5742	162404	12	85	5/3/2007	2:04:28 PM	7.19E+02	12	1	0	42	C4024	102C1	CS1C1	G01FA	NWB9	10		0	4.02E+00
C4024 102C1	98648	JEJ5742	162404	12	86	5/3/2007	2:06:26 PM	9.44E+02	12	1	0	42	C4024	102C1	CS1C1	G01FA	SWB21	1		0	5.28E+00
C4024 102C1	98648	JEJ5742	162404	12	87	5/3/2007	2:06:46 PM	9.52E+02	12	1	0	42	C4024	102C1	CS1C1	G01FA	SWB21	2		0	5.33E+00
C4024 102C1	98648	JEJ5742	162404	12	88	5/3/2007	2:07:30 PM	8.00E+02	12	1	0	42	C4024	102C1	CS1C1	G01FA	SWB21	3		0	4.48E+00
C4024 102C1	98648	JEJ5742	162404	12	89	5/3/2007	2:07:54 PM	8.03E+02	12	1	0	42	C4024	102C1	CS1C1	G01FA	SWB21	4		0	4.49E+00
C4024 102C1	98648	JEJ5742	162404	12	90	5/3/2007	2:08:36 PM	6.31E+03	12	1	0	42	C4024	102C1	CS1C1	G01FA	SWB21	5		0	3.53E+01
C4024 102C1	98648	JEJ5742	162404	12	91	5/3/2007	2:09:00 PM	1.84E+03	12	1	0	42	C4024	102C1	CS1C1	G01FA	SWB21	6		0	1.03E+01
C4024 102C1	98648	JEJ5742	162404	12	92	5/3/2007	2:09:46 PM	1.14E+03	12	1	0	42	C4024	102C1	CS1C1	G01FA	SWB21	7		0	6.37E+00
C4024 102C1	98648	JEJ5742	162404	12	93	5/3/2007	2:10:20 PM	9.97E+02	12	1	0	42	C4024	102C1	CS1C1	G01FA	SWB21	8		0	5.58E+00
C4024 102C1	98648	JEJ5742	162404	12	94	5/3/2007	2:10:48 PM	7.73E+02	12	1	0	42	C4024	102C1	CS1C1	G01FA	SWB21	9		0	4.32E+00
C4024 102C1	98648	JEJ5742	162404	12	95	5/3/2007	2:11:14 PM	6.78E+02	12	1	0	42	C4024	102C1	CS1C1	G01FA	SWB21	10		0	3.79E+00
C4024 102C1	98648	JEJ5742	162404	12	96	5/3/2007	2:13:56 PM	1.55E+03	12	1	0	42	C4024	102C1	CS1C1	G01FA	WWH1	1		0	8.68E+00
C4024 102C1	98648	JEJ5742	162404	12	97	5/3/2007	2:14:20 PM	1.65E+03	12	1	0	42	C4024	102C1	CS1C1	G01FA	WWH1	2		0	9.22E+00
C4024 102C1	98648	JEJ5742	162404	12	98	5/3/2007	2:15:16 PM	7.02E+02	12	1	0	42	C4024	102C1	CS1C1	G01FA	WWH1	3		0	3.93E+00
C4024 102C1	98648	JEJ5742	162404	12	99	5/3/2007	2:15:38 PM	6.93E+02	12	1	0	42	C4024	102C1	CS1C1	G01FA	WWH1	4		0	3.88E+00
C4024 102C1	98648	JEJ5742	162404	12	100	5/3/2007	2:16:28 PM	6.55E+02	12	1	0	42	C4024	102C1	CS1C1	G01FA	WWH1	5		0	3.66E+00

Measurement Database Download Report
Exposure Rate Measurements

5/14/2007

Download ID	Station Number	User ID	Download Date	Download Time	Survey Package ID	Detector Model Number	Detector Serial Number	Gamma Cal Factor
DL050307-004	2	JLM3848	5/3/2007	5:31 PM	C4024 102C1	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
C4024 102C1	98648	JEJ5742	162404	12	101	5/3/2007	2:16:50 PM	5.93E+02	12	1	0	42	C4024	102C1	CS1C1	G01FA	WWH1	6		0	3.32E+00
C4024 102C1	98648	JEJ5742	162404	12	102	5/3/2007	2:17:54 PM	2.21E+03	12	1	0	42	C4024	102C1	CS1C1	G01FA	WWH1	7		0	1.24E+01
C4024 102C1	98648	JEJ5742	162404	12	103	5/3/2007	2:18:20 PM	1.57E+03	12	1	0	42	C4024	102C1	CS1C1	G01FA	WWH1	8		0	8.77E+00
C4024 102C1	98648	JEJ5742	162404	12	104	5/3/2007	2:18:50 PM	1.07E+03	12	1	0	42	C4024	102C1	CS1C1	G01FA	WWH1	9		0	6.01E+00
C4024 102C1	98648	JEJ5742	162404	12	105	5/3/2007	2:19:14 PM	9.37E+02	12	1	0	42	C4024	102C1	CS1C1	G01FA	WWH1	10		0	5.24E+00
C4024 102C1	98648	JEJ5742	162404	12	106	5/3/2007	2:19:52 PM	7.50E+02	12	1	0	42	C4024	102C1	CS1C1	G01FA	WWH1	11		0	4.20E+00
C4024 102C1	98648	JEJ5742	162404	12	107	5/3/2007	2:20:16 PM	6.04E+02	12	1	0	42	C4024	102C1	CS1C1	G01FA	WWH1	12		0	3.38E+00
C4024 102C1	98648	JEJ5742	162404	12	108	5/3/2007	2:22:12 PM	9.52E+02	12	1	0	42	C4024	102C1	CS1C1	G01FA	SWL1	1		0	5.33E+00
C4024 102C1	98648	JEJ5742	162404	12	109	5/3/2007	2:22:34 PM	1.01E+03	12	1	0	42	C4024	102C1	CS1C1	G01FA	SWL1	2		0	5.62E+00
C4024 102C1	98648	JEJ5742	162404	12	110	5/3/2007	2:23:28 PM	9.63E+02	12	1	0	42	C4024	102C1	CS1C1	G01FA	SWL1	3		0	5.39E+00
C4024 102C1	98648	JEJ5742	162404	12	111	5/3/2007	2:23:50 PM	9.50E+02	12	1	0	42	C4024	102C1	CS1C1	G01FA	SWL1	4		0	5.31E+00
C4024 102C1	98648	JEJ5742	162404	12	112	5/3/2007	2:24:32 PM	1.90E+03	12	1	0	42	C4024	102C1	CS1C1	G01FA	SWL1	5		0	1.07E+01
C4024 102C1	98648	JEJ5742	162404	12	113	5/3/2007	2:24:56 PM	1.82E+03	12	1	0	42	C4024	102C1	CS1C1	G01FA	SWL1	6		0	1.02E+01
C4024 102C1	98648	JEJ5742	162404	12	114	5/3/2007	2:26:26 PM	9.34E+02	12	1	0	42	C4024	102C1	CS1C1	G01FA	FL1C1	1		0	5.23E+00
C4024 102C1	98648	JEJ5742	162404	12	115	5/3/2007	2:26:46 PM	9.03E+02	12	1	0	42	C4024	102C1	CS1C1	G01FA	FL1C1	2		0	5.05E+00
C4024 102C1	98648	JEJ5742	162404	12	116	5/3/2007	2:27:34 PM	6.63E+02	12	1	0	42	C4024	102C1	CS1C1	G01FA	FL1C1	3		0	3.71E+00
C4024 102C1	98648	JEJ5742	162404	12	117	5/3/2007	2:27:56 PM	5.83E+02	12	1	0	42	C4024	102C1	CS1C1	G01FA	FL1C1	4		0	3.26E+00
C4024 102C1	98648	JEJ5742	162404	12	118	5/3/2007	2:28:42 PM	5.91E+02	12	1	0	42	C4024	102C1	CS1C1	G01FA	FL1C1	5		0	3.31E+00
C4024 102C1	98648	JEJ5742	162404	12	119	5/3/2007	2:29:02 PM	5.40E+02	12	1	0	42	C4024	102C1	CS1C1	G01FA	FL1C1	6		0	3.02E+00
C4024 102C1	98648	JEJ5742	162404	12	120	5/3/2007	2:29:44 PM	9.69E+02	12	1	0	42	C4024	102C1	CS1C1	G01FA	FL1C1	7		0	5.42E+00
C4024 102C1	98648	JEJ5742	162404	12	121	5/3/2007	2:30:10 PM	6.84E+02	12	1	0	42	C4024	102C1	CS1C1	G01FA	FL1C1	8		0	3.83E+00
C4024 102C1	98648	JEJ5742	162404	12	122	5/3/2007	2:30:42 PM	6.59E+02	12	1	0	42	C4024	102C1	CS1C1	G01FA	FL1C1	9		0	3.69E+00
C4024 102C1	98648	JEJ5742	162404	12	123	5/3/2007	2:31:08 PM	5.78E+02	12	1	0	42	C4024	102C1	CS1C1	G01FA	FL1C1	10		0	3.23E+00
C4024 102C1	98648	JEJ5742	162404	12	124	5/3/2007	2:32:16 PM	1.40E+03	12	1	0	42	C4024	102C1	CS1C1	G01FA	SWH1	1		0	7.83E+00
C4024 102C1	98648	JEJ5742	162404	12	125	5/3/2007	2:32:40 PM	1.36E+03	12	1	0	42	C4024	102C1	CS1C1	G01FA	SWH1	2		0	7.61E+00
C4024 102C1	98648	JEJ5742	162404	12	126	5/3/2007	2:33:24 PM	1.62E+03	12	1	0	42	C4024	102C1	CS1C1	G01FA	SWH1	3		0	9.06E+00

Measurement Database Download Report
Exposure Rate Measurements

5/14/2007

Download ID	Station Number	User ID	Download Date	Download Time	Survey Package ID	Detector Model Number	Detector Serial Number	Gamma Cal Factor
DL050307-004	2	JLM3848	5/3/2007	5:31 PM	C4024 102C1	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
C4024 102C1	98648	JEJ5742	162404	12	127	5/3/2007	2:33:46 PM	1.67E+03	12	1	0	42	C4024	102C1	CS1C1	G01FA	SWH1	4		0	9.32E+00
C4024 102C1	98648	JEJ5742	162404	12	128	5/3/2007	2:34:48 PM	3.18E+03	12	1	0	42	C4024	102C1	CS1C1	G01FA	SWH1	5		0	1.78E+01
C4024 102C1	98648	JEJ5742	162404	12	129	5/3/2007	2:35:14 PM	3.41E+03	12	1	0	42	C4024	102C1	CS1C1	G01FA	SWH1	6		0	1.91E+01
C4024 102C1	98648	JEJ5742	162404	12	130	5/3/2007	2:36:34 PM	1.40E+03	12	1	0	42	C4024	102C1	CS1C1	G01FA	NWH1	1		0	7.84E+00
C4024 102C1	98648	JEJ5742	162404	12	131	5/3/2007	2:36:58 PM	1.40E+03	12	1	0	42	C4024	102C1	CS1C1	G01FA	NWH1	2		0	7.80E+00
C4024 102C1	98648	JEJ5742	162404	12	132	5/3/2007	2:37:42 PM	6.67E+02	12	1	0	42	C4024	102C1	CS1C1	G01FA	NWH1	3		0	3.73E+00
C4024 102C1	98648	JEJ5742	162404	12	133	5/3/2007	2:38:06 PM	6.60E+02	12	1	0	42	C4024	102C1	CS1C1	G01FA	NWH1	4		0	3.69E+00
C4024 102C1	98648	JEJ5742	162404	12	134	5/3/2007	2:38:42 PM	6.03E+02	12	1	0	42	C4024	102C1	CS1C1	G01FA	NWH1	5		0	3.37E+00
C4024 102C1	98648	JEJ5742	162404	12	135	5/3/2007	2:39:06 PM	6.89E+02	12	1	0	42	C4024	102C1	CS1C1	G01FA	NWH1	6		0	3.85E+00
C4024 102C1	98648	JEJ5742	162404	12	136	5/3/2007	2:39:34 PM	1.82E+03	12	1	0	42	C4024	102C1	CS1C1	G01FA	NWH1	7		0	1.02E+01
C4024 102C1	98648	JEJ5742	162404	12	137	5/3/2007	2:40:04 PM	8.26E+02	12	1	0	42	C4024	102C1	CS1C1	G01FA	NWH1	8		0	4.62E+00
C4024 102C1	98648	JEJ5742	162404	12	138	5/3/2007	2:40:32 PM	7.26E+02	12	1	0	42	C4024	102C1	CS1C1	G01FA	NWH1	9		0	4.06E+00
C4024 102C1	98648	JEJ5742	162404	12	139	5/3/2007	2:40:54 PM	6.45E+02	12	1	0	42	C4024	102C1	CS1C1	G01FA	NWH1	10		0	3.61E+00
CS313 DRT02	98648	JEJ5742	162404	12	141	5/3/2007	3:19:42 PM	1.23E+05	600	1	0	42	CS313	DRT02	CS1C1	G01CA	LAB01	1		0	1.37E+01
CS313 DRT02	98648	JEJ5742	162404	12	142	5/3/2007	3:21:28 PM	5.50E+05	30	1	0	42	CS313	DRT02	CS1C1	G01DA	LAB01	1		0	1.23E+03
CS313 DRT02	98648	JEJ5742	162404	12	143	5/3/2007	3:23:22 PM	2.93E+04	30	1	0	42	CS313	DRT02	CS1C1	G01DA	LAB01	2		0	6.55E+01
CS313 DRT02	98648	JEJ5742	162404	12	144	5/3/2007	3:24:34 PM	1.76E+04	30	1	0	42	CS313	DRT02	CS1C1	G01DA	LAB01	3		0	3.95E+01

Reviewed By: _____ Date: 5-15-07 Approved By: _____ Date: 5/15/07

Survey Package Appendix C – Survey Results

Survey Package:	C4024 102C1	Package: Structure
Survey Area Name:	SETF, Building 4024	
Survey Unit Name:	SGTCC Test Cell B-104	

Section 5.0
Sample Analysis Results – Alpha/Beta Counter
9 Pages

DATA M2929 SN 118419

SN	PROGRAM_NAME	SAMPLE_ID	DATE	TIME	BG Count Time (min)	Sample (min) Count Time	Alpha gross cts	Alpha BKG CPM	Alpha EFF	Alpha DPM	Alpha MDC	Beta gross cts	Beta BKG CPM	Beta EFF	Beta DPM	Beta MDC
1	ALPHA/BETA SMEARS	FL1-H1	4/23/2007	1:00:00 PM	20	1.5	1	0.3	0.29	1.25	11.33	60	33	0.24	29.05	73.89
2	ALPHA/BETA SMEARS	FL2-H2	4/23/2007	1:00:00 PM	20	1.5	0	0.3	0.29	-1.02	11.33	40	33	0.24	-26.28	73.89
3	ALPHA/BETA SMEARS	FL3-L1	4/23/2007	1:00:00 PM	20	1.5	0	0.3	0.29	-1.02	11.33	47	33	0.24	-6.92	73.89
4	ALPHA/BETA SMEARS	FL4-St1	4/23/2007	1:00:00 PM	20	1.5	0	0.3	0.29	-1.02	11.33	45	33	0.24	-12.45	73.89
5	ALPHA/BETA SMEARS	FL5-St2	4/23/2007	1:00:00 PM	20	1.5	0	0.3	0.29	-1.02	11.33	41	33	0.24	-23.51	73.89
6	ALPHA/BETA SMEARS	FL6-St3	4/23/2007	1:00:00 PM	20	1.5	1	0.3	0.29	1.25	11.33	55	33	0.24	15.21	73.89
7	ALPHA/BETA SMEARS	FL7-S-1	4/23/2007	1:00:00 PM	20	1.5	0	0.3	0.29	-1.02	11.33	45	33	0.24	-12.45	73.89
8	ALPHA/BETA SMEARS	FL8-S-2	4/23/2007	1:00:00 PM	20	1.5	0	0.3	0.29	-1.02	11.33	51	33	0.24	4.15	73.89
9	ALPHA/BETA SMEARS	FL9-S-3	4/23/2007	1:00:00 PM	20	1.5	0	0.3	0.29	-1.02	11.33	54	33	0.24	12.45	73.89
10	ALPHA/BETA SMEARS	FL10-S-4	4/23/2007	1:00:00 PM	20	1.5	0	0.3	0.29	-1.02	11.33	47	33	0.24	-6.92	73.89

dL 04 2507-601

Removable Contamination Results

Survey Package ID: C4024 102C1 Collection Date: 4/23/07 Time: 1300

L3 Code: FL-1 Technician: J Johnson

Instrument Model No: Ludlum Model 2929 Serial No: 118419

beta

bkg count time (min) = 20 bkg cpm= 33

sample count time (min) = 1.5 eff. beta= 0.241

alpha

bkg count time (min) = 20 bkg cpm= -3

sample count time (min) = 1.5 eff. alpha= 0.294

SAMPLE_ID (L5 - L6 Code)	B (counts)	BDPM (calculated)	BMDC (calculated)	A (counts)	ADPM (calculated)	AMDC (calculated)
FL1-H1	60			1		
FL2-H2	40			0		
FL3-L1	47			0		
FL4-S1	45			0		
FL5-S2	41			0		
FL6-S3	55			1		
FL7-S-1	45			0		
FL8-S-2	51			0		
FL9-S-3	54			0		
FL10-S-4	47			0		

see attached JW

see attached JW

J McAdam 4/23/07

Upload Filename C4024 102C1 FL1.xls Upload Date: 4/23/07 Time: 1630

Sample Database ID: CS042307-001 Technician: J McAdam

DATA M2929 SN 118419

SN	PROGRAM_NAME	SAMPLE_ID	DATE	TIME	BG Count Time (min)	Sample (min) Count Time	Alpha gross cts	Alpha BKG CPM	Alpha EFF	Alpha DPM	Alpha MDC	Beta gross cts	Beta BKG CPM	Beta EFF	Beta DPM	Beta MDC
1	ALPHA/BETA SMEARS	SWL-H1	4/23/2007	1:00:00 PM	20	1.5	0	0.3	0.29	-1.02	11.33	47	33	0.24	-6.92	73.89
2	ALPHA/BETA SMEARS	WWL-L1	4/23/2007	1:00:00 PM	20	1.5	0	0.3	0.29	-1.02	11.33	48	33	0.24	-4.15	73.89
3	ALPHA/BETA SMEARS	WWL-H1	4/23/2007	1:00:00 PM	20	1.5	0	0.3	0.29	-1.02	11.33	48	33	0.24	-4.15	73.89
4	ALPHA/BETA SMEARS	EWL-L1	4/23/2007	1:00:00 PM	20	1.5	1	0.3	0.29	1.25	11.33	37	33	0.24	-34.58	73.89
5	ALPHA/BETA SMEARS	EWL-L2	4/23/2007	1:00:00 PM	20	1.5	1	0.3	0.29	1.25	11.33	47	33	0.24	-6.92	73.89
6	ALPHA/BETA SMEARS	NWL-H1	4/23/2007	1:00:00 PM	20	1.5	1	0.3	0.29	1.25	11.33	38	33	0.24	-31.81	73.89

Removable Contamination Results

Survey Package ID: C4024 102 C1 **Collection Date:** 4/23/07 **Time:** 1300

L3 Code: WL-1 **Technician:** J Johnson

Instrument Model No: Ludlum Model 2929 **Serial No:** 118419

	beta			alpha		
bkg count time (min) =	20	bkg cpm=	33	bkg count time (min) =	20	bkg cpm=	.3
sample count time (min) =	1.5	eff. beta=	0.241	sample count time (min) =	1.5	eff. alpha=	0.294

SAMPLE_ID (L5 - L6 Code)	B (counts)	BDPM (calculated)	BMDC (calculated)	A (counts)	ADPM (calculated)	AMDC (calculated)
S-WL-H1	47	See Attached		0	See Attached	
W-WL-L1	48			0		
W-WL-H1	48			0		
E-WL-L1	37			1		
E-WL-L2	47			1		
N-WL-H1	38			1		

J McClellan 4/23/07

Upload Filename C4024102C1 WL-1.xls **Upload Date:** 4/23/07 **Time:** 1600

Sample Database ID: CS042307-002 **Technician:** J McClellan

Removable Contamination Results

Survey Package ID: C4024 102C1 Collection Date: 4/24/07 Time: 1430

L3 Code: WV Technician: J Johnson

Instrument Model No: Ludlum Model 2929 Serial No: 118419

beta

bkg count time (min) = 20 bkg cpm= 35

sample count time (min) = 1.5 eff. beta= 0.241

alpha

bkg count time (min) = 20 bkg cpm= .3

sample count time (min) = 1.5 eff. alpha= 0.294

SAMPLE_ID (L5 - L6 Code)	B (counts)	BDPM (calculated)	BMDC (calculated)	A (counts)	ADPM (calculated)	AMDC (calculated)
WV1WL1	45			0		
WV2WH1	44			0		
WV3EL1	51			0		
WV4EH1	42			1		
WV5WL1	49			0		
WV6WH1	54			0		
CL 1	48			0		
CL 2	58			0		
CL 3	46			0		

See Report

See report

J McKeon

1-6 Upload Filename c4024 102C1 WV1 Upload Date: 5-30-07 Time: 1900

Sample Database ID: CS043007-001 Technician: J McKeon

7-9 C4024 102C1 CL1

West Cell walls & ceiling

DATA M2929 SN 118419

SN	PROGRAM_NAME	SAMPLE_ID	DATE	TIME	BG Count Time (min)	Sample (min) Count Time	Alpha gross cts	Alpha BKG CPM	Alpha EFF	Alpha DPM	Alpha MDC	Beta gross cts	Beta BKG CPM	Beta EFF	Beta DPM	Beta MDC
1	ALPHA/BETA SMEARS	CL1-1	4/24/2007	2:30:00 PM	20	1.5	0	0.3	0.29	-1.02	11.33	48	35	0.24	-12.45	75.87
2	ALPHA/BETA SMEARS	CL2-2	4/24/2007	2:30:00 PM	20	1.5	0	0.3	0.29	-1.02	11.33	58	35	0.24	15.21	75.87
3	ALPHA/BETA SMEARS	CL3-3	4/24/2007	2:30:00 PM	20	1.5	0	0.3	0.29	-1.02	11.33	46	35	0.24	-17.98	75.87

DATA M2929 SN 118419

SN	PROGRAM_NAME	SAMPLE_ID	DATE	TIME	BG Count Time (min)	Sample (min) Count Time	Alpha gross cts	Alpha BKG CPM	Alpha EFF	Alpha DPM	Alpha MDC	Beta gross cts	Beta BKG CPM	Beta EFF	Beta DPM	Beta MDC
1	ALPHA/BETA SMEARS	WW-L1	4/24/2007	2:30:00 PM	20	1.5	0	0.3	0.29	-1.02	11.33	45	35	0.24	-20.75	75.87
2	ALPHA/BETA SMEARS	WW-H1	4/24/2007	2:30:00 PM	20	1.5	0	0.3	0.29	-1.02	11.33	44	35	0.24	-23.51	75.87
3	ALPHA/BETA SMEARS	EW-L1	4/24/2007	2:30:00 PM	20	1.5	0	0.3	0.29	-1.02	11.33	51	35	0.24	-4.15	75.87
4	ALPHA/BETA SMEARS	EW-H1	4/24/2007	2:30:00 PM	20	1.5	1	0.3	0.29	1.25	11.33	42	35	0.24	-29.05	75.87
5	ALPHA/BETA SMEARS	NW-L1	4/24/2007	2:30:00 PM	20	1.5	0	0.3	0.29	-1.02	11.33	49	35	0.24	-9.68	75.87
6	ALPHA/BETA SMEARS	NW-H1	4/24/2007	2:30:00 PM	20	1.5	0	0.3	0.29	-1.02	11.33	54	35	0.24	4.15	75.87

Removable Contamination Results

Survey Package ID: C4024 102C1 Collection Date: 4/24/07 Time: 1430

L3 Code: WV Technician: J Johnson

Instrument Model No: Ludlum Model 2929 Serial No: 118419

	beta		alpha	
bkg count time (min) =	20	bkg cpm= 35	20	bkg cpm= .3
sample count time (min) =	1.5	eff. beta= 0.241	1.5	eff. alpha= 0.294

SAMPLE_ID (L5 - L6 Code)	B (counts)	BDPM (calculated)	BMDC (calculated)	A (counts)	ADPM (calculated)	AMDC (calculated)
WV1WL1	45			0		
WV2WH1	44			0		
WV3EL1	51			0		
WV4EH1	42			1		
WV5WL1	49			0		
WV6WH1	54			0		
CL 1	48			0		
CL 2	58			0		
CL 3	46			0		

See Report

See Report

J McKellar

1-6

Upload Filename c4024 102C1 WV1 Upload Date: 5-30-07 Time: 1902

Sample Database ID: CS043007-001 Technician: J McKellar

7-9 C4024 102C1 CL1

CS043007-002

Page __ of __

West Cell upper walls & ceiling

Survey Package Appendix C – Survey Results

Survey Package:	C4024 102C1	Package: Structure
Survey Area Name:	SETF, Building 4024	
Survey Unit Name:	SGTCC Test Cell B-104	

Section 6.0
Sample Analysis Results – Gamma Spectroscopy
23 Pages

Gamma Spectrometry

AREVA

Environmental Laboratory Analysis Report

29 Research Drive
Westboro, MA 01581
508-573-6650

Customer AREVA NP Inc
Attention John McGehee

FEDERAL GRP **Report Date** 07/31/07
Receipt Date 06/19/07

AREVA NP Inc
AREVA NP Federal D&D Group
400 South Tryon Street
Charlotte, NC 28285

Lab. Sample No. L12563-01 **Client ID** C4024 102C1 FL1C1 CTR1-1 **Product** GAMMA SPECTROMETRY
Reference Date 04/27/07 **Analysis Date** 07/26/07 **Matrix** Concrete

Nuclide	Activity Concentration +/- 2 - Sigma (pCi/g)	TPU 1 Sigma (pCi/g)	Measured MDC (pCi/g)	Required MDC (pCi/g)	Flags
AcTh-228	-7E-02 +/- 7.5E-01	3.8E-01	1.3E+00		
Ag-108m	3E-02 +/- 1.2E-01	6.1E-02	2.1E-01		
Ag-110m	-2.6E-01 +/- 3.6E-01	1.8E-01	6.6E-01		
Ba-140	7.4E+00 +/- 8.7E+00	4.4E+00	1.3E+01		
Be-7	-7E-01 +/- 3.6E+00	1.8E+00	6.3E+00		
Ce-141	-6E-01 +/- 1.1E+00	5.4E-01	1.9E+00		
Ce-144	4.4E-01 +/- 8.2E-01	4.1E-01	1.4E+00		
Co-57	-2.6E-01 +/- 8.5E-01	4.3E-01	1.5E+00		
Co-58	1.3E-01 +/- 4.8E-01	2.4E-01	8.1E-01		
Co-60	2.85E+00 +/- 2.6E-01	1.9E-01	1.7E-01	2.0E-02	abc
Cr-51	4E+00 +/- 9.4E+00	4.7E+00	1.6E+01		
Cs-134	-4E-02 +/- 2.5E-01	1.3E-01	4.4E-01	8.0E-02	a
Cs-137	2E-02 +/- 1.8E-01	8.9E-02	3.1E-01	3.0E-02	a
Eu-152	3.505E+01 +/- 6.4E-01	1.8E+00	7.4E-01	1.0E-01	abc
Eu-154	2.58E+00 +/- 3.6E-01	2.2E-01	6.5E-01	1.0E-01	abc
Fe-59	8E-01 +/- 1.5E+00	7.5E-01	2.5E+00		
K-40	2.4E+00 +/- 1.5E+00	7.7E-01	2.2E+00	3.0E-01	ab
La-140	9E+00 +/- 1.0E+01	5.0E+00	1.5E+01		
Mn-54	2E-02 +/- 2.4E-01	1.2E-01	4.1E-01	1.0E-01	a
Na-22	5E-02 +/- 6.2E-01	3.1E-01	1.0E+00	4.0E-02	a
Nb-94	1.6E-01 +/- 1.8E-01	8.8E-02	2.9E-01		
Nb-95	9E-01 +/- 1.2E+00	6.1E-01	2.0E+00		
Ru-103	1.2E-01 +/- 6.7E-01	3.3E-01	1.1E+00		
Ru-106	2E-01 +/- 1.7E+00	8.5E-01	2.9E+00		
Sb-124	2.4E-01 +/- 4.0E-01	2.0E-01	6.9E-01		
Sb-125	-7E-02 +/- 3.8E-01	1.9E-01	6.7E-01		
Se-75	2E-02 +/- 2.4E-01	1.2E-01	4.1E-01		
Zn-65	2E+00 +/- 2.0E+00	9.9E-01	3.2E+00		
Zr-95	8.4E-01 +/- 9.5E-01	4.7E-01	1.5E+00		

Flags: **a The measured MDC is greater than the required MDC**
b The activity concentration is greater than three times its one sigma counting uncertainty.
c Peak was found

Reporting Level Ratio:

Approved by
7/31/07
for C.A. Shelton
Sample Control & Measurements Lead

Don McGee

AREVA

Environmental Laboratory Analysis Report

29 Research Drive
Westboro, MA 01581
508-573-6650

Customer AREVA NP Inc
Attention John McGehee

FEDERAL GRF **Report Date** 08/02/07
Receipt Date 06/19/07

AREVA NP Inc
AREVA NP Federal D&D Group
400 South Tryon Street
Charlotte, NC 28285

Lab. Sample No. L12563-02 **Client ID** C4024 102C1 FL1C1 CTR1-2 **Product** GAMMA SPECTROMETRY
Reference Date 04/27/07 **Analysis Date** 07/05/07 **Matrix** Concrete

Nuclide	Activity Concentration +/- 2 - Sigma (pCi/g)	TPU 1 Sigma (pCi/g)	Measured MDC (pCi/g)	Required MDC (pCi/g)	Flags
AcTh-228	1.1E-01 +/- 1.2E-01	6.0E-02	2.0E-01		c
Ag-108m	1E-03 +/- 1.0E-02	5.0E-03	1.7E-02		
Ag-110m	-1E-03 +/- 2.6E-02	1.3E-02	4.4E-02		
Ba-140	-5E-02 +/- 6.3E-01	3.1E-01	1.1E+00		
Be-7	-1E-02 +/- 2.3E-01	1.2E-01	3.9E-01		
Ce-141	-9E-02 +/- 5.3E-02	2.7E-02	9.2E-02		
Ce-144	1.3E-02 +/- 5.9E-02	2.9E-02	9.8E-02		
Co-57	-8E-03 +/- 6.0E-02	3.0E-02	1.0E-01		
Co-58	2.4E-02 +/- 2.9E-02	1.4E-02	4.7E-02		
Co-60	1.88E-01 +/- 1.8E-02	1.3E-02	2.8E-02	2.0E-02	abc
Cr-51	5E-02 +/- 4.5E-01	2.2E-01	7.5E-01		
Cs-134	1.2E-02 +/- 1.8E-02	9.0E-03	3.0E-02	8.0E-02	
Cs-137	-1E-03 +/- 1.5E-02	7.3E-03	2.5E-02	3.0E-02	
Eu-152	2.208E+00 +/- 3.5E-02	1.1E-01	3.7E-02	1.0E-01	bc
Eu-154	1.8E-01 +/- 3.3E-02	1.9E-02	6.8E-02	1.0E-01	bc
Fe-59	-1.7E-02 +/- 8.5E-02	4.2E-02	1.5E-01		
K-40	9.9E-01 +/- 2.5E-01	1.3E-01	3.6E-01	3.0E-01	abc
La-140	-6E-02 +/- 7.2E-01	3.6E-01	1.3E+00		
Mn-54	4E-03 +/- 1.7E-02	8.3E-03	2.8E-02	1.0E-01	
Na-22	0E+00 +/- 8.0E-02	4.0E-02	1.3E-01	4.0E-02	a
Nb-94	-6E-03 +/- 1.4E-02	6.8E-03	2.3E-02		
Nb-95	-5E-03 +/- 5.8E-02	2.9E-02	9.9E-02		
Ru-103	7E-03 +/- 3.6E-02	1.8E-02	6.0E-02		
Ru-106	3E-02 +/- 1.3E-01	6.4E-02	2.2E-01		
Sb-124	-3.2E-02 +/- 6.2E-02	3.1E-02	1.1E-01		
Sb-125	9E-03 +/- 3.2E-02	1.6E-02	5.4E-02		
Se-75	1.2E-02 +/- 1.7E-02	8.5E-03	2.8E-02		
Zn-65	3E-02 +/- 1.1E-01	5.5E-02	1.8E-01		
Zr-95	5.3E-02 +/- 5.6E-02	2.8E-02	9.1E-02		

Flags: **a The measured MDC is greater than the required MDC**
b The activity concentration is greater than three times its one sigma counting uncertainty.
c Peak was found

Reporting Level Ratio:

Approved by
8/2/07
for C.A. Shelton
Sample Control & Measurements Lead

Don McGee

AREVA

Environmental Laboratory Analysis Report

29 Research Drive
Westboro, MA 01581
508-573-6650

Customer AREVA NP Inc
Attention John McGehee

FEDERAL GRP **Report Date** 08/02/07
Receipt Date 06/19/07

AREVA NP Inc
AREVA NP Federal D&D Group
400 South Tryon Street
Charlotte, NC 28285

Lab. Sample No. L12563-03 **Client ID** C4024 102C1 FL1C1 CTR1-3 **Product** GAMMA SPECTROMETRY
Reference Date 04/27/07 **Analysis Date** 07/10/07 **Matrix** Concrete

Nuclide	Activity Concentration +/- 2 - Sigma (pCi/g)	TPU 1 Sigma (pCi/g)	Measured MDC (pCi/g)	Required MDC (pCi/g)	Flags
AcTh-228	9.6E-02 +/- 6.4E-02	3.2E-02	1.4E-01		bc
Ag-108m	-2E-03 +/- 1.1E-02	5.7E-03	1.9E-02		
Ag-110m	-2E-03 +/- 3.0E-02	1.5E-02	5.2E-02		
Ba-140	3E-01 +/- 1.1E+00	5.3E-01	1.8E+00		
Be-7	-4E-02 +/- 2.9E-01	1.4E-01	4.9E-01		
Ce-141	1.5E-01 +/- 1.1E-01	5.4E-02	1.7E-01		
Ce-144	-3.5E-02 +/- 6.4E-02	3.2E-02	1.1E-01		
Co-57	2.3E-02 +/- 6.6E-02	3.3E-02	1.1E-01		
Co-58	9E-03 +/- 3.2E-02	1.6E-02	5.4E-02		
Co-60	1.1E-02 +/- 2.1E-02	1.1E-02	3.5E-02	2.0E-02	a
Cr-51	-1.5E-01 +/- 5.4E-01	2.7E-01	9.3E-01		
Cs-134	1.2E-02 +/- 1.8E-02	9.2E-03	3.1E-02	8.0E-02	
Cs-137	-6E-03 +/- 1.7E-02	8.3E-03	2.9E-02	3.0E-02	
Eu-152	8.6E-02 +/- 2.2E-02	1.2E-02	4.0E-02	1.0E-01	bc
Eu-154	3.2E-02 +/- 5.7E-02	2.8E-02	9.4E-02	1.0E-01	
Fe-59	-5E-02 +/- 1.1E-01	5.4E-02	7.4E-01		
K-40	1.17E+00 +/- 3.3E-01	1.8E-01	4.8E-01	3.0E-01	abc
La-140	4E-01 +/- 1.2E+00	6.1E-01	2.1E+00		
Mn-54	-8E-03 +/- 1.9E-02	9.6E-03	3.4E-02	1.0E-01	
Na-22	1E-02 +/- 2.1E-02	1.1E-02	3.6E-02	4.0E-02	
Nb-94	2E-03 +/- 1.5E-02	7.4E-03	2.5E-02		
Nb-95	-1.8E-02 +/- 7.4E-02	3.7E-02	1.3E-01		
Ru-103	-2E-03 +/- 4.3E-02	2.2E-02	7.4E-02		
Ru-106	6E-02 +/- 1.5E-01	7.3E-02	2.5E-01		
Sb-124	1E-02 +/- 9.0E-02	4.5E-02	1.6E-01		
Sb-125	-1.3E-02 +/- 3.9E-02	2.0E-02	6.8E-02		
Se-75	2E-03 +/- 1.9E-02	9.4E-03	3.2E-02		
Zn-65	2E-03 +/- 8.6E-02	4.3E-02	1.4E-01		
Zr-95	-2.4E-02 +/- 6.1E-02	3.0E-02	1.1E-01		

Flags: a **The measured MDC is greater than the required MDC**
b **The activity concentration is greater than three times its one sigma counting uncertainty.**
c **Peak was found**

Reporting Level Ratio:

Approved by
8/2/07
for C.A. Shelton
Sample Control & Measurements Lead

Don McGee

AREVA

Environmental Laboratory Analysis Report

29 Research Drive
Westboro, MA 01581
508-573-6650

Customer AREVA NP Inc
Attention John McGehee

FEDERAL GRF Report Date 08/08/07
Receipt Date 06/19/07

AREVA NP Inc
AREVA NP Federal D&D Group
400 South Tryon Street
Charlotte, NC 28285

Lab. Sample No. L12563-04 Client ID C4024 303C2 FL1C1 FL1C1-SL5 Product GAMMA SPECTROMETRY
Reference Date 05/11/07 Analysis Date 08/06/07 Matrix Concrete

Nuclide	Activity Concentration +/- 2 - Sigma (pCi/g)	TPU 1 Sigma (pCi/g)	Measured MDC (pCi/g)	Required MDC (pCi/g)	Flags
AcTh-228	6.84E-01 +/- 6.7E-02	4.8E-02	1.6E-01		bc
Ag-108m	-2E-03 +/- 1.5E-02	7.5E-03	2.5E-02		
Ag-110m	-7E-03 +/- 3.1E-02	1.6E-02	5.4E-02		
Ba-140	6E-01 +/- 2.0E+00	1.0E+00	3.4E+00		
Be-7	1.03E+00 +/- 4.5E-01	2.3E-01	6.9E-01		bc
Ce-141	1.2E-01 +/- 1.2E-01	6.1E-02	2.0E-01		
Ce-144	-7E-02 +/- 1.0E-01	5.0E-02	1.7E-01		
Co-57	0E+00 +/- 1.1E-01	5.3E-02	1.8E-01		
Co-58	-1.6E-02 +/- 3.8E-02	1.9E-02	6.7E-02		
Co-60	2.2E-02 +/- 2.0E-02	1.0E-02	3.5E-02	2.0E-02	a c
Cr-51	-4E-01 +/- 1.1E+00	5.6E-01	1.9E+00		
Cs-134	7E-03 +/- 6.9E-02	3.4E-02	1.1E-01	8.0E-02	a
Cs-137	7.49E-01 +/- 4.2E-02	4.3E-02	4.1E-02	3.0E-02	abc
Eu-152	9.7E-02 +/- 3.0E-02	1.6E-02	5.8E-02	1.0E-01	bc
Eu-154	4E-02 +/- 6.2E-02	3.1E-02	1.0E-01	1.0E-01	a
Fe-59	-1E-01 +/- 1.4E-01	7.0E-02	2.5E-01		
K-40	1.626E+01 +/- 6.9E-01	8.8E-01	4.2E-01	3.0E-01	abc
La-140	7E-01 +/- 2.3E+00	1.2E+00	3.9E+00		
Mn-54	-4E-03 +/- 2.0E-02	1.0E-02	3.5E-02	1.0E-01	
Na-22	1.1E-02 +/- 2.3E-02	1.1E-02	3.9E-02	4.0E-02	
Nb-94	4E-03 +/- 1.7E-02	8.5E-03	2.9E-02		
Nb-95	-5E-02 +/- 1.3E-01	6.6E-02	2.2E-01		
Ru-103	2.1E-02 +/- 6.6E-02	3.3E-02	1.1E-01		
Ru-106	-1E-02 +/- 1.9E-01	9.5E-02	3.2E-01		
Sb-124	-3.4E-02 +/- 8.7E-02	4.4E-02	1.6E-01		
Sb-125	-4.7E-02 +/- 5.4E-02	2.7E-02	9.3E-02		
Se-75	6E-03 +/- 3.1E-02	1.6E-02	5.2E-02		
Zn-65	7E-02 +/- 1.0E-01	5.0E-02	1.7E-01		
Zr-95	-4E-02 +/- 1.6E-01	8.0E-02	2.7E-01		

Flags: a The measured MDC is greater than the required MDC
b The activity concentration is greater than three times its one sigma counting uncertainty.
c Peak was found

Reporting Level Ratio:

Approved by
8/8/07
for C.A. Shelton
Sample Control & Measurements Lead

c: Don McGee

AREVA

Environmental Laboratory Analysis Report

29 Research Drive
Westboro, MA 01581
508-573-6650

Customer AREVA NP Inc
Attention John McGehee

FEDERAL GRF **Report Date** 08/08/07
Receipt Date 06/19/07

AREVA NP Inc
AREVA NP Federal D&D Group
400 South Tryon Street
Charlotte, NC 28285

Lab. Sample No. L12563-05 **Client ID** C4024 303C2 FL2C1 FL2C1-SL8 **Product** GAMMA SPECTROMETRY
Reference Date 04/27/07 **Analysis Date** 08/06/07 **Matrix** Concrete

Nuclide	Activity Concentration +/- 2 - Sigma (pCi/g)	TPU 1 Sigma (pCi/g)	Measured MDC (pCi/g)	Required MDC (pCi/g)	Flags
AcTh-228	7.3E-01 +/- 3.7E-01	1.9E-01	7.6E-01		bc
Ag-108m	1.4E-02 +/- 6.4E-02	3.2E-02	1.1E-01		
Ag-110m	-1.3E-01 +/- 1.7E-01	8.5E-02	3.3E-01		
Ba-140	-1.8E+01 +/- 2.9E+01	1.4E+01	5.7E+01		
Be-7	1.5E+00 +/- 2.1E+00	1.1E+00	3.5E+00		
Ce-141	1.1E-01 +/- 6.3E-01	3.2E-01	1.1E+00		
Ce-144	-8E-02 +/- 3.6E-01	1.8E-01	6.3E-01		
Co-57	-3E-02 +/- 3.9E-01	1.9E-01	6.8E-01		
Co-58	-8E-02 +/- 2.4E-01	1.2E-01	4.5E-01		
Co-60	3.5E-01 +/- 1.2E-01	6.3E-02	2.4E-01	2.0E-02	abc
Cr-51	2.3E+00 +/- 5.8E+00	2.9E+00	9.9E+00		
Cs-134	9E-02 +/- 1.2E-01	6.0E-02	2.0E-01	8.0E-02	a
Cs-137	1.9E-01 +/- 1.4E-01	6.8E-02	2.1E-01	3.0E-02	a c
Eu-152	2.15E+00 +/- 1.7E-01	1.4E-01	2.6E-01	1.0E-01	abc
Eu-154	1.5E-01 +/- 1.0E-01	5.1E-02	1.7E-01	1.0E-01	abc
Fe-59	-9E-02 +/- 9.6E-01	4.8E-01	1.7E+00		
K-40	1.39E+01 +/- 2.5E+00	1.4E+00	2.4E+00	3.0E-01	abc
La-140	-2.1E+01 +/- 3.3E+01	1.7E+01	6.5E+01		
Mn-54	6E-02 +/- 1.3E-01	6.3E-02	2.1E-01	1.0E-01	a
Na-22	3E-02 +/- 1.3E-01	6.3E-02	2.2E-01	4.0E-02	a
Nb-94	6.9E-02 +/- 8.2E-02	4.1E-02	1.3E-01		
Nb-95	-4.7E-01 +/- 6.9E-01	3.4E-01	1.3E+00		
Ru-103	-5E-02 +/- 3.9E-01	1.9E-01	7.0E-01		
Ru-106	1.4E-01 +/- 8.9E-01	4.4E-01	1.6E+00		
Sb-124	-8E-02 +/- 5.7E-01	2.8E-01	1.1E+00		
Sb-125	0E+00 +/- 2.1E-01	1.0E-01	3.7E-01		
Se-75	-3E-02 +/- 1.2E-01	6.2E-02	2.2E-01		
Zn-65	-3E-02 +/- 4.2E-01	2.1E-01	7.4E-01		
Zr-95	1.7E-01 +/- 5.0E-01	2.5E-01	8.5E-01		

Flags: **a The measured MDC is greater than the required MDC**
b The activity concentration is greater than three times its one sigma counting uncertainty.
c Peak was found

Approved by
8/8/07
for C A Shelton
Sample Control & Measurements Lead

Reporting Level Ratio:
Results are qualitative because the sample size was too small to fit into a calibrated geometry.

^: Don McGee

AREVA

Environmental Laboratory Analysis Report

29 Research Drive
Westboro, MA 01581
508-573-6650

Customer AREVA NP Inc
Attention John McGehee

FEDERAL GRF **Report Date** 11/08/07
Receipt Date 06/19/07

AREVA NP Inc
AREVA NP Federal D&D Group
400 South Tryon Street
Charlotte, NC 28285

Lab. Sample No. L12563-06 **Client ID** C4024 102C1 WU1C1 NWH1-1 **Product** GAMMA SPECTROMETRY
Reference Date 04/27/07 **Analysis Date** 11/07/07 **Matrix** Concrete

Nuclide	Activity Concentration +/- 2 - Sigma (pCi/g)	TPU 1 Sigma (pCi/g)	Measured MDC (pCi/g)	Required MDC (pCi/g)	Flags
AcTh-228	6E-01 +/- 2.2E+00	1.1E+00	3.8E+00		
Ag-108m	-8E-02 +/- 3.3E-01	1.7E-01	5.9E-01		
Ag-110m	9E-01 +/- 1.5E+00	7.7E-01	2.6E+00		
Ba-140	2.3E+03 +/- 9.1E+03	4.6E+03	1.8E+04		
Be-7	1.6E+01 +/- 4.5E+01	2.3E+01	7.7E+01		
Ce-141	-1.2E+01 +/- 2.8E+01	1.4E+01	4.9E+01		
Ce-144	1.5E+00 +/- 3.0E+00	1.5E+00	5.1E+00		
Co-57	5E-01 +/- 1.6E+00	7.9E-01	3.0E+00		
Co-58	9E-01 +/- 3.8E+00	1.9E+00	6.5E+00		
Co-60	7.2E+00 +/- 8.3E-01	5.5E-01	7.3E-01	2.0E+01	bc
Cr-51	0E+00 +/- 3.6E+02	1.8E+02	6.3E+02		
Cs-134	-1.2E-01 +/- 7.7E-01	3.8E-01	1.4E+00	8.0E+01	
Cs-137	2E-01 +/- 5.8E-01	2.9E-01	9.9E-01	3.0E+01	
Eu-152	9.04E+01 +/- 1.9E+00	4.6E+00	1.5E+00	1.0E+02	bc
Eu-154	7.2E+00 +/- 1.8E+00	9.5E-01	3.7E+00	1.0E+02	bc
Fe-59	-4E+00 +/- 2.2E+01	1.1E+01	3.9E+01		
K-40	2.8E+00 +/- 4.2E+00	2.1E+00	7.0E+00	3.0E+02	
La-140	3E+03 +/- 1.0E+04	5.2E+03	2.0E+04		
Mn-54	-2.9E-01 +/- 8.8E-01	4.4E-01	1.6E+00	1.0E+02	
Na-22	2E-01 +/- 1.5E+00	7.7E-01	2.6E+00	4.0E+01	c
Nb-94	2.9E-01 +/- 5.0E-01	2.5E-01	8.3E-01		
Nb-95	1.9E+01 +/- 2.7E+01	1.3E+01	4.4E+01		
Ru-103	3E+00 +/- 1.2E+01	6.0E+00	2.1E+01		
Ru-106	2.7E+00 +/- 6.6E+00	3.3E+00	1.1E+01		
Sb-124	3E-01 +/- 3.7E+00	1.8E+00	8.1E+00		
Sb-125	-1E-01 +/- 1.2E+00	6.0E-01	2.1E+00		
Se-75	-9E-01 +/- 1.3E+00	6.3E-01	2.3E+00		
Zn-65	0E+00 +/- 1.9E+00	9.5E-01	3.4E+00		
Zr-95	1E+01 +/- 1.1E+01	5.6E+00	1.8E+01		

Flags: **a The measured MDC is greater than the required MDC**
b The activity concentration is greater than three times its one sigma counting uncertainty.
c Peak was found

Reporting Level Ratio:

Approved by
11/8/07
C.A. Shelton
Sample Control & Measurements Lead

Don McGee

AREVA

Environmental Laboratory Analysis Report

29 Research Drive
Westboro, MA 01581
508-573-6650

Customer AREVA NP Inc
Attention John McGehee

FEDERAL GRP **Report Date** 07/30/07
Receipt Date 06/19/07

AREVA NP Inc
AREVA NP Federal D&D Group
400 South Tryon Street
Charlotte, NC 28285

Lab. Sample No. L12563-07 **Client ID** C4024 102C1 WU1C1 NWH1-2 **Product** GAMMA SPECTROMETRY
Reference Date 04/27/07 **Analysis Date** 07/23/07 **Matrix** Concrete

Nuclide	Activity Concentration +/- 2 - Sigma (pCi/g)	TPU 1 Sigma (pCi/g)	Measured MDC (pCi/g)	Required MDC (pCi/g)	Flags
AcTh-228	1.5E-01 +/- 3.4E-01	1.7E-01	5.8E-01		
Ag-108m	-6.8E-02 +/- 5.3E-02	2.7E-02	1.0E-01		
Ag-110m	2E-02 +/- 1.5E-01	7.4E-02	2.6E-01		
Ba-140	8.5E+00 +/- 7.0E+00	3.5E+00	1.0E+01		
Be-7	1.6E+00 +/- 1.4E+00	7.2E-01	2.2E+00		
Ce-141	-4.3E-01 +/- 4.1E-01	2.0E-01	7.4E-01		
Ce-144	-3E-02 +/- 3.2E-01	1.6E-01	5.6E-01		
Co-57	7E-02 +/- 1.7E-01	8.7E-02	3.4E-01		
Co-58	9E-02 +/- 2.0E-01	1.0E-01	3.4E-01		
Co-60	6.1E-01 +/- 1.1E-01	6.3E-02	1.6E-01	2.0E-02	abc
Cr-51	-2.5E+00 +/- 3.8E+00	1.9E+00	7.0E+00		
Cs-134	-2E-02 +/- 1.0E-01	5.0E-02	1.8E-01	8.0E-02	a
Cs-137	3.6E-02 +/- 7.6E-02	3.8E-02	1.3E-01	3.0E-02	a
Eu-152	5.74E+00 +/- 2.1E-01	3.1E-01	2.1E-01	1.0E-01	abc
Eu-154	4.8E-01 +/- 2.3E-01	1.2E-01	5.6E-01	1.0E-01	abc
Fe-59	1.1E-01 +/- 5.3E-01	2.6E-01	9.5E-01		
K-40	1.4E+00 +/- 1.1E+00	5.4E-01	1.6E+00	3.0E-01	a c
La-140	9.8E+00 +/- 8.1E+00	4.1E+00	1.1E+01		
Mn-54	1E-02 +/- 1.0E-01	5.0E-02	1.8E-01	1.0E-01	a
Na-22	1.5E-01 +/- 2.1E-01	1.0E-01	3.4E-01	4.0E-02	a
Nb-94	-2.6E-02 +/- 7.4E-02	3.7E-02	1.4E-01		
Nb-95	-3.3E-01 +/- 4.8E-01	2.4E-01	8.9E-01		
Ru-103	6E-02 +/- 2.3E-01	1.1E-01	4.0E-01		
Ru-106	-4.2E-01 +/- 7.1E-01	3.6E-01	1.4E+00		
Sb-124	-1.8E-01 +/- 4.4E-01	2.2E-01	9.1E-01		
Sb-125	-7E-02 +/- 1.6E-01	8.1E-02	3.0E-01		
Se-75	-4E-02 +/- 1.0E-01	5.2E-02	1.9E-01		
Zn-65	-5E-02 +/- 5.2E-01	2.6E-01	9.1E-01		
Zr-95	-5E-02 +/- 3.9E-01	1.9E-01	6.9E-01		

Flags: a The measured MDC is greater than the required MDC
b The activity concentration is greater than three times its one sigma counting uncertainty.
c Peak was found

Reporting Level Ratio:

Approved by
7/31/07
for C A Shelton
Sample Control & Measurements Lead

Don McGee

Environmental Laboratory Analysis Report

29 Research Drive
Westboro, MA 01581
508-573-6650

AREVA

Customer AREVA NP Inc
Attention John McGehee

FEDERAL GRP Report Date 07/30/07
Receipt Date 06/19/07

AREVA NP Inc
AREVA NP Federal D&D Group
400 South Tryon Street
Charlotte, NC 28285

Lab. Sample No. L12563-08 Client ID C4024 102C1 WU1C1 NWH1-3 Product GAMMA SPECTROMETRY
Reference Date 04/27/07 Analysis Date 07/13/07 Matrix Concrete

Nuclide	Activity Concentration +/- 2 - Sigma (pCi/g)	TPU 1 Sigma (pCi/g)	Measured MDC (pCi/g)	Required MDC (pCi/g)	Flags
AcTh-228	1.28E-01 +/- 3.9E-02	2.0E-02	9.7E-02		bc
Ag-108m	-3.1E-03 +/- 7.8E-03	3.9E-03	1.3E-02		
Ag-110m	-2.1E-02 +/- 2.1E-02	1.0E-02	3.6E-02		
Ba-140	-5.8E-01 +/- 9.0E-01	4.5E-01	1.6E+00		
Be-7	4E-02 +/- 2.0E-01	1.0E-01	3.4E-01		
Ce-141	-1.1E-02 +/- 6.7E-02	3.3E-02	1.1E-01		
Ce-144	-1.2E-02 +/- 4.6E-02	2.3E-02	7.8E-02		
Co-57	2.7E-02 +/- 4.8E-02	2.4E-02	8.0E-02		
Co-58	0E+00 +/- 2.4E-02	1.2E-02	4.0E-02		
Co-60	6.6E-02 +/- 1.3E-02	7.5E-03	2.8E-02	2.0E-02	abc
Cr-51	-6E-02 +/- 4.3E-01	2.1E-01	7.2E-01		
Cs-134	8E-03 +/- 1.4E-02	6.9E-03	2.3E-02	8.0E-02	
Cs-137	-1.1E-02 +/- 1.1E-02	5.7E-03	2.0E-02	3.0E-02	
Eu-152	7.98E-01 +/- 2.0E-02	4.1E-02	2.7E-02	1.0E-01	bc
Eu-154	8.5E-02 +/- 1.2E-02	7.3E-03	1.8E-02	1.0E-01	bc
Fe-59	-9E-03 +/- 7.8E-02	3.9E-02	1.3E-01		
K-40	1.69E+00 +/- 2.4E-01	1.5E-01	3.3E-01	3.0E-01	abc
La-140	-7E-01 +/- 1.0E+00	5.2E-01	1.8E+00		
Mn-54	5E-03 +/- 1.4E-02	7.0E-03	2.3E-02	1.0E-01	
Na-22	6E-03 +/- 3.0E-02	1.5E-02	5.0E-02	4.0E-02	a
Nb-94	0E+00 +/- 1.0E-02	5.2E-03	1.8E-02		
Nb-95	5.5E-02 +/- 7.4E-02	3.7E-02	1.2E-01		
Ru-103	1.5E-02 +/- 3.2E-02	1.6E-02	5.3E-02		
Ru-106	-3E-02 +/- 1.0E-01	5.1E-02	1.7E-01		
Sb-124	-2.1E-02 +/- 6.4E-02	3.2E-02	1.1E-01		
Sb-125	-1E-03 +/- 2.8E-02	1.4E-02	4.8E-02		
Se-75	-6E-03 +/- 1.4E-02	6.8E-03	2.3E-02		
Zn-65	-2.7E-01 +/- 3.2E-01	1.6E-01	5.3E-01		
Zr-95	4.1E-02 +/- 4.5E-02	2.3E-02	7.4E-02		

Flags: a The measured MDC is greater than the required MDC
b The activity concentration is greater than three times its one sigma counting uncertainty.
c Peak was found

Approved by
7/31/07
for C.A. Shelton
Sample Control & Measurements Lead

Reporting Level Ratio:

Don McGee

AREVA

Environmental Laboratory Analysis Report

29 Research Drive
Westboro, MA 01581
508-573-6650

Customer AREVA NP Inc
Attention John McGehee

FEDERAL GRF **Report Date** 07/30/07
Receipt Date 06/19/07

AREVA NP Inc
AREVA NP Federal D&D Group
400 South Tryon Street
Charlotte, NC 28285

Lab. Sample No. L12563-09 **Client ID** C4024 102C1 WU1C1 NWB9-1 **Product** GAMMA SPECTROMETRY
Reference Date 04/27/07 **Analysis Date** 07/23/07 **Matrix** Concrete

Nuclide	Activity Concentration +/- 2 - Sigma (pCi/g)	TPU 1 Sigma (pCi/g)	Measured MDC (pCi/g)	Required MDC (pCi/g)	Flags
AcTh-228	3.8E-01 +/- 4.7E-01	2.3E-01	7.7E-01		
Ag-108m	3.3E-02 +/- 8.2E-02	4.1E-02	1.4E-01		
Ag-110m	-2.4E-01 +/- 2.3E-01	1.2E-01	4.3E-01		
Ba-140	5.7E+00 +/- 7.4E+00	3.7E+00	1.2E+01		
Be-7	1E-01 +/- 2.2E+00	1.1E+00	3.8E+00		
Ce-141	-1.9E-01 +/- 8.8E-01	4.4E-01	1.5E+00		
Ce-144	1E-02 +/- 5.1E-01	2.6E-01	8.7E-01		
Co-57	-6E-02 +/- 2.3E-01	1.1E-01	4.2E-01		
Co-58	3.6E-01 +/- 3.0E-01	1.5E-01	4.8E-01		
Co-60	1.75E+00 +/- 1.7E-01	1.2E-01	1.4E-01	2.0E-02	abc
Cr-51	2.4E+00 +/- 5.5E+00	2.7E+00	9.2E+00		
Cs-134	-7E-02 +/- 1.6E-01	7.9E-02	2.8E-01	8.0E-02	a
Cs-137	3E-02 +/- 1.2E-01	6.0E-02	2.1E-01	3.0E-02	a
Eu-152	1.793E+01 +/- 3.7E-01	9.2E-01	3.3E-01	1.0E-01	abc
Eu-154	1.85E+00 +/- 2.9E-01	1.7E-01	6.3E-01	1.0E-01	abc
Fe-59	2.7E-01 +/- 8.1E-01	4.0E-01	1.4E+00		
K-40	1.8E+00 +/- 1.3E+00	6.5E-01	2.0E+00	3.0E-01	a
La-140	6.6E+00 +/- 8.5E+00	4.3E+00	1.4E+01		
Mn-54	2.1E-01 +/- 1.5E-01	7.4E-02	2.3E-01	1.0E-01	a
Na-22	2.5E-01 +/- 3.5E-01	1.7E-01	5.7E-01	4.0E-02	a
Nb-94	2E-02 +/- 1.1E-01	5.4E-02	1.9E-01		
Nb-95	4E-02 +/- 6.6E-01	3.3E-01	1.1E+00		
Ru-103	-4.7E-01 +/- 3.9E-01	2.0E-01	7.3E-01		
Ru-106	-4E-01 +/- 1.1E+00	5.5E-01	2.0E+00		
Sb-124	1.4E-01 +/- 3.8E-01	1.9E-01	7.0E-01		
Sb-125	-4E-02 +/- 2.5E-01	1.2E-01	4.4E-01		
Se-75	-8E-02 +/- 1.5E-01	7.5E-02	2.7E-01		
Zn-65	1.06E+00 +/- 9.2E-01	4.6E-01	1.5E+00		
Zr-95	8.6E-01 +/- 5.9E-01	3.0E-01	9.3E-01		

Flags: a The measured MDC is greater than the required MDC
b The activity concentration is greater than three times its one sigma counting uncertainty.
c Peak was found

Reporting Level Ratio:

Approved by
7/31/07
for C.A. Shelton
Sample Control & Measurements Lead

Don McGee

AREVA

Environmental Laboratory Analysis Report

29 Research Drive
Westboro, MA 01581
508-573-6650

Customer AREVA NP Inc
Attention John McGehee

FEDERAL GRF **Report Date** 11/08/07
Receipt Date 06/19/07

AREVA NP Inc
AREVA NP Federal D&D Group
400 South Tryon Street
Charlotte, NC 28285

Lab. Sample No. L12563-10 **Client ID** C4024 102C1 WL1C1 SWH1-1 **Product** GAMMA SPECTROMETRY
Reference Date 04/27/07 **Analysis Date** 11/08/07 **Matrix** Concrete

Nuclide	Activity Concentration +/- 2 - Sigma (pCi/g)			TPU 1 Sigma (pCi/g)	Measured MDC (pCi/g)	Required MDC (pCi/g)	Flags
AcTh-228	1.5E+00	+/-	3.2E+00	1.6E+00	5.3E+00		
Ag-108m	2.1E-01	+/-	5.0E-01	2.5E-01	8.5E-01		
Ag-110m	-1.3E+00	+/-	2.0E+00	9.9E-01	3.6E+00		
Ba-140	7E+03	+/-	1.4E+04	7.3E+03	2.6E+04		
Be-7	8E+00	+/-	5.6E+01	2.8E+01	9.7E+01		
Ce-141	-2.9E+01	+/-	3.9E+01	1.9E+01	6.8E+01		
Ce-144	4.9E+00	+/-	4.2E+00	2.1E+00	6.8E+00		
Co-57	-4E-01	+/-	4.4E+00	2.2E+00	7.6E+00		
Co-58	2.7E+00	+/-	5.5E+00	2.8E+00	9.3E+00		
Co-60	3.45E+00	+/-	8.0E-01	4.4E-01	7.3E-01	2.0E+01	bc
Cr-51	-1.5E+02	+/-	5.2E+02	2.6E+02	9.1E+02		
Cs-134	5E-01	+/-	1.0E+00	5.1E-01	1.7E+00	8.0E+01	
Cs-137	4.3E-01	+/-	7.8E-01	3.9E-01	1.3E+00	3.0E+01	
Eu-152	1.349E+02	+/-	2.7E+00	6.9E+00	2.5E+00	1.0E+02	bc
Eu-154	8.7E+00	+/-	2.7E+00	1.4E+00	3.0E+00	1.0E+02	b
Fe-59	-2E+00	+/-	2.6E+01	1.3E+01	4.8E+01		
K-40	1.12E+01	+/-	8.7E+00	4.4E+00	1.3E+01	3.0E+02	
La-140	9E+03	+/-	1.7E+04	8.3E+03	2.9E+04		
Mn-54	-4E-01	+/-	1.2E+00	6.2E-01	2.2E+00	1.0E+02	
Na-22	3.2E+00	+/-	1.2E+00	6.1E-01	1.5E+00	4.0E+01	bc
Nb-94	4.2E-01	+/-	6.9E-01	3.4E-01	1.2E+00		
Nb-95	2E+00	+/-	3.9E+01	1.9E+01	6.7E+01		
Ru-103	-1.4E+01	+/-	1.6E+01	8.1E+00	3.0E+01		
Ru-106	-5.6E+00	+/-	8.6E+00	4.3E+00	1.6E+01		
Sb-124	-8E-01	+/-	4.7E+00	2.3E+00	1.2E+01		
Sb-125	-1E-01	+/-	1.5E+00	7.7E-01	2.7E+00		
Se-75	1.1E+00	+/-	1.8E+00	8.9E-01	2.9E+00		
Zn-65	-4.1E+00	+/-	7.7E+00	3.8E+00	1.3E+01		
Zr-95	6E+00	+/-	1.2E+01	5.9E+00	2.0E+01		

Flags: **a The measured MDC is greater than the required MDC**
b The activity concentration is greater than three times its one sigma counting uncertainty.
c Peak was found

Reporting Level Ratio:

Approved by
C.A. Shelton
Sample Control & Measurements Lead

Don McGee

AREVA

Environmental Laboratory Analysis Report

29 Research Drive
Westboro, MA 01581
508-573-6650

Customer AREVA NP Inc
Attention John McGehee

FEDERAL GRP **Report Date** 11/08/07
Receipt Date 06/19/07

AREVA NP Inc
AREVA NP Federal D&D Group
400 South Tryon Street
Charlotte, NC 28285

Lab. Sample No. L12563-11 **Client ID** C4024 102C1 WL1C1 SWH1-2 **Product** GAMMA SPECTROMETRY
Reference Date 04/27/07 **Analysis Date** 08/22/07 **Matrix** Concrete

Nuclide	Activity Concentration +/- 2 - Sigma (pCi/g)	TPU 1 Sigma (pCi/g)	Measured MDC (pCi/g)	Required MDC (pCi/g)	Flags
AcTh-228	-7E-01 +/- 2.4E+00	1.2E+00	4.3E+00		
Ag-108m	1E-02 +/- 4.0E-01	2.0E-01	6.8E-01		
Ag-110m	6E-01 +/- 1.2E+00	6.0E-01	2.0E+00		
Ba-140	-1.1E+02 +/- 1.4E+02	6.8E+01	3.2E+02		
Be-7	-9E+00 +/- 1.7E+01	8.3E+00	3.0E+01		
Ce-141	2.9E+00 +/- 6.0E+00	3.0E+00	1.0E+01		
Ce-144	-1.8E+00 +/- 2.7E+00	1.3E+00	4.7E+00		
Co-57	2E-01 +/- 1.2E+00	6.0E-01	2.2E+00		
Co-58	1.6E+00 +/- 1.8E+00	9.1E-01	3.0E+00		
Co-60	2.52E+00 +/- 5.8E-01	3.2E-01	7.0E-01	2.0E-02	abc
Cr-51	-1.4E+01 +/- 5.8E+01	2.9E+01	1.0E+02		
Cs-134	-3.1E-01 +/- 8.0E-01	4.0E-01	1.4E+00	8.0E-02	a
Cs-137	1.3E-01 +/- 6.3E-01	3.1E-01	1.1E+00	3.0E-02	a
Eu-152	1.238E+02 +/- 2.1E+00	6.3E+00	2.2E+00	1.0E-01	abc
Eu-154	3.4E+00 +/- 1.4E+00	7.3E-01	3.1E+00	1.0E-01	abc
Fe-59	-3.7E+00 +/- 6.3E+00	3.1E+00	1.2E+01		
K-40	9.5E+00 +/- 7.4E+00	3.7E+00	1.2E+01	3.0E-01	a c
La-140	-1.3E+02 +/- 1.6E+02	7.9E+01	3.7E+02		
Mn-54	2E-02 +/- 7.7E-01	3.9E-01	1.3E+00	1.0E-01	a
Na-22	1E-01 +/- 1.2E+00	6.2E-01	2.1E+00	4.0E-02	a
Nb-94	2.5E-01 +/- 5.1E-01	2.6E-01	8.6E-01		
Nb-95	1.3E+00 +/- 5.8E+00	2.9E+00	9.9E+00		
Ru-103	1.2E+00 +/- 3.1E+00	1.6E+00	5.3E+00		
Ru-106	-6E-01 +/- 5.7E+00	2.8E+00	1.0E+01		
Sb-124	3.1E-01 +/- 6.3E-01	3.1E-01	8.5E-01		
Sb-125	-3E-01 +/- 1.3E+00	6.3E-01	2.2E+00		
Se-75	3.4E-01 +/- 8.8E-01	4.4E-01	1.5E+00		
Zn-65	7E+00 +/- 5.1E+00	2.6E+00	8.3E+00		
Zr-95	5.4E+00 +/- 3.9E+00	2.0E+00	6.1E+00		

Flags: **a The measured MDC is greater than the required MDC**
b The activity concentration is greater than three times its one sigma counting uncertainty.
c Peak was found

Reporting Level Ratio:

Approved by
11/08/07
for C.A. Shelton
Sample Control & Measurements Lead

Don McGee

AREVA

Environmental Laboratory Analysis Report

29 Research Drive
Westboro, MA 01581
508-573-6650

Customer AREVA NP Inc
Attention John McGehee

FEDERAL GRF Report Date 07/30/07
Receipt Date 06/19/07

AREVA NP Inc
AREVA NP Federal D&D Group
400 South Tryon Street
Charlotte, NC 28285

Lab. Sample No. L12563-12 Client ID C4024 102C1 WL1C1 SWL1-1 Product GAMMA SPECTROMETRY
Reference Date 04/30/07 Analysis Date 07/18/07 Matrix Concrete

Nuclide	Activity Concentration +/- 2 - Sigma (pCi/g)	TPU 1 Sigma (pCi/g)	Measured MDC (pCi/g)	Required MDC (pCi/g)	Flags
AcTh-228	1.9E-01 +/- 7.7E-01	3.8E-01	1.3E+00		
Ag-108m	-5E-02 +/- 1.2E-01	5.9E-02	2.0E-01		
Ag-110m	1.4E-01 +/- 3.5E-01	1.8E-01	5.9E-01		
Ba-133	2.4E-01 +/- 1.4E-01	7.3E-02	2.3E-01		bc
Ba-140	-1.8E+00 +/- 5.2E+00	2.6E+00	1.0E+01		
Be-7	-2.2E+00 +/- 3.2E+00	1.6E+00	5.5E+00		
Ce-141	2.4E-01 +/- 8.1E-01	4.0E-01	1.3E+00		
Ce-144	3.5E-01 +/- 7.6E-01	3.8E-01	1.3E+00		
Co-57	-2.5E-01 +/- 7.9E-01	4.0E-01	1.3E+00		
Co-58	5.1E-01 +/- 4.1E-01	2.1E-01	6.7E-01		
Co-60	1.7E+00 +/- 2.0E-01	1.3E-01	2.6E-01	2.0E-02	abc
Cr-51	-3.6E+00 +/- 6.8E+00	3.4E+00	1.2E+01		
Cs-134	1.4E-01 +/- 2.2E-01	1.1E-01	3.6E-01	8.0E-02	a
Cs-137	-3E-02 +/- 1.8E-01	9.0E-02	3.1E-01	3.0E-02	a
Eu-152	5.587E+01 +/- 6.2E-01	2.8E+00	6.2E-01	1.0E-01	abc
Eu-154	2.1E+00 +/- 6.7E-01	3.5E-01	1.8E+00	1.0E-01	abc
Fe-59	1E-01 +/- 1.1E+00	5.6E-01	1.9E+00		
K-40	2.19E+01 +/- 2.7E+00	1.8E+00	2.4E+00	3.0E-01	abc
La-140	-2.1E+00 +/- 6.0E+00	3.0E+00	1.2E+01		
Mn-54	-9E-02 +/- 2.2E-01	1.1E-01	3.8E-01	1.0E-01	a
Na-22	9E-02 +/- 4.9E-01	2.5E-01	8.3E-01	4.0E-02	a
Nb-94	-1.2E-01 +/- 1.6E-01	8.1E-02	2.8E-01		
Nb-95	-1.5E-01 +/- 9.0E-01	4.5E-01	1.5E+00		
Ru-103	3E-02 +/- 5.1E-01	2.6E-01	8.7E-01		
Ru-106	-1.3E+00 +/- 1.6E+00	8.2E-01	2.9E+00		
Sb-124	0E+00 +/- 3.0E-01	1.5E-01	6.0E-01		
Sb-125	6E-02 +/- 3.7E-01	1.8E-01	6.2E-01		
Se-75	-5E-02 +/- 2.2E-01	1.1E-01	3.8E-01		
Zn-65	1.9E+00 +/- 1.4E+00	6.8E-01	2.2E+00		

Flags: a The measured MDC is greater than the required MDC
b The activity concentration is greater than three times its one sigma counting uncertainty.
c Peak was found

Approved by
for C.A. Shelton
Sample Control & Measurements Lead

Reporting Level Ratio:

cc: Don McGee

AREVA

Environmental Laboratory Analysis Report

29 Research Drive
Westboro, MA 01581
508-573-6650

Customer AREVA NP Inc
Attention John McGehee

FEDERAL GRF **Report Date** 08/02/07
Receipt Date 06/19/07

AREVA NP Inc
AREVA NP Federal D&D Group
400 South Tryon Street
Charlotte, NC 28285

Lab. Sample No. L12563-13 **Client ID** C4024 102C1 WL1C1 SWL1-2 **Product** GAMMA SPECTROMETRY
Reference Date 04/30/07 **Analysis Date** 07/24/07 **Matrix** Concrete

Nuclide	Activity Concentration +/- 2 - Sigma (pCi/g)	TPU 1 Sigma (pCi/g)	Measured MDC (pCi/g)	Required MDC (pCi/g)	Flags
AcTh-228	8.1E-01 +/- 9.5E-01	4.8E-01	1.6E+00		
Ag-108m	-1E-01 +/- 1.7E-01	8.3E-02	2.9E-01		
Ag-110m	-2.3E-01 +/- 4.8E-01	2.4E-01	8.5E-01		
Ba-140	1.1E+01 +/- 1.1E+01	5.3E+00	1.6E+01		
Be-7	-1.6E+00 +/- 4.6E+00	2.3E+00	8.0E+00		
Ce-141	-8E-01 +/- 1.2E+00	6.2E-01	2.1E+00		
Ce-144	3E-01 +/- 1.1E+00	5.4E-01	1.8E+00		
Co-57	1E-01 +/- 1.1E+00	5.5E-01	1.8E+00		
Co-58	5.1E-01 +/- 6.2E-01	3.1E-01	1.0E+00		
Co-60	1.72E+00 +/- 2.7E-01	1.6E-01	3.5E-01	2.0E-02	abc
Cr-51	2E+00 +/- 1.1E+01	5.4E+00	1.8E+01		
Cs-134	6E-02 +/- 3.1E-01	1.5E-01	5.2E-01	8.0E-02	a
Cs-137	-7E-02 +/- 2.5E-01	1.2E-01	4.3E-01	3.0E-02	a
Eu-152	6.162E+01 +/- 8.9E-01	3.1E+00	9.9E-01	1.0E-01	abc
Eu-154	1.49E+00 +/- 3.8E-01	2.0E-01	6.1E-01	1.0E-01	abc
Fe-59	1.3E+00 +/- 1.8E+00	8.9E-01	2.9E+00		
K-40	1.81E+01 +/- 3.7E+00	2.1E+00	4.2E+00	3.0E-01	abc
La-140	1.3E+01 +/- 1.2E+01	6.1E+00	1.8E+01		
Mn-54	8E-02 +/- 3.0E-01	1.5E-01	5.1E-01	1.0E-01	a
Na-22	1E-01 +/- 5.9E-01	3.0E-01	1.0E+00	4.0E-02	a
Nb-94	2E-02 +/- 2.3E-01	1.1E-01	3.9E-01		
Nb-95	1E-01 +/- 1.4E+00	6.9E-01	2.4E+00		
Ru-103	2.4E-01 +/- 8.1E-01	4.0E-01	1.4E+00		
Ru-106	2.1E+00 +/- 2.3E+00	1.2E+00	3.8E+00		
Sb-124	-4.2E-01 +/- 6.5E-01	3.2E-01	1.4E+00		
Sb-125	-1.5E-01 +/- 5.1E-01	2.6E-01	8.9E-01		
Se-75	6E-02 +/- 3.0E-01	1.5E-01	5.1E-01		
Zn-65	1.4E+00 +/- 1.8E+00	9.3E-01	3.0E+00		
Zr-95	0E+00 +/- 1.2E+00	6.0E-01	2.0E+00		

Flags: **a The measured MDC is greater than the required MDC**
b The activity concentration is greater than three times its one sigma counting uncertainty.
c Peak was found

Reporting Level Ratio:

Approved by
8/2/07
for C.A. Shelton
Sample Control & Measurements Lead

Don McGee

AREVA

Environmental Laboratory Analysis Report

29 Research Drive
Westboro, MA 01581
508-573-6650

Customer AREVA NP Inc
Attention John McGehee

FEDERAL GRF **Report Date** 10/09/07
Receipt Date 06/19/07

AREVA NP Inc
AREVA NP Federal D&D Group
400 South Tryon Street
Charlotte, NC 28285

Lab. Sample No. L12563-14 (1) **Client ID** C4024 102C1 WL1C1 SWL1-R1 **Product** GAMMA SPECTROMETRY
Reference Date 04/30/07 **Analysis Date** 07/19/07 **Matrix** Concrete

Nuclide	Activity Concentration +/- 2 - Sigma (pCi/g)	TPU 1 Sigma (pCi/g)	Measured MDC (pCi/g)	Required MDC (pCi/g)	Flags
AcTh-228	6E-02 +/- 1.2E-01	6.1E-02	2.0E-01		
Ag-108m	8E-03 +/- 1.5E-02	7.6E-03	2.5E-02		
Ag-110m	-3.7E-02 +/- 5.3E-02	2.7E-02	9.0E-02		
Ba-140	-5E-01 +/- 1.1E+00	5.4E-01	1.9E+00		
Be-7	5E-02 +/- 3.9E-01	2.0E-01	6.5E-01		
Ce-141	-4.3E-02 +/- 8.4E-02	4.2E-02	1.4E-01		
Ce-144	-7E-02 +/- 7.8E-02	3.9E-02	1.3E-01		
Co-57	7.1E-02 +/- 8.2E-02	4.1E-02	1.3E-01		
Co-58	-1E-02 +/- 5.7E-02	2.8E-02	9.5E-02		
Co-60	9.621E+00 +/- 8.2E-02	4.8E-01	3.8E-02	2.0E-02	abc
Cr-51	-7.1E-01 +/- 8.4E-01	4.2E-01	1.4E+00		
Cs-134	2.6E-02 +/- 3.2E-02	1.6E-02	5.2E-02	8.0E-02	
Cs-137	1E-02 +/- 2.3E-02	1.2E-02	3.8E-02	3.0E-02	a
Eu-152	1.23E-01 +/- 2.2E-02	1.3E-02	3.8E-02	1.0E-01	bc
Eu-154	1.3E-02 +/- 1.4E-02	7.2E-03	2.5E-02	1.0E-01	c
Fe-59	2.2E-01 +/- 2.2E-01	1.1E-01	3.6E-01		
K-40	1.1E-01 +/- 1.9E-01	9.5E-02	3.1E-01	3.0E-01	a
La-140	-6E-01 +/- 1.2E+00	6.2E-01	2.2E+00		
Mn-54	1.6E-02 +/- 3.2E-02	1.6E-02	5.3E-02	1.0E-01	
Na-22	8E-03 +/- 1.9E-02	9.4E-03	3.1E-02	4.0E-02	
Nb-94	0E+00 +/- 2.1E-02	1.0E-02	3.4E-02		
Nb-95	2E-02 +/- 1.2E-01	5.9E-02	2.0E-01		
Ru-103	-7.8E-02 +/- 6.4E-02	3.2E-02	1.1E-01		
Ru-106	-1.4E-01 +/- 2.1E-01	1.1E-01	3.5E-01		
Sb-124	5E-03 +/- 7.0E-02	3.5E-02	1.2E-01		
Sb-125	3.2E-02 +/- 4.9E-02	2.4E-02	8.0E-02		
Se-75	-5E-03 +/- 2.6E-02	1.3E-02	4.4E-02		
Zn-65	-2E-03 +/- 8.7E-02	4.4E-02	1.5E-01		
Zr-95	0E+00 +/- 1.0E-01	5.1E-02	1.7E-01		

Flags: **a The measured MDC is greater than the required MDC**
b The activity concentration is greater than three times its one sigma counting uncertainty.
c Peak was found

Approved by
11/8/07
C.A. Shelton
Sample Control & Measurements Lead

Reporting Level Ratio:

(1) Results are estimated Concentrations. Sample geometry (solid tubular) does not match geometry (flat disk). 11/8/07

Don McGee

AREVA

Environmental Laboratory Analysis Report

29 Research Drive
Westboro, MA 01581
508-573-6650

Customer AREVA NP Inc
Attention John McGehee

FEDERAL GRF **Report Date** 11/07/07
Receipt Date 06/19/07

AREVA NP Inc
AREVA NP Federal D&D Group
400 South Tryon Street
Charlotte, NC 28285

(1)

Lab. Sample No. L12563-15 **Client ID** C4024 102C1 WU1C1 SWB21-1 **Product** GAMMA SPECTROMETRY
Reference Date 06/19/03 **Analysis Date** 07/24/07 **Matrix** Concrete

Nuclide	Activity Concentration +/- 2 - Sigma (pCi/g)			TPU 1 Sigma (pCi/g)	Measured MDC (pCi/g)	Required MDC (pCi/g)	Flags
AcTh-228	4.8E-01	+/-	7.4E-01	3.7E-01	1.2E+00		
Ag-108m	1.3E-01	+/-	1.2E-01	5.9E-02	1.9E-01		
Ag-110m	7E+00	+/-	1.8E+01	8.9E+00	3.0E+01		
Be-7	1E+07	+/-	2.9E+08	1.4E+08	5.0E+08		
Ce-144	9E+00	+/-	2.5E+01	1.2E+01	4.1E+01		
Co-57	2.3E+01	+/-	3.0E+01	1.5E+01	4.9E+01		
Co-58	4.4E+05	+/-	4.3E+05	2.1E+05	6.9E+05		
Co-60	1.11E+00	+/-	2.9E-01	1.5E-01	4.6E-01	2.0E-02	abc
Cs-134	-1E-01	+/-	8.2E-01	4.1E-01	1.4E+00	8.0E-02	a
Cs-137	-2E-01	+/-	1.9E-01	9.4E-02	3.4E-01	3.0E-02	a
Eu-152	4.743E+01	+/-	7.6E-01	2.4E+00	9.0E-01	1.0E-01	abc
Eu-154	1.4E+00	+/-	4.3E-01	2.2E-01	7.2E-01	1.0E-01	abc
K-40	2.53E+01	+/-	3.3E+00	2.1E+00	2.5E+00	3.0E-01	abc
Mn-54	2.2E+00	+/-	4.8E+00	2.4E+00	8.2E+00	1.0E-01	a
Na-22	1E-01	+/-	1.2E+00	5.9E-01	2.0E+00	4.0E-02	a
Nb-94	-1E-02	+/-	1.7E-01	8.3E-02	2.9E-01		
Ru-106	3E+00	+/-	2.4E+01	1.2E+01	4.1E+01		
Sb-124	-2.5E+06	+/-	5.0E+06	2.5E+06	1.1E+07		
Sb-125	5E-01	+/-	1.0E+00	5.1E-01	1.7E+00		
Se-75	-7.2E+02	+/-	8.2E+02	4.1E+02	1.5E+03		
Zn-65	8.7E+01	+/-	7.6E+01	3.8E+01	1.2E+02		
Zr-95	2E+06	+/-	3.7E+06	1.8E+06	6.1E+06		

Flags: a The measured MDC is greater than the required MDC
b The activity concentration is greater than three times its one sigma counting uncertainty.
c Peak was found

Approved by
11/7/07
C.A. Shelton
Sample Control & Measurements Lead

Reporting Level Ratio:

(1) Several nuclides omitted from report due to excessive decay time.

Don McGee

AREVA

Environmental Laboratory Analysis Report

29 Research Drive
Westboro, MA 01581
508-573-6650

Customer AREVA NP Inc
Attention John McGehee

FEDERAL GRF **Report Date** 11/07/07
Receipt Date 06/19/07

AREVA NP Inc
AREVA NP Federal D&D Group
400 South Tryon Street
Charlotte, NC 28285

Lab. Sample No. L12563-16 (1) **Client ID** C4024 102C1 WU1C1 SWB21-2 **Product** GAMMA SPECTROMETRY
Reference Date 06/19/03 **Analysis Date** 07/26/07 **Matrix** Concrete

Nuclide	Activity Concentration +/- 2 - Sigma (pCi/g)			TPU 1 Sigma (pCi/g)	Measured MDC (pCi/g)	Required MDC (pCi/g)	Flags
AcTh-228	1.56E+00	+/-	4.4E-01	2.3E-01	1.1E+00		bc
Ag-108m	-2.8E-02	+/-	9.4E-02	4.7E-02	1.7E-01		
Ag-110m	1.3E+01	+/-	1.4E+01	6.9E+00	2.2E+01		
Ce-141	-3.5E+12	+/-	9.3E+12	4.6E+12	1.6E+13		
Ce-144	0E+00	+/-	2.0E+01	9.9E+00	3.4E+01		
Co-57	-3E+00	+/-	2.5E+01	1.2E+01	4.2E+01		
Co-58	-4E+04	+/-	3.3E+05	1.7E+05	6.0E+05		
Co-60	3E-01	+/-	2.6E-01	1.3E-01	4.0E-01	2.0E-02	a
Cs-134	5.4E-01	+/-	6.7E-01	3.4E-01	1.1E+00	8.0E-02	a
Cs-137	-1.2E-01	+/-	1.4E-01	7.3E-02	2.8E-01	3.0E-02	a
Eu-152	1.687E+01	+/-	5.3E-01	8.8E-01	6.3E-01	1.0E-01	abc
Eu-154	6.3E-01	+/-	3.7E-01	1.9E-01	6.9E-01	1.0E-01	abc
K-40	2.65E+01	+/-	3.7E+00	2.3E+00	2.9E+00	3.0E-01	abc
Mn-54	3.4E+00	+/-	3.9E+00	1.9E+00	6.3E+00	1.0E-01	a
Na-22	-3.6E-01	+/-	5.6E-01	2.8E-01	1.1E+00	4.0E-02	a
Nb-94	-6E-02	+/-	1.1E-01	5.7E-02	2.1E-01		
Nb-95	0E+00	+/-	1.1E+12	5.4E+11	1.9E+12		
Ru-106	7E+00	+/-	1.9E+01	9.4E+00	3.2E+01		
Sb-124	-2.5E+06	+/-	5.4E+06	2.7E+06	1.2E+07		
Sb-125	6E-02	+/-	7.6E-01	3.8E-01	1.3E+00		
Se-75	0E+00	+/-	6.0E+02	3.0E+02	1.0E+03		
Zn-65	1E+01	+/-	1.1E+02	5.4E+01	1.8E+02		
Zr-95	2.8E+06	+/-	2.9E+06	1.4E+06	4.7E+06		

Flags: a The measured MDC is greater than the required MDC
b The activity concentration is greater than three times its one sigma counting uncertainty.
c Peak was found

Approved by
11/7/07
C.A. Shelton
Sample Control & Measurements Lead

Reporting Level Ratio:

(1) Several nuclides omitted from report due to excessive decay time.

Don McGee

AREVA

Environmental Laboratory Analysis Report

29 Research Drive
Westboro, MA 01581
508-573-6650

Customer AREVA NP Inc
Attention John McGehee

FEDERAL GRP **Report Date** 08/03/07
Receipt Date 06/19/07

AREVA NP Inc
AREVA NP Federal D&D Group
400 South Tryon Street
Charlotte, NC 28285

Lab. Sample No. L12563-17 **Client ID** C4024 102C1 WU1C1 WWH1-1 **Product** GAMMA SPECTROMETRY
Reference Date 04/27/07 **Analysis Date** 08/03/07 **Matrix** Concrete

Nuclide	Activity Concentration +/- 2 - Sigma (pCi/g)	TPU 1 Sigma (pCi/g)	Measured MDC (pCi/g)	Required MDC (pCi/g)	Flags
AcTh-228	-1.7E+00 +/- 2.7E+00	1.3E+00	4.8E+00		
Ag-108m	1.1E-01 +/- 4.2E-01	2.1E-01	7.2E-01		
Ag-110m	-8E-01 +/- 1.4E+00	6.8E-01	2.4E+00		
Ba-140	6E+01 +/- 1.1E+02	5.4E+01	1.7E+02		
Be-7	1.5E+01 +/- 1.4E+01	7.1E+00	2.3E+01		
Ce-141	-2.1E+00 +/- 4.4E+00	2.2E+00	7.5E+00		
Ce-144	-3.7E+00 +/- 2.9E+00	1.5E+00	5.1E+00		
Co-57	5E-01 +/- 2.9E+00	1.4E+00	4.9E+00		
Co-58	1.1E+00 +/- 1.8E+00	8.8E-01	2.9E+00		
Co-60	9.39E+00 +/- 9.2E-01	6.6E-01	8.7E-01	2.0E-02	abc
Cr-51	0E+00 +/- 3.9E+01	2.0E+01	6.7E+01		
Cs-134	2E-01 +/- 8.4E-01	4.2E-01	1.4E+00	8.0E-02	a
Cs-137	-9E-02 +/- 6.2E-01	3.1E-01	1.1E+00	3.0E-02	a
Eu-152	1.281E+02 +/- 2.2E+00	6.5E+00	1.8E+00	1.0E-01	abc
Eu-154	8.98E+00 +/- 8.4E-01	6.2E-01	1.1E+00	1.0E-01	abc
Fe-59	1.9E+00 +/- 5.1E+00	2.5E+00	8.7E+00		
K-40	3.5E+00 +/- 4.4E+00	2.2E+00	7.1E+00	3.0E-01	a
La-140	3E+01 +/- 1.0E+02	5.0E+01	1.8E+02		
Mn-54	3E-02 +/- 8.0E-01	4.0E-01	1.4E+00	1.0E-01	a
Na-22	1.4E+00 +/- 1.7E+00	8.4E-01	2.8E+00	4.0E-02	a
Nb-94	1.3E-01 +/- 5.6E-01	2.8E-01	9.6E-01		
Nb-95	4.4E+00 +/- 4.6E+00	2.3E+00	7.5E+00		
Ru-103	0E+00 +/- 2.5E+00	1.3E+00	4.4E+00		
Ru-106	-3.5E+00 +/- 5.8E+00	2.9E+00	1.1E+01		
Sb-124	0E+00 +/- 0.0E+00	0.0E+00	7.4E-01		
Sb-125	-3E-01 +/- 1.4E+00	6.8E-01	2.4E+00		
Se-75	-2.7E-01 +/- 8.8E-01	4.4E-01	1.5E+00		
Zn-65	1.1E+01 +/- 1.0E+01	5.1E+00	1.6E+01		
Zr-95	3.3E+00 +/- 3.6E+00	1.8E+00	6.0E+00		

Flags: **a The measured MDC is greater than the required MDC**
b The activity concentration is greater than three times its one sigma counting uncertainty.
c Peak was found

Reporting Level Ratio:

Approved by
8/5/07
for C.A. Shelton
Sample Control & Measurements Lead

Don McGee

AREVA

Environmental Laboratory Analysis Report

29 Research Drive
Westboro, MA 01581
508-573-6650

Customer AREVA NP Inc
Attention John McGehee

FEDERAL GRF **Report Date** 11/07/07
Receipt Date 06/19/07

AREVA NP Inc
AREVA NP Federal D&D Group
400 South Tryon Street
Charlotte, NC 28285

Lab. Sample No. L12563-18 **Client ID** C4024 102C1 WU1C1 WWH1-2 **Product** GAMMA SPECTROMETRY
Reference Date 04/27/07 **Analysis Date** 07/24/07 **Matrix** Concrete

Nuclide	Activity Concentration +/- 2 - Sigma (pCi/g)	TPU 1 Sigma (pCi/g)	Measured MDC (pCi/g)	Required MDC (pCi/g)	Flags
AcTh-228	2.3E-01 +/- 4.5E-01	2.3E-01	7.6E-01		
Ag-108m	-2.2E-02 +/- 7.4E-02	3.7E-02	1.3E-01		
Ag-110m	1.2E-01 +/- 1.8E-01	9.0E-02	3.0E-01		
Ba-140	6.6E+00 +/- 9.6E+00	4.8E+00	1.6E+01		
Be-7	1.1E+00 +/- 1.9E+00	9.4E-01	3.2E+00		
Ce-141	2.9E-01 +/- 5.5E-01	2.8E-01	9.2E-01		
Ce-144	2.6E-01 +/- 4.4E-01	2.2E-01	7.4E-01		
Co-57	3.7E-01 +/- 4.5E-01	2.3E-01	7.4E-01		
Co-58	3.1E-01 +/- 2.6E-01	1.3E-01	4.2E-01		
Co-60	8.6E-01 +/- 1.5E-01	8.6E-02	1.7E-01	2.0E-02	abc
Cr-51	-3.5E+00 +/- 4.9E+00	2.5E+00	9.1E+00		
Cs-134	6E-02 +/- 1.3E-01	6.7E-02	2.3E-01	8.0E-02	a
Cs-137	-4E-02 +/- 1.0E-01	5.2E-02	1.9E-01	3.0E-02	a
Eu-152	9.43E+00 +/- 3.0E-01	4.9E-01	2.7E-01	1.0E-01	abc
Eu-154	9.1E-01 +/- 1.3E-01	8.1E-02	1.8E-01	1.0E-01	abc
Fe-59	3.1E-01 +/- 6.9E-01	3.5E-01	1.2E+00		
K-40	1.9E+00 +/- 1.2E+00	6.0E-01	1.6E+00	3.0E-01	abc
La-140	8E+00 +/- 1.1E+01	5.5E+00	1.9E+01		
Mn-54	2E-02 +/- 1.3E-01	6.6E-02	2.3E-01	1.0E-01	a
Na-22	3.3E-01 +/- 2.9E-01	1.5E-01	4.7E-01	4.0E-02	a c
Nb-94	-3E-02 +/- 9.8E-02	4.9E-02	1.8E-01		
Nb-95	3E-02 +/- 6.3E-01	3.1E-01	1.1E+00		
Ru-103	2.1E-01 +/- 3.5E-01	1.8E-01	5.9E-01		
Ru-106	6E-01 +/- 1.0E+00	5.1E-01	1.7E+00		
Sb-124	2.4E-01 +/- 2.4E-01	1.2E-01	1.6E-01		
Sb-125	-1.3E-01 +/- 2.4E-01	1.2E-01	4.5E-01		
Se-75	2E-02 +/- 1.3E-01	6.6E-02	2.3E-01		
Zn-65	3E-02 +/- 7.5E-01	3.7E-01	1.3E+00		
Zr-95	2.2E-01 +/- 4.9E-01	2.4E-01	8.3E-01		

Flags: **a The measured MDC is greater than the required MDC**
b The activity concentration is greater than three times its one sigma counting uncertainty.
c Peak was found

Reporting Level Ratio:

Approved by
C.A. Shelton
Sample Control & Measurements Lead

Don McGee

AREVA

Environmental Laboratory Analysis Report

29 Research Drive
Westboro, MA 01581
508-573-6650

Customer AREVA NP Inc
Attention John McGehee

FEDERAL GRF **Report Date** 07/30/07
Receipt Date 06/19/07

AREVA NP Inc
AREVA NP Federal D&D Group
400 South Tryon Street
Charlotte, NC 28285

Lab. Sample No. L12563-19 **Client ID** C4024 102C1 WU1C1 WWH1-3 **Product** GAMMA SPECTROMETRY
Reference Date 04/27/07 **Analysis Date** 07/25/07 **Matrix** Concrete

Nuclide	Activity Concentration +/- 2 - Sigma (pCi/g)	TPU 1 Sigma (pCi/g)	Measured MDC (pCi/g)	Required MDC (pCi/g)	Flags
AcTh-228	3.4E-01 +/- 2.9E-01	1.4E-01	4.4E-01		
Ag-108m	1.5E-02 +/- 4.6E-02	2.3E-02	8.1E-02		
Ag-110m	-5E-02 +/- 1.3E-01	6.6E-02	2.6E-01		
Ba-140	5E+00 +/- 1.0E+01	5.1E+00	1.8E+01		
Be-7	1.1E+00 +/- 1.4E+00	6.8E-01	2.2E+00		
Ce-141	-2.1E-01 +/- 3.6E-01	1.8E-01	6.7E-01		
Ce-144	3E-02 +/- 2.8E-01	1.4E-01	4.9E-01		
Co-57	-1.3E-01 +/- 3.0E-01	1.5E-01	5.6E-01		
Co-58	-2E-02 +/- 1.4E-01	6.9E-02	2.7E-01		
Co-60	1.68E-01 +/- 8.5E-02	4.3E-02	1.6E-01	2.0E-02	abc
Cr-51	3.3E+00 +/- 3.6E+00	1.8E+00	5.9E+00		
Cs-134	-3.9E-02 +/- 8.0E-02	4.0E-02	1.6E-01	8.0E-02	a
Cs-137	4.2E-02 +/- 7.4E-02	3.7E-02	1.3E-01	3.0E-02	a
Eu-152	1.52E+00 +/- 1.6E-01	1.1E-01	2.8E-01	1.0E-01	abc
Eu-154	1.4E-01 +/- 1.0E-01	5.2E-02	1.9E-01	1.0E-01	a c
Fe-59	3.5E-01 +/- 5.7E-01	2.8E-01	9.6E-01		
K-40	2.7E+00 +/- 1.4E+00	7.1E-01	1.8E+00	3.0E-01	abc
La-140	6E+00 +/- 1.2E+01	5.8E+00	2.1E+01		
Mn-54	1.6E-02 +/- 9.2E-02	4.6E-02	1.7E-01	1.0E-01	a
Na-22	7.9E-02 +/- 8.3E-02	4.1E-02	1.3E-01	4.0E-02	a
Nb-94	-6.4E-02 +/- 6.5E-02	3.3E-02	1.3E-01		
Nb-95	-2.2E-01 +/- 4.0E-01	2.0E-01	7.9E-01		
Ru-103	-3E-02 +/- 2.2E-01	1.1E-01	4.1E-01		
Ru-106	-1.6E-01 +/- 6.4E-01	3.2E-01	1.2E+00		
Sb-124	1.1E-01 +/- 4.2E-01	2.1E-01	8.1E-01		
Sb-125	1E-02 +/- 1.5E-01	7.3E-02	2.7E-01		
Se-75	2.2E-02 +/- 8.3E-02	4.1E-02	1.5E-01		
Zn-65	-2.7E-01 +/- 3.4E-01	1.7E-01	6.6E-01		
Zr-95	-1E-01 +/- 3.3E-01	1.7E-01	6.4E-01		

Flags: a The measured MDC is greater than the required MDC
b The activity concentration is greater than three times its one sigma counting uncertainty.
c Peak was found

Reporting Level Ratio:

Approved by
7/31/07
for C.A. Shelton
Sample Control & Measurements Lead

c: Don McGee

AREVA

Environmental Laboratory Analysis Report

29 Research Drive
Westboro, MA 01581
508-573-6650

Customer AREVA NP Inc
Attention John McGehee

FEDERAL GRP **Report Date** 07/31/07
Receipt Date 06/19/07

AREVA NP Inc
AREVA NP Federal D&D Group
400 South Tryon Street
Charlotte, NC 28285

Lab. Sample No. L12563-20 **Client ID** C4024 102C1 WU1C1 WWH1-AL1 **Product** GAMMA SPECTROMETRY
Reference Date 04/27/07 **Analysis Date** 07/25/07 **Matrix** Concrete

Nuclide	Activity Concentration +/- 2 - Sigma (pCi/g)			TPU 1 Sigma (pCi/g)	Measured MDC (pCi/g)	Required MDC (pCi/g)	Flags
AcTh-228	3.6E-01	+/-	8.2E-01	4.1E-01	1.4E+00		
Ag-108m	1.2E-01	+/-	1.1E-01	5.5E-02	1.8E-01		
Ag-110m	5E-02	+/-	3.6E-01	1.8E-01	6.3E-01		
Ba-140	-5E+00	+/-	1.6E+01	7.9E+00	3.2E+01		
Be-7	-1E-01	+/-	3.1E+00	1.5E+00	5.5E+00		
Ce-141	1.6E-01	+/-	5.7E-01	2.9E-01	9.8E-01		
Ce-144	-2.4E-01	+/-	4.6E-01	2.3E-01	8.4E-01		
Co-57	3.7E-01	+/-	4.7E-01	2.3E-01	7.7E-01		
Co-58	6E-02	+/-	4.4E-01	2.2E-01	7.7E-01		
Co-60	1.175E+01	+/-	5.5E-01	6.5E-01	3.8E-01	2.0E-02	abc
Cr-51	0E+00	+/-	6.5E+00	3.3E+00	1.2E+01		
Cs-134	7E-02	+/-	2.0E-01	1.0E-01	3.4E-01	8.0E-02	a
Cs-137	2E-01	+/-	1.7E-01	8.3E-02	2.6E-01	3.0E-02	a
Eu-152	1.27E+00	+/-	2.0E-01	1.2E-01	2.9E-01	1.0E-01	abc
Eu-154	2.3E-01	+/-	4.4E-01	2.2E-01	7.6E-01	1.0E-01	a
Fe-59	-5E-01	+/-	1.6E+00	8.0E-01	2.9E+00		
K-40	1.2E+00	+/-	1.2E+00	6.2E-01	1.9E+00	3.0E-01	a
La-140	-6E+00	+/-	1.8E+01	9.1E+00	3.7E+01		
Mn-54	-2E-01	+/-	2.2E-01	1.1E-01	4.2E-01	1.0E-01	a
Na-22	6E-02	+/-	1.7E-01	8.3E-02	2.9E-01	4.0E-02	a
Nb-94	-1E-02	+/-	1.3E-01	6.6E-02	2.4E-01		
Nb-95	1.8E-01	+/-	9.6E-01	4.8E-01	1.7E+00		
Ru-103	5E-02	+/-	5.2E-01	2.6E-01	9.1E-01		
Ru-106	4E-01	+/-	1.3E+00	6.5E-01	2.3E+00		
Sb-124	2E-01	+/-	7.7E-01	3.9E-01	1.4E+00		
Sb-125	0E+00	+/-	3.3E-01	1.6E-01	5.8E-01		
Se-75	4E-02	+/-	1.7E-01	8.6E-02	3.0E-01		
Zn-65	-2.7E-01	+/-	6.2E-01	3.1E-01	1.1E+00		
Zr-95	-3.3E-01	+/-	7.8E-01	3.9E-01	1.4E+00		

Flags: **a The measured MDC is greater than the required MDC**
b The activity concentration is greater than three times its one sigma counting uncertainty.
c Peak was found

Approved by
7/31/07
for C.A. Shelton
Sample Control & Measurements Lead

Reporting Level Ratio:
Results are qualitative because this aluminum disk does not match the calibration source geometry well.

Don McGee

AREVA

Environmental Laboratory Analysis Report

29 Research Drive
Westboro, MA 01581
508-573-6650

Customer AREVA NP Inc
Attention John McGehee

FEDERAL GRP **Report Date** 07/31/07
Receipt Date 06/19/07

AREVA NP Inc
AREVA NP Federal D&D Group
400 South Tryon Street
Charlotte, NC 28285

Lab. Sample No. L12563-21 **Client ID** C4024 102C1 WU1C1 WWH1-R1 **Product** GAMMA SPECTROMETRY
Reference Date 04/27/07 **Analysis Date** 07/25/07 **Matrix** Concrete

Nuclide	Activity Concentration +/- 2 - Sigma (pCi/g)			TPU 1 Sigma (pCi/g)	Measured MDC (pCi/g)	Required MDC (pCi/g)	Flags
AcTh-228	6E-01	+/-	3.0E+00	1.5E+00	5.1E+00		
Ag-108m	1.9E-01	+/-	3.8E-01	1.9E-01	6.4E-01		
Ag-110m	0E+00	+/-	1.2E+00	6.0E-01	2.1E+00		
Ba-140	-3.8E+01	+/-	8.5E+01	4.2E+01	1.5E+02		
Be-7	2E+00	+/-	1.2E+01	5.8E+00	2.0E+01		
Ce-141	-2.6E+00	+/-	3.6E+00	1.8E+00	6.3E+00		
Ce-144	-7E-01	+/-	2.0E+00	1.0E+00	3.5E+00		
Co-57	1.3E+00	+/-	2.2E+00	1.1E+00	3.6E+00		
Co-58	1E-01	+/-	1.4E+00	7.1E-01	2.4E+00		
Co-60	2.46E+01	+/-	1.2E+00	1.4E+00	1.5E+00	2.0E-02	abc
Cr-51	-1.6E+01	+/-	2.8E+01	1.4E+01	4.9E+01		
Cs-134	8.1E-01	+/-	7.4E-01	3.7E-01	1.2E+00	8.0E-02	a
Cs-137	3.2E-01	+/-	5.5E-01	2.7E-01	9.1E-01	3.0E-02	a
Eu-152	-7E-02	+/-	6.2E-01	3.1E-01	1.1E+00	1.0E-01	a
Eu-154	-6E-01	+/-	1.9E+00	9.8E-01	3.4E+00	1.0E-01	a
Fe-59	3.9E+00	+/-	5.2E+00	2.6E+00	8.6E+00		
K-40	6E+00	+/-	1.1E+01	5.3E+00	1.8E+01	3.0E-01	a
La-140	-4.4E+01	+/-	9.7E+01	4.9E+01	1.8E+02		
Mn-54	5.2E-01	+/-	7.3E-01	3.7E-01	1.2E+00	1.0E-01	a
Na-22	-7.8E-01	+/-	7.5E-01	3.8E-01	1.4E+00	4.0E-02	a
Nb-94	2.3E-01	+/-	5.2E-01	2.6E-01	8.8E-01		
Nb-95	7E-01	+/-	3.5E+00	1.8E+00	6.0E+00		
Ru-103	-8E-01	+/-	2.0E+00	9.9E-01	3.5E+00		
Ru-106	-1.9E+00	+/-	5.4E+00	2.7E+00	9.5E+00		
Sb-124	-9E-01	+/-	3.7E+00	1.8E+00	6.6E+00		
Sb-125	-7E-01	+/-	1.3E+00	6.7E-01	2.3E+00		
Se-75	-1.1E-01	+/-	6.9E-01	3.4E-01	1.2E+00		
Zn-65	-1E-01	+/-	1.9E+00	9.3E-01	3.2E+00		
Zr-95	-1.5E+00	+/-	2.7E+00	1.3E+00	4.7E+00		

Flags: **a The measured MDC is greater than the required MDC**
b The activity concentration is greater than three times its one sigma counting uncertainty.
c Peak was found

Approved by
7/31/07
for C.A. Shelton
Sample Control & Measurements Lead

Reporting Level Ratio:
Results are qualitative because this rebar does not match the calibration source geometry well.

Don McGee

AREVA

Environmental Laboratory Analysis Report

29 Research Drive
Westboro, MA 01581
508-573-6650

Customer AREVA NP Inc
Attention John McGehee

FEDERAL GRP **Report Date** 08/08/07
Receipt Date 06/19/07

AREVA NP Inc
AREVA NP Federal D&D Group
400 South Tryon Street
Charlotte, NC 28285

Lab. Sample No. L12563-22 **Client ID** C4024 303C2 FL1C1 DUPLICATE **Product** GAMMA SPECTROMETRY
Reference Date 05/11/07 **Analysis Date** 08/07/07 **Matrix** Concrete

Nuclide	Activity Concentration +/- 2 - Sigma (pCi/g)	TPU 1 Sigma (pCi/g)	Measured MDC (pCi/g)	Required MDC (pCi/g)	Flags
AcTh-228	7.79E-01 +/- 6.8E-02	5.2E-02	1.5E-01		bc
Ag-108m	-5E-03 +/- 1.4E-02	7.1E-03	2.4E-02		
Ag-110m	-1E-02 +/- 3.1E-02	1.6E-02	5.4E-02		
Ba-140	-9E-01 +/- 2.1E+00	1.0E+00	3.7E+00		
Be-7	4.3E-01 +/- 8.4E-01	4.2E-01	1.4E+00		
Ce-141	8E-02 +/- 1.4E-01	6.9E-02	2.3E-01		
Ce-144	1E-02 +/- 1.0E-01	5.1E-02	1.7E-01		
Co-57	0E+00 +/- 1.1E-01	5.3E-02	1.8E-01		
Co-58	-4.3E-02 +/- 3.7E-02	1.9E-02	6.7E-02		
Co-60	2.8E-02 +/- 1.9E-02	9.4E-03	4.1E-02	2.0E-02	a c
Cr-51	1.2E+00 +/- 1.2E+00	5.8E-01	1.9E+00		
Cs-134	-1.3E-02 +/- 1.9E-02	9.4E-03	3.3E-02	8.0E-02	
Cs-137	7.63E-01 +/- 4.2E-02	4.4E-02	3.9E-02	3.0E-02	abc
Eu-152	1.01E-01 +/- 3.0E-02	1.6E-02	6.0E-02	1.0E-01	bc
Eu-154	3.9E-02 +/- 6.4E-02	3.2E-02	1.1E-01	1.0E-01	a
Fe-59	1.3E-01 +/- 1.4E-01	7.0E-02	2.3E-01		
K-40	1.591E+01 +/- 6.8E-01	8.6E-01	4.1E-01	3.0E-01	abc
La-140	-1E+00 +/- 2.4E+00	1.2E+00	4.3E+00		
Mn-54	-3E-03 +/- 2.0E-02	1.0E-02	3.5E-02	1.0E-01	
Na-22	1.3E-02 +/- 2.4E-02	1.2E-02	4.0E-02	4.0E-02	
Nb-94	5E-03 +/- 1.8E-02	9.1E-03	3.1E-02		
Nb-95	-2E-02 +/- 1.3E-01	6.7E-02	2.3E-01		
Ru-103	-1.6E-02 +/- 7.1E-02	3.5E-02	1.2E-01		
Ru-106	1.1E-01 +/- 1.9E-01	9.6E-02	3.2E-01		
Sb-124	5.6E-02 +/- 8.8E-02	4.4E-02	1.5E-01		
Sb-125	1.3E-02 +/- 5.3E-02	2.6E-02	8.8E-02		
Se-75	1.3E-02 +/- 3.1E-02	1.6E-02	5.2E-02		
Zn-65	1E-02 +/- 1.0E-01	5.1E-02	1.7E-01		
Zr-95	-9.1E+00 +/- 8.5E+00	4.3E+00	1.4E+01		

Flags: **a The measured MDC is greater than the required MDC**
b The activity concentration is greater than three times its one sigma counting uncertainty.
c Peak was found

Approved by
8/8/07
for C A Shelton
Sample Control & Measurements Lead

Reporting Level Ratio:

cc: Don McGee

Survey Package Appendix C – Survey Results

Survey Package:	C4024 102C1	Package: Structure
Survey Area Name:	SETF, Building 4024	
Survey Unit Name:	SGTCC Test Cell B-104	

Section 7.0
Sample Analysis Results – Alpha Spectroscopy
10 Pages

Am-241, Cm-242, 243/244

AREVA

Environmental Laboratory Analysis Report

29 Research Drive
Westboro, MA 01581
508-573-6650

Customer
AREVA NP Inc
AREVA NP Federal D&D Group
400 South Tryon Street
Charlotte, NC 28285
Attn: John McGehee

Product AM-241 CM242,243,244

Report Date 11/08/07
Receipt Date 06/19/07

LSN	Client ID & Description	Reference Date	Analysis Date	Nuclide	Activity Concentration +/- 2-Sigma (pCi/g)	TPU 1 Sigma (pCi/g)	Measured MDC (pCi/g)	Required MDC (pCi/g)	Reporting Flags	Level Ratio
Concrete										
L12563-17	C4024 102C1 WU1C1 WWH1-1	04/27/2007	11/08/2007	Am-241	2E-03 +/- 1.4E-02	7.2E-03	3.6E-02	1.9E+00		
L12563-17	C4024 102C1 WU1C1 WWH1-1	04/27/2007	11/08/2007	Cm-242	0E+00 +/- 4.4E-04	2.2E-04	3.5E-02			
L12563-17	C4024 102C1 WU1C1 WWH1-1	04/27/2007	11/08/2007	Cm-243/244	0E+00 +/- 1.9E-04	9.7E-05	1.6E-02			

Flags:
a The measured MDC is greater than the required MDC.
b The activity concentration is greater than three times its one sigma counting uncertainty.

Approved by
11/08/07
for C.A. Shelton
Sample Control & Measurements Lead

c: Don McGee

AREVA

Environmental Laboratory Analysis Report

29 Research Drive
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AREVA NP Federal D&D Group
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Attn: John McGehee

Product AM-241 CM242,243,244

Report Date 11/07/07
Receipt Date 06/19/07

LSN	Client ID & Description	Reference Date	Analysis Date	Nuclide	Activity Concentration +/- 2-Sigma (pCi/g)	TPU 1 Sigma (pCi/g)	Measured MDC (pCi/g)	Required MDC (pCi/g)	Flags	Reporting Level Ratio
Concrete										
L12563-04	C4024 303C2 FL1C1 FL1C1-SL5	05/11/2007	08/29/2007	Am-241	1.2E-02 +/- 3.0E-02	1.5E-02	6.0E-02	1.9E+00		
L12563-04	C4024 303C2 FL1C1 FL1C1-SL5	05/11/2007	08/29/2007	Cm-242	-1.5E-03 +/- 3.1E-03	1.5E-03	5.8E-02			
L12563-04	C4024 303C2 FL1C1 FL1C1-SL5	05/11/2007	08/29/2007	Cm-243/244	-1.9E-03 +/- 2.7E-03	1.4E-03	4.1E-02			
L12563-05	C4024 303C2 FL2C1 FL2C1-SL8	04/27/2007	08/15/2007	Am-241	5E-03 +/- 2.6E-02	1.3E-02	6.7E-02	1.9E+00		
L12563-05	C4024 303C2 FL2C1 FL2C1-SL8	04/27/2007	08/15/2007	Cm-242	1.9E-02 +/- 3.8E-02	1.9E-02	5.1E-02			
L12563-05	C4024 303C2 FL2C1 FL2C1-SL8	04/27/2007	08/15/2007	Cm-243/244	-6E-04 +/- 1.2E-03	6.0E-04	4.1E-02			
L12563-22	C4024 303C2 FL1C1 DUPLICATE	05/11/2007	08/29/2007	Am-241	-1.4E-02 +/- 1.8E-02	8.9E-03	9.8E-02	1.9E+00		
L12563-22	C4024 303C2 FL1C1 DUPLICATE	05/11/2007	08/29/2007	Cm-242	0E+00 +/- 7.0E-04	3.5E-04	6.6E-02			
L12563-22	C4024 303C2 FL1C1 DUPLICATE	05/11/2007	08/29/2007	Cm-243/244	0E+00 +/- 4.4E-04	2.2E-04	4.2E-02			

Flags:
a The measured MDC is greater than the required MDC.
b The activity concentration is greater than three times its one sigma counting uncertainty.

Approved by
11/7/07
C.A. Shelton
Sample Control & Measurements Lead

c: Don McGee

Fe-55

AREVA

Environmental Laboratory Analysis Report

29 Research Drive
Westboro, MA 01581
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Attn: John McGehee

Product FE-55

Report Date 08/24/07
Receipt Date 06/19/07

LSN	Client ID & Description	Reference Date	Analysis Date	Nuclide	Activity Concentration +/- 2-Sigma (pCi/g)	TPU 1 Sigma (pCi/g)	Measured MDC (pCi/g)	Required MDC (pCi/g)	Flags	Reporting Level Ratio
Concrete										
L12563-04	C4024 303C2 FL1C1 FL1C1-SL5	05/11/2007	08/17/2007	Fe-55	1.3E+00 +/- 5.0E+00	2.5E+00	8.3E+00	2.0E+01		
L12563-05	C4024 303C2 FL2C1 FL2C1-SL8	04/27/2007	08/17/2007	Fe-55	1.9E+00 +/- 5.8E+00	2.9E+00	9.6E+00	2.0E+01		
L12563-22	C4024 303C2 FL1C1 DUPLICATE	05/11/2007	08/17/2007	Fe-55	3E-01 +/- 4.1E+00	2.0E+00	6.8E+00	2.0E+01		

Flags:
a The measured MDC is greater than the required MDC.
b The activity concentration is greater than three times its one sigma counting uncertainty.

Approved by
8/26/07
for C.A. Shelton
Sample Control & Measurements Lead

c: Don McGee

AREVA

Environmental Laboratory Analysis Report

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Attn: John McGehee

Product FE-55

Report Date 11/07/07
Receipt Date 06/19/07

LSN	Client ID & Description	Reference Date	Analysis Date	Nuclide	Activity Concentration +/- 2-Sigma (pCi/g)	TPU 1 Sigma (pCi/g)	Measured MDC (pCi/g)	Required MDC (pCi/g)	Flags	Reporting Level Ratio
Concrete										
L12563-04	C4024 303C2 FL1C1 FL1C1-SL5	05/11/2007	10/22/2007	Fe-55	-6.7E+00 +/- 9.0E+00	4.5E+00	1.6E+01	2.0E+01		
L12563-05	C4024 303C2 FL2C1 FL2C1-SL8	04/27/2007	10/22/2007	Fe-55	-2.8E+00 +/- 7.4E+00	3.7E+00	1.3E+01	2.0E+01		
L12563-17	C4024 102C1 WU1C1 WWH1-1	04/27/2007	10/22/2007	Fe-55	-1.8E+00 +/- 4.7E+00	2.4E+00	8.5E+00	2.0E+01		
L12563-22	C4024 303C2 FL1C1 DUPLICATE	05/11/2007	10/22/2007	Fe-55	-8E-01 +/- 5.9E+00	2.9E+00	1.0E+01	2.0E+01		

Flags:
a The measured MDC is greater than the required MDC.
b The activity concentration is greater than three times its one sigma counting uncertainty.

Approved by
11/7/07
C.A. Shelton
Sample Control & Measurements Lead

c: Don McGee

Pu-238, 239/240

AREVA

Environmental Laboratory Analysis Report

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AREVA NP Federal D&D Group
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Charlotte, NC 28285
Attn: John McGehee

Product PU-238,PU-239/240

Report Date 11/08/07
Receipt Date 06/19/07

LSN	Client ID & Description	Reference Date	Analysis Date	Nuclide	Activity Concentration +/- 2-Sigma (pCi/g)	TPU 1 Sigma (pCi/g)	Measured MDC (pCi/g)	Required MDC (pCi/g)	Flags	Reporting Level Ratio
Concrete										
L12563-17	C4024 102C1 WU1C1 WWH1-1	04/27/2007	11/08/2007	Pu-238	-1.9E-03 +/- 2.7E-03	1.4E-03	4.6E-02	1.0E-01		
L12563-17	C4024 102C1 WU1C1 WWH1-1	04/27/2007	11/08/2007	Pu-239/240	3.1E-02 +/- 3.8E-02	1.9E-02	4.5E-02	1.0E-01		

Flags:
a The measured MDC is greater than the required MDC.
b The activity concentration is greater than three times its one sigma counting uncertainty.

Approved by
for C.A. Shelton 11/08/07
Sample Control & Measurements Lead

c: Don McGee

AREVA

Environmental Laboratory Analysis Report

29 Research Drive
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Attn: John McGehee

Product PU-238,PU-239/240

Report Date 10/23/07
Receipt Date 06/19/07

LSN	Client ID & Description	Reference Date	Analysis Date	Nuclide	Activity Concentration +/- 2-Sigma (pCi/g)	TPU 1 Sigma (pCi/g)	Measured MDC (pCi/g)	Required MDC (pCi/g)	Reporting Flags	Level Ratio
Concrete										
L12563-04	C4024 303C2 FL1C1 FL1C1-SL5	05/11/2007	08/14/2007	Pu-238	-4.3E-03 +/- 3.5E-03	1.8E-03	4.8E-02	1.0E-01		
L12563-04	C4024 303C2 FL1C1 FL1C1-SL5	05/11/2007	08/14/2007	Pu-239/240	9E-03 +/- 1.9E-02	9.6E-03	3.5E-02	1.0E-01		
L12563-05	C4024 303C2 FL2C1 FL2C1-SL8	04/27/2007	08/14/2007	Pu-238	-1E-03 +/- 2.0E-03	9.9E-04	4.8E-02	1.0E-01		
L12563-05	C4024 303C2 FL2C1 FL2C1-SL8	04/27/2007	08/14/2007	Pu-239/240	2.6E-02 +/- 3.7E-02	1.9E-02	3.6E-02	1.0E-01		
L12563-22	C4024 303C2 FL1C1 DUPLICATE	05/11/2007	08/15/2007	Pu-238	0E+00 +/- 4.0E-04	2.0E-04	3.1E-02	1.0E-01		
L12563-22	C4024 303C2 FL1C1 DUPLICATE	05/11/2007	08/15/2007	Pu-239/240	2.3E-02 +/- 3.2E-02	1.6E-02	3.1E-02	1.0E-01		

Flags:
a The measured MDC is greater than the required MDC.
b The activity concentration is greater than three times its one sigma counting uncertainty.

Approved by
10/23/07
C.A. Shelton
Sample Control & Measurements Lead

c: Don McGee

Pu-241

AREVA

Environmental Laboratory Analysis Report

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AREVA NP Federal D&D Group
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Charlotte, NC 28285
Attn: John McGehee

Product PU-241

Report Date 11/12/07
Receipt Date 06/19/07

LSN	Client ID & Description	Reference Date	Analysis Date	Nuclide	Activity Concentration +/- 2-Sigma (pCi/g)	TPU 1 Sigma (pCi/g)	Measured MDC (pCi/g)	Required MDC (pCi/g)	Reporting Flags	Level Ratio
Concrete										
L12563-17	C4024 102C1 WU1C1 WWH1-1	04/27/2007	11/10/2007	Pu-241	6E-01 +/- 1.9E+00	9.6E-01	3.2E+00	5.0E+00		

Flags:
a The measured MDC is greater than the required MDC.
b The activity concentration is greater than three times its one sigma counting uncertainty.

Approved by
11/12/07
for C.A. Shelton
Sample Control & Measurements Lead

c: Don McGee

AREVA

Environmental Laboratory Analysis Report

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Attn: John McGehee

Product PU-241

Report Date 11/08/07
Receipt Date 06/19/07

LSN	Client ID & Description	Reference Date	Analysis Date	Nuclide	Activity Concentration +/- 2-Sigma (pCi/g)	TPU 1 Sigma (pCi/g)	Measured MDC (pCi/g)	Required MDC (pCi/g)	Reporting Flags	Level Ratio
Concrete										
L12563-04	C4024 303C2 FL1C1 FL1C1-SL5	05/11/2007	11/03/0007	Pu-241	-3E-01 +/- 1.3E+00	6.7E-01	2.2E+00	5.0E+00		
L12563-05	C4024 303C2 FL2C1 FL2C1-SL8	04/27/2007	11/04/0007	Pu-241	0E+00 +/- 1.8E+00	8.8E-01	2.9E+00	5.0E+00		
L12563-22	C4024 303C2 FL1C1 DUPLICATE	05/11/2007	11/04/0007	Pu-241	-5E-01 +/- 1.1E+00	5.7E-01	1.9E+00	5.0E+00		

Flags:
a The measured MDC is greater than the required MDC.
b The activity concentration is greater than three times its one sigma counting uncertainty.

Approved by
for C.A. Shelton
Sample Control & Measurements Lead

c: Don McGee

Sr-89,90

AREVA

Environmental Laboratory Analysis Report

29 Research Drive
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508-573-6650

Customer
AREVA NP Inc
AREVA NP Federal D&D Group
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Charlotte, NC 28285
Attn: John McGehee

Product SR-89, SR-90

Report Date 11/12/07
Receipt Date 06/19/07

LSN	Client ID & Description	Reference Date	Analysis Date	Nuclide	Activity Concentration +/- 2-Sigma (pCi/g)	TPU 1 Sigma (pCi/g)	Measured MDC (pCi/g)	Required MDC (pCi/g)	Flags	Reporting Level Ratio
Concrete										
L12563-04	C4024 303C2 FL1C1 FL1C1-SL5	05/11/2007	10/31/2007	Sr-90	1.54E-01 +/- 5.9E-02	3.1E-02	9.2E-02	1.2E-01	b	
L12563-05	C4024 303C2 FL2C1 FL2C1-SL8	04/27/2007	11/02/2007	Sr-90	1.81E-01 +/- 6.0E-02	3.2E-02	9.3E-02	1.2E-01	b	
L12563-17	C4024 102C1 WU1C1 WWH1-1	04/27/2007	11/05/2007	Sr-90	9.4E-02 +/- 6.2E-02	3.1E-02	1.0E-01	1.2E-01	b	
L12563-22	C4024 303C2 FL1C1 DUPLICATE	05/11/2007	10/31/2007	Sr-90	1.9E-01 +/- 5.9E-02	3.2E-02	9.2E-02	1.2E-01	b	

Flags:
a The measured MDC is greater than the required MDC.
b The activity concentration is greater than three times its one sigma counting uncertainty.

Approved by
11/12/07
for C.A. Shelton
Sample Control & Measurements Lead

c: Don McGee

Th-230, 232

AREVA

Environmental Laboratory Analysis Report

29 Research Drive
Westboro, MA 01581
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Customer

AREVA NP Inc
AREVA NP Federal D&D Group
400 South Tryon Street
Charlotte, NC 28285

Attention: John McGehee

Product TH-230, TH-232

Report Date 11/22/07
Receipt Date 06/19/07

LSN	Client ID & Description	Reference Date	Analysis Date	Nuclide	Activity Concentration ± 2-Sigma (pCi/g)	TPU 1-Sigma (pCi/g)	Measured MDC (pCi/g)	Required MDC (pCi/g)	Flags	Reporting Level Ratio
Soil										
L12563-17	C4024 102C1 WU1C1 WWH1-1	04/27/07	11/14/07	Th-228	1.2E-01 ± 2.1E-01	1.0E-01	3.5E-01	1.0E-01	a	
L12563-17	C4024 102C1 WU1C1 WWH1-1	04/27/07	11/14/07	Th-230	3.3E-01 ± 1.3E-01	6.9E-02	1.3E-01	1.0E-01	a b	
L12563-17	C4024 102C1 WU1C1 WWH1-1	04/27/07	11/14/07	Th-232	1.63E-01 ± 9.1E-02	4.7E-02	9.5E-02	1.0E-01	b	

Flags:
a The measured MDC is greater than the required MDC.
b The activity concentration is greater than three times its one-sigma counting uncertainty.

Approved by

11/22/07
J. M. Raimondi
Laboratory Manager

11/23/07
A. D. Banavali
Radiochemistry Lead

AREVA

Environmental Laboratory Analysis Report

29 Research Drive
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Customer

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AREVA NP Federal D&D Group
400 South Tryon Street
Charlotte, NC 28285

Attention: John McGehee

Product TH-230, TH-232

Report Date 11/15/07
Receipt Date 06/19/07

LSN	Client ID & Description	Reference Date	Analysis Date	Nuclide	Activity Concentration ± 2-Sigma (pCi/g)	TPU 1-Sigma (pCi/g)	Measured MDC (pCi/g)	Required MDC (pCi/g)	Flags	Reporting Level Ratio
Soil										
L12563-04	C4024 303C2 FL1C1 FL1C1-SL5	05/11/07	11/10/07	Th-228	6.5E-01 ± 1.7E-01	9.1E-02	1.9E-01	1.0E-01		
L12563-04	C4024 303C2 FL1C1 FL1C1-SL5	05/11/07	11/10/07	Th-230	3.2E-01 ± 1.3E-01	6.6E-02	1.6E-01	1.0E-01		
L12563-04	C4024 303C2 FL1C1 FL1C1-SL5	05/11/07	11/10/07	Th-232	5.1E-01 ± 1.3E-01	6.6E-02	5.8E-02	1.0E-01		
L12563-05	C4024 303C2 FL1C1 FL2C1-SL8	04/27/07	11/10/07	Th-228	4.3E-01 ± 2.3E-01	1.2E-01	3.1E-01	1.0E-01		
L12563-05	C4024 303C2 FL1C1 FL2C1-SL8	04/27/07	11/10/07	Th-230	3.2E-01 ± 1.7E-01	8.6E-02	2.1E-01	1.0E-01		
L12563-05	C4024 303C2 FL1C1 FL2C1-SL8	04/27/07	11/10/07	Th-232	3.9E-01 ± 1.5E-01	7.6E-02	7.9E-02	1.0E-01		
L12563-22	C4024 303C2 FL1C1 DUPLICATE	05/11/07	10/20/07	Th-228	2.3E-01 ± 3.7E-01	1.9E-01	6.1E-01	1.0E-01		
L12563-22	C4024 303C2 FL1C1 DUPLICATE	05/11/07	10/20/07	Th-230	3.47E-01 ± 5.5E-02	3.1E-02	3.7E-02	1.0E-01		
L12563-22	C4024 303C2 FL1C1 DUPLICATE	05/11/07	10/20/07	Th-232	5.19E-01 ± 6.3E-02	3.8E-02	1.1E-02	1.0E-01		

Flags:
a The measured MDC is greater than the required MDC.
b The activity concentration is greater than three times its one-sigma counting uncertainty.

Approved by

11/15/07
J. M. Raimondi
Laboratory Manager

for 11/16/07
C. A. Shelton
Sample Control and Measurements Lead

U-234,
U-235,
U-238

AREVA

Environmental Laboratory Analysis Report

29 Research Drive
Westboro, MA 01581
508-573-6650

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AREVA NP Federal D&D Group
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Attn: John McGehee

Product U-234, U-235, U-238

Report Date 11/25/07
Receipt Date 06/19/07

LSN	Client ID & Description	Reference Date	Analysis Date	Nuclide	Activity Concentration +/- 2-Sigma (pCi/g)	TPU 1 Sigma (pCi/g)	Measured MDC (pCi/g)	Required MDC (pCi/g)	Flags	Reporting Level Ratio
Concrete										
L12563-17	C4024 102C1 WU1C1 WWH1-1	04/27/2007	10/20/2007	U-234	3.1E-01 +/- 4.8E-02	2.7E-02	1.6E-02	1.0E-04	ab	
L12563-17	C4024 102C1 WU1C1 WWH1-1	04/27/2007	10/20/2007	U-235	1.8E-02 +/- 1.3E-02	6.7E-03	1.4E-02	1.0E-04	a	
L12563-17	C4024 102C1 WU1C1 WWH1-1	04/27/2007	10/20/2007	U-238	2.82E-01 +/- 4.5E-02	2.5E-02	1.6E-02	1.0E-04	ab	

Flags:
a The measured MDC is greater than the required MDC.
b The activity concentration is greater than three times its one sigma counting uncertainty.

Approved by
11/25/07
for C.A. Shelton
Sample Control & Measurements Lead

c: Don McGee

AREVA

Environmental Laboratory Analysis Report

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Product U-234, U-235, U-238

Report Date 11/15/07
Receipt Date 06/19/07

LSN	Client ID & Description	Reference Date	Analysis Date	Nuclide	Activity Concentration +/- 2-Sigma (pCi/g)	TPU 1 Sigma (pCi/g)	Measured MDC (pCi/g)	Required MDC (pCi/g)	Flags	Reporting Level Ratio
Concrete										
L12563-04	C4024 303C2 FL1C1 FL1C1-SL5	05/11/2007	10/20/2007	U-234	3.52E-01 +/- 4.8E-02	2.8E-02	8.2E-03	1.0E-04	ab	
L12563-04	C4024 303C2 FL1C1 FL1C1-SL5	05/11/2007	10/20/2007	U-235	4.2E-02 +/- 1.9E-02	9.4E-03	8.8E-03	1.0E-04	ab	
L12563-04	C4024 303C2 FL1C1 FL1C1-SL5	05/11/2007	10/20/2007	U-238	4.2E-01 +/- 5.3E-02	3.1E-02	7.1E-03	1.0E-04	ab	
L12563-05	C4024 303C2 FL2C1 FL2C1-SL8	04/27/2007	10/20/2007	U-234	4.35E-01 +/- 5.2E-02	3.2E-02	7.8E-03	1.0E-04	ab	
L12563-05	C4024 303C2 FL2C1 FL2C1-SL8	04/27/2007	10/20/2007	U-235	5.2E-02 +/- 2.0E-02	1.0E-02	1.1E-02	1.0E-04	ab	
L12563-05	C4024 303C2 FL2C1 FL2C1-SL8	04/27/2007	10/20/2007	U-238	3.35E-01 +/- 4.6E-02	2.7E-02	9.9E-03	1.0E-04	ab	
L12563-22	C4024 303C2 FL1C1 DUPLICATE	05/11/2007	10/20/2007	U-234	4.58E-01 +/- 6.3E-02	3.6E-02	1.5E-02	1.0E-04	ab	
L12563-22	C4024 303C2 FL1C1 DUPLICATE	05/11/2007	10/20/2007	U-235	4.2E-02 +/- 2.2E-02	1.1E-02	1.5E-02	1.0E-04	ab	
L12563-22	C4024 303C2 FL1C1 DUPLICATE	05/11/2007	10/20/2007	U-238	4.26E-01 +/- 6.0E-02	3.5E-02	9.2E-03	1.0E-04	ab	

Flags:
a The measured MDC is greater than the required MDC.
b The activity concentration is greater than three times its one sigma counting uncertainty.

Approved by
11/15/07
for C.A. Shelton
Sample Control & Measurements Lead

c: Don McGee

Survey Package Appendix C – Survey Results

Survey Package: C4024 102C1 Package: Structure
Survey Area Name: SETF Building 4024
Survey Unit Name: SGTCC Teste Cell B-104

Sample Analysis Results – Supplemental

11 Pages

H-3

AREVA

Environmental Laboratory Analysis Report

29 Research Drive
Westboro, MA 01581
508-573-6650

Customer

AREVA NP Inc
AREVA NP Federal D&D Group
400 South Tryon Street
Charlotte, NC 28285
Attn: John McGehee

Product H-3

Report Date 11/07/07
Receipt Date 06/19/07

LSN	Client ID & Description	Reference Date	Analysis Date	Nuclide	Activity Concentration +/- 2-Sigma (pCi/g)	TPU 1 Sigma (pCi/g)	Measured MDC (pCi/g)	Required MDC (pCi/g)	Flags	Reporting Level Ratio
Concrete										
L12563-04	C4024 303C2 FL1C1 FL1C1-SL5	05/11/2007	08/07/2007	H-3	1.2E-01 +/- 4.5E-01	2.2E-01	6.8E-01	2.3E+00		
L12563-22	C4024 303C2 FL1C1 DUPLICATE	05/11/2007	08/08/2007	H-3	-1.6E-01 +/- 4.4E-01	2.2E-01	6.8E-01	2.3E+00		

Flags: a The measured MDC is greater than the required MDC.
b The activity concentration is greater than three times its one sigma counting uncertainty.

Original sample results - Matrix Spike failed with these samples. No further sample remains for RP.

c: Don McGee

Approved by
11/7/07
C.A. Shelton
Sample Control & Measurements Lead

AREVA

Environmental Laboratory Analysis Report

29 Research Drive
Westboro, MA 01581
508-573-6650

Customer
AREVA NP Inc
AREVA NP Federal D&D Group
400 South Tryon Street
Charlotte, NC 28285
Attn: John McGehee

Product H-3

Report Date 10/26/07
Receipt Date 06/19/07

LSN	Client ID & Description	Reference Date	Analysis Date	Nuclide	Activity Concentration +/- 2-Sigma (pCi/g)	TPU 1 Sigma (pCi/g)	Measured MDC (pCi/g)	Required MDC (pCi/g)	Flags	Reporting Level Ratio
Concrete										
L12563-05	C4024 303C2 FL2C1 FL2C1-SL8	04/27/2007	10/17/2007	H-3	4.22E+00 +/- 8.7E-01	4.5E-01	1.2E+00	2.3E+00	b	
L12563-17	C4024 102C1 WU1C1 WWH1-1	04/27/2007	10/17/2007	H-3	4.392E+02 +/- 4.4E+00	1.1E+01	1.7E+00	2.3E+00	b	

Flags:
a The measured MDC is greater than the required MDC.
b The activity concentration is greater than three times its one sigma counting uncertainty.

Approved by
10/26/07
for C.A. Shelton
Sample Control & Measurements Lead

c: Don McGee

Ni-59

AREVA

Environmental Laboratory Analysis Report

29 Research Drive
Westboro, MA 01581
508-573-6650

Customer

AREVA NP Inc
AREVA NP Federal D&D Group
400 South Tryon Street
Charlotte, NC 28285

Attention: Don McGee

Product Ni-59

Report Date 11/09/07
Receipt Date 06/19/07

LSN	Client ID & Description	Reference Date	Analysis Date	Nuclide	Activity Concentration ± 2-Sigma (pCi/g)	TPU 1-Sigma (pCi/g)	Measured MDC (pCi/g)	Required MDC (pCi/g)	Flags	Reporting Level Ratio
Concrete										
L12563-17	C4024 102C1 WU1C1 WWH1-1	04/02/07	11/08/07	Ni-59	-5.5E+02 ± 9.6E+02	4.8E+02	1.7E+03	2.0E+03		

Flags:
a The measured MDC is greater than the required MDC.
b The activity concentration is greater than three times its one-sigma counting uncertainty.

Approved by

11/09/07
J. M. Raimondi
Laboratory Manager

11/9/07
C. A. Shelton
Sample Control and Measurements Lead

AREVA

Environmental Laboratory Analysis Report

29 Research Drive
Westboro, MA 01581
508-573-6650

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AREVA NP Inc
AREVA NP Federal D&D Group
400 South Tryon Street
Charlotte, NC 28285

Attention: Don McGee

Product Ni-59

Report Date 11/07/07
Receipt Date 06/19/07

LSN	Client ID & Description	Reference Date	Analysis Date	Nuclide	Activity Concentration ± 2-Sigma (pCi/g)	TPU 1-Sigma (pCi/g)	Measured MDC (pCi/g)	Required MDC (pCi/g)	Flags	Reporting Level Ratio
Concrete										
L12563-04	C4024 303C2 FL1C1 FL1C1-SL5	05/11/07	10/19/07	Ni-59	-2.4E+02 ± 7.2E+02	3.6E+02	1.3E+03	2.0E+03		
L12563-05	C4024 303C2 FL2C1 FL2C1-SL8	04/27/07	10/19/07	Ni-59	-4.1E+02 ± 6.8E+02	3.4E+02	1.2E+03	2.0E+03		
L12563-22	C4024 303C2 FL1C1 DUPLICATE	05/11/07	10/19/07	Ni-59	-2.9E+02 ± 7.0E+02	3.5E+02	1.2E+03	2.0E+03		

Flags:
a The measured MDC is greater than the required MDC.
b The activity concentration is greater than three times its one-sigma counting uncertainty.

Approved by

11/08/07
J. M. Raimondi
Laboratory Manager

11/8/07
C. A. Shelton
Sample Control and Measurements Lead

AREVA

Environmental Laboratory Analysis Report

29 Research Drive
Westboro, MA 01581
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AREVA NP Inc
AREVA NP Federal D&D Group
400 South Tryon Street
Charlotte, NC 28285

Attention: John McGehee

Product Ni-59

Report Date 08/27/07
Receipt Date 06/19/07

LSN	Client ID & Description	Reference Date	Analysis Date	Nuclide	Activity Concentration ± 2-Sigma (pCi/g)	TPU 1-Sigma (pCi/g)	Measured MDC (pCi/g)	Required MDC (pCi/g)	Flags	Reporting Level Ratio
Soil										
L12563-04	C4024 303C2 FL1C1 FL1C1-SL5	05/11/07	08/16/07	Ni-59	3.4E+02 ± 7.4E+02	3.7E+02	1.1E+03	2.0E+03		
L12563-05	C4024 303C2 FL1C1 FL2C1-SL8	04/27/07	08/16/07	Ni-59	1.0E+03 ± 1.2E+03	6.0E+02	1.6E+03	2.0E+03		
L12563-22	C4024 303C2 FL1C1 DUPLICATE	05/11/07	08/16/07	Ni-59	9E+01 ± 7.8E+02	3.9E+02	1.3E+03	2.0E+03		

Flags:
a The measured MDC is greater than the required MDC.
b The activity concentration is greater than three times its one-sigma counting uncertainty.

Approved by

8/27/07
J. M. Raimondi
Laboratory Manager

8/27/07
C. A. Shelton
Sample Control and Measurements Lead

Ni-63

AREVA

Environmental Laboratory Analysis Report

29 Research Drive
Westboro, MA 01581
508-573-6650

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AREVA NP Inc
AREVA NP Federal D&D Group
400 South Tryon Street
Charlotte, NC 28285

Attention: Don McGee

Product Ni-63

Report Date 11/14/07
Receipt Date 06/19/07

LSN	Client ID & Description	Reference Date	Analysis Date	Nuclide	Activity Concentration ± 2-Sigma (pCi/g)	TPU 1-Sigma (pCi/g)	Measured MDC (pCi/g)	Required MDC (pCi/g)	Flags	Reporting Level Ratio
Soil										
L12563-17	C4024 102C1 WU1C1 WWH1-1	04/27/07	11/14/07	Ni-63	-1.2E+00 ± 5.0E+00	2.5E+00	8.4E+00	1.5E+01		

Flags:
a The measured MDC is greater than the required MDC.
b The activity concentration is greater than three times its one-sigma counting uncertainty.

Approved by

11/14/07
J. M. Raimondi
Laboratory Manager

11/14/07
C. A. Shelton
Sample Control and Measurements Lead

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29 Research Drive
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AREVA NP Inc
AREVA NP Federal D&D Group
400 South Tryon Street
Charlotte, NC 28285

Attention: Don McGee

Product Ni-63

Report Date 11/07/07
Receipt Date 06/19/07

LSN	Client ID & Description	Reference Date	Analysis Date	Nuclide	Activity Concentration ± 2-Sigma (pCi/g)	TPU 1-Sigma (pCi/g)	Measured MDC (pCi/g)	Required MDC (pCi/g)	Flags	Reporting Level Ratio
Soil										
L12563-04	C4024 303C2 FL1C1 FL1C1-SL5	05/11/07	10/23/07	Ni-63	-1E-01 ± 4.0E+00	2.0E+00	6.7E+00	1.5E+01		
L12563-05	C4024 303C2 FL2C1 FL2C1-SL8	04/27/07	10/23/07	Ni-63	4.6E+00 ± 4.4E+00	2.2E+00	6.9E+00	1.5E+01		
L12563-22	C4024 303C2 FL1C1 DUPLICATE	05/11/07	10/23/07	Ni-63	-5E-01 ± 4.4E+00	2.2E+00	7.3E+00	1.5E+01		

Flags:
a The measured MDC is greater than the required MDC.
b The activity concentration is greater than three times its one-sigma counting uncertainty.

Approved by

11/08/07
J. M. Raimondi
Laboratory Manager

11/8/07
C. A. Shelton
Sample Control and Measurements Lead

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Environmental Laboratory Analysis Report

29 Research Drive
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AREVA NP Inc
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400 South Tryon Street
Charlotte, NC 28285

Attention: John McGehee

Product Ni-63

Report Date 08/29/07
Receipt Date 06/19/07

LSN	Client ID & Description	Reference Date	Analysis Date	Nuclide	Activity Concentration ± 2-Sigma (pCi/g)	TPU 1-Sigma (pCi/g)	Measured MDC (pCi/g)	Required MDC (pCi/g)	Flags	Reporting Level Ratio
Soil										
L12563-04	C4024 303C2 FL1C1 FL1C1-SL5	05/11/07	08/16/07	Ni-63	-3E-01 ± 2.6E+00	1.3E+00	4.4E+00	1.5E+01		
L12563-05	C4024 303C2 FL1C1 FL2C1-SL8	04/27/07	08/16/07	Ni-63	2.8E+00 ± 4.0E+00	2.0E+00	6.5E+00	1.5E+01		
L12563-22	C4024 303C2 FL1C1 DUPLICATE	05/11/07	08/16/07	Ni-63	8E-01 ± 2.8E+00	1.4E+00	4.6E+00	1.5E+01		

Flags:
a The measured MDC is greater than the required MDC.
b The activity concentration is greater than three times its one-sigma counting uncertainty.

Approved by

8/29/07
J. M. Raimondi
Laboratory Manager

8/30/07
C. A. Shelton
Sample Control and Measurements Lead