Rocky Flats Environmental Technology Site

RECONNAISSANCE-LEVEL CHARACTERIZATION REPORT (RLCR)

GROUP B FACILITIES

REVISION 0

APPENDICES (A – G)

JUL 2000
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Best Available Copy

IA-A-000530

1/203

A-1

T881A – Radiological Survey Data for Exterior Survey Unit

- Summary of Radiological Survey/Sample Results
- Map of Locations
  - Scans
  - Surveys
- Removable and Total Survey Results – Detail
- Laboratory Alpha Spec (Sample) Results – Detail

2

Radiological Survey/Sample Results for T881A

Total Surface Activity Measurements dpm/100 cm^2

	Alpha	Beta
Interior	# Required	# Obtained
	28	28
MIN	-20.9	-215
MAX	18.2	444
MEAN	-5.4	50.2
STD DEV	10.0	138.6
Exterior	# Required	# Obtained
	28	28
MIN	-7.4	-219.0
MAX	84.6	444.4
MEAN	30.6	82.7
STD DEV	22.7	211.6
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm^2

	Alpha	Beta
Interior	# Required	# Obtained
	28	28
MIN	-5	-31.6
MAX	2	35.2
MEAN	0.3	-1.4
STD DEV	1.5	20.5
Exterior	# Required	# Obtained
	28	30
MIN	-0.91	-63.2
MAX	3.94	36.8
MEAN	0.7	-8.9
STD DEV	1.4	21.5
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
2	2

Contaminant	Y/N	Det. Sens. dpm/100 cm^2
U present	N	79
Pu present	N	79

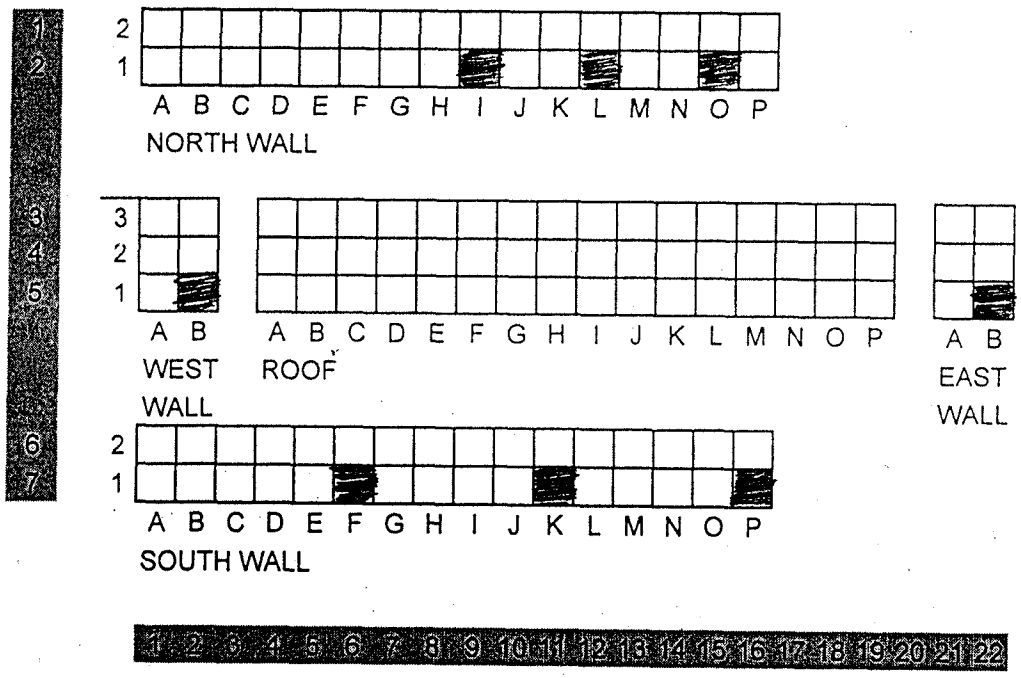
Total Po-210 Results dpm/100 cm^2

MIN	37.8
MAX	52.5
MEAN	45.2
STD DEV	4.5

3

SCAN LOCATIONS:

T881B Exterior



- REST OF SCAN LOCATIONS ON A SEPERATE MAP.

11 of 11

4

T881A West Office

West Wall

	A	B	C	D
2				
1				

North Wall

	A	B	C	D

East Wall

	A	B	C	D

South Wall

	A	B	C	D

Middle Office

West Wall

	A	B	C	D
2				
1				

North Wall

	A	B	C	D	E	F	G	H	I	J	K	L

East Wall

	A	B	C	D

South Wall

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
2														
1														

Note: There is a small closet against the south wall. It was included in the room measurement since its east and west walls are less than 1 meter.

T881A East Office

West Wall

	A	B	C	D
2				
1				

North Wall

	A	B	C	D

East Wall

	A	B	C	D
2				
1				

South Wall

	A	B	C	D

Floor

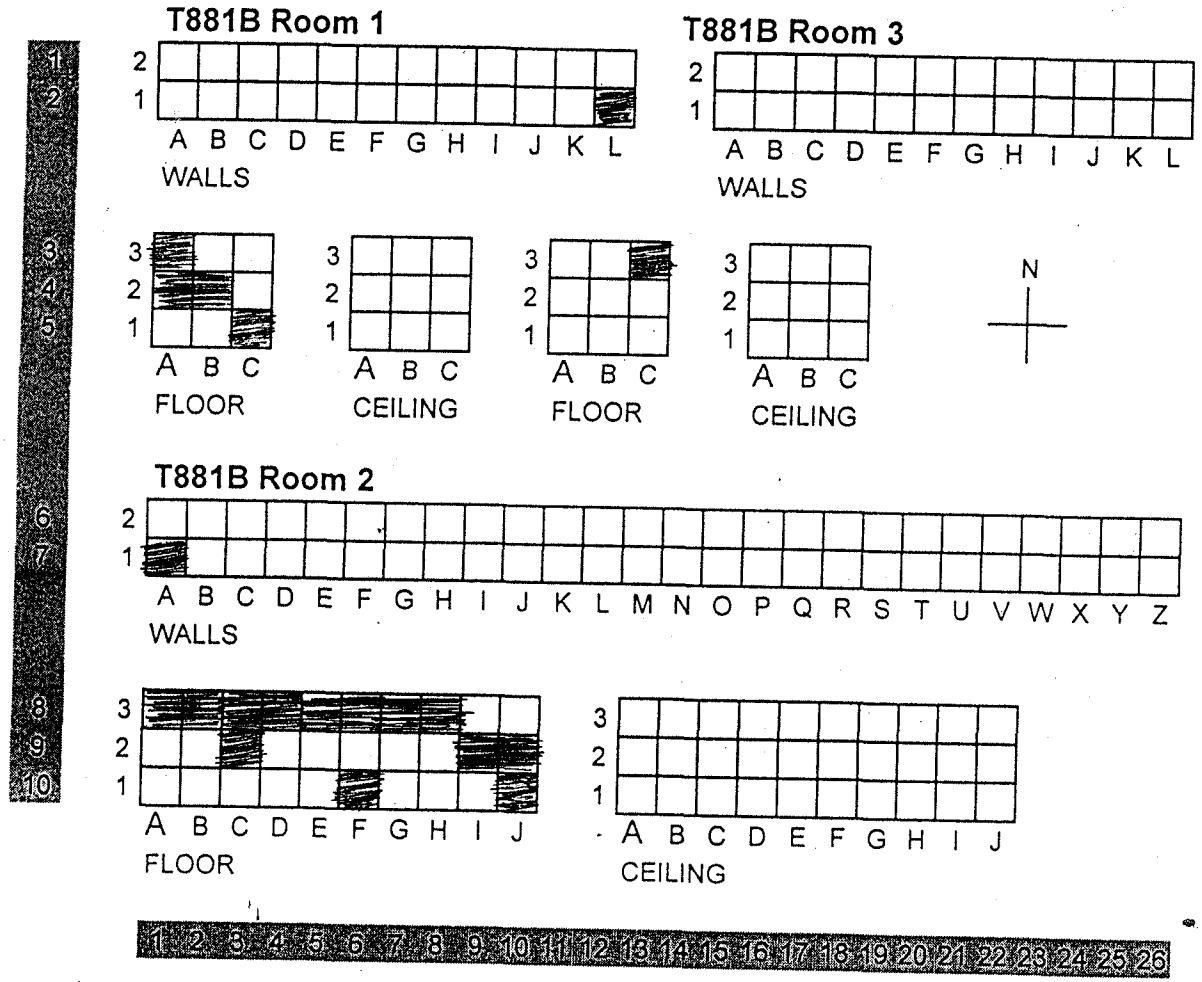
SCAN LOCATIONS

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
4													X	X					X
3			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2			X	X											X	X			
1			X	X											X	X			X

Ceiling

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
4																			
3																			
2																			
1																			

SCAN LOCATIONS:

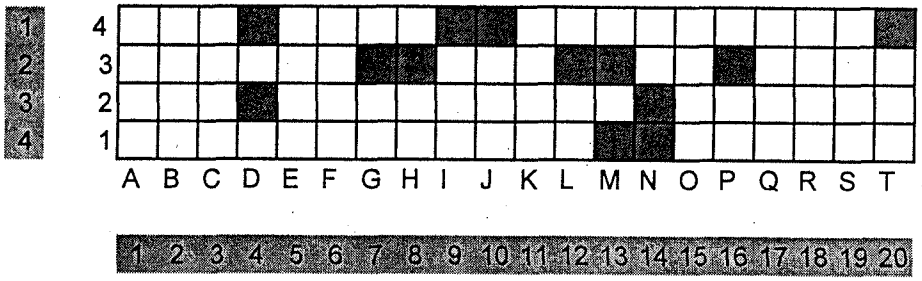


NOTE: SCAN LOCATIONS ~~WHICH~~ WERE CHOSEN BASED ON MOST LIKELY TO FIND CONTAMINATION DUE TO THEIR "HIGH TRAFFIC" LIKELIHOOD IN THESE AREAS.

PAGE 3 OF 8

6

T881A Exterior Roof



X-Coordinate	Y-Coordinate
17	3

= one square meter

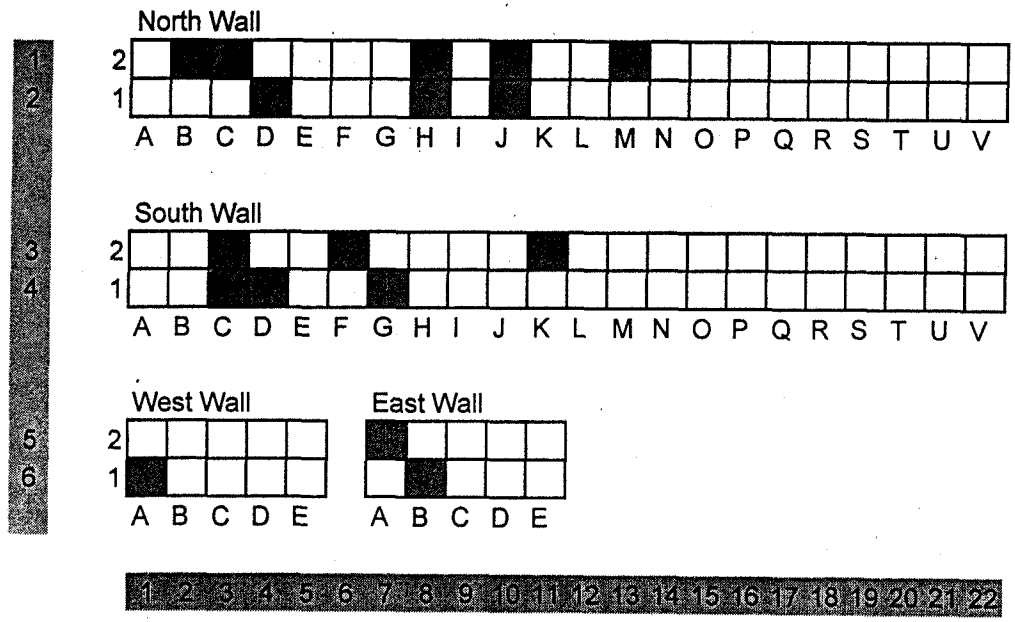
= direct & swipe

Roof Surveys randomly chosen with original number of survey points (13 survey points)

	X	Y		X	Y
1	8	2	11	9	1
2	14	4	12	4	3
3	10	1	13	20	1
4	13	2			
5	14	3			
6	12	2			
7	4	1			
8	7	2			
9	13	4			
10	16	2			

376/242
2/2/00

T881A Exterior



= one square meter

= direct & swipe

Survey Locations Correspond to original randomly placed locations for the walls
No change in the survey locations on the walls was necessary for Revision 1

374/242 3/7/00

Survey Area: NA	Survey Unit: EXTERIOR	Building: T 881A

Survey Unit Description

EXTERIOR WALLS SURVEY LOCATIONS COORDINATE WITH ~~FIRST~~ ACTIVITY UNREVISED MAP

Removable Contamination Data Sheet

Sample Location	RCT ID #	Inst ID #		Gross Counts (gcpm)		Net Counts (cpm)		Removable Activity (dpm/100cm2)	
		α	β	α	β	α	β	α	β
B-2E	3	1	3	1.0	25	0.8	-15.8	2.42	-63.2
B-2N	3	1	3	0.5	42	0.3	1.2	0.91	4.8
C-2N	3	2	4	0.0	36	-0.3	-3.6	-0.91	-14.4
D-1N	3	1	3	0.5	49	0.3	8.2	0.91	32.8
H-1N	3	2	4	0.5	43	0.2	3.4	0.61	13.6
H-2N	3	1	3	0.5	36	0.3	-4.8	0.91	-19.2
J-1N	3	1	3	0.5	35	0.3	-5.8	0.91	-23.2
J-2N	3	2	4	0.0	37	-0.3	-2.6	-0.91	-10.4
M-2N	3	2	4	0.0	34	-0.3	-5.6	-0.91	-22.4
A-1W	3	1	3	0.0	50	-0.2	9.2	-0.61	36.8
C-2S	3	1	3	1.0	35	0.8	-5.8	2.42	-23.2
C-1S	3	1	3	0.5	45	0.3	4.2	0.91	16.8
D-1S	3	1	3	0.5	32	0.3	-8.8	0.91	-35.2
E-2S	3	2	4	0.5	40	0.2	0.4	0.61	1.6
[illegible]-1S	3	2	4	0.5	36	0.2	-3.6	0.61	-14.4
A-2S	3	1	3	1.5	40	1.3	-0.8	3.94	-3.2
A-3E	3	2	4	0.0	39	-0.3	-0.6	-0.91	-2.4

N

A

9

Survey Area: NA	Survey Unit: EXTERIOR	Building: T881A
Survey Unit Description: EXTERIOR WALL UNREVISED MAP		

Total Surface Activity Data Sheet

Sample location	RCT ID #	Inst ID #		Survey count time (sec)		LAB (cpm)		Gross Count (gcpm)		Net counts (cpm)		Net Activity (dpm/100cm2)	
		α	β	α	β	α	β	α	β	α	β	α	β
B-2E	3	9	9	90	90	2.7	441	4.7	389	2.0	-52	10.6	-17.3
B-2N	3	9	9	90	90	4.7	411	5.3	345	0.6	-66	3.2	-219
C-2N	3	9	9	90	90	1.3	393	8.0	387	6.7	-6	35.6	-20
D-1N	3	9	9	90	90	1.3	383	5.3	373	4.0	-10	21.3	-33
H-1N	3	9	9	90	90	1.3	406	6.7	393	5.4	-13	28.7	-43
H-2N	3	9	9	90	90	1.3	415	7.3	369	6.0	-46	31.9	-153
J-1N	3	9	9	90	90	1.3	394	4.7	411	3.4	17	18.1	56
J-2N	3	9	9	90	90	2.7	412	2.7	401	0.0	-11	0.0	-37
M-2N	3	9	9	90	90	1.3	389	9.3	408	8.0	19	42.6	63
A-1W	3	9	9	90	90	2.0	374	5.3	356	3.3	-18	17.6	-60
C-2S	3	9	9	90	90	2.7	397	4.7	345	2.0	-52	10.6	-173
C-1S	3	9	9	90	90	4.0	407	5.3	411	1.3	4	6.9	13
D-1S	3	9	9	90	90	0.7	379	4.0	386	3.3	7	17.6	23
F-2S	3	9	9	90	90	2.7	406	1.3	402	-1.4	-4	-7.4	-13
G-1S	3	9	9	90	90	2.0	399	3.3	351	1.3	-48	6.9	~~-159.0~~
A-2S	3	9	9	90	90	1.3	405	6.7	399	5.4	-6	28.7	~~-159.4~~ -20
A-3E	3	9	9	90	90	2.7	387	5.3	411	2.6	24	13.8	~~79.~~ 80
				90	90								
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				90	90	A							
				90	90								
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				90	90								
				90	90								
D-1N QC	8	12	12	90	90	2.7	442	6.7	424	4.0	-340	19.6	-1145.
H-1N QC	8	12	12	90	90	2.0	389	4.4	409	2.7	20	13.2	67
J-1N QC	8	12	12	90	90	2.0	404	6.7	432	4.7	28	23.0	94
A-1W QC	8	12	12	90	90	4.0	462	2.7	549	-1.3	87	-6.4	293
1S QC	8	12	12	90	90	2.7	438	4.0	375	1.3	-63	6.4	-212

Note: QC measurements are to be collected by a different technician than the original survey. Mark the QC location number in the "Sample Location" column. Material background is assumed to be zero unless otherwise noted. "LAB" ~ local area background.

10

Survey Area: NA	Survey Unit: EXTERIOR	Building: T 881 A

Survey Unit Description

EXTERIOR ROOF SAMPLE LOCATIONS COORDINATE WITH ~~FIRST~~ ~~SECOND~~ THIRD MAP. (REV. 2)

Removable Contamination Data Sheet

Sample Location	RCT ID #	Inst ID #		Gross Counts (gcpm)		Net Counts (cpm)		Removable Activity (dpm/100cm2)	
		α	β	α	β	α	β	α	β
D-2R	4	5	6	1.5	40.5	1.3	~~-2.4~~ -1.9	3.9	~~-9.6~~ -7.6
D-4R	4	5	6	1.5	34.5	1.3	-7.9	3.9	-31.6
G-3R	4	5	6	0.0	47.5	-0.2	5.1	-0.6	20.4
H-3R	4	5	6	0.5	41.5	0.3	-0.9	0.9	-3.6
I-4R	4	5	6	0.0	41.0	-0.2	-1.4	-0.6	-5.6
L-3R	4	5	6	0.5	41.0	0.3	-1.4	0.9	-5.6
M-1R	4	5	6	0.5	42.0	0.3	-0.4	0.9	-1.6
M-3R	4	5	6	0.5	42.5	0.3	0.1	0.9	0.4
N-1R	4	5	6	0.0	44.0	-0.2	1.6	-0.6	6.4
N-2R	4	5	6	0.5	36.5	0.3	-5.9	0.9	-23.6
P-3R	4	5	6	0.0	37.5	-0.2	-4.9	-0.6	-19.6
J-4R	4	5	6	0.0	32.0	-0.2	-10.4	-0.6	-41.6
T-4R	4	5	6	0.0	35.0	-0.2	-7.4	-0.6	-29.6

11

Survey Area: N/A	Survey Unit: EXTERIOR	Building: T 881A
Survey Unit Description: EXTERIOR ROOF REV. 2 MAP		

Total Surface Activity Data Sheet

Sample location	RCT ID #	Inst ID #		Survey count time (sec)		LAB (cpm)		Gross Count (gcpm)		Net counts (cpm)		Net Activity (dpm/100cm2)	
		α	β	α	β	α	β	α	β	α	β	α	β
D-2R	4	10	10	90	90	0.7	389	8.0	487	5.3	98	35.7	330
D-4R	4	10	10	90	90	2.7	367	20.0	454	17.3	87	84.6	292.7
G-3R	4	10	10	90	90	2.7	405	9.3	409	6.6	4	32.3	13.5
H-3R	4	10	10	90	90	1.3	387	13.3	447	12.0	60	58.7	202
I-4R	4	10	10	90	90	2.0	354	14.0	486	12.0	132	58.7	444.4
J-4R	4	10	10	90	90	5.3	385	14.0	595	8.7	210	42.5	707.1
L-3R	5	10	11	90	90	2.0	459	14.0	472	12.0	13	58.7	42.8
m-1R	5	10	11	90	90	2.0	472	10.0	480	8.0	8	39.1	26.4
m-3R	5	10	11	90	90	2.0	441	12.0	507	10.0	66	48.9	217.1
N-1R	5	10	11	90	90	4.7	379	16.0	450	11.3	71	55.2	233.9
N-2R	5	10	11	90	90	6.0	409	6.7	443	0.7	34	3.4	112.0
P-3R	5	10	11	90	90	3.3	420	12.7	510	9.4	90	45.9	296.4
T-4R	5	10	11	90	90	2.7	384	16.7	515	14	131	68.4	431.5
				90	90								
				90	90								
				90	90								
				90	90								
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				90	90								
___QC				90	90								
___QC				90	90								
___QC				90	90								
___QC				90	90								
___QC				90	90								

N/A

Note: QC measurements are to be collected by a different technician than the original survey. Mark the QC location number in the "Sample Location" column. Material background is assumed to be zero unless otherwise noted. "LAB" ~ local area background.

12

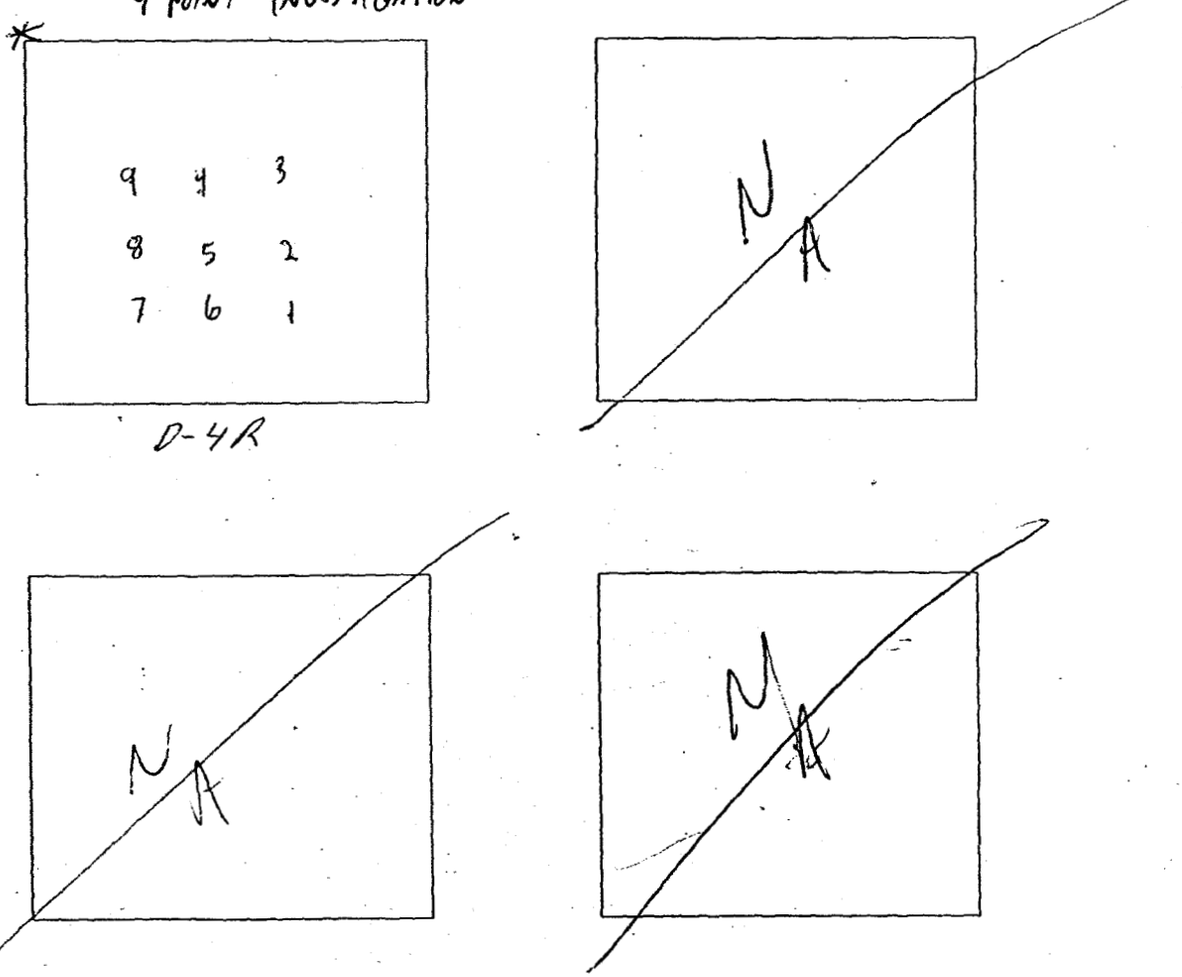
Final Survey NE Electra
Scan & Investigation Survey Map

Survey Area: NA	Survey Unit: EXTERIOR	Building: T 881A
Survey Unit Description: ROOF		
RCT Initials/Date: PC 3-3-00	RCT Initials/Date: NA	RCT Initials/Date: NA

Refer to the Final Survey NE Electra Scan & Investigation Survey Form for instrumentation, surveyor & approval information.

Legend: "R"- Roof, "W" – West Wall, "S" – South Wall, "E" – East Wall, "N" – North Wall "C" –Ceiling, "F" - Floor

9 POINT INVESTIGATION



*** Designates corner closest to A-1 point of reference**

Results/Comments:
Electra alpha scans were performed at the locations detailed on the survey map(s). All required accessible areas were scanned. All initial scan results were <225 dpm/100cm^2, unless noted on the survey form.
Electra beta scans were performed in required accessible areas. Initial scan results indicated no detectable activity above background unless noted on the survey form.

13

Final Survey NE Electra
Scan & Investigation Survey Form

Survey Area:	Survey Unit:	Building:
NA	EXTERIOR	T 881 A

Survey Unit Description: ROOF INVESTIGATION SCAN

Loc. ID #	Electra DP-6 Beta				Electra DP-6 Alpha				
	RCT ID #	Inst. ID #	Elevated Audible observed? "Y" or "N"	60-sec PAT (dpm/100cm2)	RCT ID #	Inst. ID #	4-sec Audible observed? "Y" or "N"	30-sec Static (gcpm)	90-sec PAT (dpm/100cm^2)
D-4R1					6	12			11.3
D-4R2					6	12			8.7
D-4R3					6	12			13.3
D-4R4			N		6	12	N		10.0
D-4R5					6	12		A	11.3
D-4R6			A		6	12			13.3
D-4R7					6	12			13.3
D-4R8					6	12			28.7
4R9					6	12			28.0

$1m^2$ Avg 15.3

NA

14

Oasis Device # 2

RFETS; Golden, CO
Apr 24, 2000 09:53:07

Sample ID: **881A 00A1148-001.001** **Type:** **Unknown**

Batch ID: unknown
Acquisition Start: April 20, 2000 08:39:27
Analysis Date: April 24, 2000 09:52:59
Procedure: polonium210 samples
Device: Oasis:02:01
Analysis Method: ROI Analysis
Spectrum File: 00000290.OXS LiveTime: 10,800.00

Calibrations:
Energy = 2.127E+02 +2.333E+00 * Chn Coeff. of Correlation: -0.998
Calibration Date: March 14, 2000 09:19:39 Std: 2:1 energy cal
Shape not Calibrated.
Efficiency = 3.393E-01 ± 4.339E-03
Calibration Date: August 11, 1999 13:14:16 Std: AS 4188

External Recovery No Ext.Recovery

Original Sample Amount:
1.000 ± 0.000 samp
Aliquot Amount: 1.000 ± 0.000 samp

ROI DATA

ROI ID #	ASSOCIATED NUCLIDE	EXTENTS START	EXTENTS END	PK EN (keV)	FWHM (keV)
1 Po218	Po218	5552.6	6077.8	5814.6	2.3
2 Po214	Po214	7420.0	7770.1	7594.8	1.2
3 Po212		8521.5	8850.6	8684.3	2.3
4 Po210	Po210	2263.7	5402.1	5177.6	2.3

ROI ANALYSIS RESULTS

ROI ID	NET COUNTS	BKG/INTERF	CPM	ROI TYPE
Po218	0.2 ± 1.0	0.76	1.33E-03 ± 5.70E-03	Unknown
Po214	-0.1 ± 0.1	0.07	-3.84E-04 ± 3.84E-04	Unknown
Po212	0.9 ± 1.0	0.14	4.79E-03 ± 5.58E-03	Unknown
Po210	154.7 ± 13.0	13.35	0.859 ± 0.072	Unknown

NUCLIDE ANALYSIS RESULTS

ROI ID	ASSOC NUC	EMM. PROB	ACTIVITY (dpm/samp)	MDA (dpm)
Po218	Po218	1.000	3.92E-03 ± 0.017	9.29E-02
Po214	Po214	1.000	-1.13E-03 ± 1.13E-03	5.90E-02
Po212		1.000	0.014 ± 0.016	6.50E-02
Po210	Po210	1.000	2.532 ± 0.215	2.48E-01

Activity reported as of April 20, 2000 08:39:27

ANALYSIS REVIEWED BY: [signature]

APPROVED BY: [signature] 5/8/00

15

OASIS - MCA

File Edit View Acq Parms Tools Reports Close Help

Library: OAS_STD.MDB

Nuclide: Am241

Acq ALL

Acquire

Stop

4096

LOG

Lin Log

Sqrt

Peak

0

4095

Presets

ROIs

Controls

Display

Info

Aux Disp

Spectrum ID

881A 00A1148-001.001

System Date

09-May-2000 14:53:19

Message Window

Channel: 1011 Elapsed Real Time: 10800.05 Elapsed Live Time: 10800.00 Dead Time: 0.0

Energy: 2571.0 Counts: 0 ROI: Integral: 168 Peak: 5,177.63 FWHM: 2.33

16

Oasis Device # 2

RFETS; Golden, CO
Apr 21, 2000 15:17:03

Sample ID: **881A 00A1148-002.001** **Type:** **Unknown**

Batch ID: unknown
Acquisition Start: April 21, 2000 07:49:49
Analysis Date: April 21, 2000 15:14:19
Procedure: polonium210 samples
Device: Oasis:02:01
Analysis Method: ROI Analysis
Spectrum File: 00000297.OXS LiveTime: 26,514.17

Calibrations:
Energy = 2.127E+02 +2.333E+00 * Chn Coeff. of Correlation: -0.998
Calibration Date: March 14, 2000 09:19:39 Std: 2:1 energy cal
Shape not Calibrated.
Efficiency = 3.393E-01 ± 4.339E-03
Calibration Date: August 11, 1999 13:14:16 Std: AS 4188

External Recovery No Ext.Recovery

Original Sample Amount:
1.000 ± 0.000 samp
Aliquot Amount: 1.000 ± 0.000 samp

ROI DATA

ROI ID #	ASSOCIATED NUCLIDE	EXTENTS START	EXTENTS END	PK EN (keV)	FWHM (keV)
1 Po218	Po218	5552.6	6077.8	5814.6	2.3
2 Po214	Po214	7420.0	7770.1	7594.8	1.2
3 Po212		8521.5	8850.6	8684.3	1.2
4 Po210	Po210	2263.7	5402.1	4683.0	4.7

ROI ANALYSIS RESULTS

ROI ID	NET COUNTS	BKG/INTERF	CPM	ROI TYPE
Po218	1.5 ± 2.3	2.46	3.50E-03 ± 5.31E-03	Unknown
Po214	0.0 ± 0.0	0.00	0.00E+00 ± 0.00E+00	Unknown
Po212	-0.6 ± 0.6	0.61	-1.39E-03 ± 1.39E-03	Unknown
Po210	273.8 ± 18.2	36.21	0.620 ± 0.041	Unknown

NUCLIDE ANALYSIS RESULTS

ROI ID	ASSOC NUC	EMM. PROB	ACTIVITY (dpm/samp)	MDA (dpm)
Po218	Po218	1.000	0.010 ± 0.016	6.17E-02
Po214	Po214	1.000	0.00E+00 ± 0.00E+00	1.80E-02
Po212		1.000	-4.09E-03 ± 4.09E-03	3.99E-02
Po210	Po210	1.000	1.826 ± 0.124	1.86E-01

Activity reported as of April 21, 2000 07:49:49

ANALYSIS REVIEWED BY: [signature]

APPROVED BY: C J Biancone 5/8/00

17

OASIS - MCA

File Edit View Acq Parms Tools Reports Close Help

Library: OAS_STD.MDB

Nuclide: Am241

5:Static: 00000292.0XS

Acq ALL

Acquire

Stop

Erase

4096

LOG

Lin Log

Sqrt

Peak

0

4095

Presets

ROIs

Controls

Display

Info

Aux Disp

Spectrum ID

881A 00A1148-002.001

System Date

10-May-2000 06:11:46

Message Window

Channel: 1551 Elapsed Real Time: 10800.11 Elapsed Live Time: 10800.00 Dead Time: 0.0

Energy: 3866.8 Counts: 0 ROI: Integral: 127 Peak: 5,050.79 FWHM: 2.39

18

Sample ID: **00A1148-003.001** **Type:** **Unknown**

Batch ID: unknowns
Acquisition Start: May 02, 2000 13:02:56
Analysis Date: May 03, 2000 07:11:03
Procedure: Po210 count
Device: Oasis:01:01
Analysis Method: ROI Analysis
Spectrum File: 00000522.OXS LiveTime: 28,800.00

Calibrations:
Energy = 3.865E+01 +2.790E+00 * Chn Coeff. of Correlation: -0.998
Calibration Date: April 03, 2000 17:45:10 Std: 1:1 energy cal
Shape not Calibrated.
Efficiency = 3.041E-01 ± 4.004E-03
Calibration Date: April 07, 2000 09:49:29 Std: TS4189

External Recovery No Ext.Recovery

Original Sample Amount:
1.000 ± 0.000 samp
Aliquot Amount: 1.000 ± 0.000 samp

ROI DATA

ROI ID #		ASSOCIATED NUCLIDE	EXTENTS START	EXTENTS END	PK EN (keV)	FWHM (keV)
1	Po218	Po218	5550.0	6104.5	5826.0	4.2
2	Po214	Po214	6588.5	7874.7	7229.6	2.8
3	Po212	Po212	8393.8	8808.6	8599.7	2.8
4	Po210	Po210	2180.3	5343.3	4531.3	2.8

ROI ANALYSIS RESULTS

ROI ID	NET COUNTS	BKG/INTERF	CPM	ROI TYPE
Po218	19.7 ± 4.7	1.33	0.041 ± 9.75E-03	Unknown
Po214	1.3 ± 1.6	0.67	2.78E-03 ± 3.26E-03	Unknown
Po212	11.3 ± 4.0	2.67	0.024 ± 8.28E-03	Unknown
Po210	161.7 ± 13.9	19.33	0.337 ± 0.029	Unknown

NUCLIDE ANALYSIS RESULTS

ROI ID	ASSOC NUC	EMM. PROB	ACTIVITY (dpm/samp)	MDA (dpm)
Po218	Po218	1.000	0.135 ± 0.032	5.21E-02
Po214	Po214	1.000	9.14E-03 ± 0.011	4.23E-02
Po212	Po212	1.000	0.078 ± 0.027	6.61E-02
Po210	Po210	1.000	1.108 ± 0.097	1.47E-01

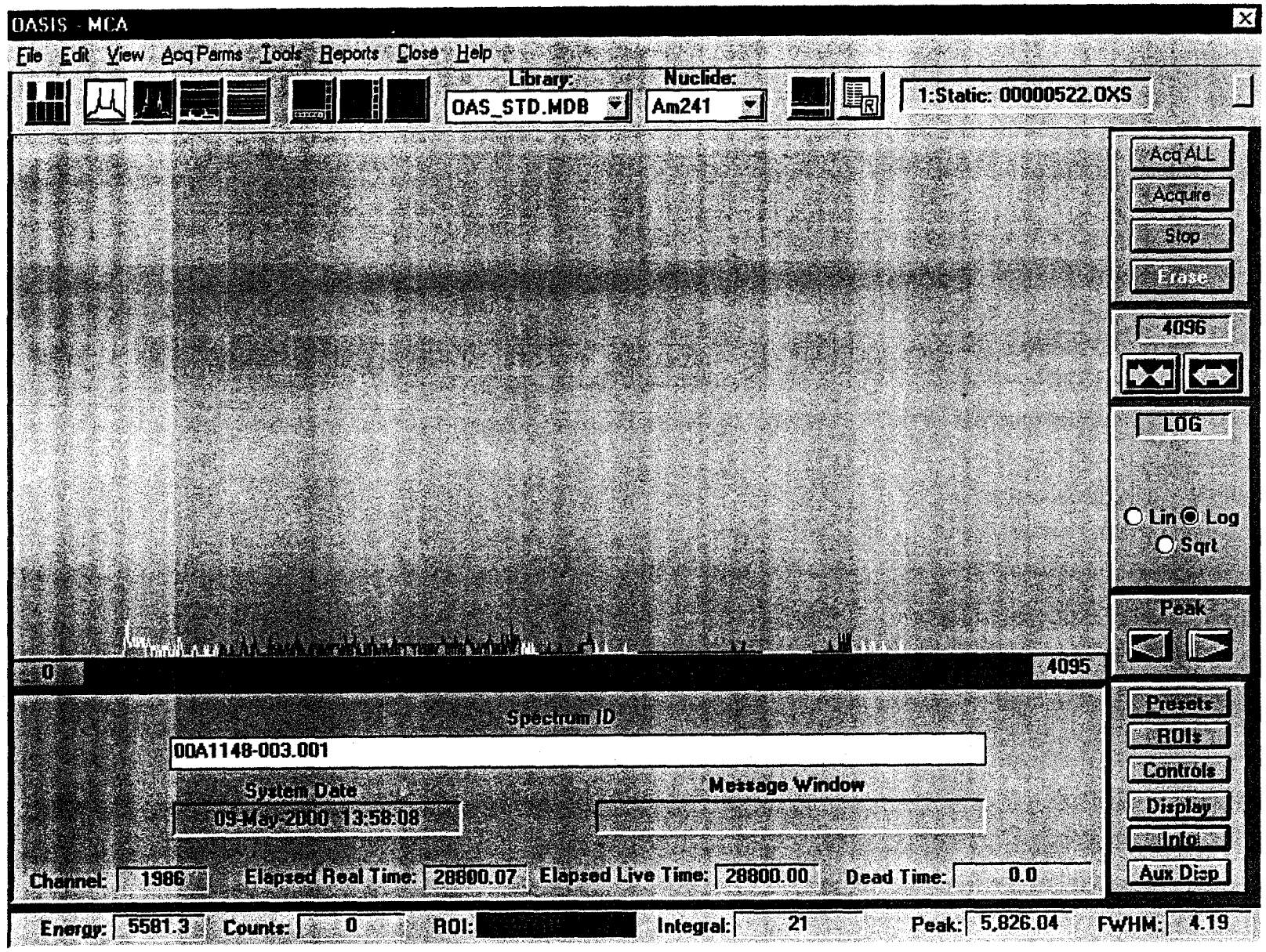
Activity reported as of May 02, 2000 13:02:56

ANALYSIS REVIEWED BY: [signature]

APPROVED BY: [signature] 5/8/00

Spike value: 22.980 d/m pu 239

19


OASIS - MCA
File Edit View Acq Parms Tools Reports Close Help
Library:
OAS_STD.MDB
Nuclide:
Am241
1:Static: 00000522.OXS
Acq ALL
Acquire
Stop
Erase
4096
LOG
Lin Log
Sqrt
Peak
0
4095
Presets
ROIs
Controls
Display
Info
Aux Disp
Spectrum ID
00A1148-003.001
System Date
09-May-2000 13:58:08
Message Window
Channel: 1986
Elapsed Real Time: 28800.07
Elapsed Live Time: 28800.00
Dead Time: 0.0
Energy: 5581.3
Counts: 0
ROI:
Integral: 21
Peak: 5,826.04
FWHM: 4.19

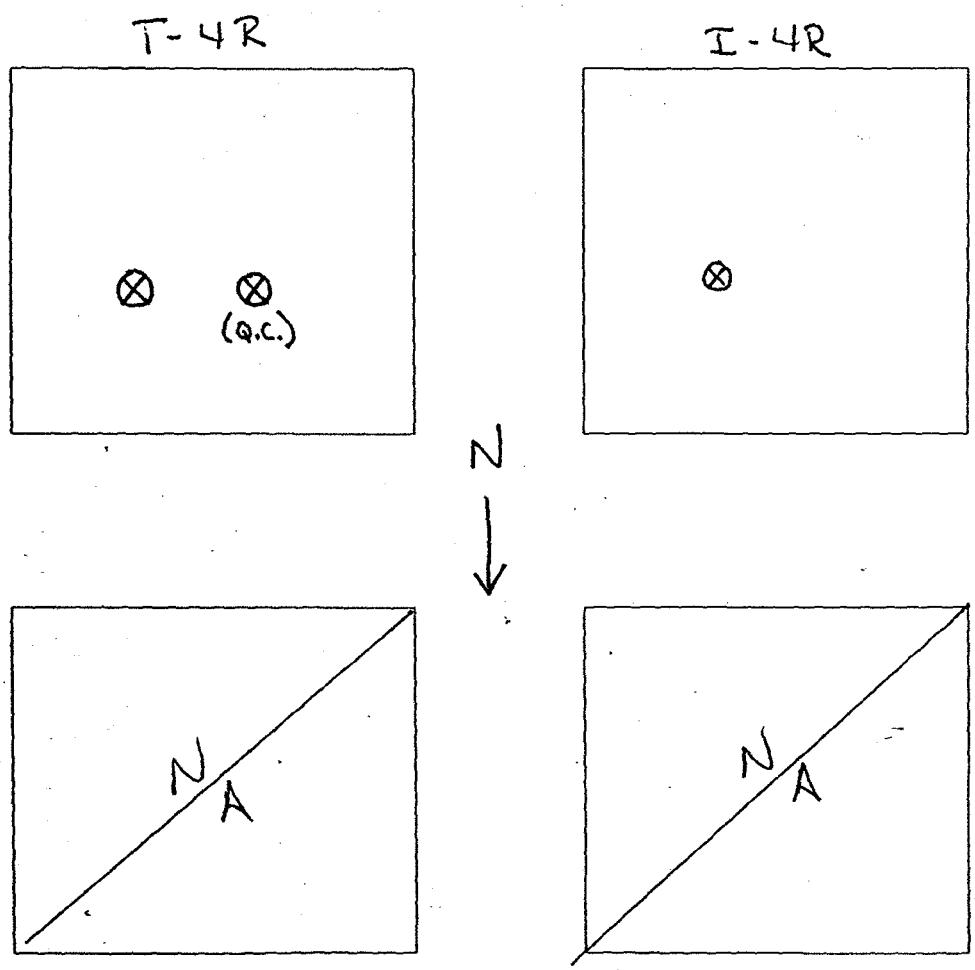
20

Final Survey NE Electra
Scan & Investigation Survey Map

Survey Area: NA	Survey Unit: Exterior	Building: T881A
Survey Unit Description: Roof Sample Locations		
RCT Initials/Date: MQ 3/28/00	RCT Initials/Date: NA	RCT Initials/Date: NA

Refer to the Final Survey NE Electra Scan & Investigation Survey Form for instrumentation, surveyor & approval information.

Legend: "R"- Roof, "W" – West Wall, "S" – South Wall, "E" – East Wall, "N" – North Wall "C" –Ceiling, "F" - Floor



⊗ CUTOUT LOCATION

*** Designates corner closest to A-1 point of reference**

Results/Comments:
Electra alpha scans were performed at the locations detailed on the survey map(s). All required accessible areas were scanned. All initial scan results were <225 dpm/100cm^2, unless noted on the survey form.
Electra beta scans were performed in required accessible areas. Initial scan results indicated no detectable activity above background unless noted on the survey form.

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Survey Area: NA	Survey Unit: EXTERIOR	Building: T881A
Survey Unit Description ROOF SAMPLE LOCATIONS		

Removable Contamination Data Sheet

Sample location	RCT ID #	Inst ID #		Gross Counts (gcpm)		Net Counts (cpm)		Removeable Activity (dpm/100cm2)	
		α	β	α	β	α	β	α	β
PRE						0	0	0.0	0
T-4R	1	1	2	0	42.5	-0.5	-0.4	-1.5	-2
POST						0	0	0.0	0
T-4R	1	3	4	1	35.5	0.7	0.3	2.1	1
PRE						0	0	0.0	0
T-4RQC	1	1	2	1	39	0.5	-3.9	1.5	-16
POST						0	0	0.0	0
T-4RQC	1	3	4	1.5	39	1.2	3.8	3.6	15
PRE						0	0	0.0	0
I-4R	1	1	2	1	39	0.5	-3.9	1.5	-16
POST						0	0	0.0	0
I-4R	1	3	4	1.5	39	1.2	3.8	3.6	15
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0

22

Survey Area: NA	Survey Unit: EXTERIOR	Building: T881A
Survey Unit Description		
ROOF SAMPLE LOCATIONS		

Total Surface Activity Data Sheet

Sample location	RCT ID #	Inst ID #		Survey count time (sec)		Gross Count (gcpm)		LAB (cpm)		Net counts (cpm)		Net Activity (dpm/100cm2)	
		α	β	α	β	α	β	α	β	α	β	α	β
PRE				90	90					0.0	0	0.0	0
T-4R	1	7	7	90	90	10.0	433	4.7	406	5.3	27	25.4	90
POST				90	90					0.0	0	0.0	0
T-4R	1	7	7	90	90	18.7	474	4.0	482	14.7	-8	70.5	-27
PRE				90	90					0.0	0	0.0	0
T-4RQC	2	8	8	90	90	19.3	492	4.0	473	15.3	19	74.8	64
POST				90	90					0.0	0	0.0	0
T-4RQC	2	8	8	90	90	26.0	529	6.0	492	20.0	37	97.8	125
PRE				90	90					0.0	0	0.0	0
I-4R	1	7	7	90	90	18.0	499	2.7	473	15.3	26	73.4	87
POST				90	90					0.0	0	0.0	0
I-4R	1	7	7	90	90	20.7	499	4.0	445	16.7	54	80.1	181
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
QC				90	90					0.0	0	0.0	0
QC				90	90					0.0	0	0.0	0
QC				90	90					0.0	0	0.0	0
QC				90	90					0.0	0	0.0	0
QC				90	90					0.0	0	0.0	0

N/A

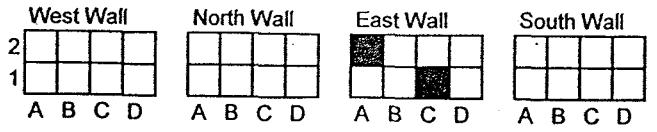
Note: QC measurements are to be collected by a different technician than the original survey. Mark the QC location number in the "Sample Location" column. Material background is assumed to be zero unless otherwise noted. "LAB" ~ local area background.

A-2

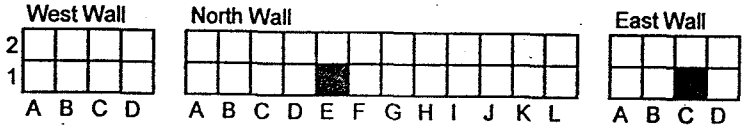
T881A – Radiological Survey Data for Interior Survey Unit

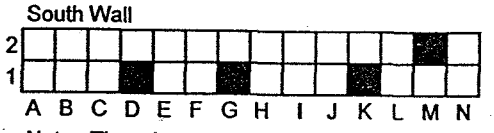
- Map of Locations
  - Scans
  - Surveys
- Removable and Total Survey Results – Detail

T881A West Office



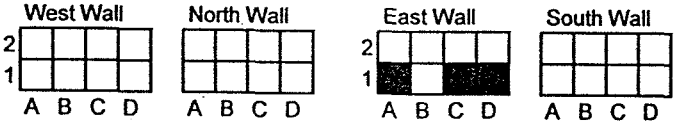
Middle Office



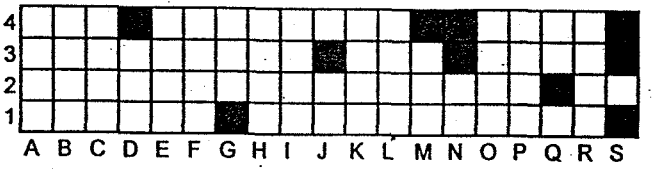


Note: There is a small closet against the south wall. It was included in the room measurement since its east and west walls are less than 1 meter.

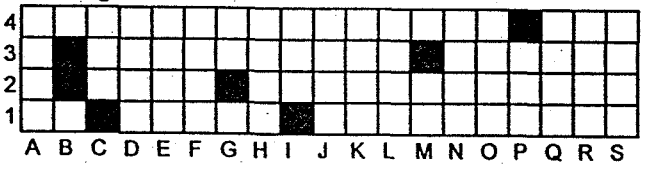
T881A East Office



Floor



Ceiling



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22

X-Coordinate	Y-Coordinate
14	8

Total Surface Area = 284 m^2

10% Scan Surface Area = 28.4 m^2

☐ = one square meter

■ = direct & swipe

	X	Y		X	Y		X	Y
1	7	12	11	13	2	21	2	14
2	21	4	12	7	15	22	11	1
3	11	6	13	9	16	23	10	4
4	13	14	14	4	9	24	14	8
5	16	13	15	15	8	25	14	10
6	10	10	16	19	12	26	4	6
7	13	9	17	13	5	27	14	9
8	12	8	18	3	16	28	19	9
9	7	6	19	19	10			
10	2	15	20	17	11			

Survey Area: N/A	Survey Unit: INTERIOR	Building: T881 A
Survey Unit Description: Interior		

Removable Contamination Data Sheet

Sample Location	RCT ID #	Inst ID #		Gross Counts (gcpm)		Net Counts (cpm)		Removable Activity (dpm/100cm2)	
		α	β	α	β	α	β	α	β
West Office									
A.2.E		1	2	0	40.5	-.3	-1.9	-0.9	-7.6
C.1.E		3	4	.5	33	0.5	-5.7	1.5	-22.8
D.4.F		1	2	0	34.5	-.3	-7.9	-0.9	-31.6
Ceiling									
C-1-C		3	4	0	46	~~-.3~~ 0	7.3	~~-0.9~~ 0	29.2
B-2.C		1	2	.5	41.5	.2	-0.9	0.6	-3.6
B.3.C		3	4	.5	39.5	.5	0.8	1.5	3.2
G.2.C		1	2	1	38	.7	-4.4	2.1	~~-13.3~~ -17.6
I.1.C		3	4	.5	39.5	.5	0.8	1.5	3.2
P.4.C		1	2	0	43.5	-.3	1.1	-0.9	4.4
Floor									
.1.F		3	4	0	38.5	0	-0.2	0	-0.8
J.3.F		1	2	0	39.5	-.3	-2.9	-0.9	-11.6
M.4.F		3	4	.5	38	.5	-0.7	1.5	-2.8
N.3.F		1	2	1	48	.7	~~5.3~~ 5.6	2.1	~~21.2~~ 22.4
N.4.F		3	4	0	44.5	0	5.8	0	23.2
Q-2.F		1	2	.5	35.5	.2	-6.9	0.6	-27.6
S.1.F		3	4	0	50.5	0	11.8	0	47.2
S.3.F		1	2	.5	35	.2	-7.4	0.6	-29.6
S.4.F		3	4	0	36	0	-2.7	0	-10.8
East Office									
A.1.E		1	2	1	45.5	.7	3.1	2.1	12.4
C.1.E		3	4	.5	47.5	.5	8.8	1.5	35.2
D.1.E		1	2	.5	43.5	.2	1.1	0.6	4.4
Main Office									
C.1.E		3	4	0	38	0	-0.7	0	-2.8
K.1.S		1	2	.5	35	.2	~~-3.9~~ -7.4	0.6	~~-15.6~~ -25.6
G.1.S		3	4	.5	41.5	.5	2.8	1.5	11.2
D.1.S		1	2	0	37	-.3	-5.4	-0.9	-21.6
E.1.N		3	4	.5	41	.5	2.3	1.5	9.2

26

Survey Area: NA	Survey Unit: INTERIOR	Building: T-881A
Survey Unit Description	INTERIOR WALLS, CEILING, FLOOR	

Total Surface Activity Data Sheet

Sample location	RCT ID #	Inst ID #		Survey count time (sec)		LAB (cpm)		Gross Count (gcpm)		Net counts (cpm)		Net Activity (dpm/100cm2)		
		α	β	α	β	α	β	α	β	α	β	α	β	
D-4F	1	7	7	90	90	6.0	429	2.7	460	-3.3	31	-15.0	101	
G-1F				90	90	2.7	459	2.7	417	0.0	-42	0.0	-137	
J-3F				90	90	4.0	429	1.3	481	-2.7	52	-12.3	170	
M-4F				90	90	3.3	455	1.3	469	-2.0	14	-9.1	46	
N-4F				90	90	6.0	463	2.0	473	-4.0	10	-18.2	33	
N-3F				90	90	7.3	440	3.3	491	-4.0	51	-18.2	166	
Q-2F				90	90	5.3	409	1.3	475	-4.0	66	-18.2	215	
S-1F				90	90	3.3	441	6.0	462	2.7	21	12.3	68	
S-3F				90	90	7.3	427	4.0	441	-3.3	14	-15.0	46	
S-4F				90	90	4.0	422	1.3	473	-2.7	51	-12.3	166	
WEST OFFICE A-2E				90	90	6.7	420	6.0	383	-0.7	-37	-3.2	-121	
C-1E				90	90	6.0	342	7.3	347	1.3	5	5.9	16	
MIDDLE OFFICE E-1N				90	90	6.7	372	3.3	368	-3.4	-4	-15.5	-13	
D-1S				90	90	6.0	384	5.3	356	-0.7	-28	-3.2	-91	
G-1S				90	90	3.3	357	3.3	375	0.0	18	0.0	59	
K-1S				90	90	6.7	369	10.7	370	4.0	1	18.2	~~3.7 6 mr~~ 3	
M-2S				90	90	4.0	301	4.0	329	0.0	28	0.0	91	
C-1E				90	90	3.3	299	2.0	337	-1.3	38	-5.9	124	
EAST OFFICE A-1E				90	90	2.7	319	0.7	316	-2.0	-3	-9.1	-10	
C-1E ~~G-1E mr~~				90	90	3.3	301	4.7	308	1.4	7	6.4	23	
D-1E				90	90	8.0	329	4.7	355	-3.3	26	-15.0	85	
B-2C				90	90	3.3	409	2.0	358	-1.3	-11	-5.9	-36	
B-3C				90	90	3.3	423	4.0	357	0.7 ~~1.3 mr~~	-66	~~5.9 mr~~ 3.2	-215	
C-1C				90	90	3.3	382	2.0	402	-1.3	20	-5.9	65	
G-2C ~~D-1C mr~~ ~~E-2C mr~~				90	90	3.3	381	4.0	314	0.7 ~~1.3 mr~~	-65	~~6.5 mr~~ 3.2	-212	
I-1C				90	90	4.0	372	4.0	393	0.0	21	0.0	68	
M-3C	1	7	7	90	90	4.0	314	4.7	450	0.7	136	3.2	444	
P-4C	1	7	7	90	90	7.3	345	2.7	422	-4.6	77	-20.9	251	
J-3 FQC	2	9	9	90	90	6.0	432	4.0	481	-2	49	~~-6.0~~ -2.3	~~196~~ 164	
N-3 FQC	2	9	9	90	90	4.7	465	5.3	469	0.6	4	~~-1.8~~ 2.8	~~16~~ 13	
M-4 FQC	2	9	9	90	90	2.7	467	4.7	481	2	14	~~-6.0~~ 9.3	~~56~~ 47	
Q-2 FQC	2	9	9	90	90	6.7	436	1.3	483	-5.4	47	~~-16.4~~ -25.7	~~188~~ 157	
D-4 FQC	2	9	9	90	90	8.7	447	3.3	467	-5.4	20	~~-16.4~~ -25.7	~~80~~ 67	

Note: QC measurements are to be collected by a different technician than the original survey. Mark the QC location number in the "Sample Location" column. Material background is assumed to be zero unless otherwise noted. "LAB" ~ local area background.

27

Survey Area: N/A	Survey Unit: INTERIOR	Building: T881A

Survey Unit Description

INTERIOR

Removable Contamination Data Sheet

Sample Location	RCT ID #	Inst ID #		Gross Counts (gcpm)		Net Counts (cpm)		Removable Activity (dpm/100cm2)	
		α	β	α	β	α	β	α	β
M.3.C	1	1	2	.5	40.5	.1	-0.9	0.30	-3.6
M-2.S	1	1	2	.5	36	.1	-5.4	0.30	-21.6

N

A

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A-3

T881A – Asbestos Inspector's Report

T881A

ASBESTOS INSPECTOR'S REPORT

I, the undersigned Certified Asbestos Inspector, certification # [redacted] in the state of Colorado, attest to the asbestos inspection and sampling results as described below, for the following facility (at RFETS): Trailer 881A.

General Facility Location: northeast of Building 881.

INSPECTION RESULTS
Trailer 881A did not contain any suspect friable asbestos containing materials and no samples were collected. The duct system is lined internally with fiberglass, but samples were not collected based on visual observation identifying the material as fiberglass. Fiberglass insulation was found throughout the walls.

SAMPLE RESULTS
None required; none taken.

Andre Gonzalez	[signature]	7/6/00
INSPECTOR'S NAME	SIGNATURE	DATE

A-4

T881A – D&D Facility Characterization Interview Checklist

D&D Facility Characterization Interview Checklist

ID No.: T-881A
Date: 05/27/99

Groups B & C Series

Check List for - Title: D&D Facility Characterization – Interviews

CRITERIA:
- *D&D Characterization Protocol*, RFETS MAN-077-DDCP, Rev. 0
- *Facility Disposition Program Manual*, RFETS MAN-076-FDPM
- RFETS Radiological Safety Practices, January 12, 1998

Facility Name & Type (1, 2, or 3) T-881A, Group B Type 1 Facility, Trailer Office Building
Personnel Interviewed (Name & Title/Function) Justin L. Miller, X2218, P212-3996, T-881A, SORC1/ Administrator of the Cost Per Copy Program

-- Y/N --

Does a current WSRIC exist for the facility? ..... N
If so, are there exceptions to the WSRIC as written? ..... No WSRIC, No Exceptions
COMMENTS (incl. WSRIC contacts)
WSRIC Contact is James M. Schoen who is in charge of the WSRIC Reports, T130J, X3579, C-83.
Are rad surveys available that indicate current status of the facility? ..... N
Are historical rad surveys available that indicate historical status, or evolution, of the facility? ..... N*
COMMENT N* According to Mark R. Richards, X5148 of SSOC any historical data, which is probably at the Federal Center, would not be adequate for unrestricted release. New monitor surveys would have to be taken.
Is an HRR available for the facility? ..... N
Do any other reports exist beyond the HRR (e.g., spill reports, reportable incidents, etc.) that further Characterize the facility relative to chemical &/or radiological contamination? ..... N**
Are engineering drawings (esp. "as-builts") available? ..... N
Are any nonconformances or issues with the facility status currently being tracked in PATS? ..... N

If so, what are the issues (note in Comments, below)?
COMMENTS N* Radiological surveys may have been done, but the old data is not available. This unit will have to be resurveyed to meet present standards for unrestricted release. N** **The T-881A Trailer is not sitting on IHSS or PAC area land, as per,** Nick Demos, ER Characterization/HRR Manager, X4605, Therefore, the T-881A Trailer should not have any CERCLA concerns. Engineering drawings, as-builts, do not exist for the T-881A facility and a Facility Planning sketch does exist. The Plant quit using lead based paints for office buildings in 1989, if this office facility was painted prior to 1989, lead based paints may have been used.

Have any types of chemical characterization, incl. asbestos, been performed recently? ..... N*
If so, what types of characterization were performed (note in Comments, below)?
COMMENTS N* No asbestos characterization data exists, according to Kevin Sheehan, X7250, T-452D, Room C-1. The asbestos data reports are located in Cubicle C-13, of T-452D and the reports are under the control of Kevin Sheehan.

Interviewed by: J. R. Sheets / JR Sheets / 05/26/99
Print Name / Signature / Interview Date

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D&D Facility Characterization Interview Checklist

ID No.: T -881A
Date: 05/27/99

Groups B & C Series

What timeframe did the interviewee work in the facility? From 1996 until the present (for approximately three years).

Has the building configuration changed since you worked in the building? If so, in what way?

No, the facility is still an office building.

What types of equipment were in the building during the interviewee's time there?
Refrigerator, 2 computer, 2 printer, a fax machine, a water cooler, 3 microwaves, other office equipment such as 8 desks, 8 chairs, 3 tables, bookcases, 3 file cabinets, three parts and copier supplies storage racks, etc.

Where was the equipment located? (specific rooms/areas) In the open area of the trailer, the hard wall room and office, and at either end of the trailer. The refrigerator, full size is sitting against the north wall of T-881A and a small refrigerator is located in the office on the east end of the trailer.

Were any radioactive materials or metals handled in the building? If so, what types? No, none

Which equipment handled radioactive material? N/A

Were any chemicals handled in the building? If so, what types? N/A

Did any spills or uncontrolled releases of radioactive materials or chemicals occur while you were working in the facility? No, none.

Were these spills/releases cleaned-up? How were they cleaned-up? N/A

Where did these spills/releases occur? N/A

Interviewed by: J. R. Sheets / JR Sheets / 05/26/99

Print Name | Signature | Interview Date

Type 1 Facility Checklist

TYPE 1 FACILITY BUILDING T-881A

CURRENT LANDLORD: RFCSS

DATE OF COMPLETION: 02/29/00

ITEM	YES	NO
Does the facility contain radiological postings?		X
Does the facility contain chemical postings?		X
Are there any installed hazards?		X
Do the historical surveys (radiological and chemical) indicate the facility is clean?	X	
Are there RCRA units within the facility		X
Is there a history of the building available?	X	
Is there any equipment/furniture left in the facility?		X
Is there a future mission identified for the facility?		X
Will the facility be left unsecured after it is vacated?		X

If any answer to any of the above questions is "Yes", complete the following questions and complete the "graded" PEP in accordance with Chapter 2.

Note: An answer of "Yes" to any question, specifically one dealing with hazards, ***may*** *indicate the facility is not a Type 1 Facility. Check with the D&D Programs office.*

If the answer to all question is "No" complete the "graded" PEP in accordance with Chapter 2.

1. List the Radiological Hazards, location, and quantity:

   Based on the historical data found and interviews taken there are no hazards in this trailer.

2. List the Chemical Hazards, location, and quantity:

   None. Based on historical data and interviews taken no asbestos data exists and the paint may be lead based.

3. List the Physical Hazards:

   NONE

B-1

T881B – Radiological Survey Data for Exterior Survey Unit

- Summary of Radiological Survey/Sample Results
- Map of Locations
  - Scans
  - Surveys
- Removable and Total Survey Results – Detail
- Laboratory Alpha Spec (Sample) Results – Detail

Radiological Survey/Sample Results for T881B

Total Surface Activity Measurements dpm/100 cm^2

	Alpha	Beta
Interior	# Required	# Obtained
	28	28
MIN	-3	-394
MAX	22	286
MEAN	7.4	-26.9
STD DEV	7.9	200.6
Exterior	# Required	# Obtained
	28	28
MIN	-6.0	-219.0
MAX	118.2	444.4
MEAN	29.2	82.7
STD DEV	37.7	211.6
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm^2

	Alpha	Beta
Interior	# Required	# Obtained
	28	28
MIN	-0.3	-52
MAX	2.7	56
MEAN	0.8	-0.4
STD DEV	1.1	29.1
Exterior	# Required	# Obtained
	28	28
MIN	0.0	-26.4
MAX	9.0	49.6
MEAN	2.0	5.5
STD DEV	2.3	17.9
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
2	2

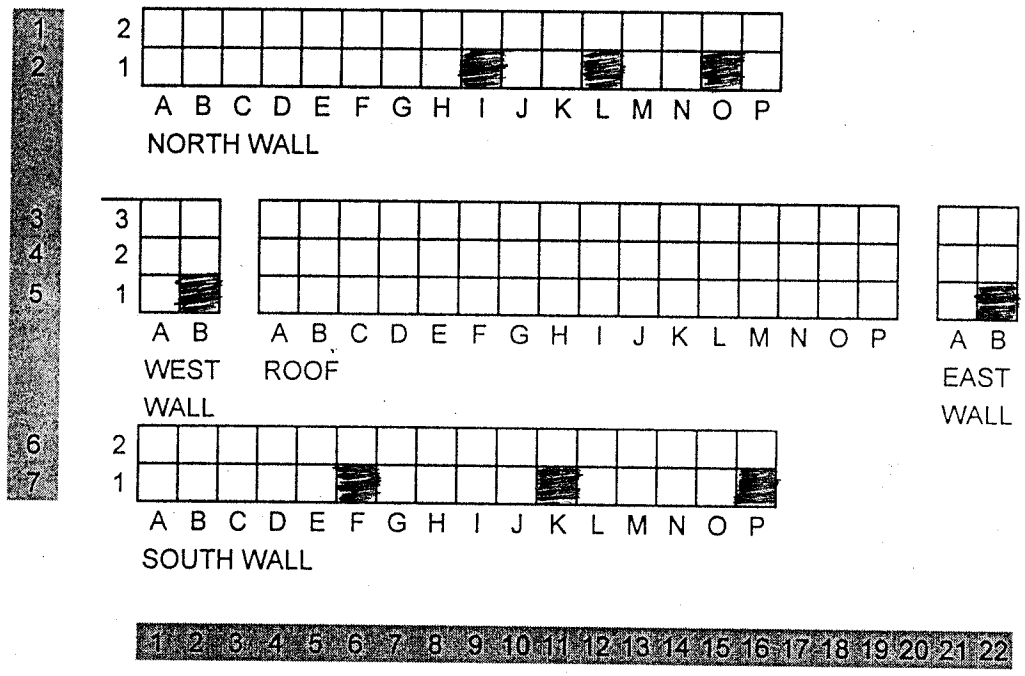
Contaminant	Y/N	Det. Sens. dpm/100 cm^2
U present	N	79
Pu present	N	79

Total Po-210 Results dpm/100 cm^2

MIN	60.0
MAX	121.6
MEAN	90.8
STD DEV	6.8

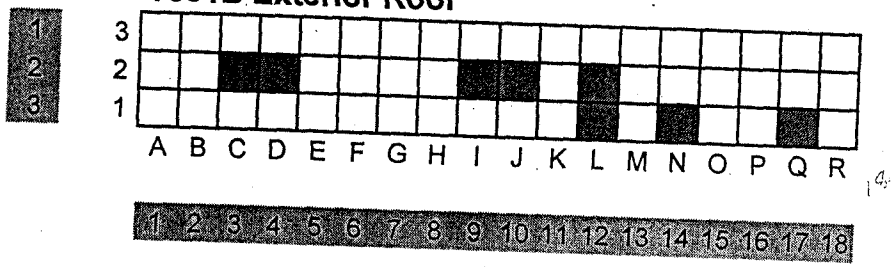
SCAN LOCATIONS:

T881B Exterior



- REST OF SCAN LOCATIONS ON A SEPERATE MAP.

T881B Exterior Roof



X-Coordinate	Y-Coordinate
16	2

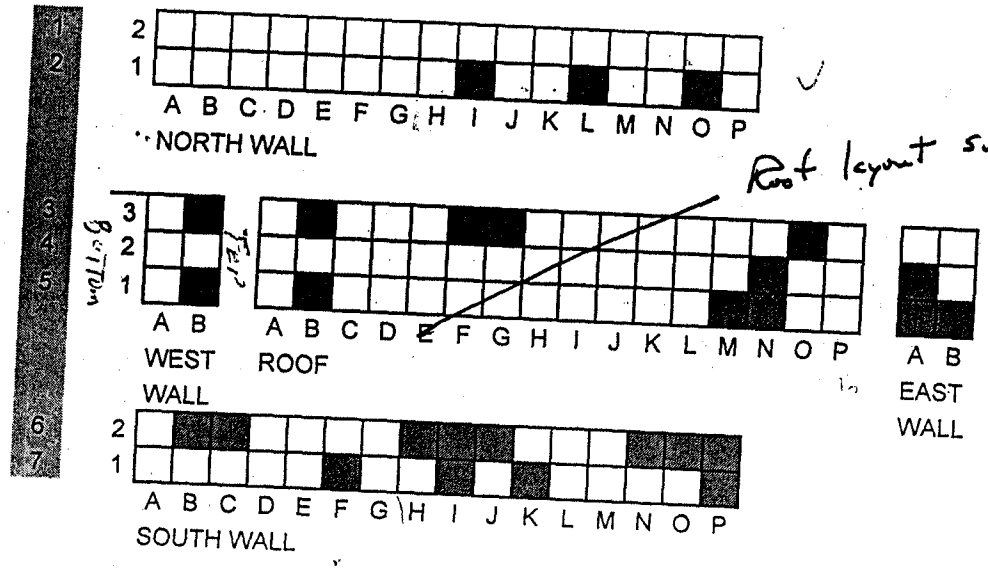
= one square meter

= direct & swipe

Roof Surveys randomly chosen with original number of survey points (8 survey points)

	X	Y
1	9	2
2	12	2
3	4	2
4	12	3
5	14	3
6	17	3
7	3	2
8	10	2

T881B Exterior



Roof layout superceded by Revision 1
2/24/00

X-Coordinate	Y-Coordinate
11	2

Total Surface Area = 124 m²

10% Scan Surface Area = 13 m²

☐ = one square meter

■ = direct & swipe

	X	Y		X	Y		X	Y
1	21	5	11	11	7	21	9	3
2	9	6	12	8	6	22	16	6
3	3	6	13	9	2	23	17	4
4	17	5	14	2	5	24	22	5
5	21	4	15	5	5	25	5	3
6	10	3	16	6	7	26	2	6
7	16	5	17	15	2	27	10	6
8	15	6	18	16	7	28	14	6
9	12	2	19	2	3			
10	18	3	20	9	7			

Survey Area: N/A	Survey Unit: EXTERIOR	Building: T881B
Survey Unit Description: ROOF + WALLS OF TRAILER T881B		

BELOW SAMPLE LOCATIONS WERE TAKEN FROM THE 1ST (UNREVISED) MAP.

Removable Contamination Data Sheet

Sample Location	RCT ID #	Inst ID #		Gross Counts (gcpm)		Net Counts (cpm)		Removable Activity (dpm/100cm2)	
		α	β	α	β	α	β	α	β
I-1N	2	2	1	0	36	0	-1.6	0	-6.4
L-1N	2	2	1	0	37	0	-0.6	0	-2.4
O-1N	2	2	1	0	39	0	1.4	0	5.6
B-1W	2	2	1	0.5	31	0.5	-6.6	1.5	-26.4
B-3W	2	2	1	0.5	34	0.5	-3.6	1.5	-14.4
A-1E	2	2	1	0.5	36	0.5	-1.6	1.5	-6.4
A-2E	2	2	1	0	40	0	2.4	0	9.6
B-1E	2	2	1	0	40	0	2.4	0	9.6
B-2S	2	2	1	0.5	33	0.5	-4.6	1.5	-18.4
C-2S	2	2	1	0	40	0	2.4	0	9.6
F-1S	2	2	1	0.5	37	0.5	-0.6	1.5	-2.4
H-2S	2	2	1	2.0	31	2.0	-6.6	6.0	-26.4
I-1S	2	2	1	1.0	36	1.0	-1.6	3.0	-6.4
[illegible]-2S	2	2	1	1.0	45	1.0	7.4	3.0	29.6
[illegible]-2S	2	2	1	1.5	39	1.5	1.4	4.5	5.6
K-1S	2	2	1	0.5	40	0.5	2.4	1.5	9.6
N-2S	2	2	1	2.0	37	2.0	-0.6	6.0	-2.4
O-2S	2	2	1	3.0	42	3.0	4.4	9.0	17.6
P-1S	2	2	1	0.5	40	0.5	2.4	1.5	9.6
B-1R	2	2	1	0	40.5	0	2.9	0	11.6
B-3R	2	2	1	0.5	34	0.5	-3.6	1.5	-14.4
F-3R	2	2	1	0.5	40.5	0.5	2.9	1.5	11.6
G-3R	2	2	1	0	39	0	1.4	0	5.6
M-1R	2	2	1	0	42	0	4.4	0	17.6
N-1R	2	2	1	0.5	40.5	0.5	2.9	1.5	11.6
N-2R	2	2	1	1.5	46	1.5	8.4	4.5	33.6
O-3R	2	2	1	1.5	46	1.5	8.4	4.5	33.6
P-2S	2	2	1	0	50	0	12.4	0	49.6

N/A

Survey Area: N/A	Survey Unit: EXTERIOR	Building: T881B
Survey Unit Description: Roof + Walls of TRAILER T881B		

SAMPLE LOCATIONS BELOW WERE TAKEN FROM THE 1ST (UNREVISED) MAP.

Total Surface Activity Data Sheet

Sample location	RCT ID #	Inst ID #		Survey count time (sec)		LAB (cpm)		Gross Count (gcpm)		Net counts (cpm)		Net Activity (dpm/100cm2)	
		α	β	α	β	α	β	α	β	α	β	α	β
I-1N	1	7	7	90	90	1.3	349	3.3	361	2.0	12	9	40
L-1N	1	7	7	90	90	2.0	390	4.0	317	2.0	-73	9	-240
O-1N	1	7	7	90	90	2.7	345	6.7	345	4.0	0	18	0
B-1W	1	7	7	90	90	0.7	317	2.0	287	1.3	-30	6	-99
B-3W	1	7	7	90	90	2.0	377	4.0	381	2.0	4	9	13
A-1E	1	7	7	90	90	2.7	349	7.3	360	4.6	11	21	36
A-2E	1	7	7	90	90	2.7	348	8.0	327	5.3	-21	24	-69
B-1E	1	7	7	90	90	2.7	377	6.0	401	3.3	24	15	79
B-2S	1	7	7	90	90	2.0	367	6.0	379	4.0	12	18	40
C-2S	1	7	7	90	90	2.7	370	2.7	327	0.0	-43	0	-142
F-1S	1	7	7	90	90	1.3	317	2.0	383	0.7	66	3	217
H-2S	1	7	7	90	90	1.3	310	4.0	370	2.7	60	12	198
I-1S	1	7	7	90	90	2.0	345	6.0	367	4.0	22	18	72
[illegible]-2S	1	7	7	90	90	2.0	391	2.0	377	0.0	-14	0	-46
J-2S	1	7	7	90	90	1.3	328	6.0	344	4.7	16	21	53
K-1S	1	7	7	90	90	2.7	344	7.3	349	4.6	5	21	16
N-2S	1	7	7	90	90	2.0	342	6.7	362	4.7	20	21	66
O-2S	1	7	7	90	90	2.0	354	6.7	376	4.7	22	21	72
P-1S	1	7	7	90	90	2.0	362	2.0	370	0.0	8	0	26
P-2S	1	7	7	90	90	1.3	287	0.0	349	-1.3	62	-6	204
B-1R	3	9	9	90	90	4.0	400	16.7	467	12.7	67	59.0	224
B-3R	3	9	9	90	90	11.3	440	11.3	440	0.0	0	0.0	0
M-1R	3	9	9	90	90	1.3	415	24.7	469	23.4	54	10.9 54[a]	180
N-1R	3	9	9	90	90	22.7	440	22.7	477	0.0	37	0.0 37[a]	124
N-2R	4	9	9	90	90	5.3	428	30.7	446	~~18.2~~[a]	18	118.2	60
O-3R	4	9	9	90	90	6.0	480	26.0	467	20.0	-13	93.1	-43
F-3R	4	9	9	90	90	4.7	471	~~24.7~~	495	20.0	24	93.1	80
G-3R	4	9	9	90	90	4.7	443	27.3	501	22.6	58	105.2	194
F-1SQC	8	10	10	90	90	6.7	516	14.0	373	7.3	-143	34.0	~~665~~[a] -478
K-1SQC	8	10	10	90	90	9.3	556	10.7	380	1.4	-176	6.5	~~819~~[a] -589
B-1WQC	8	10	10	90	90	8.0	606	7.3	409	-0.7	-197	-3.3	~~917~~[a] -658
L-1NQC	8	10	10	90	90	4.7	500	6.0	399	+1.3	-101	+6.0	~~470~~[a] -337
I-1NQC	8	10	10	90	90	6.7	522	12.7	367	6.0	-155	27.9	~~721~~[a] -518

Note: QC measurements are to be collected by a different technician than the original survey. Mark the QC location number in the "Sample Location" column. Material background is assumed to be zero unless otherwise noted. "LAB" ~ local area background.

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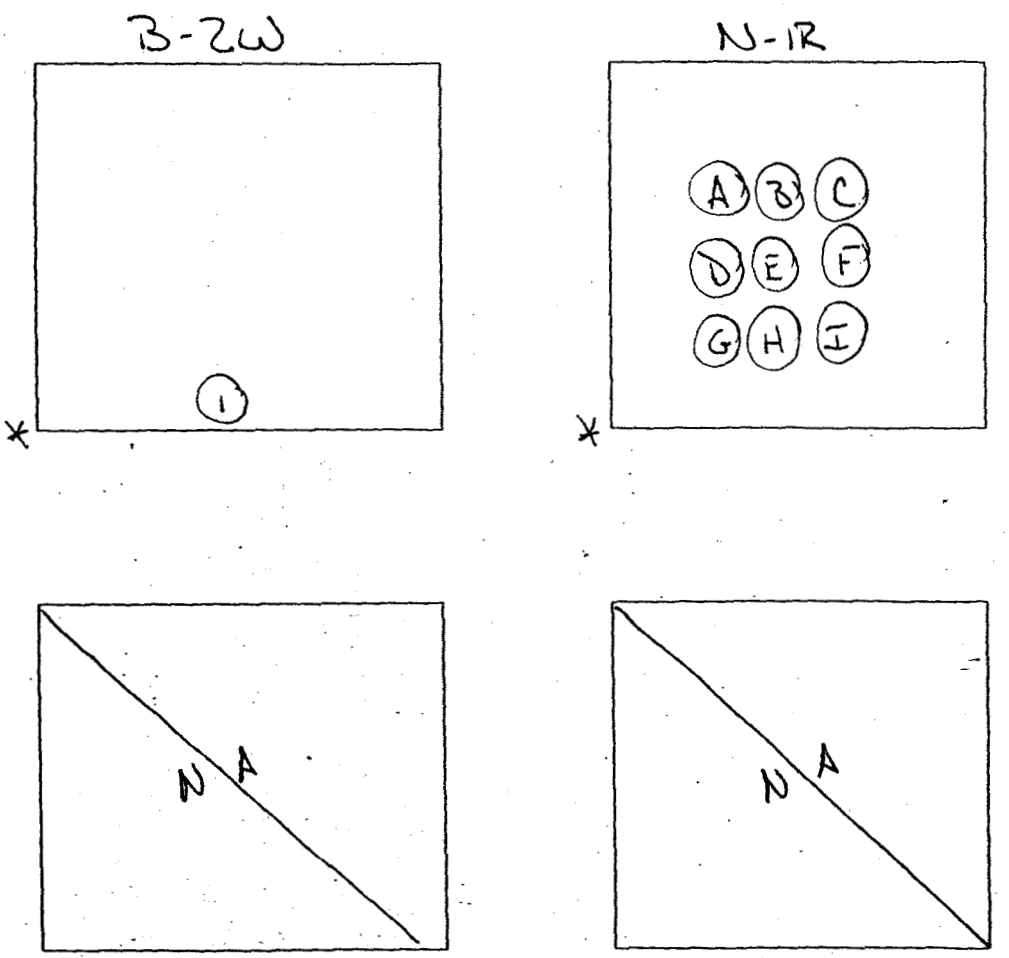
1

Final Survey NE Electra
Scan & Investigation Survey Map

Survey Area: NA	Survey Unit: EXTERIOR	Building: T 881B
Survey Unit Description: WALLS, ROOF		
RCT Initials/Date: 3-3-00	RCT Initials/Date:	RCT Initials/Date:

Refer to the Final Survey NE Electra Scan & Investigation Survey Form for instrumentation, surveyor & approval information.

Legend: "R"- Roof, "W" – West Wall, "S" – South Wall, "E" – East Wall, "N" – North Wall "C" –Ceiling, "F" - Floor



*** Designates corner closest to A-1 point of reference**

Results/Comments:
Electra alpha scans were performed at the locations detailed on the survey map(s). All required accessible areas were scanned. All initial scan results were <225 dpm/100cm^2, unless noted on the survey form.
Electra beta scans were performed in required accessible areas. Initial scan results indicated no detectable activity above background unless noted on the survey form.

Final Survey NE Electra
Scan & Investigation Survey Form

Survey Area: NA	Survey Unit: EXTERIOR	Building: T8813

Survey Unit Description: WALLS, ROOF

Loc. ID #	Electra DP-6 Beta				Electra DP-6 Alpha				
	RCT ID #	Inst. ID #	Elevated Audible observed? "Y" or "N"	60-sec PAT (dpm/100cm2)	RCT ID #	Inst. ID #	4-sec Audible observed? "Y" or "N"	30-sec Static (gcpm)	90-sec PAT (dpm/100cm^2)
N-IR A	1	7	NA	NA	1	7	NA	NA	83.7
N-IR B	1	7	↓	↓	1	7	↓	↓	95.3
N-IR C	1	7	↓	↓	1	7	↓	↓	95.3
N-IR D	1	7	↓	↓	1	7	↓	↓	62.6
N-IR E	1	7	↓	↓	1	7	↓	↓	95.3
N-IR F	1	7	↓	↓	1	7	↓	↓	53.4
N-IR G	1	7	↓	↓	1	7	↓	↓	53.4
N-IR H	1	7	↓	↓	1	7	↓	↓	83.7
N-IR I	1	7	↓	↓	1	7	↓	↓	95.3
B-2W1	1	7	N	NA	1	7	Y	8	NA
L-2N	1	7	N	NA	1	7	N	NA	NA
F.2S.1	2	8	N	NA	2	8	Y	8	NA
K.2S.1	2	8	N	NA	2	8	Y	12	NA
O-2N1	2	8	N	NA	2	8	Y	10	NA
I-2N1	2	8	N	NA	2	8	Y	16	NA
I.2N.2	2	8	N	NA	2	8	Y	6	NA
I.2N.3	2	8	N	NA	2	8	Y	4	NA
I.2N.4	2	8	N	NA	2	8	Y	6	NA
A.3.E	2	8	N	NA	2	8	N	NA	NA
					N	A			

$1m^2$ 79

43

Sample ID: **00A1148-004.001** **Type:** **Unknown**

Batch ID: unknowns
Acquisition Start: April 24, 2000 16:15:32
Analysis Date: April 25, 2000 06:26:04
Procedure: Po210 count
Device: Oasis:01:01
Analysis Method: ROI Analysis
Spectrum File: 00000483.OXS LiveTime: 10,800.00

Calibrations:
Energy = 3.865E+01 +2.790E+00 * Chn Coeff. of Correlation: -0.998
Calibration Date: April 03, 2000 17:45:10 Std: 1:1 energy cal
Shape not Calibrated.
Efficiency = 3.041E-01 ± 4.004E-03
Calibration Date: April 07, 2000 09:49:29 Std: TS4189

External Recovery No Ext.Recovery

Original Sample Amount:
1.000 ± 0.000 samp
Aliquot Amount: 1.000 ± 0.000 samp

ROI DATA

ROI ID #	ASSOCIATED NUCLIDE	EXTENTS START	EXTENTS END	PK EN (keV)	FWHM (keV)
1 Po218	Po218	5550.0	6104.5	5826.0	2.8
2 Po214	Po214	6588.5	7874.7	7229.6	2.8
3 Po212	Po212	8393.8	8808.6	8599.7	2.8
4 Po210	Po210	2180.3	5343.3	5192.6	3.5

ROI ANALYSIS RESULTS

ROI ID	NET COUNTS	BKG/INTERF	CPM	ROI TYPE
Po218	0.5 ± 1.0	0.47	2.95E-03 ± 5.62E-03	Unknown
Po214	2.7 ± 1.7	0.28	0.015 ± 9.64E-03	Unknown
Po212	0.9 ± 1.0	0.09	5.03E-03 ± 5.57E-03	Unknown
Po210	158.4 ± 12.9	6.56	0.880 ± 0.071	Unknown

NUCLIDE ANALYSIS RESULTS

ROI ID	ASSOC NUC	EMM. PROB	ACTIVITY (dpm/samp)	MDA (dpm)
Po218	Po218	1.000	9.71E-03 ± 0.018	9.16E-02
Po214	Po214	1.000	0.050 ± 0.032	8.21E-02
Po212	Po212	1.000	0.017 ± 0.018	6.83E-02
Po210	Po210	1.000	2.895 ± 0.238	2.07E-01

Activity reported as of April 24, 2000 16:15:32

ANALYSIS REVIEWED BY: [signature]

APPROVED BY: CJ Brancon 5/8/00

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OASIS - MCA

File Edit View Acq Parms Tools Reports Close Help

Library: OAS_STD.MDB

Nuclide: Am241

1:Static: 00000483.OXS

Acq ALL

Acquire

Stop

Erase

4096

LOG

Lin Log

Sqrt

Peak

0

4095

Presets

ROIs

Controls

Display

Info

Aux Disp

Spectrum ID

00A1148-004.001

System Date

09-May-2000 14:09:11

Message Window

Channel: 1363 Elapsed Real Time: 10799.99 Elapsed Live Time: 10800.00 Dead Time: 0.0

Energy: 3843.1 Counts: 1 ROI: Integral: 165 Peak: 5,192.61 FWHM: 3.49

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Oasis Device # 2

RFETS; Golden, CO
Apr 19, 2000 07:30:58

Sample ID: **881B coupon 00A1148-005.001** **Type:** **Unknown**

Batch ID: unknown
Acquisition Start: April 18, 2000 13:05:01
Analysis Date: April 19, 2000 07:30:52
Procedure: polonium210 samples
Device: Oasis:02:01
Analysis Method: ROI Analysis
Spectrum File: 00000282.OXS LiveTime: 10,800.00

Calibrations:
Energy = 2.127E+02 +2.333E+00 * Chn Coeff. of Correlation: -0.998
Calibration Date: March 14, 2000 09:19:39 Std: 2:1 energy cal
Shape not Calibrated.
Efficiency = 3.393E-01 ± 4.339E-03
Calibration Date: August 11, 1999 13:14:16 Std: AS 4188

External Recovery No Ext.Recovery

Original Sample Amount:
1.000 ± 0.000 samp
Aliquot Amount: 1.000 ± 0.000 samp

ROI DATA

ROI ID #		ASSOCIATED NUCLIDE	EXTENTS START	EXTENTS END	PK EN (keV)	FWHM (keV)
1	Po218	Po218	5552.6	6077.8	5814.6	1.2
2	Po214	Po214	7420.0	7770.1	7594.8	1.2
3	Po212		8521.5	8850.6	8684.3	1.2
4	Po210	Po210	2263.7	5402.1	5152.0	2.7

ROI ANALYSIS RESULTS

ROI ID	NET COUNTS	BKG/INTERF	CPM	ROI TYPE
Po218	-1.0 ± 0.5	1.00	-5.56E-03 ± 2.78E-03	Unknown
Po214	0.0 ± 0.0	0.00	0.00E+00 ± 0.00E+00	Unknown
Po212	-0.3 ± 0.3	0.25	-1.39E-03 ± 1.39E-03	Unknown
Po210	358.3 ± 19.4	14.75	1.990 ± 0.108	Unknown

NUCLIDE ANALYSIS RESULTS

ROI ID	ASSOC NUC	EMM. PROB	ACTIVITY (dpm/samp)	MDA (dpm)
Po218	Po218	1.000	-1.64E-02 ± 8.19E-03	1.05E-01
Po214	Po214	1.000	0.00E+00 ± 0.00E+00	4.43E-02
Po212		1.000	-4.09E-03 ± 4.09E-03	7.44E-02
Po210	Po210	1.000	5.866 ± 0.327	2.76E-01

Activity reported as of April 18, 2000 13:05:01

ANALYSIS REVIEWED BY: D Robey 07/06/00

APPROVED BY: _____

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OASIS - MCA

File Edit View Acq Parms Tools Reports Close Help

Library: OAS_STD.MDB

Nuclide: Am241

5:Static: 00000282.OXS

Acq ALL

Acquire

Stop

Erase

4096

LOG

Lin Log Sqrt

Peak

0

4095

Presets

ROIs

Controls

Display

Info

Aux Disp

Spectrum ID

881B coupon 00A1148-005.001

System Date

10-May-2000 06:15:43

Message Window

Channel: 1692 Elapsed Real Time: 267802.13 Elapsed Live Time: 267799.07 Dead Time: 0.0

Energy: 4231.1 Counts: 5 ROI: Integral: 8,871 Peak: 5,189.12 FWHM: 125.20

47

Sample ID: **00A1148-006.001** **Type:** **Unknown**

Batch ID: unknowns
Acquisition Start: May 01, 2000 15:37:58
Analysis Date: May 02, 2000 06:53:01
Procedure: Po210 count
Device: Oasis:01:02
Analysis Method: ROI Analysis
Spectrum File: 00000521.OXS LiveTime: 28,800.00

Calibrations:
Energy = 5.823E+01 +2.790E+00 * Chn Coeff. of Correlation: -0.998
Calibration Date: April 07, 2000 14:55:56 Std: 1:2 energy cal
Shape not Calibrated.
Efficiency = 3.089E-01 ± 4.062E-03
Calibration Date: April 07, 2000 15:15:30 Std: TS4189

External Recovery No Ext.Recovery

Original Sample Amount:
1.000 ± 0.000 samp
Aliquot Amount: 1.000 ± 0.000 samp

ROI DATA

ROI #	ID	ASSOCIATED NUCLIDE	EXTENTS START	EXTENTS END	PK EN (keV)	FWHM (keV)
1	Po218	Po218	5550.0	6104.5	6038.1	2.8
2	Po214	Po214	6588.5	7874.7	7229.6	2.8
3	Po212	Po212	8393.8	8808.6	8775.5	3.5
4	Po210	Po210	2180.3	5343.3	5234.5	3.3

ROI ANALYSIS RESULTS

ROI ID	NET COUNTS	BKG/INTERF	CPM	ROI TYPE
Po218	41.0 ± 6.4	0.00	0.085 ± 0.013	Unknown
Po214	8.3 ± 3.1	0.68	0.017 ± 6.41E-03	Unknown
Po212	48.0 ± 6.9	0.00	0.100 ± 0.014	Unknown
Po210	524.7 ± 23.4	12.31	1.093 ± 0.049	Unknown

NUCLIDE ANALYSIS RESULTS

ROI ID	ASSOC NUC	EMM. PROB	ACTIVITY (dpm/samp)	MDA (dpm)
Po218	Po218	1.000	0.276 ± 0.043	1.82E-02
Po214	Po214	1.000	0.056 ± 0.021	4.21E-02
Po212	Po212	1.000	0.324 ± 0.047	1.82E-02
Po210	Po210	1.000	3.538 ± 0.164	1.19E-01

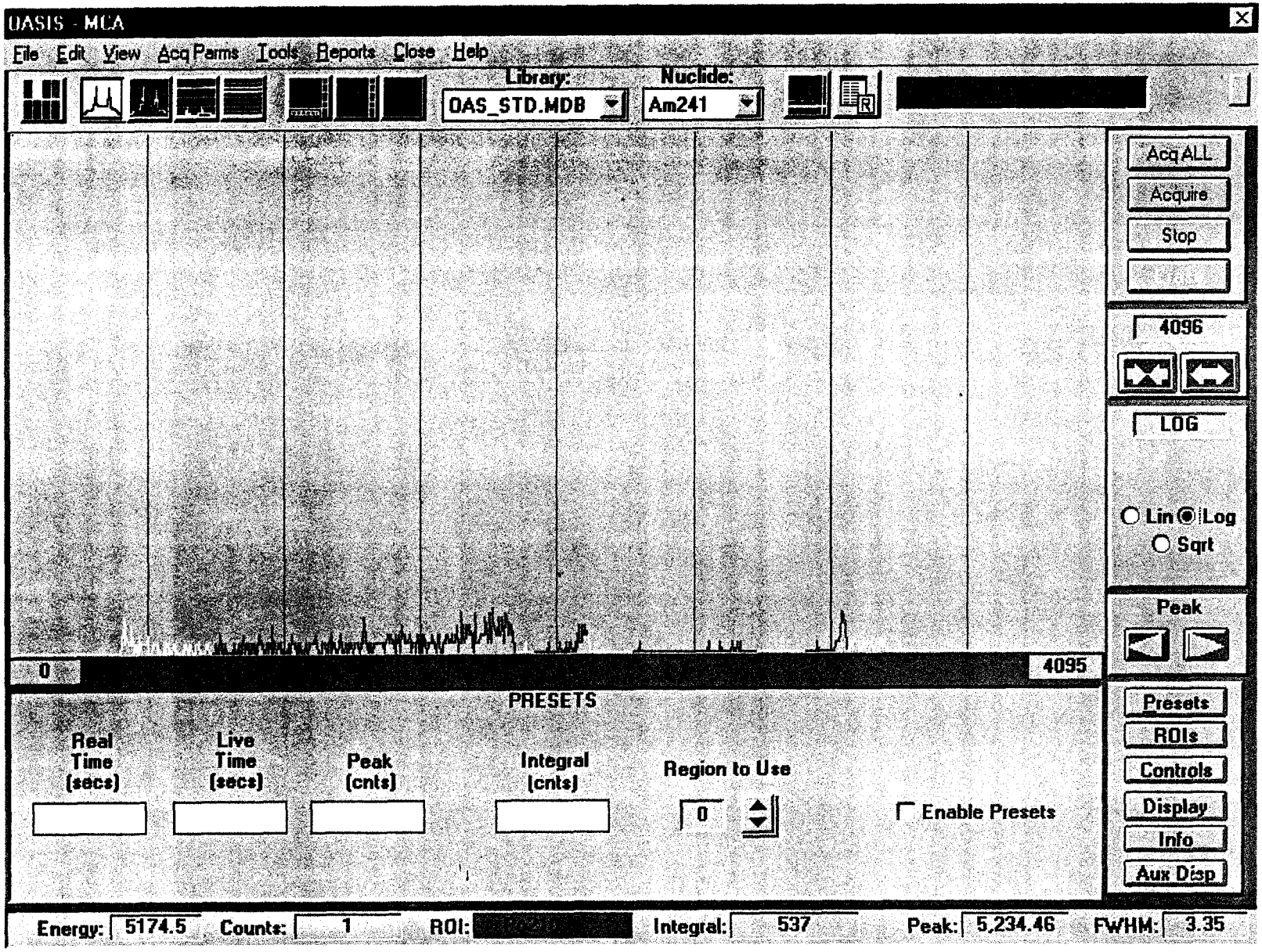
Activity reported as of May 01, 2000 15:37:58

ANALYSIS REVIEWED BY: [signature]

APPROVED BY: [signature] 5/8/00

spike activity: 22,950 d/m pu 239

48



00A1148-006.001

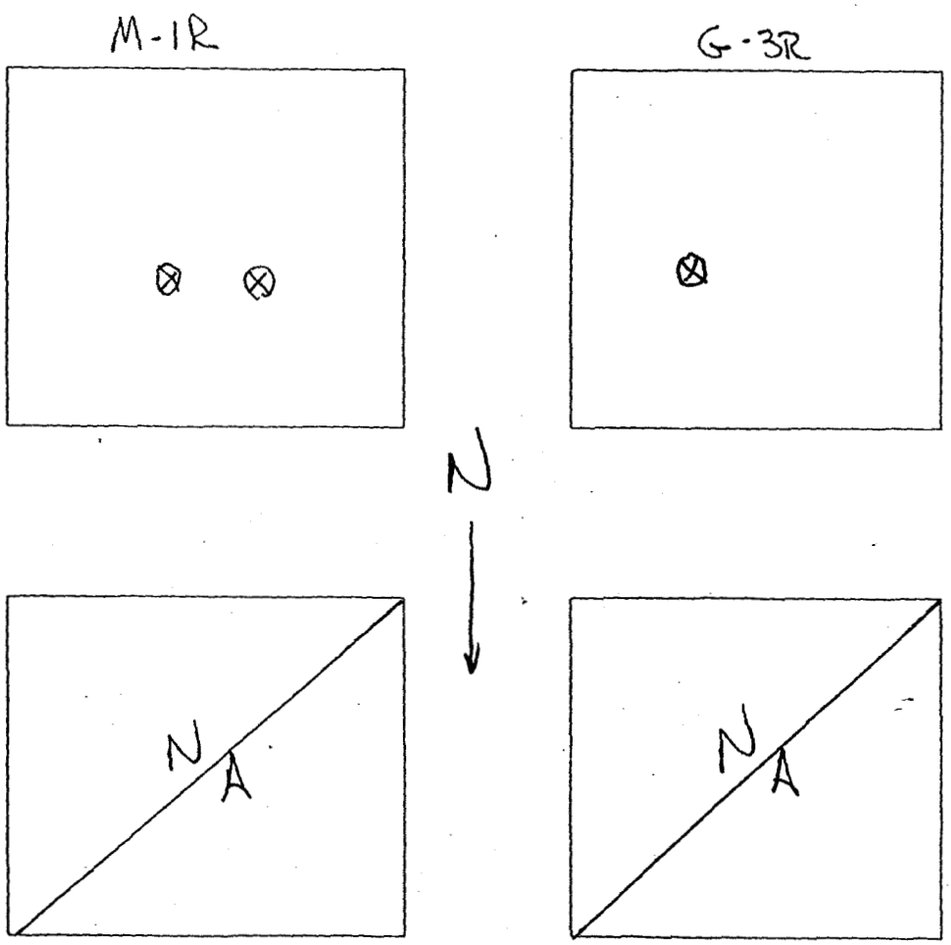
49

Final Survey NE Electra
Scan & Investigation Survey Map

Survey Area: NA	Survey Unit: EXTERIOR	Building: T881B
Survey Unit Description: ROOF SAMPLE LOCATION		
RCT Initials/Date: 3/28/00	RCT Initials/Date: NA	RCT Initials/Date: NA

Refer to the Final Survey NE Electra Scan & Investigation Survey Form for instrumentation, surveyor & approval information.

Legend: "R"- Roof, "W" – West Wall, "S" – South Wall, "E" – East Wall, "N" – North Wall "C" –Ceiling, "F" - Floor



⊗ SAMPLE CUTOUT

*** Designates corner closest to A-1 point of reference**

Results/Comments:

Electra alpha scans were performed at the locations detailed on the survey map(s). All required accessible areas were scanned. All initial scan results were <225 dpm/100cm^2, unless noted on the survey form.

Electra beta scans were performed in required accessible areas. Initial scan results indicated no detectable activity above background unless noted on the survey form.

50

Survey Area: NA	Survey Unit: EXTERIOR	Building: 881B
Survey Unit Description	ROOF SAMPLE LOCATIONS	

Total Surface Activity Data Sheet

Sample location	RCT ID #	Inst ID #		Survey count time (sec)		Gross Count (gcpm)		LAB (cpm)		Net counts (cpm)		Net Activity (dpm/100cm2)	
		α	β	α	β	α	β	α	β	α	β	α	β
PRE				90	90					0.0	0	0.0	0
M-1R	1	7	7	90	90	32.0	457	4.0	433	28.0	24	134.3	80
POST				90	90					0.0	0	0.0	0
M-1R	1	7	7	90	90	28.0	565	0.0	495	28.0	70	134.3	234
PRE				90	90					0.0	0	0.0	0
M-1RQC	2	8	8	90	90	15.7	457	8.7	469	7.0	-12	34.2	-40
POST				90	90					0.0	0	0.0	0
M-1R QC	2	8	8	90	90	12.7	476	2.7	446	10.0	30	48.9	101
PRE				90	90					0.0	0	0.0	0
G-3R	1	7	7	90	90	17.3	461	11.3	425	6.0	36	28.8	120
POST				90	90					0.0	0	0.0	0
G-3R	1	7	7	90	90	10.0	461	10.0	395	0.0	66	0.0	221
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
QC				90	90					0.0	0	0.0	0
QC				90	90					0.0	0	0.0	0
QC				90	90					0.0	0	0.0	0
QC				90	90					0.0	0	0.0	0
QC				90	90					0.0	0	0.0	0

Note: QC measurements are to be collected by a different technician than the original survey. Mark the QC location number in the "Sample Location" column. Material background is assumed to be zero unless otherwise noted. "LAB" ~ local area background.

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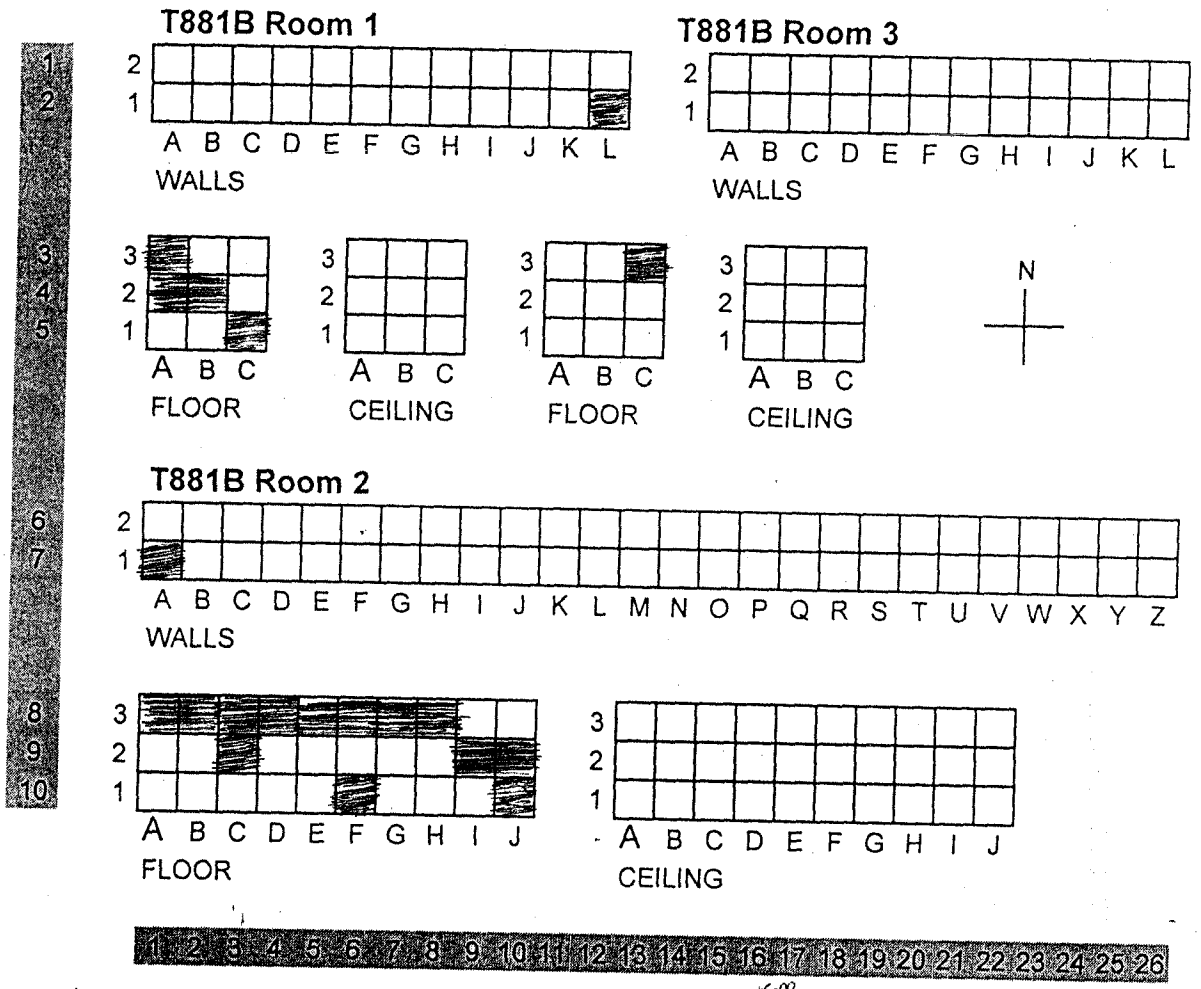
B-2

T881B – Radiological Survey Data for Interior Survey Unit

- Map of Locations
  - Scans
  - Surveys
- Removable and Total Survey Results - Detail

SCAN LOCATIONS:



NOTE: SCAN LOCATIONS ~~WHICH~~ CJ 3-15-00 WERE CHOSEN BASED ON MOST LIKELY TO FIND CONTAMINATION DUE TO THEIR "HIGH TRAFFIC" LIKELIHOOD IN THESE AREAS.

PAGE 3 OF 8

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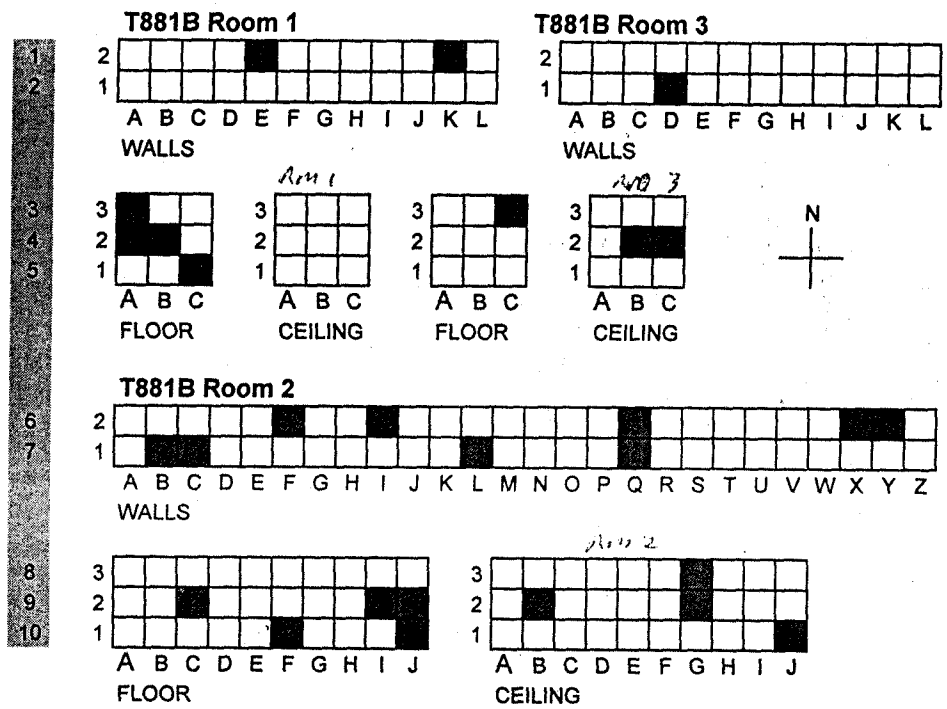

X-Coordinate	Y-Coordinate
11	8

Total Surface Area = 196 m^2

10% Scan Surface Area = 20 m^2

= one square meter

= direct & swipe

	X	Y		X	Y		X	Y
1	18	2	11	6	6	21	2	4
2	19	8	12	1	3	22	3	5
3	10	10	13	1	4	23	3	9
4	17	6	14	9	6	24	13	3
5	11	1	15	10	9	25	25	6
6	9	9	16	17	7	26	19	9
7	12	7	17	3	7	27	6	10
8	2	7	18	18	4	28	14	9
9	5	1	19	24	6			
10	17	4	20	22	10			

54

Survey Area: N/A	Survey Unit: INTERIOR	Building: TB81B
Survey Unit Description: FLOORS, WALLS, + CEILINGS OF TRAILER TB81B		

Removable Contamination Data Sheet

Sample Location	RCT ID #	Inst ID #		Gross Counts (gcpm)		Net Counts (cpm)		Removable Activity (dpm/100cm2)	
		α	β	α	β	α	β	α	β
ROOM 1									
E-2W	2	2	1	0.5	28	0.4	-12	1.2	-48
K-2W	2	2	1	0.5	45	0.4	5	1.2	20
A2F	2	2	1	0.0	47	-0.1	7	-0.3	28
A-3F	2	2	1	0.5	32	0.4	-8	1.2	-32
B-2F	2	2	1	0.5	42	0.4	2	1.2	8
C-1F	2	2	1	1.0	42	0.9	2	2.7	8
ROOM 2									
B-1W	2	2	1	1.0	47	0.9	7	2.7	28
C-1W	2	2	1	1.0	31	0.9	-9	2.7	-36
F-2W	2	2	1	1.0	27	0.9	-13	2.7	-52
I-2W	2	2	1	0.5	36	0.4	-4	1.2	-16
L-1W	2	2	1	0.0	43	-0.1	3	-0.3	12
Q-1W	2	2	1	0.0	45	-0.1	5	-0.3	20
Q-2W	2	2	1	0.0	41	-0.1	1	-0.3	4
X-2W	2	2	1	0.0	54	-0.1	14	-0.3	56
Y-2W	2	2	1	0.5	38	0.4	-2	1.2	-8
C-2F	2	2	1	0.5	44	0.4	4	1.2	16
F-1F	2	2	1	0.0	44	-0.1	4	-0.3	16
I-2F	2	2	1	0.5	35	0.4	-5	1.2	-20
J-1F	2	2	1	0.5	32	0.4	-8	1.2	-32
J-2F	2	2	1	0.0	52	-0.1	12	-0.3	48
B-2C	2	2	1	0.5	40	0.4	0	1.2	0
G-2C	2	2	1	0.0	39	-0.1	-1	-0.3	-4
G-3C	2	2	1	0.5	38	0.4	-2	1.2	-8
J-1C	2	2	1	0.0	28	-0.1	-12	-0.3	-48
ROOM 3									
D-1W	2	2	1	0.0	45	-0.1	5	-0.3	20
C-3F	2	2	1	1.0	32	0.9	-8	2.7	-32
B-2C	2	2	1	0.0	49	-0.1	9	-0.3	36
C-2C	2	2	1	0.0	41	-0.1	1	-0.3	4

N/A

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Survey Area: N/A	Survey Unit: INTERIOR	Building: T881B
Survey Unit Description FLOORS, WALLS, + CEILINGS OF TRAILER T881B		

Total Surface Activity Data Sheet

Sample location	RCT ID #	Inst ID #		Survey count time (sec)		LAB (cpm)		Gross Count (gcpm)		Net counts (cpm)		Net Activity (dpm/100cm2)	
		α	β	α	β	α	β	α	β	α	β	α	β
Room 1				~~90~~	~~90~~								
E2W	1	7	7	90	90	2.0	477	3.3	371	1.3	-106	6	-345
K-2W	1	7	7	90	90	0.0	370	1.3	336	1.3	-34	6	-111
A-2F	1	7	7	90	90	3.3	468	2.7	525	-0.6	57	-3	186
A-3F	1	7	7	90	90	0.0	454	4.0	498	4.0	44	19	143
B-2F	1	7	7	90	90	1.3	444	2.0	508	0.7	64	3	208
C-1F	1	7	7	90	90	2.7	489	2.7	489	0.0	0.0	0.0	0.0
Room 2				~~90~~	~~90~~								
B-1W	1	7	7	90	90	2.0	440	6.7	345	4.7	-95	22	-309
C-1W	1	7	7	90	90	2.0	422	2.7	345	0.7	-77	3	-251
F-2W	1	7	7	90	90	1.3	468	4.7	373	3.4	-95	16	-309
I-2W	1	7	7	90	90	2.0	444	6.7	346	4.7	-98	22	-319
L-1W	1	7	7	90	90	2.7	439	2.7	451	0.0	12	0	~~40~~ 39
Q-1W	1	7	7	90	90	3.3	378	3.3	427	0.0	49	0	160
Q-2W	1	7	7	90	90	1.3	470	3.3	349	2.0	-121	9	-394
X-2W	1	7	7	90	90	1.3	448	1.3	388	0.0	-60	0	-195
Y-2W	1	7	7	90	90	2.0	451	6.7	370	4.7	-81	22	-264
C-2F	1	7	7	90	90	1.3	472	3.3	512	2.0	40	9	+130
F-1F	1	7	7	90	90	0.0	477	0.7	477	0.7	0	3	0
I-2F	1	7	7	90	90	1.3	465	4.7	459	3.4	-6	16	-20
J-1F	1	7	7	90	90	1.3	444	2.0	479	0.7	35	3	114
J-2F	1	7	7	90	90	1.3	448	1.3	482	0.0	34	0	111
B-2C	3	9	9	90	90	4.0	447	4.0	465	0.0	18	0	60
G-2C	3	9	9	90	90	2.7	429	2.7	466	0.0	37	0	123
G-3C	3	9	9	90	90	1.3	431	3.3	482	2.0	51	11	169
J-1C	3	9	9	90	90	0.7	433	4.0	463	3.3	30	18	100
				90	90								
				90	90								
___QC				90	90			N/A					
___QC				90	90								
___QC				90	90								
___QC				90	90								
___QC				90	90								

Note: QC measurements are to be collected by a different technician than the original survey. Mark the QC location number in the "Sample Location" column. Material background is assumed to be zero unless otherwise noted. "LAB" ~ local area background.

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Survey Area: N/A	Survey Unit: INTERIOR	Building: TB81B
Survey Unit Description: FLOORS, WALLS, & CEILINGS OF TRAILER TB81B		

Total Surface Activity Data Sheet

(CONTINUATION SHEET)

Sample location	RCT ID #	Inst ID #		Survey count time (sec)		LAB (cpm)		Gross Count (gcpm)		Net counts (cpm)		Net Activity (dpm/100cm2)	
		α	β	α	β	α	β	α	β	α	β	α	β
Room 3				~~90~~	~~90~~								
D-1W	1	7	7	90	90	0.7	487	1.3	427	0.6	-60	3	-195
C-3F	1	7	7	90	90	0.7	463	2.7	551	2.0	88	9	~~-195~~ 28
B-2C	3	9	9	90	90	1.3	465	2.7	433	1.4	-32	7	~~-106~~ -10
C-2C	3	9	9	90	90	2.7	425	3.3	433	0.6	8	3	~~27~~ 27
				90	90								
				90	90								
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Room 1	K-2W QC	8	11	11	90	90	6.7	360	2.7	378	-4.0	18	-19	59
	B-2F QC	8	11	11	90	90	1.3	309	2.0	525	0.7	216	3	705
Room 2	C-1W QC	8	11	11	90	90	2.7	385	3.3	373	0.6	-12	3	-39
	C-2F QC	8	11	11	90	90	3.3	485	0.7	531	-2.6	46	-12	150
Room 3	C-3F QC	8	11	11	90	90	2.0	442	3.3	524	1.3	82	6	268

N/A

Note: QC measurements are to be collected by a different technician than the original survey. Mark the QC location number in the "Sample Location" column. Material background is assumed to be zero unless otherwise noted. "LAB" ~ local area background.

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B-3

T881B – Asbestos Inspector's Report

T881B

ASBESTOS INSPECTOR'S REPORT

I, the undersigned Certified Asbestos Inspector, certification # [redacted] in the state of Colorado, attest to the asbestos inspection and samp[redacted]s described below, for the following facility (at RFETS): Trailer 881B

General Facility Location: northeast of Building 881.

INSPECTION RESULTS
Trailer 881B is identical to T881A and did not contain any suspect friable asbestos containing materials and no samples were collected.

SAMPLE RESULTS
None required; none taken.

Andre Gonzalez	[signature]	7/6/00
INSPECTOR'S NAME	SIGNATURE	DATE

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B-4

T881B – D&D Facility Characterization Interview Checklist

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D&D Facility Characterization Interview Checklist

ID No.: T-881B
Date: 05/27/99

Groups B & C Series

Check List for - Title: D&D Facility Characterization – Interviews

CRITERIA:
- *D&D Characterization Protocol*, RFETS MAN-077-DDCP, Rev. 0
- *Facility Disposition Program Manual*, RFETS MAN-076-FDPM
- RFETS Radiological Safety Practices, January 12, 1998

Facility Name & Type (1, 2, or 3) T-881B, Group B Type 1 Facility, Trailer Office Building
Personnel Interviewed (Name & Title/Function) Daniel W. Coyne, X2820, P212-6200, Building 444, RMRS

-- Y/N --

Does a current WSRIC exist for the facility? ..... N
If so, are there exceptions to the WSRIC as written? ..... No WSRIC, No Exceptions
COMMENTS (incl. WSRIC contacts)
WSRIC Contact is James M. Schoen who is in charge of the WSRIC Reports, T130J, X3579, C-83.
Are rad surveys available that indicate current status of the facility? ..... N
Are historical rad surveys available that indicate historical status, or evolution, of the facility? ..... N*
COMMENT N* According to Mark R. Richards, X5148 of SSOC any historical data, which is probably at the Federal Center, would not be adequate for unrestricted release. New monitor surveys would have to be taken.
Is an HRR available for the facility? ..... N
Do any other reports exist beyond the HRR (e.g., spill reports, reportable incidents, etc.) that further Characterize the facility relative to chemical &/or radiological contamination? ..... N**
Are engineering drawings (esp. "as-builts") available? ..... N
Are any nonconformances or issues with the facility status currently being tracked in PATS? ..... N

If so, what are the issues (note in Comments, below)?
COMMENTS N* Radiological surveys may have been done, but the old data is not available. This unit will have to be resurveyed to meet present standards for unrestricted release. N** **The T-881B Trailer is not sitting on IHSS or PAC area land, as per,** Nick Demos, ER Characterization/HRR Manager, X4605, Therefore, the T-881B Trailer should not have any CERCLA concerns. Engineering drawings, as-builts, do not exist for the T-881B facility and a Facility Planning sketch does exist. The Plant quit using lead based paints for office buildings in 1989, if this office facility was painted prior to 1989, lead based paints may have been used.

Have any types of chemical characterization, incl. asbestos, been performed recently? ..... N*
If so, what types of characterization were performed (note in Comments, below)?
COMMENTS N* No asbestos characterization data exists, according to Kevin Sheehan, X7250, T-452D, Room C-1. The asbestos data reports are located in Cubicle C-13, of T-452D and the reports are under the control of Kevin Sheehan.

Interviewed by: J. R. Sheets / JR Sheets / 05/26/99
Print Name / Signature / Interview Date

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D&D Facility Characterization Interview Checklist

ID No.: T -881B
Date: 05/27/99

Groups B & C Series

What timeframe did the interviewee work in the facility? N/A The interviewee did not work in this facility. The facility has been vacant for approximately 3.5 years.

Has the building configuration changed since you worked in the building? If so, in what way?

N/A The facility is still an unused office building.

What types of equipment were in the building during the interviewee's time there? N/A

Where was the equipment located? (specific rooms/areas) In the open cubicle area of the trailer, the hard wall room and office, and at either end of the trailer. The only equipment remaining in this facility is the desks and chairs in the offices and office cubicles. In addition, the trailer has a Plant Public Address System and a Fire Department Smoke Detection System.

Were any radioactive materials or metals handled in the building? If so, what types? No, none

Which equipment handled radioactive material? N/A

Were any chemicals handled in the building? If so, what types? N/A

Did any spills or uncontrolled releases of radioactive materials or chemicals occur while you were working in the facility? No, none.

Were these spills/releases cleaned-up? How were they cleaned-up? N/A

Where did these spills/releases occur? N/A

Interviewed by: J. R. Sheets / J R Sheets / 05/26/99

Print Name | Signature | Interview Date

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Type 1 Facility Checklist

TYPE 1 FACILITY BUILDING T-881B

CURRENT LANDLORD: RFCSS

DATE OF COMPLETION: 02/29/00

ITEM	YES	NO
Does the facility contain radiological postings?		X
Does the facility contain chemical postings?		X
Are there any installed hazards?		X
Do the historical surveys (radiological and chemical) indicate the facility is clean?	X	
Are there RCRA units within the facility		X
Is there a history of the building available?	X	
Is there any equipment/furniture left in the facility?		X
Is there a future mission identified for the facility?		X
Will the facility be left unsecured after it is vacated?		X

If any answer to any of the above questions is "Yes", complete the following questions and complete the "graded" PEP in accordance with Chapter 2.

Note: An answer of "Yes" to any question, specifically one dealing with hazards, ***may*** *indicate the facility is not a Type 1 Facility. Check with the D&D Programs office.*

If the answer to all question is "No" complete the "graded" PEP in accordance with Chapter 2.

1. List the Radiological Hazards, location, and quantity:

   Based on the historical data found and interviews taken there are no hazards in this trailer.

2. List the Chemical Hazards, location, and quantity:

   None. Based on historical data and interviews taken no asbestos data exists and the paint may be lead based.

3. List the Physical Hazards:

   NONE

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C-1

T883A – Radiological Survey Data for Exterior Survey Unit

- Summary of Radiological Survey/Sample Results
- Map of Locations
  - Scans
  - Surveys
- Removable and Total Survey Results – Detail
- Laboratory Alpha Spec (Sample) Results – Detail

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Radiological Survey/Sample Results for T883A

Total Surface Activity Measurements dpm/100 cm^2

	Alpha	Beta
Interior	# Required	# Obtained
	28	28
MIN	-3.4	-205
MAX	51	633
MEAN	6.3	168.7
STD DEV	10.2	226.0
Exterior	# Required	# Obtained
	28	28
MIN	-2.9	-237
MAX	128.4	458
MEAN	64.2	124.3
STD DEV	42.4	196.2
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm^2

	Alpha	Beta
Interior	# Required	# Obtained
	28	28
MIN	-1.2	-46.8
MAX	3.6	44.8
MEAN	0.2	7.3
STD DEV	1.5	23.3
Exterior	# Required	# Obtained
	28	28
MIN	-1.2	-159.6
MAX	6.4	32.4
MEAN	1.0	-18.3
STD DEV	1.8	34.6
$DCGL_W$	20	1000

Media Sample Activity

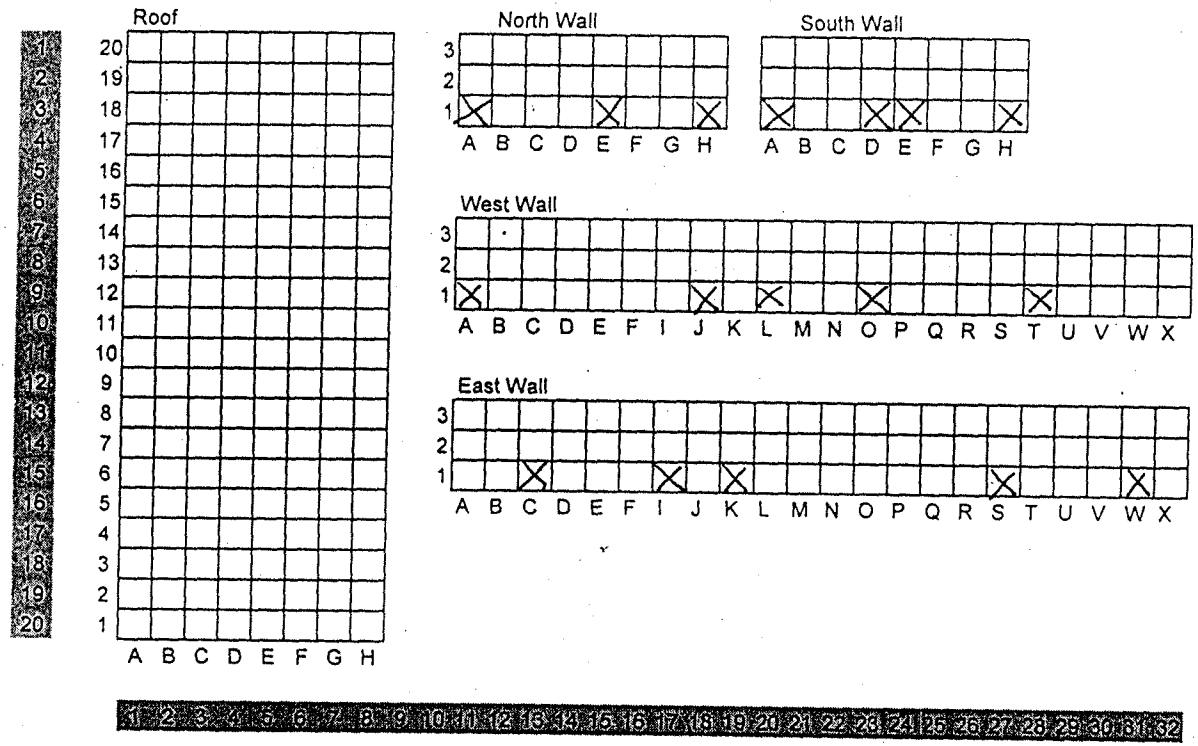
# Required	# Obtained
2	2

Contaminant	Y/N	Det. Sens. dpm/100 cm^2
U present	N	79
Pu present	N	79

Total Po-210 Results dpm/100 cm^2

MIN	71.4
MAX	122.8
MEAN	97.1
STD DEV	5.2

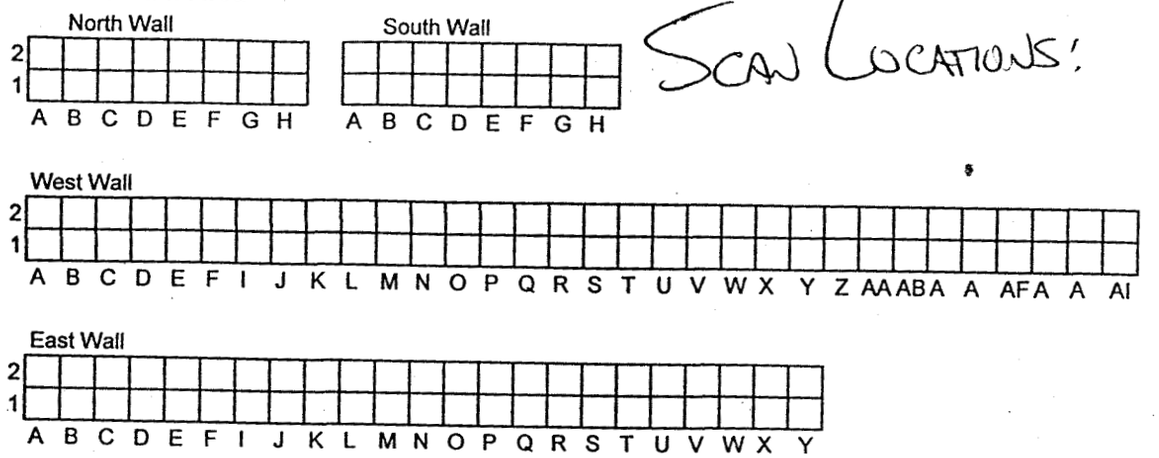
T883A Exterior



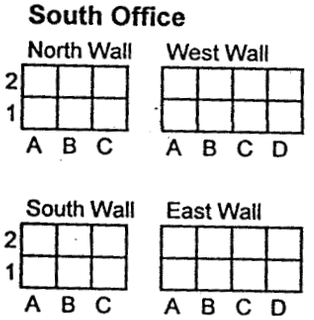
Scan location

T883A Main Area

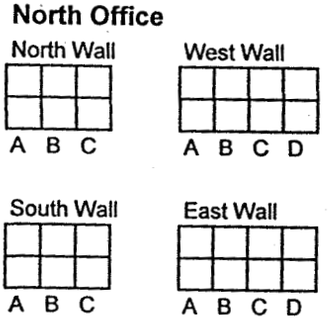
SCAN LOCATIONS!



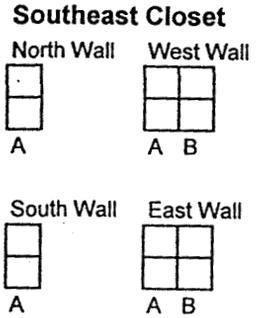
South Office



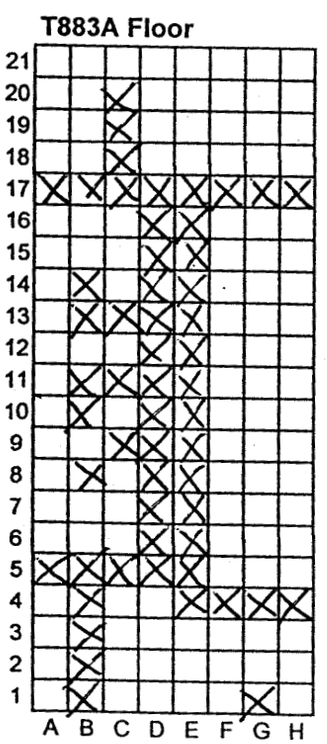
North Office



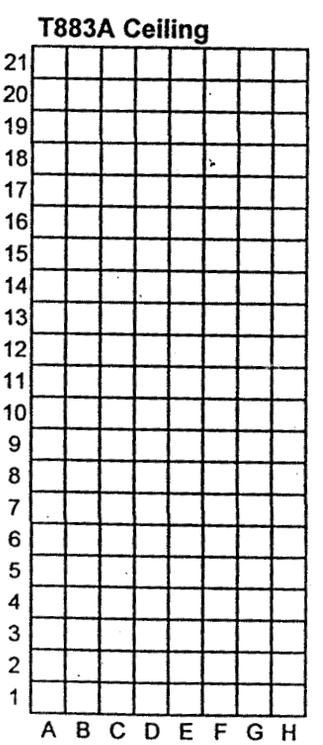
Southeast Closet



T883A Floor

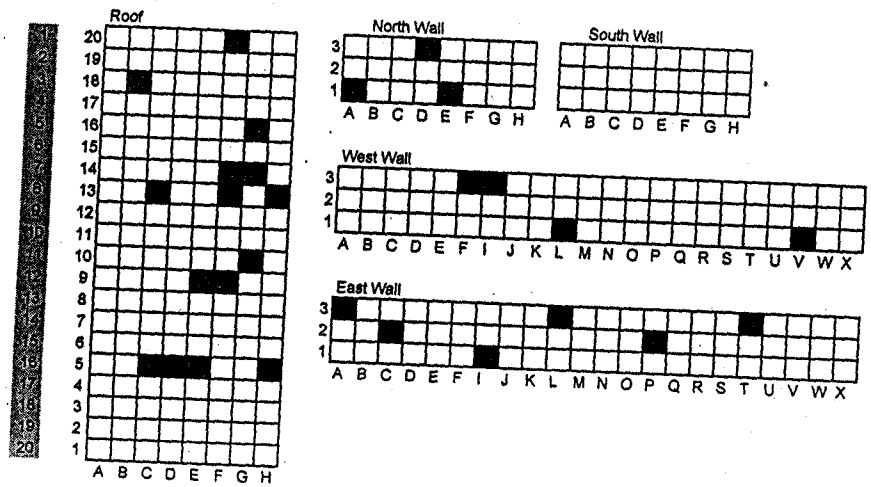


T883A Ceiling



NOTE: AREAS SCANNED WERE DETERMINED BY TRAFFIC WEAR ON CARPET.

T883A Exterior



X-Coordinate	Y-Coordinate
24	9

☐ = one square meter

■ = direct & swipe

	X	Y		X	Y		X	Y
1	13	14	11	16	7	21	3	8
2	11	13	12	6	8	22	20	13
3	8	16	13	7	5	23	2	3
4	30	9	14	5	16	24	3	16
5	24	14	15	8	8	25	20	9
6	6	7	16	5	12	26	6	1
7	15	3	17	17	15	27	14	1
8	28	13	18	6	12	28	11	3
9	7	11	19	17	7			
10	4	16	20	7	7			

Total Surface Area = 340 m²

10% Scan Surface Area = 34 m²

97/242 120

68

Survey Area: NA	Survey Unit: Exterior	Building: T883A
Survey Unit Description: Exterior WALLS		

Removable Contamination Data Sheet

Sample Location	RCT ID #	Inst ID #		Gross Counts (gcpm)		Net Counts (cpm)		Removable Activity (dpm/100cm2)	
		α	β	α	β	α	β	α	β
C·2·E	1	1	2	.5	40	.1	-2.9	0.3	-11.6
I·1·E	1	3	4	0	44	-.4	8.1	-1.2	32.4
L·3·E	1	1	2	1	42	.6	-.9	1.8	-3.6
P·2·E	1	3	4	.5	32.5	.1	3.4	0.3	13.6
T·3·E	1	1	2	2.5	39.5	2.1	-3.4	~~6.36~~ 6.4	-13.6
A·1·N	1	3	4	1	42	.6	6.1	1.8	24.4
E·1·N	1	1	2	1	41	.6	-1.9	1.8	-7.6
D·3·N	1	3	4	.5	42.5	.1	6.6	0.3	26.4
A-3E ~~A·3·W~~	1	1	2	.5	40	.1	-2.9	0.3	-11.6
F·3·W	1	3	4	0	34.5	-.4	-1.4	-1.2	-5.6
L·1·W	1	1	2	1	33.5	.6	-9.4	1.8	-37.6
I·3·W	1	3	4	.5	41.5	.1	5.6	0.3	22.4
V·1·W	1	1	2	0	35.5	-.4	-7.4	-1.2	-29.6

N

A

69

Survey Area: NA	Survey Unit: Exterior	Building: T883A
Survey Unit Description: Exterior Roof		

Removable Contamination Data Sheet

Sample Location	RCT ID #	Inst ID #		Gross Counts (gcpm)		Net Counts (cpm)		Removable Activity (dpm/100cm2)	
		α	β	α	β	α	β	α	β
B-18R	3	5	6	0.0	38	-0.3	-4.4	-0.91	-17.6
C-5R	3	5	6	0.0	38.5	-0.3	-3.9	-0.91	-15.6
C-13R	3	5	6	1.0	32.5	0.7	~~-39.9~~	2.1	~~-159.6~~ 39.6
D-5R	3	5	6	1.0	36	0.7	-6.4	2.1	-25.6
E-5R	3	5	6	0.0	34	-0.3	-8.4	-0.91	-33.6
E-9R	3	5	6	1.0	38.5	0.7	-3.9	2.1	-15.6
F-9R	3	5	6	0.0	39	-0.3	-3.4	-0.91	-13.6
F-13R	3	5	6	1.5	38.5	1.2	-3.9	3.6	-15.6
F-14R	3	5	6	0.5	32.5	0.2	-9.9	0.6	-39.6
F-20R	3	5	6	1.5	39	1.2	-3.4	3.6	-13.6
G-10R	3	5	6	0.5	32.5	0.2	-9.9	0.6	-39.6
G-14R	3	5	6	1.5	32.5	1.2	-9.9	3.6	-39.6
G-16R	3	5	6	0.0	38	-0.3	-4.4	-0.91	-17.6
H-5R	3	5	6	0.5	33	0.2	-9.4	0.6	-37.6
H-13R	3	5	6	0.0	36	-0.3	-6.4	-0.91	-25.6

NA

70

Survey Area: NA	Survey Unit: EXTERIOR	Building: 883A
Survey Unit Description	EXTERIOR WALLS AND ~~CEILING~~ 2/29/00 ROOF	

Total Surface Activity Data Sheet

Sample location	RCT ID #	Inst ID #		Survey count time (sec)		LAB (cpm)		Gross Count (gcpm)		Net counts (cpm)		Net Activity (dpm/100cm2)	
		α	β	α	β	α	β	α	β	α	β	α	β
A-1 NW	1	8	8	90	90	2.7	294	12.0	294	9.3	0	45.0	0
D-3 NW	1			90	90	3.3	322	8.7	343	5.4	21	26.2 ~~29.~~	69 ~~44~~
E-1 NW	1			90	90	5.3	303	11.3	335	6.0	32	29.1 ~~36.~~	105
F-3 NW	1			90	90	3.3	429	12.0	377	8.7	-52	42.2 ~~75.~~	-171
I-3 NW	1			90	90	4.0	387	8.7	327	4.7	-60	22.8	-197
L-1 NW	1			90	90	11.3	306	14.7	329	3.4	23	16.5 ~~H.~~	75
V-1 NW	1			90	90	5.3	363	18.0	367	12.7	4	61.7 ~~16.~~	13
A-3 EW	1			90	90	5.3	333	9.3	331	4.0	-2	19.4 ~~16.~~	-7
C-2 EW	1			90	90	3.3	336	10.7	313	7.4	-23	35.9 ~~14.~~	-75
I-1 EW	1			90	90	4.7	277	4.7	298	0	21	0	69
L-3 EW	1			90	90	7.3	307	12.7	323	5.4	16	26.2 ~~28.~~	53
P-2 EW	1			90	90	5.3	319	4.7	325	-0.6	6	-2.9	20
T-3 EW	1	8	8	90	90	2.7	319	26.8	332	24.1	13	117. ~~116.6~~	43
B-13R	2	11	11	90	90	2.3	366	24.7	464	22.4	98	100.2	~~322~~ 2/28/00 323
E-5R	2	11	11	90	90	4.7	381	27.3	447	22.6	66	101.1	217
C-13R	2	11	11	90	90	5.3	359	29.3	495	24.0	136	107.4	~~354~~ 2/28/00 448
D-5R	2	11	11	90	90	2.7	360	31.3	478	28.6	118	128.0	~~422~~ 2/28/00 389
E-5R	2	11	11	90	90	3.3	343	30.7	426	27.4	83	122.6	273
E-9R	2	11	11	90	90	2.0	366	26.0	440	24.0	74	107.4	244
F-9R	2	11	11	90	90	3.3	326	28.0	409	24.7	83	110.5	273
F-13R	2	11	11	90	90	7.3	469	26.0	432	18.7	-37	83.7	-122
F-14R	2	11	11	90	90	11.3	358	26.0	497	14.7	139	65.8	458
F-20R	2	11	11	90	90	4.0	469	30.7	397	26.7	-72	119.5	-237
G-10R	2	11	11	90	90	3.3	344	32.0	455	28.7	111	128.4	366
G-14R	2	11	11	90	90	3.3	315	24.7	406	21.4	91	95.7	300
G+16R	2	11	11	90	90	6.0	332	25.3	440	19.3	108	86.4	356
H-5R	2	11	11	90	90	4.0	364	16.7	386	12.7	22	56.8 ~~78.~~	72
H-13R	2	11	11	90	90	6.0	444	18	453	12.0	9	53.7 ~~48.~~	30
V-1-WQC	8	9	9	90	90	2.0	403	5.3	371	3.3	-32	15.4	-107
L-1-NQC	8			90	90	2.7	511	6.0	328	3.3	-183	15.4	-611
E-1-NQC	8			90	90	5.3	435	10.0	337	4.7	-98	21.9	-327
I-1-EQC	8			90	90	6.0	292	8.7	321	2.7	29	12.6	~~96.9~~ 97
C-2-EQC	8	9	9	90	90	3.3	469	9.3	329	6	-140	27.9	~~-467.6~~ -46

Note: QC measurements are to be collected by a different technician than the original survey. Mark the QC location number in the "Sample Location" column. Material background is assumed to be zero unless otherwise noted. "LAB" ~ local area background.

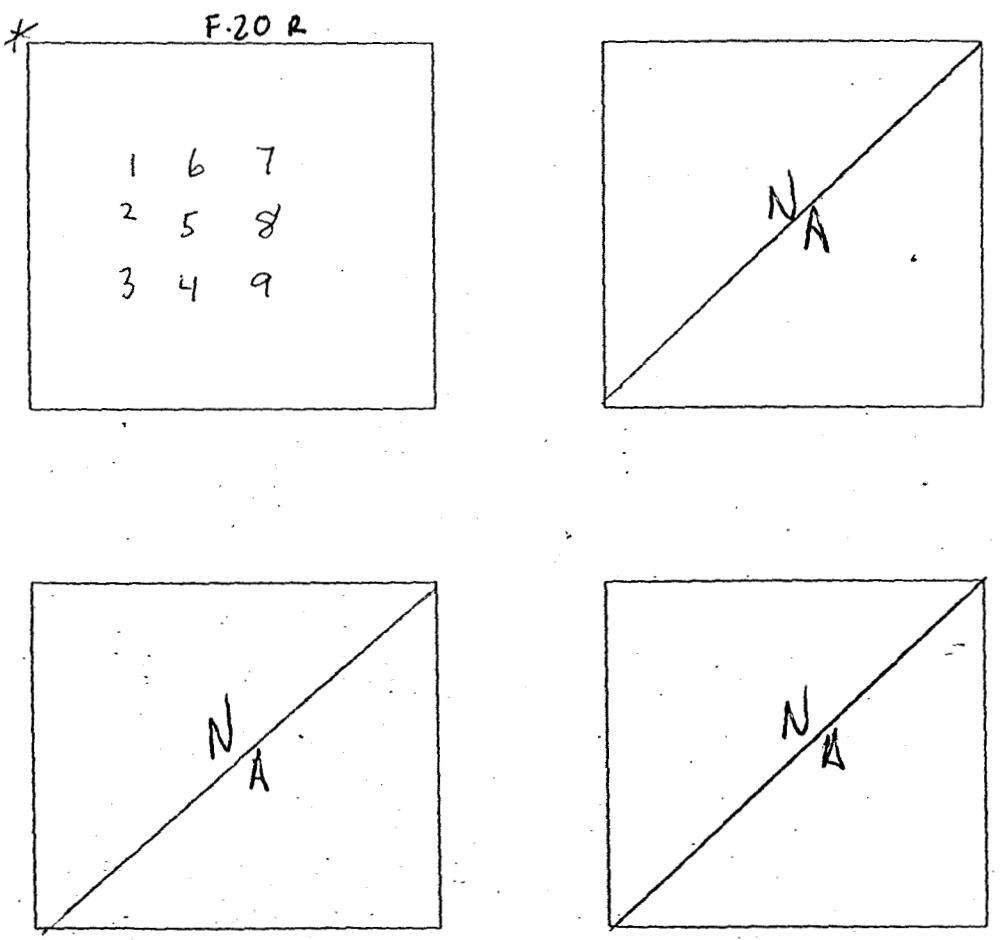
71

Final Survey NE Electra
Scan & Investigation Survey Map

Survey Area: NA	Survey Unit: EXTERIOR	Building: T883 A
Survey Unit Description: ROOF 9 PT INVESTIGATION SCAN		
RCT Initials/Date: RC 3-3-00	RCT Initials/Date: N/A	RCT Initials/Date: N/A

Refer to the Final Survey NE Electra Scan & Investigation Survey Form for instrumentation, surveyor & approval information.

Legend: "R"- Roof, "W" – West Wall, "S" – South Wall, "E" – East Wall, "N" – North Wall "C" –Ceiling, "F" - Floor



*** Designates corner closest to A-1 point of reference**

Results/Comments:

Electra alpha scans were performed at the locations detailed on the survey map(s). All required accessible areas were scanned. All initial scan results were <225 dpm/100cm^2, unless noted on the survey form.

Electra beta scans were performed in required accessible areas. Initial scan results indicated no detectable activity above background unless noted on the survey form.

Final Survey NE Electra
Scan & Investigation Survey Form
(Continuation Sheet)

Survey Area: NA	Survey Unit: EXTERIOR	Building: T883 A

Survey Unit Description: ROOF 9 PT INVESTIGATION SCAN

Loc. ID #	Electra DP-6 Beta				Electra DP-6 Alpha				
	RCT ID #	Inst. ID #	Elevated Audible observed? "Y" or "N"	60-sec PAT (dpm/100cm2)	RCT ID #	Inst. ID #	4-sec Audible observed? "Y" or "N"	30-sec Static (gcpm)	90-sec PAT (dpm/100cm^2)
F-20R1					1	7			20.0
F-20R2					1	7			25.3
F-20R3					1	7			20.0
F-20R4					1	7			26.0
F-20R5					1	7			28.0
F-20R6					1	7			17.3
F-20R7					1	7			23.3
F-20R8					1	7			25.3
F-20R9					1	7			20.3

NA NA NA

1m² f 22.8

73

Oasis Device # 2

RFETS; Golden, CO
Apr 21, 2000 15:18:44

Sample ID: **881A 00A1148-007.001** **Type:** **Unknown**

Batch ID: unknown
Acquisition Start: April 21, 2000 07:40:11
Analysis Date: April 21, 2000 15:12:57
Procedure: polonium210 samples
Device: Oasis:02:04
Analysis Method: ROI Analysis
Spectrum File: 00000298.OXS LiveTime: 10,800.00

Calibrations:
Energy = 1.412E+02 +2.389E+00 * Chn Coeff. of Correlation: -0.998
Calibration Date: April 05, 2000 09:30:14 Std: AS 4188
Shape not Calibrated.
Efficiency = 3.398E-01 ± 4.596E-03
Calibration Date: April 05, 2000 09:40:39 Std: AS 4188

External Recovery No Ext.Recovery

Original Sample Amount:
1.000 ± 0.000 samp
Aliquot Amount: 1.000 ± 0.000 samp

ROI DATA

ROI #	ID	ASSOCIATED NUCLIDE	EXTENTS START	EXTENTS END	PK EN (keV)	FWHM (keV)
1	Po218	Po218	5552.6	6077.8	5815.3	2.4
2	Po214	Po214	7420.0	7770.1	7595.2	1.2
3	Po212		8521.5	8850.6	8684.6	1.2
4	Po210	Po210	2263.7	5402.1	5026.9	2.4

ROI ANALYSIS RESULTS

ROI ID	NET COUNTS	BKG/INTERF	CPM	ROI TYPE
Po218	1.3 ± 1.5	0.72	7.14E-03 ± 8.10E-03	Unknown
Po214	-0.2 ± 0.2	0.18	-9.93E-04 ± 9.93E-04	Unknown
Po212	-0.4 ± 0.3	0.36	-1.99E-03 ± 1.40E-03	Unknown
Po210	210.7 ± 15.2	17.34	1.170 ± 0.084	Unknown

NUCLIDE ANALYSIS RESULTS

ROI ID	ASSOC NUC	EMM. PROB	ACTIVITY (dpm/samp)	MDA (dpm)
Po218	Po218	1.000	0.021 ± 0.024	9.36E-02
Po214	Po214	1.000	-2.92E-03 ± 2.92E-03	6.89E-02
Po212		1.000	-5.85E-03 ± 4.13E-03	7.92E-02
Po210	Po210	1.000	3.444 ± 0.253	2.87E-01

Activity reported as of April 21, 2000 07:40:11

ANALYSIS REVIEWED BY: [signature]

APPROVED BY: CJ Bianconi 5/8/00

74

OASIS - MCA

File Edit View Acq Parms Tools Reports Close Help

Library: OAS_STD.MDB

Nuclide: Am241

5:Static: 00000298.0XS

Acq ALL

Acquire

Stop

4096

LOG

Lin Log

Sqrt

Peak

0

4095

Spectrum ID

881A 00A1148-007.001

System Date

10-May-2000 06:18:58

Message Window

Presets

ROIs

Controls

Display

Info

Aux Disp

Channel: 1975 Elapsed Real Time: 10801.48 Elapsed Live Time: 10800.00 Dead Time: 0.0

Energy: 4858.6 Counts: 0 ROI: Integral: 228 Peak: 5,026.90 FWHM: 2.39

75

Sample ID: **00A1148-008.001** **Type:** **Unknown**

Batch ID: unknowns
Acquisition Start: May 02, 2000 16:31:11
Analysis Date: May 03, 2000 08:08:44
Procedure: Po210 count
Device: Oasis:01:02
Analysis Method: ROI Analysis
Spectrum File: 00000517.OXS LiveTime: 28,800.00

Calibrations:
Energy = 5.823E+01 +2.790E+00 * Chn Coeff. of Correlation: -0.998
Calibration Date: April 07, 2000 14:55:56 Std: 1:2 energy cal
Shape not Calibrated.
Efficiency = 3.089E-01 ± 4.062E-03
Calibration Date: April 07, 2000 15:15:30 Std: TS4189

External Recovery No Ext.Recovery

Original Sample Amount:
1.000 ± 0.000 samp
Aliquot Amount: 1.000 ± 0.000 samp

ROI DATA

ROI ID #		ASSOCIATED NUCLIDE	EXTENTS START	EXTENTS END	PK EN (keV)	FWHM (keV)
1	Po218	Po218	5550.0	6104.5	5826.0	2.8
2	Po214	Po214	6588.5	7874.7	7229.6	2.8
3	Po212	Po212	8393.8	8808.6	8599.7	2.8
4	Po210	Po210	2180.3	5343.3	5245.6	6.5

ROI ANALYSIS RESULTS

ROI ID	NET COUNTS	BKG/INTERF	CPM	ROI TYPE
Po218	6.0 ± 2.4	0.00	0.013 ± 5.10E-03	Unknown
Po214	0.3 ± 1.2	0.68	6.58E-04 ± 2.52E-03	Unknown
Po212	3.0 ± 1.7	0.00	6.25E-03 ± 3.61E-03	Unknown
Po210	878.7 ± 30.0	12.31	1.831 ± 0.062	Unknown

NUCLIDE ANALYSIS RESULTS

ROI ID	ASSOC NUC	EMM. PROB	ACTIVITY (dpm/samp)	MDA (dpm)
Po218	Po218	1.000	0.040 ± 0.017	1.82E-02
Po214	Po214	1.000	2.13E-03 ± 8.17E-03	4.21E-02
Po212	Po212	1.000	0.020 ± 0.012	1.82E-02
Po210	Po210	1.000	5.926 ± 0.217	1.19E-01

Activity reported as of May 02, 2000 16:31:11

ANALYSIS REVIEWED BY: [signature]

APPROVED BY: [signature] 5/8/00

Spike value: 22.892 dpm pu 239

76

Po 210

OASIS - MCA

File Edit View Acq Parms Tools Reports Close Help

Library: OAS_STD.MDB

Nuclide: Am241

Acq ALL

Acquire

Stop

4096

LOG

Lin Log

Sqrt

Peak

0

4095

Presets

ROIs

Controls

Display

Info

Aux Disp

Spectrum ID

00A1148-008.001

System Date

03-May-2000 08:19:17

Message Window

Channel: 1698 Elapsed Real Time: 28800.77 Elapsed Live Time: 28800.00 Dead Time: 0.0

Energy: 4797.3 Counts: 2 ROI: Integral: 891 Peak: 5,245.63 FWHM: 6.51

Sample ID: **00A1148-009.001** **Type:** **Unknown**

Batch ID: unknowns
Acquisition Start: May 03, 2000 08:42:23
Analysis Date: May 03, 2000 16:42:46
Procedure: Po210 count
Device: Oasis:01:04
Analysis Method: ROI Analysis
Spectrum File: 00000527.OXS LiveTime: 28,800.00

Calibrations:
Energy = 8.600E+01 +2.746E+00 * Chn Coeff. of Correlation: -0.998
Calibration Date: April 12, 2000 10:28:56 Std: 1:4 energy cal
Shape not Calibrated.
Efficiency = 3.084E-01 ± 4.055E-03
Calibration Date: April 12, 2000 11:45:10 Std: TS4189

External Recovery No Ext.Recovery

Original Sample Amount:
1.000 ± 0.000 samp
Aliquot Amount: 1.000 ± 0.000 samp

ROI DATA

ROI ID #	ASSOCIATED NUCLIDE	EXTENTS START	EXTENTS END	PK EN (keV)	FWHM (keV)
1 Po218	Po218	5550.0	6104.5	5826.2	2.7
2 Po214	Po214	6588.5	7874.7	7232.4	15.8
3 Po212	Po212	8393.8	8808.6	8600.1	2.7
4 Po210	Po210	2180.3	5343.3	5186.2	3.6

ROI ANALYSIS RESULTS

ROI ID	NET COUNTS	BKG/INTERF	CPM	ROI TYPE
Po218	2.7 ± 2.2	1.33	5.56E-03 ± 4.61E-03	Unknown
Po214	-0.7 ± 0.7	0.67	-1.39E-03 ± 1.39E-03	Unknown
Po212	6.0 ± 2.4	0.00	0.013 ± 5.10E-03	Unknown
Po210	552.7 ± 23.9	11.33	1.151 ± 0.050	Unknown

NUCLIDE ANALYSIS RESULTS

ROI ID	ASSOC NUC	EMM. PROB	ACTIVITY (dpm/samp)	MDA (dpm)
Po218	Po218	1.000	0.018 ± 0.015	5.14E-02
Po214	Po214	1.000	-4.50E-03 ± 4.50E-03	4.17E-02
Po212	Po212	1.000	0.041 ± 0.017	1.83E-02
Po210	Po210	1.000	3.734 ± 0.169	1.15E-01

Activity reported as of May 03, 2000 08:42:23

ANALYSIS REVIEWED BY: [signature]

APPROVED BY: CJ Bianconi 5/8/00

18

OASIS - MCA

File Edit View Acq Parms Tools Reports Close Help

Library: OAS_STD.MDB

Nuclide: Am241

2:Static: 00000527.OXS

Acq ALL

Acquire

Stop

4096

LOG

Lin Log

Sqrt

Peak

0

4095

Presets

ROIs

Controls

Display

Info

Aux Disp

Spectrum ID

00A1148-009.001

System Date

09-May-2000 15:15:11

Message Window

Channel: 1534 Elapsed Real Time: 28801.17 Elapsed Live Time: 28800.00 Dead Time: 0.0

Energy: 4298.6 Counts: 0 ROI: Integral: 564 Peak: 5,186.24 FWHM: 3.57

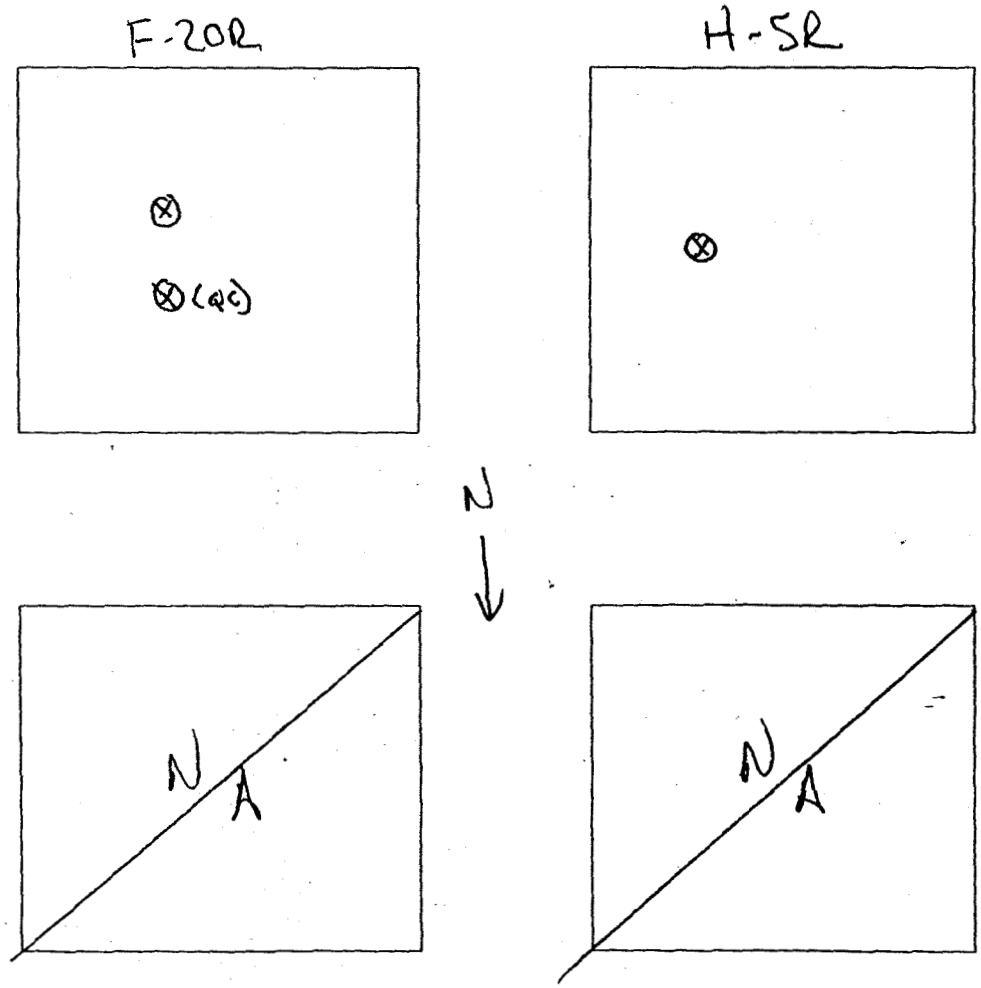
19

Final Survey NE Electra
Scan & Investigation Survey Map

Survey Area: NA	Survey Unit: EXTERIOR	Building: T883A
Survey Unit Description: Roof Sample Location		
RCT Initials/Date: MA 3-28-00	RCT Initials/Date: NA	RCT Initials/Date: NA

Refer to the Final Survey NE Electra Scan & Investigation Survey Form for instrumentation, surveyor & approval information.

Legend: "R"- Roof, "W" – West Wall, "S" – South Wall, "E" – East Wall, "N" – North Wall "C" –Ceiling, "F" - Floor



⊗ SAMPLE CUTOUT

*** Designates corner closest to A-1 point of reference**

Results/Comments:

Electra alpha scans were performed at the locations detailed on the survey map(s). All required accessible areas were scanned. All initial scan results were <225 dpm/100cm^2, unless noted on the survey form.

Electra beta scans were performed in required accessible areas. Initial scan results indicated no detectable activity above background unless noted on the survey form.

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Survey Area: NA	Survey Unit: EXTERIOR	Building: T883A
Survey Unit Description ROOF SAMPLE LOCATIONS		

Removable Contamination Data Sheet

Sample location	RCT ID #	Inst ID #		Gross Counts (gcpm)		Net Counts (cpm)		Removeable Activity (dpm/100cm2)	
		α	β	α	β	α	β	α	β
PRE						0	0	0.0	0
F-20R	1	1	2	1	47.5	0.5	4.6	1.5	18
POST						0	0	0.0	0
F-20R	1	3	4	0	33	-0.3	-2.2	-0.9	-9
PRE						0	0	0.0	0
F-20RQC	1	1	2	1	39	0.5	-3.9	1.5	-16
POST						0	0	0.0	0
F-20RQC	1	3	4	0	49.5	-0.3	14.3	-0.9	57
PRE						0	0	0.0	0
H-5R	1	1	2	1.5	43.5	1	0.6	3.0	2
POST						0	0	0.0	0
H-5R	1	3	4	1	41	0.7	5.8	2.1	23
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
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						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0

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C-2

T883A – Radiological Survey Data for Interior Survey Unit

- Map of Locations
  - Scans
  - Surveys
- Removable and Total Survey Results - Detail

Survey Area: NA	Survey Unit: EXTERIOR	Building: T883A
Survey Unit Description		
ROOF SAMPLE LOCATIONS		

Total Surface Activity Data Sheet

Sample location	RCT ID #	Inst ID #		Survey count time (sec)		Gross Count (gcpm)		LAB (cpm)		Net counts (cpm)		Net Activity (dpm/100cm2)	
		α	β	α	β	α	β	α	β	α	β	α	β
PRE				90	90					0.0	0	0.0	0
F-20R	1	7	7	90	90	26.0	500	4.7	449	21.3	51	102.2	171
POST				90	90					0.0	0	0.0	0
F-20R	1	7	7	90	90	29.3	445	3.3	400	26.0	45	124.7	151
PRE				90	90					0.0	0	0.0	0
F-20RQC	2	8	8	90	90	25.3	543	3.3	407	22.0	136	107.5	458
POST				90	90					0.0	0	0.0	0
F-20RQC	2	8	8	90	90	24.0	528	8.0	444	16.0	84	78.2	283
PRE				90	90					0.0	0	0.0	0
H-5R	1	7	7	90	90	19.3	417	4.0	390	15.3	27	73.4	90
POST				90	90					0.0	0	0.0	0
H-5R	1	7	7	90	90	22.7	435	9.3	401	13.4	34	64.3	114
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
QC				90	90					0.0	0	0.0	0
QC				90	90					0.0	0	0.0	0
QC				90	90					0.0	0	0.0	0
QC				90	90					0.0	0	0.0	0
QC				90	90					0.0	0	0.0	0

Note: QC measurements are to be collected by a different technician than the original survey. Mark the QC location number in the "Sample Location" column. Material background is assumed to be zero unless otherwise noted. "LAB" ~ local area background.

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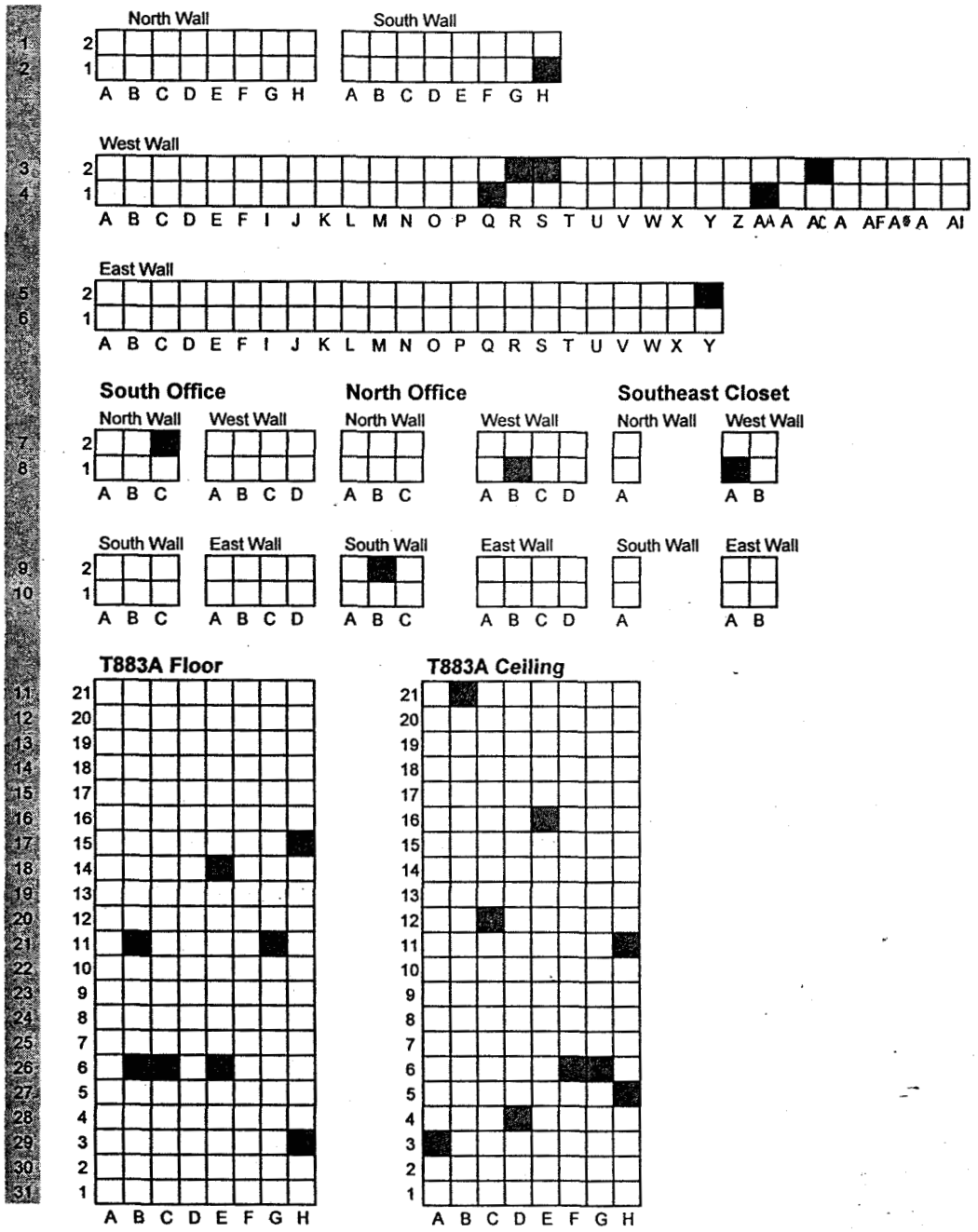
T883A Main Area



X-Coordinate	Y-Coordinate
10	11

Total Surface Area = 546 m^2

10% Scan Surface Area = 54.6 m^2

= one square meter

= direct & swipe

	X	Y		X	Y		X	Y
1	2	21	11	16	28	21	20	21
2	23	5	12	3	26	22	27	3
3	7	21	13	17	2	23	5	26
4	24	8	14	13	29	24	15	20
5	18	26	15	17	3	25	2	26
6	8	29	16	5	18	26	20	27
7	11	9	17	16	3	27	8	17
8	19	26	18	14	11	28	17	16
9	15	4	19	16	8			
10	3	7	20	25	4			

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Survey Area: N/A	Survey Unit: INTERIOR	Building: T883A
Survey Unit Description	INTERIOR WALLS, Floor, and Ceiling	

Removable Contamination Data Sheet

Sample Location	RCT ID #	Inst ID #		Gross Counts (gcpm)		Net Counts (cpm)		Removable Activity (dpm/100cm2)	
		α	β	α	β	α	β	α	β
B.21.C	2	1	2	1	41.5	.6	3.7	1.8	14.8
E.16.C	2	3	4	0	44.5	-.3	4.8	-0.9	19.2
C.12.C	2	1	2	0	46	-.4	8.2	-1.2	32.8
H.11.C	2	3	4	.5	34.5	.2	-5.2	0.6	-20.8
G.16.C	2	1	2	1.5	36.5	1.1	-1.3	3.3	-5.2
F.6.C	2	3	4	1.5	30.5	1.2	-9.2	3.6	-36.8
D.4.C	2	1	2	.5	44.5	.1	6.7	0.3	26.8
H.5.C	2	3	4	1	38	.7	-1.7	2.1	-6.8
A.3.C	2	1	2	0	42.5	-.4	4.7	-1.2	18.8
AC.2.W	2	3	4	0	33	-.3	-6.7	-0.9	-26.8
AA.1.W	2	1	2	0	39	-.4	1.2	-1.2	4.8
Q.1.W	2	3	4	0	38	-.3	-1.7	-0.9	-6.8
R.2.W	2	1	2	.5	48.5	.1	10.7	0.3	42.8
[illegible].W	2	3	4	0	36	-.3	-3.7	-0.9	-14.8
[illegible].S	2	1	2	.5	40	.1	2.2	0.3	8.8
Y.2.E	2	3	4	0	28	-.3	-11.7	-0.9	-46.8
H.15.F	2	1	2	.5	43	.1	5.2	0.3	20.8
E.14.F	2	3	4	.5	35.5	.2	-4.2	0.6	~~12.7~~ -16.8
B.11.F	2	1	2	0	44	-.4	6.2	-1.2	~~-1.2~~ 24.8
G.11.F	2	3	4	.5	44	.2	4.3	0.6	~~0.6~~ 17.2
C.6.F	2	1	2	1	47.5	.6	9.7	1.8	38.8
B.6.F	2	3	4	1.5	44	1.2	4.3	3.6	17.2
E.6.F	2	1	2	.5	42	.1	4.2	0.3	~~-12.7~~ 16.8
H.3.F	2	3	4	0	38.5	-.3	-1.2	-0.9	-4.8
NORTH Office									
B.1.W	2	1	2	0	43	-.4	5.2	-1.2	20.8
B.2.S	2	3	4	.5	41	.2	1.3	0.6	5.2
South Office ~~+2~~									
C.2.N	2	1	2	0	49	-.4	11.2	-1.2	44.8
Southeast Closet									
A.1.W	2	3	4	0	43.5	-.3	3.8	-0.9	15.2

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Survey Area: NA	Survey Unit: INTERIOR	Building: 883A
Survey Unit Description: INTERIOR FLOOR, WALLS, Ceiling		

Total Surface Activity Data Sheet

Sample location	RCT ID #	Inst ID #		Survey count time (sec)		LAB (cpm)		Gross Count (gcpm)		Net counts (cpm)		Net Activity (dpm/100cm2)	
		α	β	α	β	α	β	α	β	α	β	α	β
MAIN AREA				90	90								
B-6F	3	8	8	90	90	2.0	403	2.7	417	0.7	14	3.4	~~47.0~~ 47
C-6F	3	8	8	90	90	0.7	410	0.7	422	0.0	12	0.0	~~40.1~~ 40
B-11F	3	8	8	90	90	2.0	423	2.7	534	0.7	111	3.4	374
E-6F	3	8	8	90	90	3.3	407	32.0	479	28.7	72	140.3	242
E-14F	3	8	8	90	90	1.3	383	0.7	451	-0.6	68	-2.9	229
G-11F	3	8	8	90	90	1.3	429	2.0	455	0.7	26	3.4	88
H-3F	3	8	8	90	90	0.7	437	0.0	457	-0.7	20	-3.4	67
H-15F	3	8	8	90	90	2.0	414	2.0	457	0.0	43	0.0	145
Q-1W	3	8	8	90	90	2.7	342	3.3	314	0.6	-28	2.9	-94
Z-2W	3	8	8	90	90	2.0	318	2.7	332	0.7	14	3.4	47
S-2W	3	8	8	90	90	2.7	360	3.3	300	0.6	-60	2.9	-202
AA-1W	3	8	8	90	90	1.3	312	0.7	330	-0.6	18	-2.9	61
AC-2W	3	8	8	90	90	2.0	300	4.7	328	2.7	28 ~~27.0~~	13.2	94
Y-2E	3	8	8	90	90	3.3	370	2.7	319	-0.6	~~-7.5~~ 51	-2.9	~~-172~~
H-1S	3	8	8	90	90	2.0	327	2.7	344	0.7	17	3.4	57
A-3C	3	8	8	90	90	2.0	383	4.0	537	2.0	154	9.8	519
B-21C	3	8	8	90	90	1.3	407	3.3	478	2.0	71	9.8	239
C-12C	3	8	8	90	90	2.7	412	4.7	510	2.0	98	9.8	330
D-4C	3	8	8	90	90	0.7	336	1.3	524	0.6	188	2.9	633
E-16C	3	8	8	90	90	2.0	374	2.0	478	0.0	104	0.0	350
F-6C	3	8	8	90	90	2.7	360	3.3	497	0.6	137	2.9	461
G-16C	3	8	8	90	90	0.7	407	2.7	522	2.0	115	9.8	387
H-5C	3	8	8	90	90	0.0	328	2.0	476	2.0	148	9.8	498
H-11C	3	8	8	90	90	1.3	391	2.7	466	1.4	75	6.8	253
NORTH OFFICE				90	90								
B-1W	3	8	8	90	90	0.7	387	2.7	326	2.0	-61	9.8	-205
B-2S	3	8	8	90	90	0.7	348	5.3	301	4.6	-47	22.5	-158
E.6.FQC	8	11	11	90	90	5.3	386	11.3	448	6.0 ~~6.3~~	62	27.9 ~~29.3~~	207
G.11.FQC	8	11	11	90	90	4.7	425	4.3	414	-0.4	-11	-1.9	~~-36.7~~ -37
E.14.FQC	8	11	11	90	90	6.7	460	8.7	473	2.0	13	9.3	~~43.4~~ +43
B.11.FQC	8	11	11	90	90	6.0	423	2.0	493	-4.0	70	-18.6	~~233.8~~ +234
B.6.FQC	8	11	11	90	90	6.0	392	4.7	414	-1.3	22	-6.0	~~73.5~~ 73

Note: QC measurements are to be collected by a different technician than the original survey. Mark the QC location number in the "Sample Location" column. Material background is assumed to be zero unless otherwise noted. "LAB" – local area background.

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Survey Area: NA | Survey Unit: Interior | Building: 883A

Survey Unit Description

Interior Floor, Walls, Ceiling

Total Surface Activity Data Sheet

Sample location	RCT ID #	Inst ID #		Survey count time (sec)		LAB (cpm)		Gross Count (gcpm)		Net counts (cpm)		Net Activity (dpm/100cm2)	
		α	β	α	β	α	β	α	β	α	β	α	β
SOUTH OFFICE		—		90	90	—							
C-2N	3	8	8	90	90	1.3	366	4.7	283	3.4	-83	16.6	-279
SOUTHEAST CLOSET				90	90	—							
A-1W	3	8	8	90	90	2.7	342	4.0	308	1.3	-34	6.4	-114
				90	90								
				90	90								
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				90	90								
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NA

Note: QC measurements are to be collected by a different technician than the original survey. Mark the QC location number in the "Sample Location" column. Material background is assumed to be zero unless otherwise noted. "LAB" ~ local area background.

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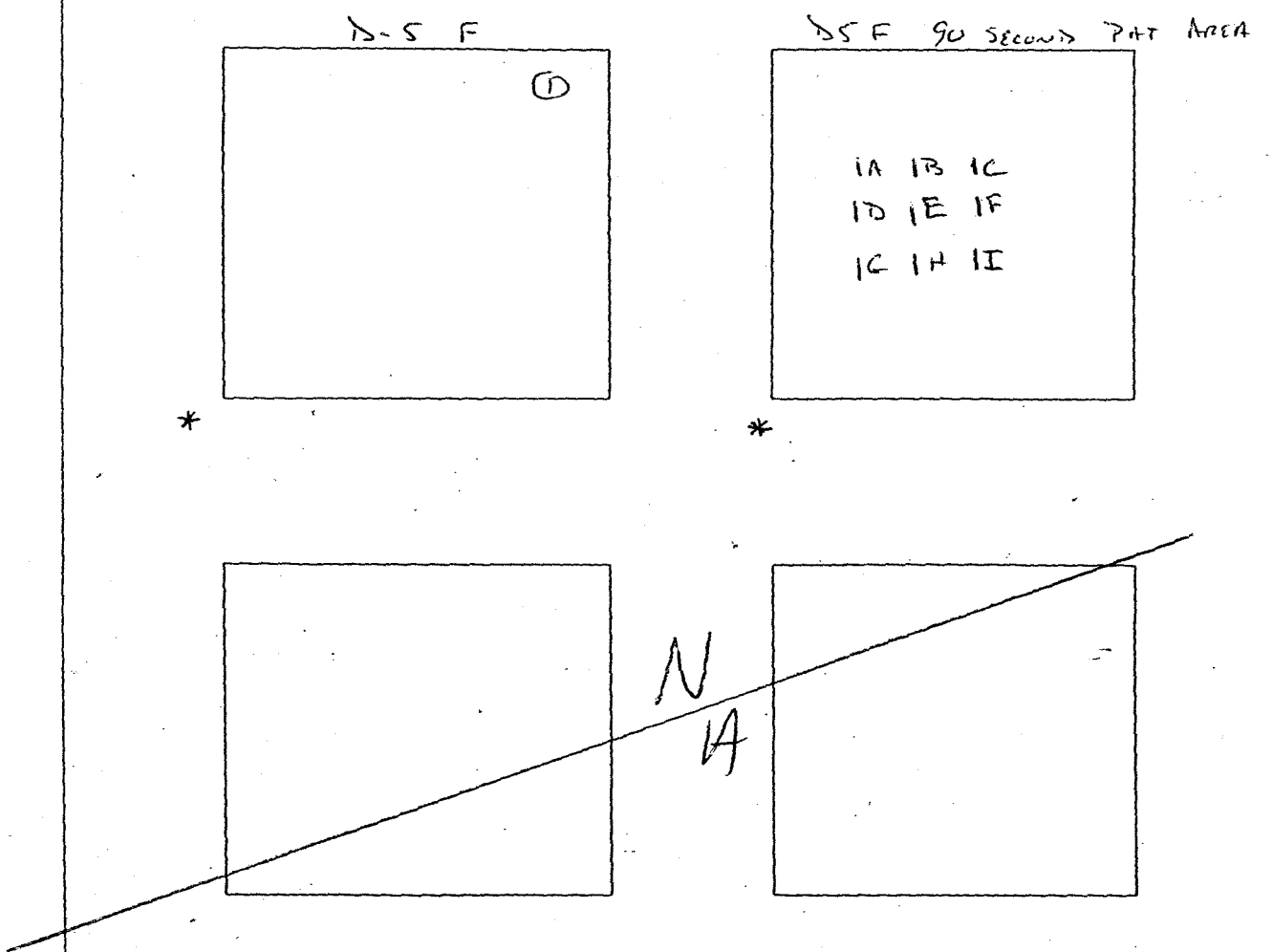
Final Survey NE Electra
Scan & Investigation Survey Map

Survey Area: NA	Survey Unit: INTERIOR	Building: T-883A
Survey Unit Description: INTERIOR FLOOR		
RCT Initials/Date: AAC / 3.1.00	RCT Initials/Date: N/A	RCT Initials/Date: N/A

Refer to the Final Survey NE Electra Scan & Investigation Survey Form for instrumentation, surveyor & approval information.

Legend: "R"- Roof, "W" – West Wall, "S" – South Wall, "E" – East Wall, "N" – North Wall "C" –Ceiling, "F" - Floor



*** Designates corner closest to A-1 point of reference**

Results/Comments:
Electra alpha scans were performed at the locations detailed on the survey map(s). All required accessible areas were scanned. All initial scan results were <225 dpm/100cm^2, unless noted on the survey form.
Electra beta scans were performed in required accessible areas. Initial scan results indicated no detectable activity above background unless noted on the survey form.

Final Survey NE Electra
Scan & Investigation Survey Form
(Continuation Sheet)

Survey Area: NA	Survey Unit: INTERIOR	Building: T883A

Survey Unit Description: INTERIOR FLOOR SCANS

Loc. ID #	*Electra DP-6 Beta*				*Electra DP-6 Alpha*				
	RCT ID #	Inst. ID #	Elevated Audible observed? "Y" or "N"	60-sec PAT (dpm/100cm2)	RCT ID #	Inst. ID #	4-sec Audible observed? "Y" or "N"	30-sec Static (gcpm)	90-sec PAT (dpm/100cm^2)
E-7F	1	7	N	NA	1	7	N	NA	NA
G-1F					3	8	N	NA	
B-1F1					3	8	Y	8	
B-2F1					3	8	Y	10	
E-4F					4	9	N	NA	
H-4F					4	9	N		
G-4F					4	9	N		
F-4F					4	9	N	Y	
B-3F1					5	10	Y	18.0	
B-4F1					5	10	Y	14.0	
A-5F					5	10	N	NA	
B-5F					5	10	N		
C-5F	Y	Y	Y	Y	5	10	N	Y	Y
						N	A		

C-3

T883A – Asbestos Inspector's Report

T883A

ASBESTOS INSPECTOR'S REPORT

I, the undersigned Certified Asbestos Inspector, certification # [redacted] in the state of Colorado, attest to the asbestos inspection and sampling results as described below, for the following facility (at RFETS): Trailer 883A.

General Facility Location: north-northeast of Building 881.

INSPECTION RESULTS

Trailer 883A contains friable ceiling tile. Fiberglass insulation was found throughout the walls. The following table summarizes the results of the samples collected and the percent and type of asbestos detected:

SAMPLE RESULTS

Sample Number	Material Sampled & Location	Analytical Results
T883A-03012000-05-001	Miscellaneous material: 2' x 4' white ceiling tile. Coordinate D4C	None Detected
T883A-03012000-05-002	Miscellaneous material: 2' x 4' white ceiling tile. Coordinate C12C	None Detected

Andre Gonzalez — INSPECTOR'S NAME

[signature] — SIGNATURE

7/6/00 — DATE

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C-4

T883A – D&D Facility Characterization Interview Checklist

D&D Facility Characterization Interview Checklist

ID No.: T-883A
Date: 06/08/99

Groups B & C Series

Check List for - Title: D&D Facility Characterization – Interviews

CRITERIA:
- *D&D Characterization Protocol*, RFETS MAN-077-DDCP, Rev. 0
- *Facility Disposition Program Manual*, RFETS MAN-076-FDPM
- RFETS Radiological Safety Practices, January 12, 1998

Facility Name & Type (1, 2, or 3) T-883A Group B Type 1 Facility, Trailer Office Building

Personnel Interviewed (Name & Title/Function) Leslie Dustin, X3599, Senior Specialist, Residue Stabilization, P-212-4455, T-115A, Cube 2, SSOC Residue Stabilization

	-- Y/N --
Does a current WSRIC exist for the facility?	N
If so, are there exceptions to the WSRIC as written?	No WSRIC, No Exceptions

COMMENTS (incl. WSRIC contacts)
WSRIC Contact is James M. Schoen who is in charge of the WSRIC Reports, T130J, X3579, C-83.

Are rad surveys available that indicate current status of the facility?	N
Are historical rad surveys available that indicate historical status, or evolution, of the facility?	N*

COMMENT N* According to Mark R. Richards, X5148 of SSOC any Historical data, which is probably at the Federal Center, would not be Adequate for unrestricted release. New monitor surveys would have to be taken.

Is an HRR available for the facility?	N
Do any other reports exist beyond the HRR (e.g., spill reports, reportable incidents, etc.) that further Characterize the facility relative to chemical &/or radiological contamination?	Y**
Are engineering drawings (esp. "as-builts") available?	N
Are any nonconformances or issues with the facility status currently being tracked in PATS?	N

If so, what are the issues (note in Comments, below)?

COMMENTS N* Radiological surveys may have been done, but the old data is not available. This unit will have to be resurveyed to meet present standards for unrestricted release. Y** The T-883A Trailer is not sitting on IHSS or PAC area land, as per, Nick Demos, ER Characterization/HRR Manager, X4605. Therefore, the T-883A Office Trailer does not have CERCLA concerns. Engineering drawings, as-builts, do not exist for the T-883A facility. There are no PATS items outstanding for this facility. The Plant quit using lead based paints for office buildings in 1989, if this office facility was painted prior to 1989, lead based paints may have been used.

Have any types of chemical characterization, incl. Asbestos, been performed recently?	N*

If so, what types of characterization were performed (note in Comments, below)?

COMMENTS N* No asbestos characterization data exists, according to Kevin Sheehan, X7250, T-452D, Room C-1. The asbestos data reports are located in Cubicle C-13, of T-452D and the reports are under the control of Kevin Sheehan.

Interviewed by: J. R. Sheets / JR Sheets / 06/03/99

Print Name / Signature / Interview Date

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D&D Facility Characterization Interview Checklist

ID No.: T -883A
Date: 06/08/99

Groups B & C Series

What timeframe did the interviewee work in the facility? From the Fall of 1995 until August 1997 (for approximately 2 years).

Has the building configuration changed since you worked in the building? If so, in what way? Yes, the facility had up to a maximum15 people during the time SSOC Residue Stabilization occupied the office trailer facility.

Yes, all the office cubicles have been removed, the electrical wiring is being totally redone. It appears that the facility might be getting prepared to be a computer training facility and would hold approximately 30 people.

What types of equipment were in the building during the interviewee's time there?
Approximately 15 computers, approximately 12 printers, a fax machine, a photocopier machine, other office equipment such as desks, 12 chairs, 3 tables, bookcases, 8 file cabinets, etc

Where was the equipment located? (specific rooms/areas) In the hard wall offices and the office cubicles. The prior occupants (prior to March 1995) an Information Resource Management group that did software support for AutoCad and software support for CAD/CAM for Building 460 Machining Operations. The IR Management group had approximately 12 employees in T-883A from 1991 until March 1995. Computers, printers, fax machine, photocopier, and office equipment were in the hard wall offices and office cubicles during this 1991 to March 1995 time frame.

Were any radioactive materials or metals handled in the building? If so, what types? No, none

Which equipment handled radioactive material? N/A

Were any chemicals handled in the building? If so, what types? N/A

Did any spills or uncontrolled releases of radioactive materials or chemicals occur while you were working in the facility? No, none.

Were these spills/releases cleaned-up? How were they cleaned-up? N/A

Where did these spills/releases occur? N/A

Interviewed by: J. R. Sheets / JR Sheets / 06/03/99

Print Name | Signature | Interview Date

Type 1 Facility Checklist

TYPE 1 FACILITY BUILDING T-883A

CURRENT LANDLORD: RFCSS

DATE OF COMPLETION: 02/29/00

ITEM	YES	NO
Does the facility contain radiological postings?		X
Does the facility contain chemical postings?		X
Are there any installed hazards?		X
Do the historical surveys (radiological and chemical) indicate the facility is clean?	X	
Are there RCRA units within the facility		X
Is there a history of the building available?	X	
Is there any equipment/furniture left in the facility?		X
Is there a future mission identified for the facility?		X
Will the facility be left unsecured after it is vacated?		X

If any answer to any of the above questions is "Yes", complete the following questions and complete the "graded" PEP in accordance with Chapter 2.

Note: An answer of "Yes" to any question, specifically one dealing with hazards, ***may*** *indicate the facility is not a Type 1 Facility. Check with the D&D Programs office.*

If the answer to all question is "No" complete the "graded" PEP in accordance with Chapter 2.

1. List the Radiological Hazards, location, and quantity:

   Based on the historical data found and interviews taken there are no hazards in this trailer.

2. List the Chemical Hazards, location, and quantity:

   None. Based on historical data and interviews taken no asbestos data exists and the paint may be lead based.

3. List the Physical Hazards:

   NONE

D-1

T883B – Radiological Survey Data for Exterior Survey Unit

- Summary of Radiological Survey/Sample Results
- Map of Locations
  - Scans
  - Surveys
- Removable and Total Survey Results – Detail
- Laboratory Alpha Spec (Sample) Results – Detail

Radiological Survey/Sample Results for T883B

Total Surface Activity Measurements dpm/100 cm^2

	Alpha	Beta
Interior	# Required	# Obtained
	28	28
MIN	-3.1	-356
MAX	33	405
MEAN	14.5	-51.0
STD DEV	10.8	225.0
Exterior	# Required	# Obtained
	28	28
MIN	0.0	-295
MAX	137.4	392
MEAN	64.2	71.7
STD DEV	40.2	211.7
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm^2

	Alpha	Beta
Interior	# Required	# Obtained
	28	28
MIN	-1.5	-45
MAX	0.0	24
MEAN	-0.7	-10.5
STD DEV	1.0	15.3
Exterior	# Required	# Obtained
	28	28
MIN	-0.9	-39.6
MAX	5.5	43.2
MEAN	1.5	-1.5
STD DEV	1.9	21.6
$DCGL_W$	20	1000

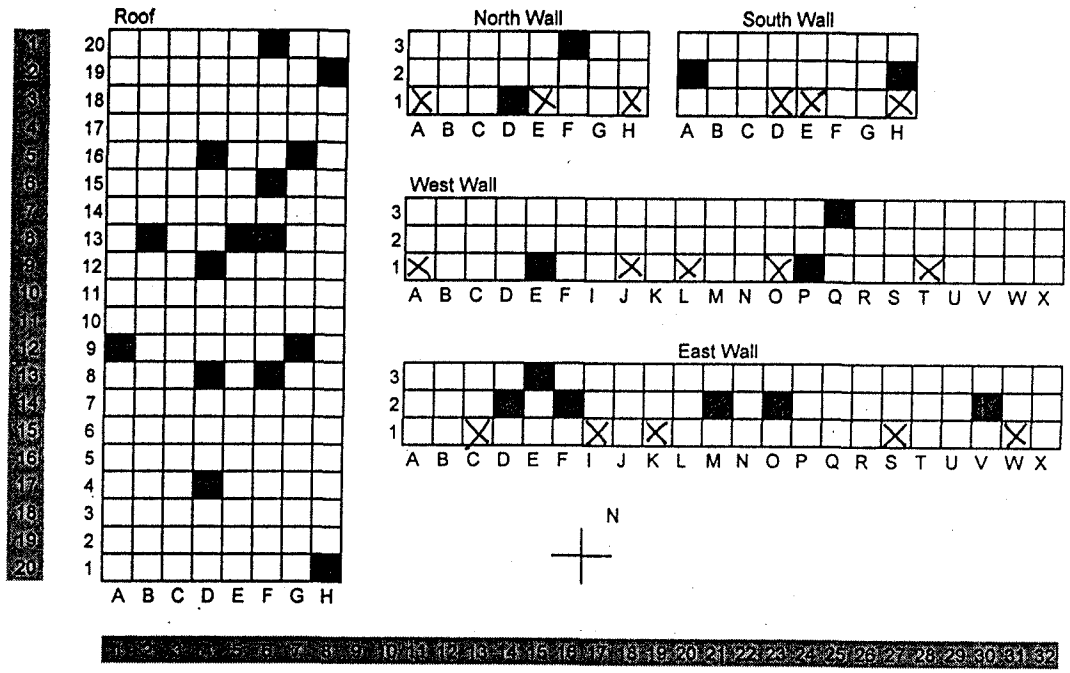
Media Sample Activity

# Required	# Obtained
2	2

Contaminant	Y/N	Det. Sens. dpm/100 cm^2
U present	N	79
Pu present	N	79

Total Po-210 Results dpm/100 cm^2

MIN	85.7
MAX	89.8
MEAN	87.8
STD DEV	5.8



X-Coordinate	Y-Coordinate
30	5

= one square meter

= direct & swipe

Total Surface Area = 340 m²

10% Scan Surface Area = 34 m²

	X	Y		X	Y		X	Y
1	25	7	11	23	14	21	7	12
2	20	2	12	6	6	22	7	5
3	15	9	13	15	13	23	14	3
4	2	8	14	1	12	24	8	20
5	14	14	15	4	5	25	21	14
6	30	14	16	24	9	26	16	1
7	6	1	17	27	2	27	6	8
8	4	17	18	8	2	28	5	8
9	16	14	19	4	9			
10	6	13	20	4	13			

"X" Represents Scan Locations

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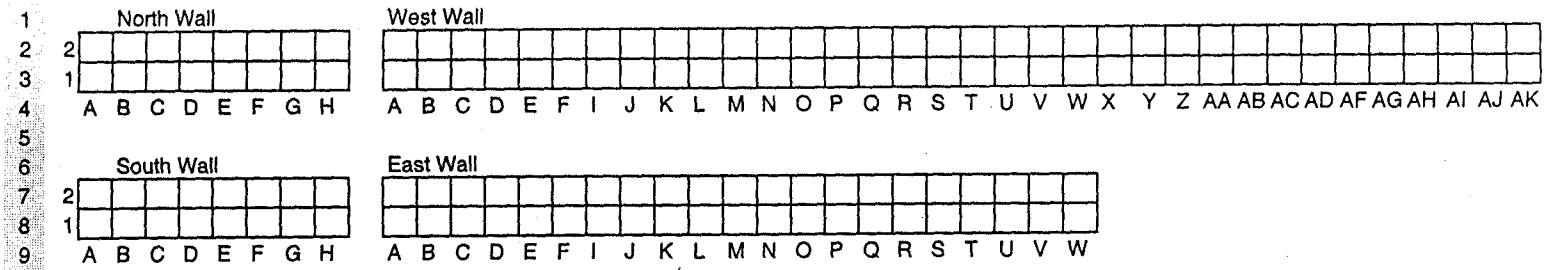
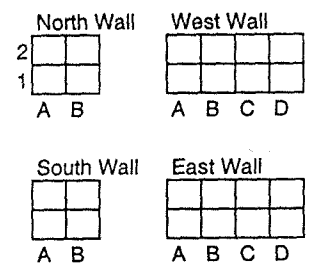
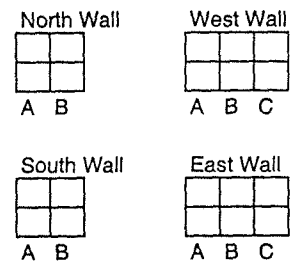
T883B Main Area



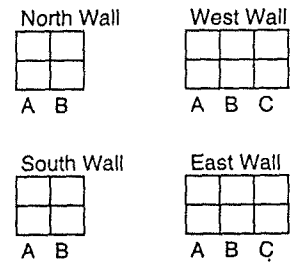
Southwest Office



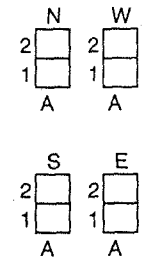
West Middle Office



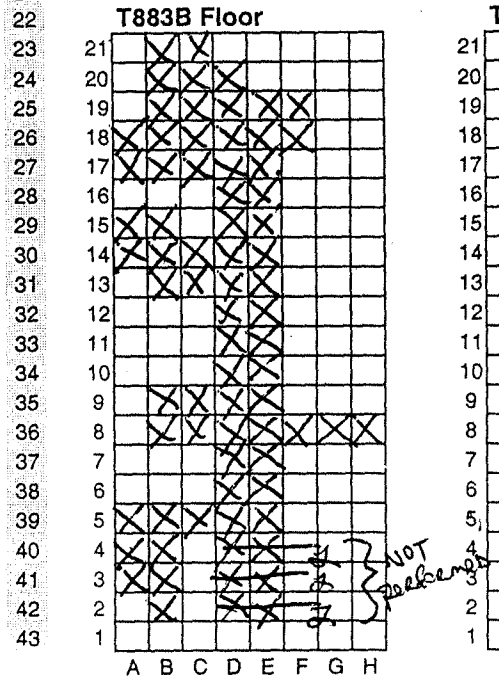
Northwest Office



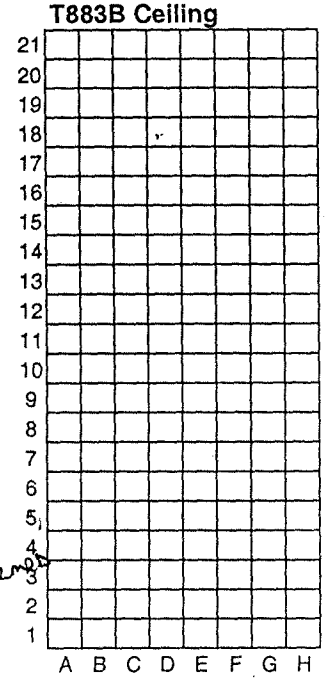
Bathroom



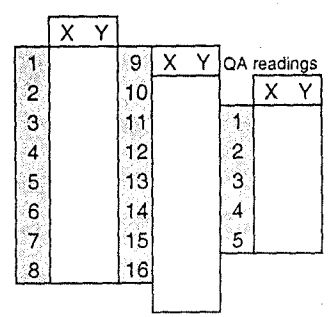
T883B Floor



T883B Ceiling



X-Coordinate	Y-Coordinate



= one square meter

= 1.5"/sec scan

= direct & smear

= additional QA survey

N

NOTE: SCAN AREA DETERMINED UPON HIGH TRAFFIC AREAS.

PAGE 3 of 11

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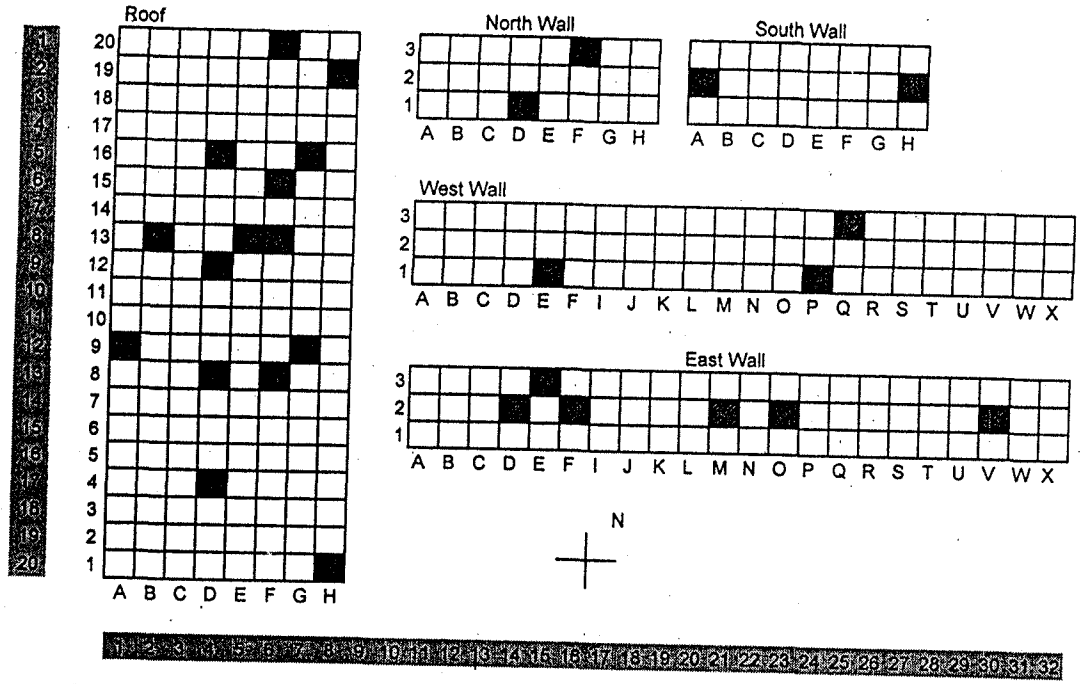

X-Coordinate	Y-Coordinate
30	5

□ = one square meter

■ = direct & swipe

Total Surface Area = 340 m²

10% Scan Surface Area = 34 m²

	X	Y		X	Y		X	Y
1	25	7	11	23	14	21	7	12
2	20	2	12	6	6	22	7	5
3	15	9	13	15	13	23	14	3
4	2	8	14	1	12	24	8	20
5	14	14	15	4	5	25	21	14
6	30	14	16	24	9	26	16	1
7	6	1	17	27	2	27	6	8
8	4	17	18	8	2	28	5	8
9	16	14	19	4	9			
10	6	13	20	4	13			

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100

Survey Area: N/A	Survey Unit: Exterior	Building: T883B
Survey Unit Description	Exterior Roof	

Removable Contamination Data Sheet

Sample Location	RCT ID #	Inst ID #		Gross Counts (gcpm)		Net Counts (cpm)		Removable Activity (dpm/100cm2)	
		α	β	α	β	α	β	α	β
A-9R	4	5	6	0.0	39.5	-0.3	-2.9	-0.9	-11.6
B-13R	4	5	6	2.0	35	1.7	-7.4	~~5.2~~ 5.1	-29.6
D-4R	4	5	6	0.0	35	-0.3	-7.4	-0.9	-29.6
D-8R	4	5	6	1.0	48	0.7	5.6	2.1	22.4
D-12R	4	5	6	1.0	46	0.7	3.6	2.1	14.4
D-16R	4	5	6	0.0	33.5	-0.3	-8.9	-0.9	-35.6
E-13R	4	5	6	1.0	38.5	0.7	-3.9	2.1	-15.6
F-8R	4	5	6	1.0	37.5	0.7	-4.9	2.1	-19.6
F-13R	4	5	6	0.0	41	-0.3	-1.4	-0.9	-5.6
F-15R	4	5	6	1.0	42.5	0.7	0.1	2.1	0.4
F-20R	4	5	6	1.0	35.5	0.7	-6.9	2.1	-27.6
G-9R	4	5	6	1.0	37	0.7	-5.4	2.1	-21.6
G-16R	4	5	6	0.0	32.5	-0.3	-9.9	-0.9	-39.6
H-1R	4	5	6	1.0	46.5	0.7	4.1	2.1	16.4
I-19R	4	5	6	0.0	38	-0.3	-4.4	-0.9	-17.6

NA

101

Survey Area: N/A	Survey Unit: Exterior	Building: T883 B
Survey Unit Description: Exterior Walls		

Removable Contamination Data Sheet

Sample Location	RCT ID #	Inst ID #		Gross Counts (gcpm)		Net Counts (cpm)		Removable Activity (dpm/100cm2)	
		α	β	α	β	α	β	α	β
F.3.N	1	1	2	.5	38	.1	-4	0.3	-16
D.1.N	1	3	4	.5	48.5	.3	10.8	0.9	43.2
A.2.S	1	1	2	2	46.5	1.6	4.5	4.8	18
H.2.S	1	3	4	1.5	39.5	1.3	1.8	3.9	7.2
E.1.W	1	1	2	1	43	.6	1	1.8	4
P.1.W	1	3	4	.5	41.5	.3	3.8	0.9	15.2
Q.3.W	1	1	2	.5	43.5	.1	1.5	0.3	6
D.2.E	1	3	4	1.5	40	1.3	2.3	3.9	9.2
F.2.E	1	1	2	.5	41	.1	-1	0.3	-4
E.3.E	1	3	4	.5	43.5	.3	5.8	0.9	23.2
M.2.E	1	1	2	.5	44.5	.1	2.5	0.3	10
O.2.E	1	3	4	2	46.5	1.8	8.8	5.5	35.2
V.2.E	1	1	2	1	43.5	.6	1.5	1.8	6

N/A

102

Survey Area: M1	Survey Unit: EXTERIOR	Building: 8833
Survey Unit Description	EXTERIOR WALL / ROOF	

Total Surface Activity Data Sheet

Sample location	RCT ID #	Inst ID #		Survey count time (sec)		LAB (cpm)		Gross Count (gcpm)		Net counts (cpm)		Net Activity (dpm/100cm2)	
		α	β	α	β	α	β	α	β	α	β	α	β
E-1 WW	2	7	7	90	90	5.7	338	6.0	327	3.3	-11	16.0	-36
P-1 WW	2			90	90	5.0	281	11.3	341	3.3	60	16.0	197
A-2 SW	2			90	90	2.7	323	10.7	373	8.0	50	38.7	164
H-2 SW	2			90	90	4.0	314	14.0	361	10.0	45	48.4	148
D-2 EW	2			90	90	3.3	323	6.7	341	3.4	18	16.4	59
F-2 EW	2			90	90	6.0	309	11.3	371	5.3	62	25.6	203
M-2 EW	2			90	90	5.3	335	16.0	375	6.7	40	32.4	131
O-2 EW	2			90	90	5.3	425	5.3	365	0.0	-64	0.0	210
V-2 EW	2			90	90	3.3	323	11.3	357	8.0	34	38.7	112
D-1 WW	2			90	90	6.0	316	8.7	385	2.7	69	13.1	226
F-3 SW	2			90	90	5.3	421	14.0	331	8.7	-98	42.1	-322
E3 EW	2			90	90	4.7	-124	16.0	353	11.3	-76	54.7	249
Q3 WW	2	7	7	90	90	6.0	338	13.3	323	7.3	-15	35.3	-49
A-9R	3	11	11	90	90	4.0	469	17.3	391	13.3	-78	59.5	-257
B-13R	3	11	11	90	90	3.3	340	18.0	403	14.7	63	65.8	208
D-4R	3	11	11	90	90	14.7	451	25.3	399	10.6	-52	47.4	-171
D-8R	3	11	11	90	90	2.7	440	25.3	436	22.6	-4	101.1	-13
D-12R	3	11	11	90	90	3.3	332	34.0	437	30.7	105	137.4	346
D-16R	3	11	11	90	90	3.3	403	17.3	441	14.0	38	62.6	125
E-13R	3	11	11	90	90	4.0	326	20.0	427	16.0	101	71.6	333
F-8R	3	11	11	90	90	6.7	340	31.3	441	24.6	101	~~71.6~~ 110.1	333
F-13R	3	11	11	90	90	6.0	345	30.7	459	24.7	114	110.5	375
F-15R	3	11	11	90	90	7.3	399	34.0	454	26.7	55	119.5	181
F-20R	3	11	11	90	90	3.3	406	32.0	418	28.7	12	128.4	40
G-9R	3	11	11	90	90	7.3	360	28.0	406	20.7	46	92.6	152
G-16R	3	11	11	90	90	6.7	478	29.3	411	22.6	-67	101.1	-221
H-1R	3	11	11	90	90	2.0	366	22.7	485	20.7	119	92.6	392
H-19R	3	11	11	90	90	4.0	485	30.7	419	26.7	-66	119.5	-217
A-2-S QC	8	9	9	90	90	2.7	508	8.7	361	6.	-147	27.9	-491.0
H-2-S QC	8			90	90	2.7	439	4.0	339	1.3	-100	6.0	-334.0
D-2-E QC	8			90	90	3.3	411	6.7	325	3.4	-86	15.8	-287
D-1-N QC	8			90	90	4.0	525	12.7	333	8.7	-192	40.5	-641.3
E-1-W QC	8	9	9	90	90	3.3	391	4.0	287	0.7	-104	3.26	-347

Note: QC measurements are to be collected by a different technician than the original survey. Mark the QC location number in the "Sample Location" column. Material background is assumed to be zero unless otherwise noted. "LAB" ~ local area background.

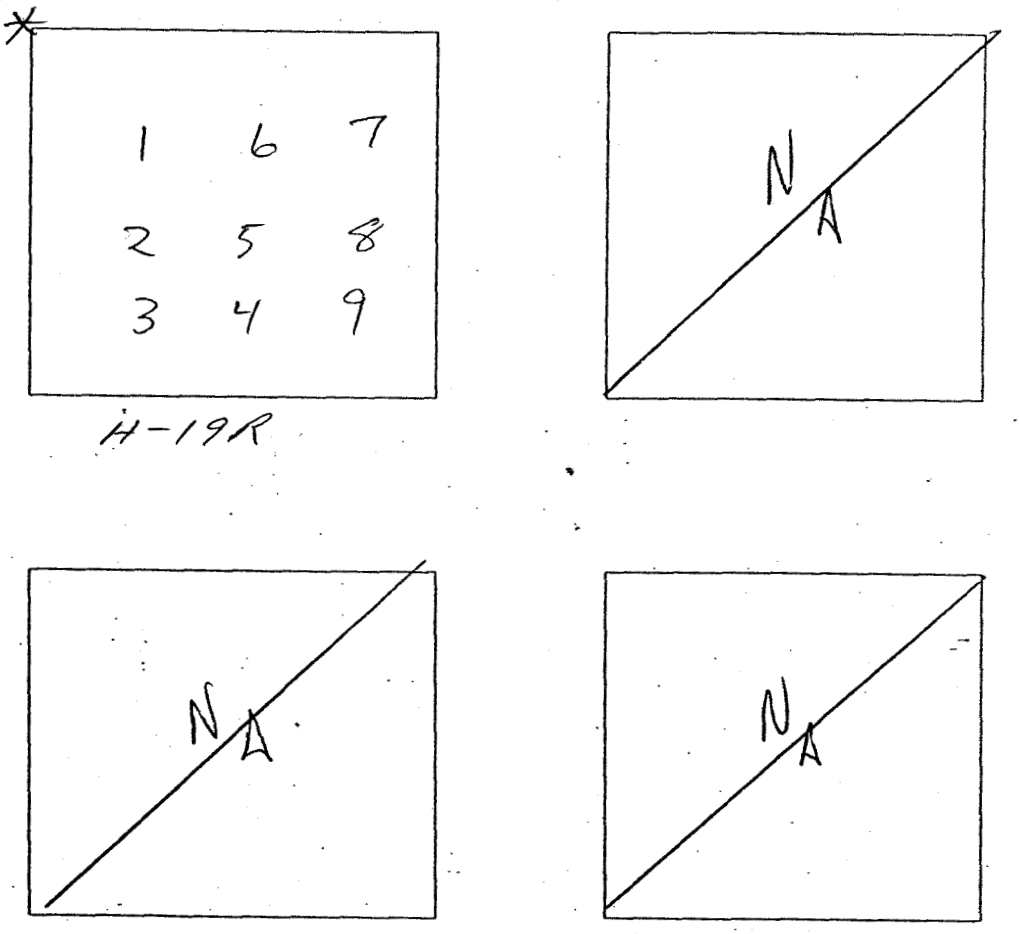
103

Final Survey NE Electra
Scan & Investigation Survey Map

Survey Area: NA	Survey Unit: EXTERIOR	Building: T 883 C
Survey Unit Description: ROOF 9 PT INVESTIGATION SCAN		
RCT Initials/Date: PC 3-3-00	RCT Initials/Date: N/A	RCT Initials/Date: N/A

Refer to the Final Survey NE Electra Scan & Investigation Survey Form for instrumentation, surveyor & approval information.

Legend: "R"- Roof, "W" – West Wall, "S" – South Wall, "E" – East Wall, "N" – North Wall "C" –Ceiling, "F" - Floor



*** Designates corner closest to A-1 point of reference**

Results/Comments:

Electra alpha scans were performed at the locations detailed on the survey map(s). All required accessible areas were scanned. All initial scan results were <225 dpm/100cm^2, unless noted on the survey form.

Electra beta scans were performed in required accessible areas. Initial scan results indicated no detectable activity above background unless noted on the survey form.

Final Survey NE Electra
Scan & Investigation Survey Form

Survey Area:	Survey Unit:	Building:
NA	EXTERIOR	T883 B

Survey Unit Description: ROOF 9 PT INVESTIGATION SCAN

Loc. ID #	Electra DP-6 Beta				Electra DP-6 Alpha				
	RCT ID #	Inst. ID #	Elevated Audible observed? "Y" or "N"	60-sec PAT (dpm/100cm2)	RCT ID #	Inst. ID #	4-sec Audible observed? "Y" or "N"	30-sec Static (gcpm)	90-sec PAT (dpm/100cm^2)
H-19R1					1	7			23.3
H-19R2					1	7			27.3
H-19R3					1	7			17.3
H-19R4					1	7			20.0
H-19R5					1	7			27.3
H-19R6					1	7			17.3
H-19R7					1	7			27.3
H-19R8					1	7			17.3
H-19R9					1	7			20.0
								1m^2 Avg →	21.9

NA

NA

NA

Oasis Device # 2

RFETS; Golden, CO

Apr 18, 2000 14:46:41

Sample ID: **883B coupon 00A1148-010.001** **Type:** **Unknown**

Batch ID: unknown
Acquisition Start: April 18, 2000 13:06:25
Analysis Date: April 18, 2000 14:46:35
Procedure: polonium210 samples
Device: Oasis:02:03
Analysis Method: ROI Analysis
Spectrum File: 00000284.OXS LiveTime: 6,005.32

Calibrations:
Energy = 1.604E+02 +2.389E+00 * Chn Coeff. of Correlation: -0.998
Calibration Date: April 04, 2000 15:34:53 Std: 2:3 energy cal
Shape not Calibrated.
Efficiency = 3.357E-01 ± 4.547E-03
Calibration Date: April 05, 2000 09:20:34 Std: AS 4188

External Recovery No Ext.Recovery

Original Sample Amount: 1.000 ± 0.000 samp
Aliquot Amount: 1.000 ± 0.000 samp

ROI DATA

ROI ID #		ASSOCIATED NUCLIDE	EXTENTS START	EXTENTS END	PK EN (keV)	FWHM (keV)
1	Po218	Po218	5552.6	6077.8	5815.3	1.2
2	Po214	Po214	7420.0	7770.1	7595.1	1.2
3	Po212		8521.5	8850.6	8686.9	1.2
4	Po210	Po210	2263.7	5322.8	5163.1	2.4

ROI ANALYSIS RESULTS

ROI ID	NET COUNTS	BKG/INTERF	CPM	ROI TYPE
Po218	-0.1 ± 0.1	0.14	-1.39E-03 ± 1.39E-03	Unknown
Po214	-0.3 ± 0.2	0.28	-2.78E-03 ± 1.96E-03	Unknown
Po212	0.0 ± 0.0	0.00	0.00E+00 ± 0.00E+00	Unknown
Po210	140.3 ± 12.1	5.70	1.402 ± 0.121	Unknown

NUCLIDE ANALYSIS RESULTS

ROI ID	ASSOC NUC	EMM. PROB	ACTIVITY (dpm/samp)	MDA (dpm)
Po218	Po218	1.000	-4.14E-03 ± 4.14E-03	1.19E-01
Po214	Po214	1.000	-8.27E-03 ± 5.85E-03	1.36E-01
Po212		1.000	0.00E+00 ± 0.00E+00	8.05E-02
Po210	Po210	1.000	4.175 ± 0.365	3.30E-01

Activity reported as of April 18, 2000 13:06:25

ANALYSIS REVIEWED BY: Allen P. Kelly

APPROVED BY: C J Bianconi 5/8/00

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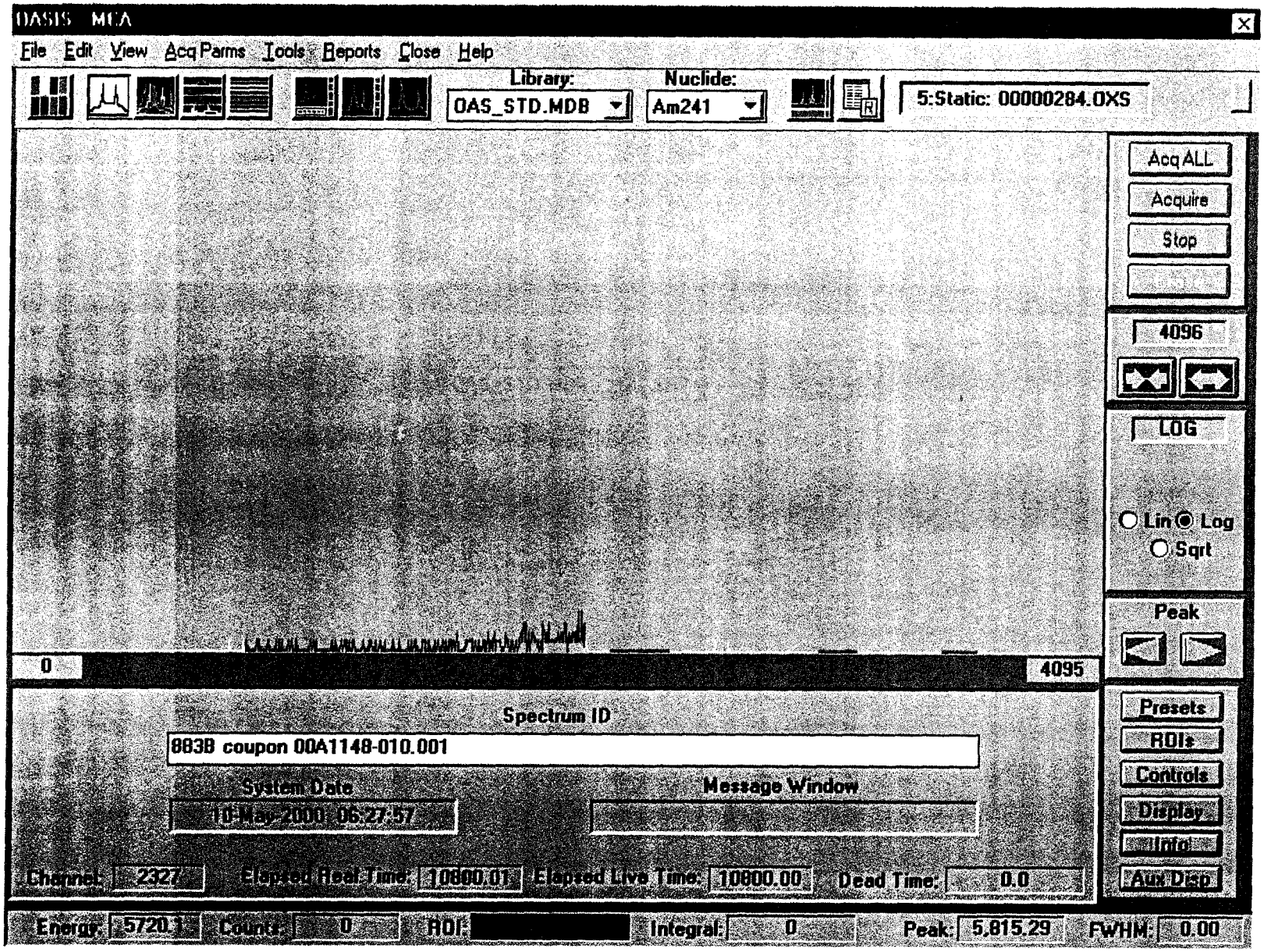
OASIS MCA
File Edit View Acq Parms Tools Reports Close Help
Library:
OAS_STD.MDB
Nuclide:
Am241
5:Static: 00000284.0XS
Acq ALL
Acquire
Stop
4096
LOG
Lin
Log
Sqrt
Peak
0
4095
Spectrum ID
883B coupon 00A1148-010.001
System Date
10-May-2001 06:27:57
Message Window
Presets
ROIs
Controls
Display
Info
Aux Disp
Channel: 2327
Elapsed Real Time: 10800.01
Elapsed Live Time: 10800.00
Dead Time: 0.0
Energy: 5720.1
Counts: 0
ROI:
Integral: 0
Peak: 5,815.29
FWHM: 0.00

107

Oasis Device # 2

RFETS; Golden, CO

Apr 24, 2000 09:54:10

Sample ID: **883B coupon 00A1148-011.001** **Type:** **Unknown**

Batch ID: unknown
Acquisition Start: April 18, 2000 13:06:24
Analysis Date: April 24, 2000 09:54:04
Procedure: polonium210 samples
Device: Oasis:02:02
Analysis Method: ROI Analysis
Spectrum File: 00000283.OXS LiveTime: 10,800.00

Calibrations:
Energy = 1.436E+01 +2.491E+00 * Chn Coeff. of Correlation: -0.998
Calibration Date: April 04, 2000 15:25:18 Std: 2:2 energy calibration
Shape not Calibrated.
Efficiency = 3.436E-01 ± 4.641E-03
Calibration Date: April 05, 2000 09:05:57 Std: AS 4188

External Recovery No Ext.Recovery

Original Sample Amount:
1.000 ± 0.000 samp
Aliquot Amount: 1.000 ± 0.000 samp

ROI DATA

ROI #	ID	ASSOCIATED NUCLIDE	EXTENTS START	EXTENTS END	PK EN (keV)	FWHM (keV)
1	Po218	Po218	5552.6	6077.8	5814.5	2.5
2	Po214	Po214	7420.0	7770.1	7593.4	2.5
3	Po212		8521.5	8850.6	8687.1	2.5
4	Po210	Po210	2263.7	5322.8	5159.2	4.7

ROI ANALYSIS RESULTS

ROI ID	NET COUNTS	BKG/INTERF	CPM	ROI TYPE
Po218	0.5 ± 1.5	1.50	2.78E-03 ± 8.56E-03	Unknown
Po214	0.3 ± 1.1	0.75	1.39E-03 ± 6.05E-03	Unknown
Po212	1.0 ± 1.0	0.00	5.56E-03 ± 5.56E-03	Unknown
Po210	268.0 ± 16.8	12.00	1.489 ± 0.093	Unknown

NUCLIDE ANALYSIS RESULTS

ROI ID	ASSOC NUC	EMM. PROB	ACTIVITY (dpm/samp)	MDA (dpm)
Po218	Po218	1.000	8.09E-03 ± 0.025	1.17E-01
Po214	Po214	1.000	4.04E-03 ± 0.018	9.53E-02
Po212		1.000	0.016 ± 0.016	4.38E-02
Po210	Po210	1.000	4.334 ± 0.278	2.50E-01

Activity reported as of April 18, 2000 13:06:24

ANALYSIS REVIEWED BY: [signature]

APPROVED BY: C J Bianconi 5/8/00

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OASIS MCA

File Edit View Acq Parms Tools Reports Close Help

Library: OAS_STD.MDB

Nuclide: Am241

5:Static: 00000283.OXS

Acq ALL

Acquire

Stop

Erase

4096

LOG

Lin Log

Sqrt

Peak

0

4095

Presets

ROIs

Controls

Display

Info

Aux Dsp

Spectrum ID

883B coupon 00A1148-011.001

System Date

10-May-2000 06:25:07

Message Window

Channel: 1405 Elapsed Real Time: 10800.02 Elapsed Live Time: 10800.00 Dead Time: 0.0

Energy: 3513.6 Counts: 0 ROI: Integral: 281 Peak: 5,159.22 FWHM: 4.67

109

Sample ID: **00A1148-012.001** **Type:** **Unknown**

Batch ID: unknowns
Acquisition Start: May 03, 2000 16:57:27
Analysis Date: May 04, 2000 07:06:32
Procedure: Po210 count
Device: Oasis:01:03
Analysis Method: ROI Analysis
Spectrum File: 00000538.OXS LiveTime: 28,800.00

Calibrations:
Energy = 6.596E+01 +2.779E+00 * Chn Coeff. of Correlation: -0.998
Calibration Date: April 24, 2000 13:03:27 Std: 1:3 Energy Cal
Shape not Calibrated.
Efficiency = 3.120E-01 ± 4.098E-03
Calibration Date: April 24, 2000 10:05:48 Std: TS4189

External Recovery No Ext.Recovery

Original Sample Amount: 1.000 ± 0.000 samp
Aliquot Amount: 1.000 ± 0.000 samp

ROI DATA

ROI ID #		ASSOCIATED NUCLIDE	EXTENTS START	EXTENTS END	PK EN (keV)	FWHM (keV)
1	Po218	Po218	5550.0	6104.5	6055.4	2.8
2	Po214	Po214	6588.5	7874.7	7231.0	2.8
3	Po212	Po212	8393.8	8808.6	8601.2	2.8
4	Po210	Po210	2180.3	5343.3	5179.9	3.9

ROI ANALYSIS RESULTS

ROI ID	NET COUNTS	BKG/INTERF	CPM	ROI TYPE
Po218	18.7 ± 4.6	1.33	0.039 ± 9.52E-03	Unknown
Po214	-1.7 ± 1.7	2.67	-3.47E-03 ± 3.47E-03	Unknown
Po212	9.0 ± 3.0	0.00	0.019 ± 6.25E-03	Unknown
Po210	836.0 ± 29.4	18.00	1.742 ± 0.061	Unknown

NUCLIDE ANALYSIS RESULTS

ROI ID	ASSOC NUC	EMM. PROB	ACTIVITY (dpm/samp)	MDA (dpm)
Po218	Po218	1.000	0.125 ± 0.031	5.08E-02
Po214	Po214	1.000	-1.11E-02 ± 0.011	6.44E-02
Po212	Po212	1.000	0.060 ± 0.020	1.81E-02
Po210	Po210	1.000	5.582 ± 0.210	1.38E-01

Activity reported as of May 03, 2000 16:57:27

ANALYSIS REVIEWED BY: [signature]

APPROVED BY: C J Bianconi 5/8/00

Spike value 22.892 dpm pu 239

110

OASIS - MCA

File Edit View Acq Parms Tools Reports Close Help

Library: OAS_STD.MDB

Nuclide: Am241

Acq ALL

Acquire

Stop

Erase

4096

LOG

Lin Log

Sqrt

Peak

0

4095

Spectrum ID

00A1148-012.001

System Date

04-May-2000 07:02:11

Message Window

Presets

ROIs

Controls

Display

Info

Aux Disp

Channel: 1751 Elapsed Real Time: 28800.05 Elapsed Live Time: 28800.00 Dead Time: 0.0

Energy: 4933.2 Counts: 3 ROI: Integral: 854 Peak: 5,179.88 FWHM: 3.94

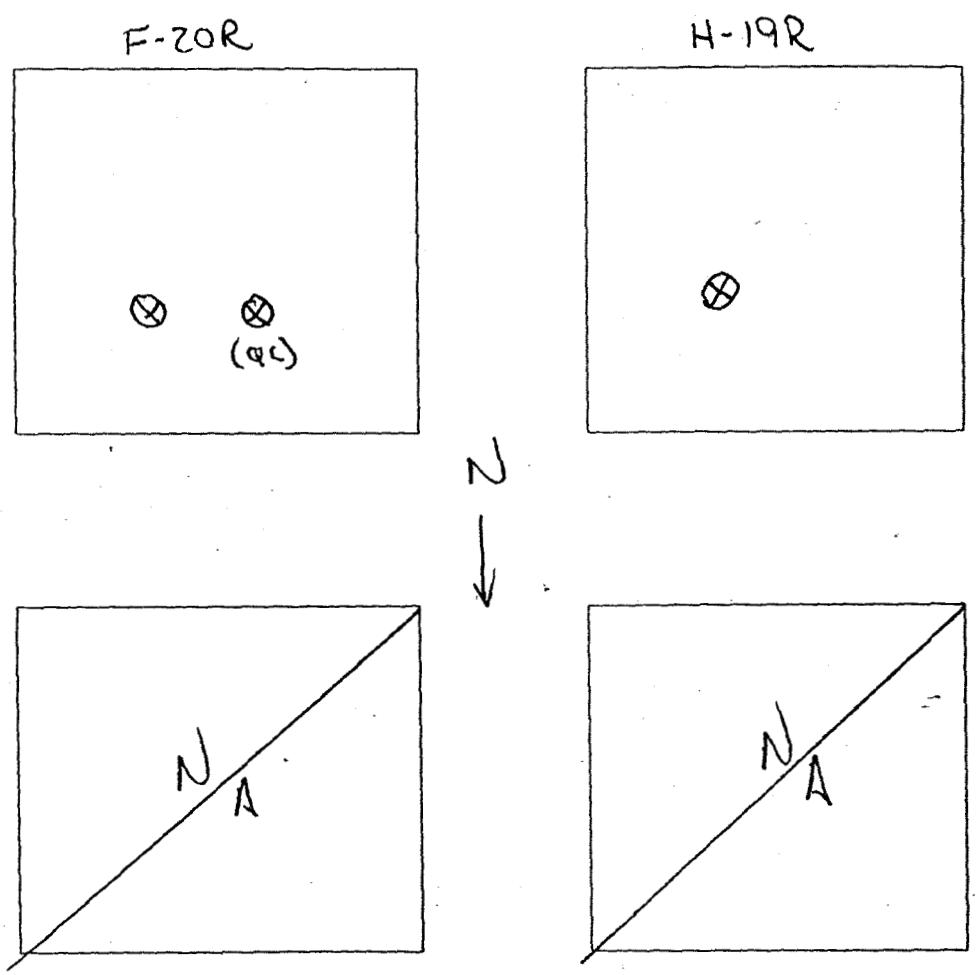
111

Final Survey NE Electra
Scan & Investigation Survey Map

Survey Area: NA	Survey Unit: EXTERIOR	Building: T883B
Survey Unit Description: Roof Sample Location		
RCT Initials/Date: MRL 3/28/00	RCT Initials/Date: NA	RCT Initials/Date: NA

Refer to the Final Survey NE Electra Scan & Investigation Survey Form for instrumentation, surveyor & approval information.

Legend: "R"- Roof, "W" – West Wall, "S" – South Wall, "E" – East Wall, "N" – North Wall "C" –Ceiling, "F" - Floor



⊗ SAMPLE CUTOUT

*** Designates corner closest to A-1 point of reference**

Results/Comments:
Electra alpha scans were performed at the locations detailed on the survey map(s). All required accessible areas were scanned. All initial scan results were <225 dpm/100cm^2, unless noted on the survey form.
Electra beta scans were performed in required accessible areas. Initial scan results indicated no detectable activity above background unless noted on the survey form.

112

Survey Area: NA	Survey Unit: EXTERIOR	Building: T883B
Survey Unit Description		
ROOF SAMPLE LOCATIONS		

Total Surface Activity Data Sheet

Sample location	RCT ID #	Inst ID #		Survey count time (sec)		Gross Count (gcpm)		LAB (cpm)		Net counts (cpm)		Net Activity (dpm/100cm2)	
		α	β	α	β	α	β	α	β	α	β	α	β
PRE				90	90					0.0	0	0.0	0
F-20R	1	7	7	90	90	24.0	478	5.3	419	18.7	59	89.7	197
POST				90	90					0.0	0	0.0	0
F-20R	1	7	7	90	90	37.3	412	8.7	385	28.6	27	137.2	90
PRE				90	90					0.0	0	0.0	0
F-20RQC	2	8	8	90	90	40.0	463	8.0	405	32.0	58	156.4	195
POST				90	90					0.0	0	0.0	0
F-20RQC	2	8	8	90	90	24.7	485	7.3	415	17.4	70	85.0	236
PRE				90	90					0.0	0	0.0	0
H-19R	1	7	7	90	90	39.3	461	10.7	403	28.6	58	137.2	194
POST				90	90					0.0	0	0.0	0
H-19R	1	7	7	90	90	22.7	437	7.3	444	15.4	-7	73.9	-23
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
QC				90	90					0.0	0	0.0	0
QC				90	90					0.0	0	0.0	0
QC				90	90					0.0	0	0.0	0
QC				90	90					0.0	0	0.0	0
QC				90	90					0.0	0	0.0	0

N/A

Note: QC measurements are to be collected by a different technician than the original survey. Mark the QC location number in the "Sample Location" column. Material background is assumed to be zero unless otherwise noted. "LAB" ~ local area background.

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Survey Area: NA	Survey Unit: EXTERIOR	Building: T883B
Survey Unit Description ROOF SAMPLE LOCATIONS		

Removable Contamination Data Sheet

Sample location	RCT ID #	Inst ID #		Gross Counts (gcpm)		Net Counts (cpm)		Removeable Activity (dpm/100cm2)	
		α	β	α	β	α	β	α	β
PRE						0	0	0.0	0
F-20R	1	1	2	1	32.5	0.5	-10.4	1.5	-42
POST						0	0	0.0	0
F-20R	1	3	4	1	42.5	0.7	7.3	2.1	29
PRE						0	0	0.0	0
F-20RQC	1	1	2	1	36.5	0.5	-6.4	1.5	-26
POST						0	0	0.0	0
F-20RQC	1	3	4	1	36	0.7	0.8	2.1	3
PRE						0	0	0.0	0
H-19R	1	1	2	1.5	39	1	-3.9	3.0	-16
POST						0	0	0.0	0
H-19R	1	3	4	0.5	46.5	0.2	11.3	0.6	45
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0

D-2

T883B – Radiological Survey Data for Interior Survey Unit

- Map of Locations
  - Scans
  - Surveys
- Removable and Total Survey Results - Detail

T883B Main Area

North Wall: 2, 1 — A B C D E F G H

West Wall: A B C D E F I J K L M N O P Q R S T U V W X Y Z AA AB AC AD AF AG AH AI AJ AK

South Wall: 2, 1 — A B C D E F G H

East Wall: A B C D E F I J K L M N O P Q R S T U V W

Southwest Office

North Wall: 2, 1 — A B

West Wall: A B C D

South Wall: A B

East Wall: A B C D

West Middle Office

North Wall: A B

West Wall: A B C

South Wall: A B

East Wall: A B C

Northwest Office

North Wall: A B

West Wall: A B C

South Wall: A B

East Wall: A B C

Bathroom

N: 2, 1 — A

W: 2, 1 — A

S: 2, 1 — A

E: 2, 1 — A

T883B Floor

21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

A B C D E F G H

NOT performed

T883B Ceiling

21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

A B C D E F G H

X-Coordinate	Y-Coordinate

	X	Y
1		
2		
3		
4		
5		
6		
7		
8		

	X	Y
9		
10		
11		
12		
13		
14		
15		
16		

QA readings

	X	Y
1		
2		
3		
4		
5		

= one square meter

= 1.5"/sec scan

= direct & smear

= additional QA survey

N

NOTE: SCAN AREA DETERMINED UPON HIGH TRAFFIC AREAS.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42

PAGE 3 of 11

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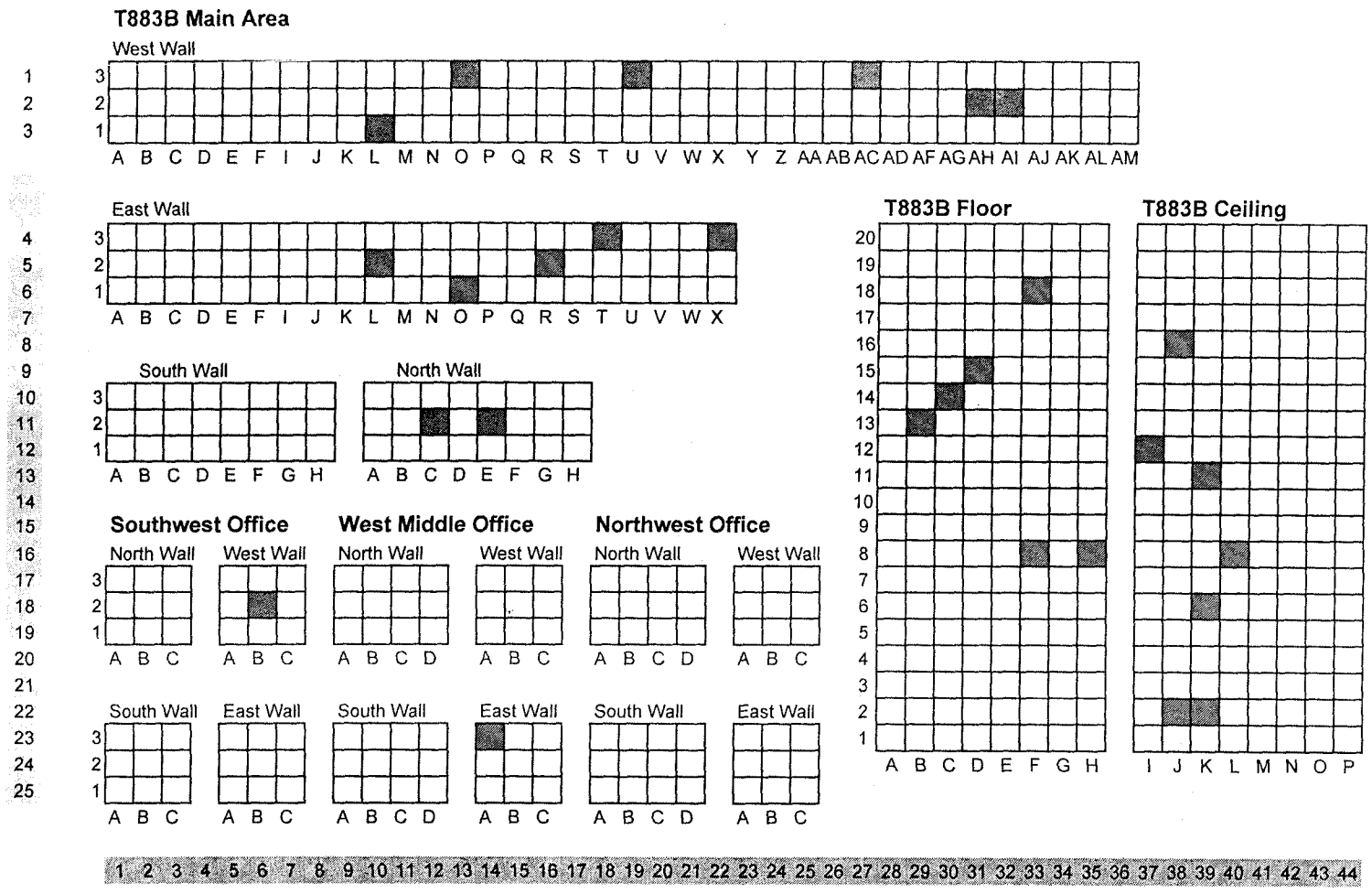

X-Coordinate	Y-Coordinate
40	22

= one square meter

= direct & swipe

N

Total Surface Area = 662 m^2

10% Scan Surface Area = 67 m^2

	X	Y		X	Y		X	Y
1	16	5	11	31	2	21	38	8
2	10	3	12	40	16	22	27	1
3	14	23	13	18	4	23	35	16
4	31	9	14	30	10	24	10	5
5	37	12	15	33	6	25	22	4
6	29	11	16	32	2	26	14	11
7	12	11	17	19	1	27	38	22
8	33	16	18	13	1	28	13	6
9	39	13	19	6	18			
10	39	18	20	39	22			

112/242 EDM
3-292

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Survey Area: N/A	Survey Unit: INTERIOR	Building: T883B
Survey Unit Description: Interior Walls, Floor, and Ceiling		

Removable Contamination Data Sheet

Sample Location	RCT ID #	Inst ID #		Gross Counts (gcpm)		Net Counts (cpm)		Removable Activity (dpm/100cm2)	
MAIN AREA		α	β	α	β	α	β	α	β
R.2.E	2	1	2	0	45	-.5	2.7	-1.5	11
T.2.E	2	3	4	0	34.5	-.5	-5.0	-1.5	-20
W.2.E	2	1	2	0	38.5	-.5	-3.8	-1.5	-15
L.2.E	2	3	4	0	40	-.5	0.5	-1.5	2
C.2.N	2	1	2	0	39	-.5	-3.3	-1.5	-13
E.2.N	2	3	4	0	36	-.5	-3.5	-1.5	-14
L.1.W	2	1	2	.5	39	0	-3.3	0	-13
O.2.W	2	3	4	.5	35.5	0	-4.	0	-16
AC.2.W	2	1	2	1	39	.5	-3.3	1.5	-13
AL.2.W	2	3	4	0	35.5	-.5	-4	-1.5	-16
AH.2.W	2	1	2	0	44	-.5	1.7	-1.5	7
U.2.W	2	3	4	0	38.5	-.5	-1	-1.5	-4
A.12.C	2	1	2	1	43.5	.5	1.2	1.5	5
B.2.C	2	3	4	.5	37.5	0	-2	0	-8
B.16.C	2	1	2	0	31	-.5	-11.3	-1.5	-45
C.2.C	2	3	4	.5	36.5	0	-3	0	-12
C.6.C	2	1	2	0	33.5	-.5	-8.8	-1.5	-35
C.11.C	2	3	4	0	36	-.5	-3.5	-1.5	-14
D.8.C	2	1	2	.5	38.5	0	-3.8	0	-15
H.8.F	2	3	4	0	39	-.5	-.5	-1.5	-2
F.18.F	2	1	2	.5	36.5	0	-5.8	0	-23
F.8.F	2	3	4	.5	28.5	0	-11	0	-44
D.15.F	2	1	2	.5	43.5	0	1.2	0	5
C.14.F	2	3	4	.5	35.5	0	-4	0	-16
B.13.F	2	1	2	0	43.5	-.5	1.2	-1.5	5
O.1.E	2	3	4	.5	37	0	-2.5	0	-10
SOUTHWEST Office									
B.2.W	2	1	2	.5	41	0	-1.3	0	-5
Middle Office									
A.2.E	2	3	4	0	45.5	-.5	6	-1.5	24
						N	A		

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Survey Area: NA	Survey Unit: INTERIOR	Building: T883B
Survey Unit Description: FLOOR, WALLS, CEILINGS		

Total Surface Activity Data Sheet

Sample location	RCT ID #	Inst ID #		Survey count time (sec)		LAB (cpm)		Gross Count (gcpm)		Net counts (cpm)		Net Activity (dpm/100cm2)	
		α	β	α	β	α	β	α	β	α	β	α	β
MAIN AREA				90	90								
D-15F	1	7	7	90	90	0.0	315	6.7	359	6.7	44	30.0	145
C-14F	1	7	7	90	90	0.7	352	2.7	371	2.0	19	8.9	63
B-13F	1	7	7	90	90	3.3	359	2.7	410	-0.6	51	-2.7	168
F-8F	1	7	7	90	90	2.0	329	1.3	349	-0.7	20	-3.1	66
F-18F	1	7	7	90	90	0.7	397	2.7	401	2.0	4	8.9	13
H-8F	1	7	7	90	90	1.3	353	5.3	345	4.0	-8	17.9	-26
L-1W	1	7	7	90	90	2.0	337	1.3	266	-0.7	-71	-3.1	-234
O-2W	1	7	7	90	90	1.3	357	4.0	261	2.7	-96	12.1	-316
U-2W	1	7	7	90	90	2.7	361	6.7	259	4.0	-102	17.9	-336
AC-2W	1	7	7	90	90	2.7	372	4.0	283	1.3	-89	5.8	-293
AH-2W	1	7	7	90	90	1.3	375	3.3	319	2.0	-56	8.9	-184
AI-2W	1	7	7	90	90	2.0	391	2.0	391	0.0	0	0.0	0
C-2N	1	7	7	90	90	4.0	353	5.3	291	1.3	-62	5.8	-204
E-2N	1	7	7	90	90	2.0	393	5.3	292	3.3	-101	14.8	~~-333~~
L-2E	1	7	7	90	90	1.3	346	7.3	288	6.0	-58	26.8	-191
O-1E	1	7	7	90	90	1.3	~~376~~ 373	8.7	307	7.4	-66	33.1	-217
R-2F	1	7	7	90	90	1.3	329	6.7	289	5.4	-40	24.2	-132
T-2E	1	7	7	90	90	2.0	367	8.7	289	6.7	-78	30.0	-257
W-2E	1	7	7	90	90	0.7	379	3.3	271	2.6	-108	11.6	-356
I-12C	1	7	7	90	90	0.0	374	6.0	456	6.0	82	26.8	270
J-2C	1	7	7	90	90	1.3	382	6.7	462	5.4	80	24.2	264
J-16C	1	7	7	90	90	2.7	360	5.3	483	2.6	123	11.6	405
K-2C	1	7	7	90	90	2.0	365	5.3	399	3.3	34	14.8	112
K-6C	1	7	7	90	90	1.3	392	7.3	412	6.0	20	26.8	66
K-11C	1	7	7	90	90	0.7	366	6.0	436	5.3	70	23.7	231
L-8C	1	7	7	90	90	1.3	361	5.3	444	4.0	83	17.9	273
NA				90	90								
F18F QC	1	8	8	90	90	2.0	421	0.7	453	-1.3	32	-6.0	104
D15F QC	1	8	8	90	90	0.0	343	3.3	406	3.3	63	15.3	206
F8F QC	1	8	8	90	90	0.7	419	0.7	399	0.0	-20	0.0	-65
H8F QC	1	8	8	90	90	0.7	381	2.0	463	1.3	82	6.0	268
R2E QC	1	8	8	90	90	2.7	304	0.7	363	-2.0	59	-9.3	192

Note: QC measurements are to be collected by a different technician than the original survey. Mark the QC location number in the "Sample Location" column. Material background is assumed to be zero unless otherwise noted. "LAB" – local area background.

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Survey Area: NA	Survey Unit: INTERIOR	Building: T883 B
Survey Unit Description: FLOORS, WALLS, CEILINGS		

Total Surface Activity Data Sheet

Sample location	RCT ID #	Inst ID #		Survey count time (sec)		LAB (cpm)		Gross Count (gcpm)		Net counts (cpm)		Net Activity (dpm/100cm2)	
		α	β	α	β	α	β	α	β	α	β	α	β
Southwest Office				90	90								
B-2W	1	7	7	90	90	1.3	351	2.7	303	1.4	-48	6.3	-158
WEST MIDDLE OFFICE				90	90								
A-2E	1	7	7	90	90	0.0	346	1.3	265	1.3	-81	5.8	-267
				90	90								
				90	90								
				90	90								
				90	90								
				90	90								
				90	90								
				90	90								
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___QC				90	90								
___QC				90	90								
___QC				90	90								
___QC				90	90								

NA

Note: QC measurements are to be collected by a different technician than the original survey. Mark the QC location number in the "Sample Location" column. Material background is assumed to be zero unless otherwise noted. "LAB" ~ local area background.

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D-3

T883B – Asbestos Inspector's Report

T883B

ASBESTOS INSPECTOR'S REPORT

I, the undersigned Certified Asbestos Inspector, certification # [redacted] in the state of Colorado, attest to the asbestos inspection and sam[redacted]lts as described below, for the following facility (at RFETS): Trailer 883B.

General Facility Location: north-northeast of Building 881.

INSPECTION RESULTS

Trailer 883B contains friable ceiling tile. Fiberglass insulation was found throughout the walls. The following table summarizes the results of the samples collected and the percent and type of asbestos detected:

SAMPLE RESULTS

Sample Number	Material Sampled & Location	Analytical Results
T883B-03012000-05-003	Miscellaneous material: 2' x 4' white ceiling tile. Coordinate C2C	None Detected
T883B-03012000-05-004	Miscellaneous material: 2' x 4' white ceiling tile. Coordinate C6C	None Detected

Andre Gonzalez	[signature]	7/6/00
INSPECTOR'S NAME	SIGNATURE	DATE

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D-4

T883B - D&D Facility Characterization Interview Checklist

D&D Facility Characterization Interview Checklist

ID No.: T-883B
Date: 06/07/99

Groups B & C Series

Check List for - Title: D&D Facility Characterization – Interviews

CRITERIA:
- *D&D Characterization Protocol*, RFETS MAN-077-DDCP, Rev. 0
- *Facility Disposition Program Manual*, RFETS MAN-076-FDPM
- RFETS Radiological Safety Practices, January 12, 1998

Facility Name & Type (1, 2, or 3) T-883B Group B Type 1 Facility, Trailer Office Building
Personnel Interviewed (Name & Title/Function) Douglas C. Fisher, Senior Engineer, SSOC Residue Stabilization, P-212-4895, Building 750, Room 132C, SSOC Residue Stabilization

-- Y/N --

Does a current WSRIC exist for the facility? ..... N
If so, are there exceptions to the WSRIC as written? ..... No WSRIC, No Exceptions
COMMENTS (incl. WSRIC contacts)
WSRIC Contact is James M. Schoen who is in charge of the WSRIC Reports, T130J, X3579, C-83.
Are rad surveys available that indicate current status of the facility? ..... N
Are historical rad surveys available that indicate historical status, or evolution, of the facility? ..... N*
COMMENT N* According to Mark R. Richards, X5148 of SSOC any Historical data, which is probably at the Federal Center, would not be Adequate for unrestricted release. New monitor surveys would have to be taken.
Is an HRR available for the facility? ..... N
Do any other reports exist beyond the HRR (e.g., spill reports, reportable incidents, etc.) that further Characterize the facility relative to chemical &/or radiological contamination? ..... Y**
Are engineering drawings (esp. "as-builts") available? ..... N
Are any nonconformances or issues with the facility status currently being tracked in PATS? ..... N
If so, what are the issues (note in Comments, below)?
COMMENTS N* Radiological surveys may have been done, but the old data is not available. This unit will have to be resurveyed to meet present standards for unrestricted release. Y** **The T-883B Trailer is not sitting on IHSS or PAC area land,** as per, Nick Demos, ER Characterization/HRR Manager, X4605. Therefore, the T-883B Office Trailer does not have CERCLA concerns. Engineering drawings, as-builts, do not exist for the T-883A Facility. There are no PATS items outstanding for this facility. The Plant quit using lead based paints for office buildings in 1989, if this office facility was painted prior to 1989, lead based paints may have been used.
Have any types of chemical characterization, incl. Asbestos, been performed recently? ..... N*
If so, what types of characterization were performed (note in Comments, below)?
COMMENTS N* No asbestos characterization data exists, according to Kevin Sheehan, X7250, T-452D, Room C-1. The asbestos data reports are located in Cubicle C-13, of T-452D and the reports are under the control of Kevin Sheehan.

Interviewed by: J. R. Sheets / J R Sheets / 06/03/99
Print Name / Signature / Interview Date

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D&D Facility Characterization Interview Checklist

ID No.: T -883B
Date: 06/07/99

Groups B & C Series

What timeframe did the interviewee work in the facility? From the Fall of 1995 until August 1997 (for approximately 2 years).

Has the building configuration changed since you worked in the building? If so, in what way? Yes, the facility had up to a maximum15 people during the time that SSOC Residue Stabilization occupied the facility.
Yes, all the office cubicles have been removed. T-883B has remained vacant since approximately August 1997.

What types of equipment were in the building during the interviewee's time there?
Approximately 15 computers, approximately 12 printers, a fax machine, a photocopier machine, other office equipment such as desks, 15 chairs, 3 tables, bookcases, 8 file cabinets, etc. There was a conference room this in this facility.

Where was the equipment located? (specific rooms/areas) In the conference room, the hard wall offices, the office cubicles. The prior occupants (prior to March 1995) an Information Resource Management group that did software support for AutoCad and software support for CAD/CAM for Building 460 Machining Operations. The IR Management group had approximately 12 employees in T-883B from 1991 until March 1995. Computers, printers, fax machine, photocopier, and office equipment were in the hard wall offices and office cubicles during this 1991 to March 1995 time frame.

Were any radioactive materials or metals handled in the building? If so, what types? No, none

Which equipment handled radioactive material? N/A

Were any chemicals handled in the building? If so, what types? N/A

Did any spills or uncontrolled releases of radioactive materials or chemicals occur while you were working in the facility? No, none.

Were these spills/releases cleaned-up? How were they cleaned-up? N/A

Where did these spills/releases occur? N/A

Interviewed by: J. R. Sheets / JR Sheets / 06/03/99

Print Name | Signature | Interview Date

Type 1 Facility Checklist

TYPE 1 FACILITY BUILDING T-883B

CURRENT LANDLORD: RFCSS

DATE OF COMPLETION: 02/29/00

ITEM	YES	NO
Does the facility contain radiological postings?		X
Does the facility contain chemical postings?		X
Are there any installed hazards?		X
Do the historical surveys (radiological and chemical) indicate the facility is clean?	X	
Are there RCRA units within the facility		X
Is there a history of the building available?	X	
Is there any equipment/furniture left in the facility?		X
Is there a future mission identified for the facility?		X
Will the facility be left unsecured after it is vacated?		X

If any answer to any of the above questions is "Yes", complete the following questions and complete the "graded" PEP in accordance with Chapter 2.

Note: An answer of "Yes" to any question, specifically one dealing with hazards, ***may*** *indicate the facility is not a Type 1 Facility. Check with the D&D Programs office.*

If the answer to all question is "No" complete the "graded" PEP in accordance with Chapter 2.

1. List the Radiological Hazards, location, and quantity:

   Based on the historical data found and interviews taken there are no hazards in this trailer.

2. List the Chemical Hazards, location, and quantity:

   None. Based on historical data and interviews taken no asbestos data exists and the paint may be lead based.

3. List the Physical Hazards:

   NONE

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E-1

T439A – Radiological Survey Data for Exterior Survey Unit

- Summary of Radiological Survey/Sample Results
- Map of Locations
  - Scans
  - Surveys
- Removable and Total Survey Results – Detail
- Laboratory Alpha Spec (Sample) Results – Detail

Radiological Survey/Sample Results for T439A

Total Surface Activity Measurements dpm/100 cm^2

	Alpha	Beta
Interior	# Required	# Obtained
	28	28
MIN	-21	-406
MAX	21	849
MEAN	4.1	-89.1
STD DEV	9.9	264.1
Exterior	# Required	# Obtained
	28	28
MIN	-24	-346
MAX	53	685
MEAN	17.1	122.5
STD DEV	18.4	286.7
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm^2

	Alpha	Beta
Interior	# Required	# Obtained
	28	28
MIN	-1.5	-22
MAX	4.8	62
MEAN	-0.3	13.7
STD DEV	1.4	24.6
Exterior	# Required	# Obtained
	28	28
MIN	-1.5	-55.6
MAX	3.3	30.0
MEAN	0.0	-0.6
STD DEV	1.2	22.7
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
N/A	N/A

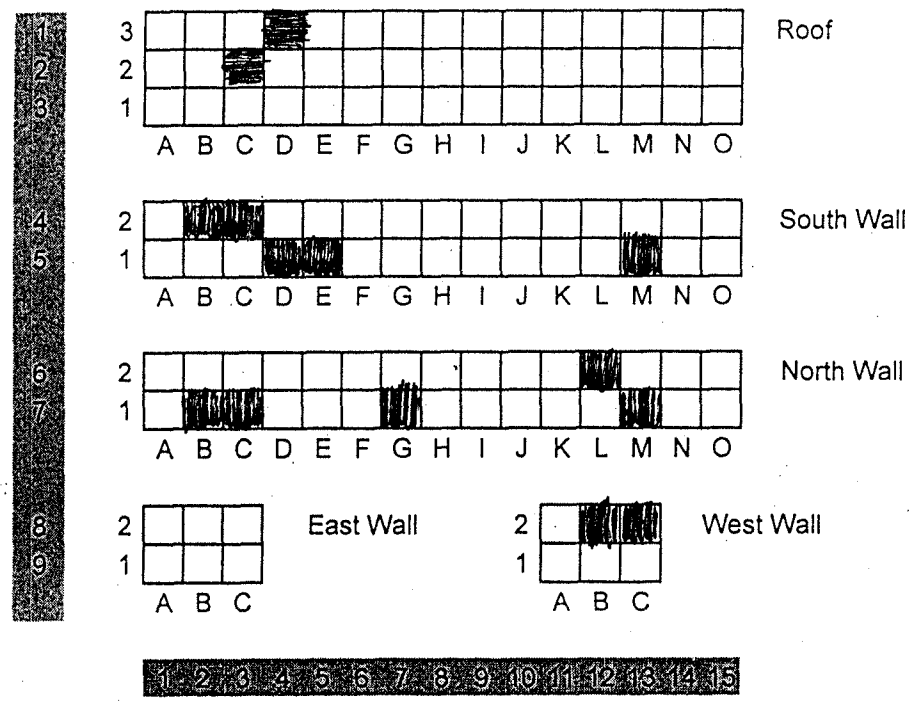
Contaminant	Y/N	Det. Sens. dpm/100 cm^2
U present	N/A	N/A
Pu present	N/A	N/A

Total Po-210 Results dpm/100 cm^2

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A

SCAN LOCATIONS:

T439A Exterior



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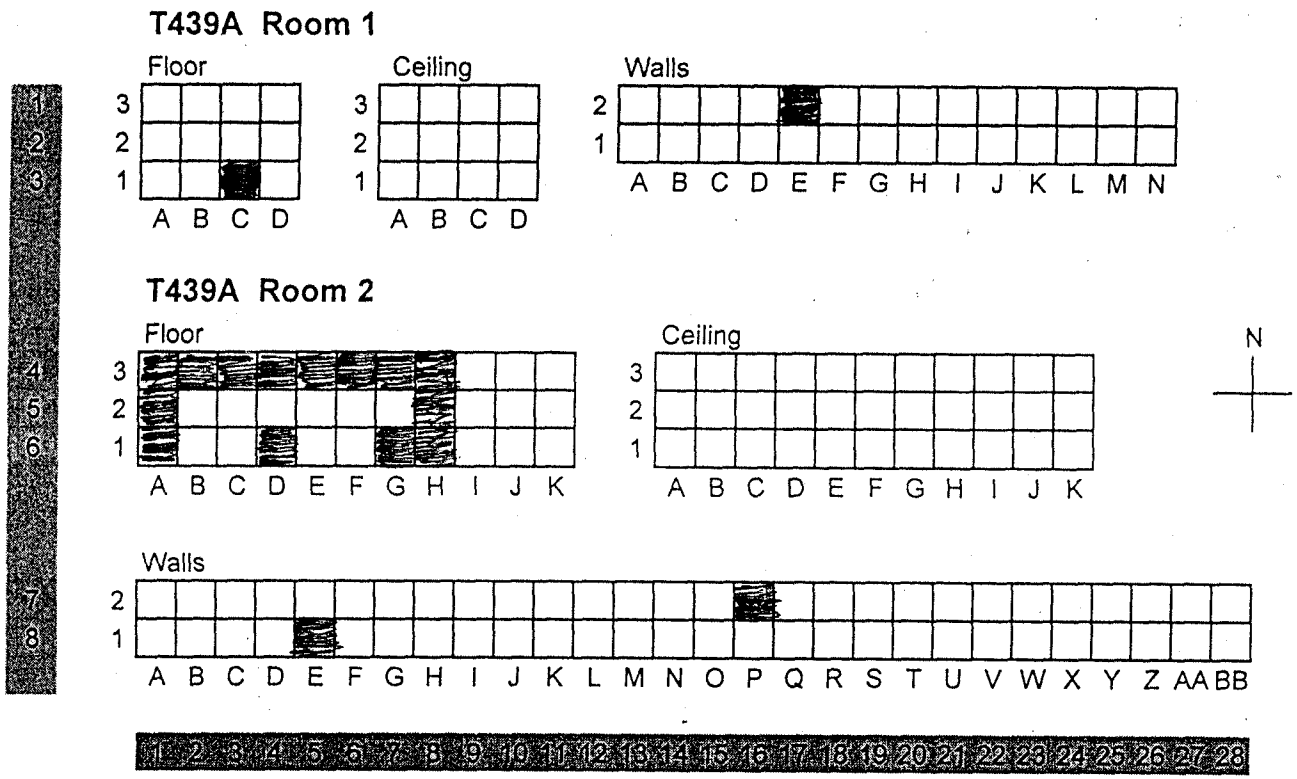
SCAN LOCATIONS:



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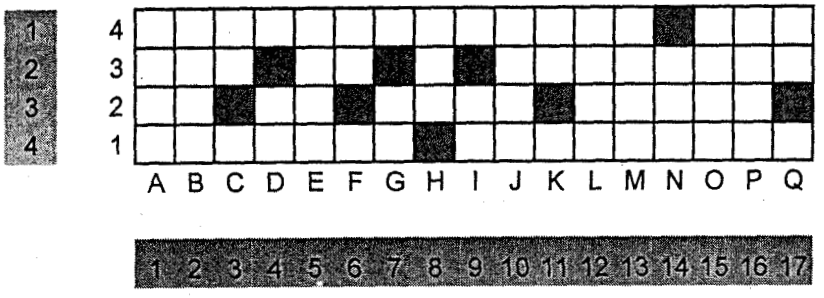
T439A Exterior Roof



X-Coordinate	Y-Coordinate
5	2

= one square meter

= direct & swipe

Roof Surveys randomly chosen with original number of survey points (9 survey points)

	X	Y
1	11	3
2	7	2
3	8	4
4	14	1
5	9	2
6	4	2
7	6	3
8	3	3
9	17	3

1876/242 2/24/00

131

Survey Area: N/A	Survey Unit: EXTERIOR	Building: T439A
Survey Unit Description ROOF & WALLS OF TRAILER T439A		

Removable Contamination Data Sheet

Sample Location	RCT ID #	Inst ID #		Gross Counts (gcpm)		Net Counts (cpm)		Removable Activity (dpm/100cm2)	
		α	β	α	β	α	β	α	β
B-2S	1	1	4	0.5	27	0.4	-13.5	1.2	-54
C-2S	1	2	4	0.0	38	-0.5	-2.5	-1.5	-10
D-1S	1	3	4	0.0	48	-0.4	7.5	-1.2	30
E-1S	1	1	4	0.5	46	0.4	5.5	1.2	22
I-2S	1	2	4	0.5	38	0	-2.5	0	-10
L-2S	1	3	4	1.5	43	1.1	2.5	3.3	10
M-1S	1	1	4	0.5	44	0.4	3.5	1.2	14
M-2S	1	2	4	0.5	42	0	1.5	0	6
B-2W	1	3	4	0.5	45	0.1	4.5	0.3	18
C-2W	1	1	4	0.0	45	-0.1	4.5	-0.3	18
B-1N	3	2	4	0.5	44	0	3.5	0	14
C-1N	3	3	4	0.0	36	-0.4	-4.5	-1.2	-18
D-2N	3	1	4	0.0	42	-0.1	1.5	-0.3	6
E-1N	3	2	4	0.0	45	-0.5	4.5	-1.5	18
G-2N	3	3	4	0.5	41	0.1	0.5	0.3	2
H-2N	3	1	4	0.0	45	-0.1	4.5	-0.3	18
K-2N	3	2	4	0.0	43	-0.5	2.5	-1.5	10
L-2N	3	3	4	0.0	47	-0.4	6.5	-1.2	26
M-1N	3	1	4	0.0	40	-0.1	-0.5	-0.3	-2
C-2R	5	5	13	1.0	40.0	0.7	-2.4	2.1	-9.6
D-3R	5	6	14	0.0	44.5	-0.2	3.6	-0.6	14.4
F-2R	5	5	13	0.0	33.0	-0.3	-9.4	-0.9	-37.6
G-3R	5	6	14	0.0	40.0	-0.2	-0.9	-0.6	-3.6
H-1R	5	5	13	0.0	35.5	-0.3	-6.9	-0.9	-27.6
I-3R	5	6	14	0.5	36.5	0.3	-4.4	0.9	-17.6
K-2R	5	5	13	0.0	28.5	-0.3	-13.9	-0.9	-55.6
N-4R	5	6	14	0.5	45.5	0.3	4.6	0.9	18.4
Q-2R	5	5	13	0.5	38.5	0.2	-3.9	0.6	-15.6

N/A

132

Survey Area: N/A	Survey Unit: EXTERIOR	Building: T439A
Survey Unit Description: ROOF + WALLS OF TRAILER T439A		

Total Surface Activity Data Sheet

Sample location	RCT ID #	Inst ID #		Survey count time (sec)		LAB (cpm)		Gross Count (gcpm)		Net counts (cpm)		Net Activity (dpm/100cm2)	
		α	β	α	β	α	β	α	β	α	β	α	β
B-2S	3	7	7	90	90	7.3	436	9.3	486	2	50	9	165
C-2S	3	7	7	90	90	8.7	422	7.3	489	-1.4	67	-6	221
D-1S	3	7	7	90	90	9.3	391	~~387~~ 4.7	387	-4.6	-4	-21	-13
E-1S	1	9	9	90	90	6.0	350	7.3	383	1.3	33	7	111
I-2S	1	9	9	90	90	4.7	398	8.7	395	4.0	-3	20	-10
L-2S	1	9	9	90	90	9.3	353	12.0	389	2.7	36	~~180~~ 14	121
M-1S	1	9	9	90	90	4.0	368	9.3	373	5.3	5	~~25~~ 27	17
M-2S	1	9	9	90	90	9.3	380	12.0	416	2.7	36	14 ~~180~~ ~~181~~	121
B-2W	3	7	7	90	90	9.3	433	16.0	419	6.7	-14	30	-46
C-2W	3	7	7	90	90	0.7	379	4.0	423	3.3	44	15	145
B-1N	3	7	7	90	90	8.0	349	5.3	363	-2.7	14	-12	46
C-1N	3	7	7	90	90	4.7	378	8.0	353	3.3	-25	15	-82
D-2N	2	8	8	90	90	2.0	401	6.0	352	+4.0	-49	+19	-164
G-1N	3	7	7	90	90	10.0	322	4.7	420	-5.3	98	-24	323
G-2N	2	8	8	90	90	1.3	399	4.0	303	3.3	-96	15	~~-322~~
A-2N	2	8	8	90	90	1.3	409	5.3	346	4.0	-63	19	-211
K-2N	2	8	8	90	90	2.0	414	6.7	316	4.7	-98	+22	-329
L-2N	2	8	8	90	90	1.3	401	4.7	352	3.4	-49	16	-164
M-1N	3	7	7	90	90	5.3	421	4.7	316	-0.6	-105	-3	-346
C-2R	4	11	11	90	90	2.0	526	9.3	583	7.3	57	34	190
D-3R	4	11	11	90	90	2.0	368	11.3	556	9.3	188	43	628
F-2R	4	11	11	90	90	2.7	399	11.3	579	8.6	180	40	601
G-3R	4	11	11	90	90	2.0	392	8.7	495	6.7	103	31	344
A-1R	4	11	11	90	90	2.7	352	14.0	557	11.3	205	53	685
I-3R	4	11	11	90	90	3.3	445	8.7	579	5.4	74	25	247
K-2R	4	11	11	90	90	5.3	427	12.0	552	6.7	125	31	418
N-4R	4	11	11	90	90	4.0	491	10.0	545	6.0	54	28	180
Q-2R	4	11	11	90	90	0.7	392	8.7	558	8.0	166	37	554
M-1S QC	8	10	10	90	90	0.7	341	6.0	317	5.3	-24	25	-78
B-1W QC	8	10	10	90	90	3.3	290	8.7	317	5.4	27	25	88
B-2W QC	8	10	10	90	90	2.0	375	1.3	340	-0.7	-35	-3	-114
A-1R QC	9	11	11	90	90	2.0	372	2.0	380	0	8	0	27
N-4R QC	9	11	11	90	90	4.7	504	4.0	495	-0.7	-9	-3	-30

Note: QC measurements are to be collected by a different technician than the original survey. Mark the QC location number in the "Sample Location" column. Material background is assumed to be zero unless otherwise noted. "LAB" – local area background.

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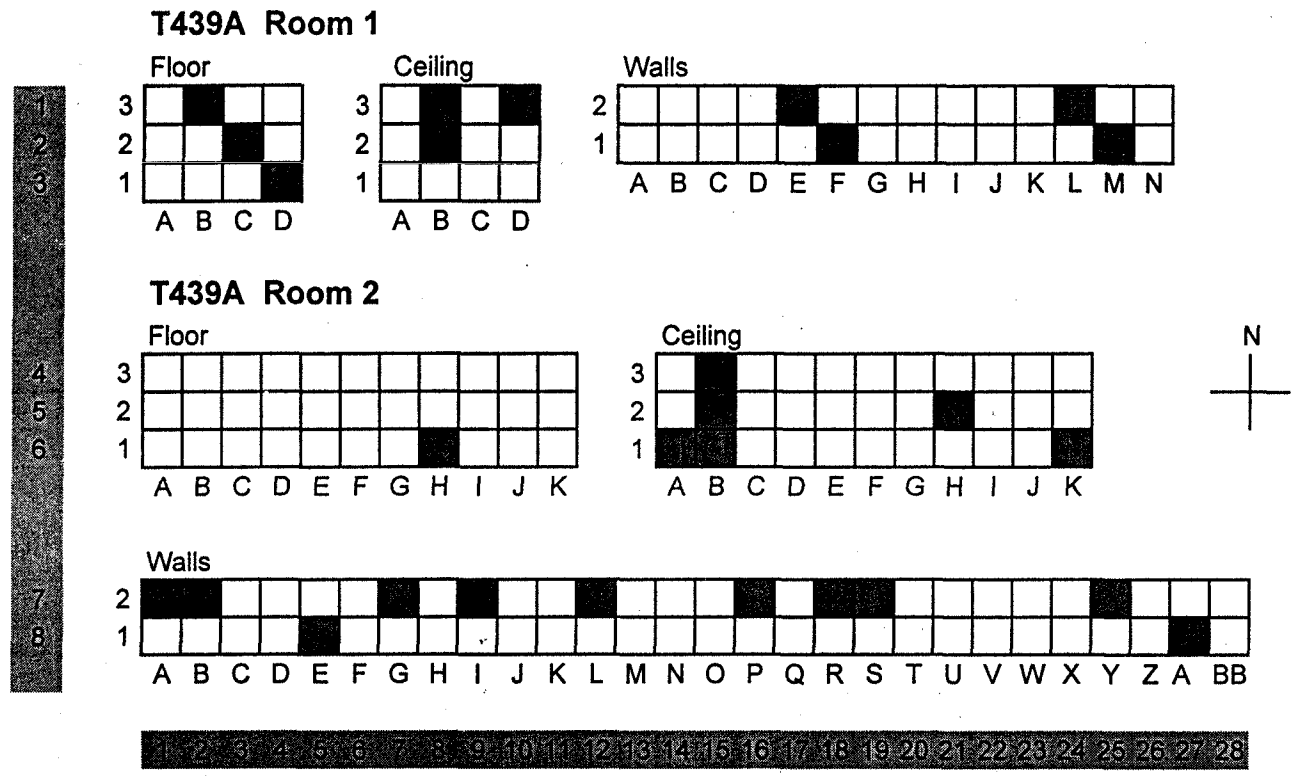
E-2

T439A -- Radiological Survey Data for Interior Survey Unit

- Map of Locations
  - Scans
  - Surveys
- Removable and Total Survey Results - Detail



X-Coordinate	Y-Coordinate
15	5

□ = one square meter

■ = direct & swipe

Total Surface Area = 174 m^2

10% Scan Surface Area = 18 m^2

	X	Y		X	Y		X	Y
1	5	8	11	21	5	21	7	7
2	17	1	12	9	7	22	25	2
3	2	1	13	8	1	23	8	2
4	18	7	14	8	6	24	2	7
5	14	6	15	15	6	25	3	2
6	15	5	16	4	3	26	1	7
7	12	7	17	25	7	27	24	1
8	19	7	18	24	6	28	10	10
9	15	4	19	18	2			
10	27	8	20	16	7			

172/242

RO

136

Survey Area: N/A	Survey Unit: INTERIOR	Building: T439A
Survey Unit Description: FLOORS, WALLS, + CEILINGS OF TRAILER T439A		

Removable Contamination Data Sheet

Sample Location	RCT ID #	Inst ID #		Gross Counts (gcpm)		Net Counts (cpm)		Removable Activity (dpm/100cm2)	
		α	β	α	β	α	β	α	β
ROOM 1									
B-3F	2	1	4	0	42	-0.1	1.5	-0.3	6
C-2F	2	2	4	0.5	48	0	7.5	0	30
D-1F	2	3	4	0	50	-0.4	9.5	-1.2	38
B-2C	2	1	4	0	43	-0.1	2.5	-0.3	10
B-3C	2	2	4	0	41	-0.5	0.5	-1.5	2
D-3C	2	3	4	0.5	52	0.1	11.5	0.3	46
E-2W	2	1	4	0.5	41	0.4	0.5	1.2	2
F-1W	2	2	4	0	44	-0.5	3.5	-1.5	14
L-2W	2	3	4	0	40	-0.4	-0.5	-1.2	-2
M-1W	2	1	4	0	48	-0.1	7.5	-0.3	30
ROOM 2									
A-1F	2	2	4	0	39	-0.5	-1.5	-1.5	-6
A-1C	2	3	4	0	48	-0.4	7.5	-1.2	30
B-1C	2	1	4	0	48	-0.1	7.5	-0.3	30
B-2C	2	2	4	0	42	-0.5	1.5	-1.5	6
B-3C	2	3	4	0	43	-0.4	2.5	-1.2	10
H-2C	2	1	4	0.5	36	0.4	-4.5	1.2	-18
K-1C	2	2	4	0	43	-0.5	2.5	-1.5	10
A-2W	2	3	4	0	36	-0.4	-4.5	-1.2	-18
B-2W	2	1	4	0.5	35	0.4	-5.5	1.2	-22
E-1W	2	2	4	0	56	-0.5	15.5	-1.5	62
G-2W	2	3	4	2.0	35	1.6	-5.5	4.8	-22
I-2W	2	1	4	0	48	-0.1	7.5	-0.3	30
L-2W	2	2	4	0.5	53	0	12.5	0	50
P-2W	2	3	4	0.5	42	0.1	1.5	0.3	6
R-2W	2	1	4	0	37	-0.1	-3.5	-0.3	-14
S-2W	2	2	4	0	54	-0.5	13.5	-1.5	54
Y-2W	2	3	4	1.0	36	0.6	-4.5	1.8	-18
AA-1W	2	1	4	0	50	-0.1	9.5	-0.3	38

N/A

136

Survey Area: N/A	Survey Unit: INTERIOR	Building: T439A
Survey Unit Description FLOORS, WALLS, + CEILINGS OF TRAILER T439A		

Total Surface Activity Data Sheet

Sample location	RCT ID #	Inst ID #		Survey count time (sec)		LAB (cpm)		Gross Count (gcpm)		Net counts (cpm)		Net Activity (dpm/100cm2)	
		α	β	α	β	α	β	α	β	α	β	α	β
ROOM 1				90	90								
B-3F	1	7	7	90	90	2.0	402	2.0	463	0	61	0	205
C-2F	1	7	7	90	90	5.3	429	1.3	509	-4.0	80	-19	268
D-1F	1	7	7	90	90	0.7	443	5.3	576	4.6	133	21	446
B-2C	1	7	7	90	90	2.7	424	1.3	383	-1.4	-41	-6	-138
B-3C	1	7	7	90	90	2.7	411	2.0	409	-0.7	-2	-3	-7
D-3C	1	7	7	90	90	5.3	421	0.7	408	-4.6	-13	-21	-44
E-2W	1	7	7	90	90	3.3	411	5.3	325	2.0	-86	9	-288
F-1W	1	7	7	90	90	2.7	395	2.0	375	-0.7	-20	-3	-67
L-2W	1	7	7	90	90	2.0	433	2.7	312	0.7	-121	3	-406
M-1W	1	7	7	90	90	1.3	400	2.0	344	0.7	-56	3	-188
ROOM 2				90	90								
H-1F	1	7	7	90	90	2.7	407	2.0	660	-0.7	253	-3	849
A-1C	1	7	7	90	90	2.7	409	4.0	379	1.3	-30	6	-101
B-1C	1	7	7	90	90	2.0	411	2.7	397	0.7	-14	3	-47
B-2C	1	7	7	90	90	0.0	411	2.0	411	2.0	0	9	0
B-3C	1	7	7	90	90	0.7	407	1.3	390	0.6	-17	3	-57
H-2C	1	7	7	90	90	1.3	421	2.7	413	1.4	-8	6	-27
K-1C	1	7	7	90	90	1.3	422	2.7	376	1.4	-46	6	-154
A-2W	1	7	7	90	90	1.3	398	3.3	335	2.0	-63	9	-211
B-2W	1	7	7	90	90	0.7	404	2.0	343	1.3	-61	6	-205
E-1W	1	7	7	90	90	1.3	429	2.0	352	0.7	-77	3	-258
G-2W	1	7	7	90	90	2.7	436	6.7	346	4.0	-90	19	-302
I-2W	1	7	7	90	90	1.3	429	2.0	315	0.7	-114	3	-382
L-2W	1	7	7	90	90	0.7	381	4.0	293	3.3	-88	15	-295
P-2W	1	7	7	90	90	1.3	410	2.0	329	0.7	-81	3	-272
R-2W	1	7	7	90	90	2.7	409	2.0	330	-0.7	-79	-3	-265
S-2W	1	7	7	90	90	0.7	400	5.3	348	4.6	-52	21	-174
___QC				90	90								
___QC				90	90								
___QC				90	90			N/A					
___QC				90	90								
___QC				90	90								

Note: QC measurements are to be collected by a different technician than the original survey. Mark the QC location number in the "Sample Location" column. Material background is assumed to be zero unless otherwise noted. "LAB" ~ local area background.

137

Survey Area: N/A	Survey Unit: INTERIOR	Building: T439A
Survey Unit Description: FLOORS, WALLS, + CEILINGS OF TRAILER T439A		

Total Surface Activity Data Sheet

Sample location	RCT ID #	Inst ID #		Survey count time (sec)		LAB (cpm)		Gross Count (gcpm)		Net counts (cpm)		Net Activity (dpm/100cm2)	
		α	β	α	β	α	β	α	β	α	β	α	β
ROOM 2 (CONT.)				90	90								
Y-2W	1	7	7	90	90	3.3	406	6.7	356	3.4	-50	16	-168
AA-1W	1	7	7	90	90	0.7	409	2.7	347	2.0	-62	9	-208
				90	90								
				90	90								
				90	90								
				90	90								
				90	90								
				90	90								
				90	90								
				90	90								
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				90	90								
				90	90								
				90	90								
				90	90								
				90	90								
				90	90								
				90	90								
				90	90								
Rm1 C-2F QC	8	9	9	90	90	0.0	434	5.3	539	5.3	105	28	349
-1F ~~D-1W~~ QC	8	9	9	90	90	1.3	445	2.7	573	1.4	128	7	425
E-2W QC	8	9	9	90	90	3.9	300	2.0	344	-1.9	44	-10	146
Rm2 H-1F QC	9	10	10	90	90	2.0	452	1.3	557	-0.7	105	-3	~~344~~ 342
E-1W QC	9	10	10	90	90	2.7	357	4.0	345	1.3	-12	6	-39

N/A

Note: QC measurements are to be collected by a different technician than the original survey. Mark the QC location number in the "Sample Location" column. Material background is assumed to be zero unless otherwise noted. "LAB" ~ local area background.

E-3

T439A – Asbestos Inspector's Report

T439A

ASBESTOS INSPECTOR'S REPORT

I, the undersigned Certified Asbestos Inspector, certification # [redacted] in the state of Colorado, attest to the asbestos inspection and sampling results as described below, for the following facility (at RFETS): Trailer 439A.

General Facility Location: south of Buildings 450 and 444.

INSPECTION RESULTS

Trailer 439A contains non-friable fiberboard wall panels and drywall (no tape joint compound associated with the drywall). Fiberglass insulation was found throughout the walls. Suspect friable asbestos containing materials were not observed and no samples were collected.

SAMPLE RESULTS

None required; none taken.

Andre Gonzalez	[signature]	7/6/00
INSPECTOR'S NAME	SIGNATURE	DATE

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E-4

T439A – D&D Facility Characterization Interview Checklist

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D&D Facility Characterization Interview Checklist

IDNo.:T439A
Date:6/14/99

Groups B & C Series

Check List for - Title: D&D Facility Characterization – Interviews

CRITERIA:
- *D&D Characterization Protocol*, RFETS MAN-077-DDCP, Rev. 0
- *Facility Disposition Program Manual*, RFETS MAN-076-FDPM
- RFETS Radiological Safety Practices, January 12, 1998

Facility Name & Type (1, 2, or 3) T439A, Group B Type 1 Facility

Personnel Interviewed (Name & Title/Function) Wes Dycus /RMRS Maintenance, X7511, John Bert/SSOC/X4948, Dan Coyne/RMRS/X2820

	– Y/N –
Does a current WSRIC exist for the facility?	N
If so, are there exceptions to the WSRIC as written?	N

COMMENTS (incl. WSRIC contacts)
Contacted Jim Schoen regarding WSRIC, X3579

Are rad surveys available that indicate current status of the facility?	N
Are historical rad surveys available that indicate historical status, or evolution, of the facility?	N

COMMENTS

Is an HRR available for the facility?	N
Do any other reports exist beyond the HRR (e.g., spill reports, reportable incidents, etc.) that further characterize the facility relative to chemical &/or radiological contamination?	Y*
Are engineering drawings (esp. "as-builts") available?	N
Are any nonconformances or issues with the facility status currently being tracked in PATS?	N

If so, what are the issues (note in Comments, below)?

COMMENTS Y* This unit is located inside of IHSS #157.2, per Nick Demos, ER Characterization/HRR Mgr., X4605. He indicated there are RADs and non-Rads, toxic metals, Be, and volatile organics in shallow soil.

Have any types of chemical characterization, incl. asbestos, been performed recently?	N

If so, what types of characterization were performed (note in Comments, below)?

COMMENTS No asbestos characterization data exists, according to Kevin Sheehan, X7250

Interviewed by: R. G. Alexander/ JR Sheets FOR R.G. ALEXANDER / 6/14/99

Print Name Signature Interview Date

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D&D Facility Characterization Interview Checklist

ID No.:T439A
Date: 6/14/99

Groups B & C Series

What time frame did the interviewee work in the facility? Jerry Blair, late 70's with the Mod Center, John Bert about 82 - 86, Darroll Crabb(retired) 88 - 89, Wes Dycus 95 - 97.

Has the building configuration changed since you worked in the building? If so, in what way?
Wes Dycus- the two entry door openings were widen for bigger doors.

What types of equipment were in the building during the interviewee's time there? None. Offices (HVAC equip)

Where was the equipment located? (specific rooms/areas) Furnace located in alcove on south side of trailer, and 3 wall A/C units.

Were any radioactive materials or metals handled in the building? If so, what types? N/A

Which equipment handled radioactive material? N/A

Were any chemicals handled in the building? If so, what types? N/A

Did any spills or uncontrolled releases of radioactive materials or chemicals occur while you were working in the facility? No

Were these spills/releases cleaned-up? How were they cleaned-up? N/A

Where did these spills/releases occur? N/A

Interviewed by: Roy G. Alexander/ J.R. Sheets FOR Roy G. ALEXANDER /6/14/99

Print Name Signature Interview Date

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Type 1 Facility Checklist

TYPE 1 FACILITY BUILDING T-439A

CURRENT LANDLORD: RFCSS

DATE OF COMPLETION: 02/29/00

ITEM	YES	NO
Does the facility contain radiological postings?		X
Does the facility contain chemical postings?		X
Are there any installed hazards?		X
Do the historical surveys (radiological and chemical) indicate the facility is clean?	X	
Are there RCRA units within the facility		X
Is there a history of the building available?	X	
Is there any equipment/furniture left in the facility?		X
Is there a future mission identified for the facility?		X
Will the facility be left unsecured after it is vacated?		X

If any answer to any of the above questions is "Yes", complete the following questions and complete the "graded" PEP in accordance with Chapter 2.

Note: An answer of "Yes" to any question, specifically one dealing with hazards, ***may*** *indicate the facility is not a Type 1 Facility. Check with the D&D Programs office.*

If the answer to all question is "No" complete the "graded" PEP in accordance with Chapter 2.

1. List the Radiological Hazards, location, and quantity:

   Based on the historical data found and interviews taken there are no hazards in this trailer.

2. List the Chemical Hazards, location, and quantity:

   None. Based on historical data and interviews taken there are no chemical hazards in this trailer. There may be asbestos in the floor tile under the carpet and lead in the paint.

3. List the Physical Hazards:

   NONE

F-1

T439D – Radiological Survey Data for Exterior Survey Unit

- Summary of Radiological Survey/Sample Results
- Map of Locations
  - Scans
  - Surveys
- Removable and Total Survey Results – Detail
- Laboratory Alpha Spec (Sample) Results – Detail

Radiological Survey/Sample Results for T439D

Total Surface Activity Measurements dpm/100 cm^2

	Alpha	Beta
Interior	# Required	# Obtained
	28	28
MIN	-16	-451
MAX	36	221
MEAN	4.3	-51.4
STD DEV	10.4	228.7
Exterior	# Required	# Obtained
	28	28
MIN	3	-557
MAX	149	122
MEAN	56.8	-236.6
STD DEV	42.6	173
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm^2

	Alpha	Beta
Interior	# Required	# Obtained
	28	28
MIN	-0.9	-46.4
MAX	3.9	45.6
MEAN	0.7	1.2
STD DEV	1.6	21.9
Exterior	# Required	# Obtained
	28	28
MIN	-0.9	-54.4
MAX	5.2	29.6
MEAN	1.3	-8.7
STD DEV	1.9	20
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
2	2

Contaminant	Y/N	Det. Sens. dpm/100 cm^2
U present	N	79
Pu present	N	79

Total Po-210 Results dpm/100 cm^2

MIN	106.2
MAX	149.4
MEAN	127.8
STD DEV	7.8

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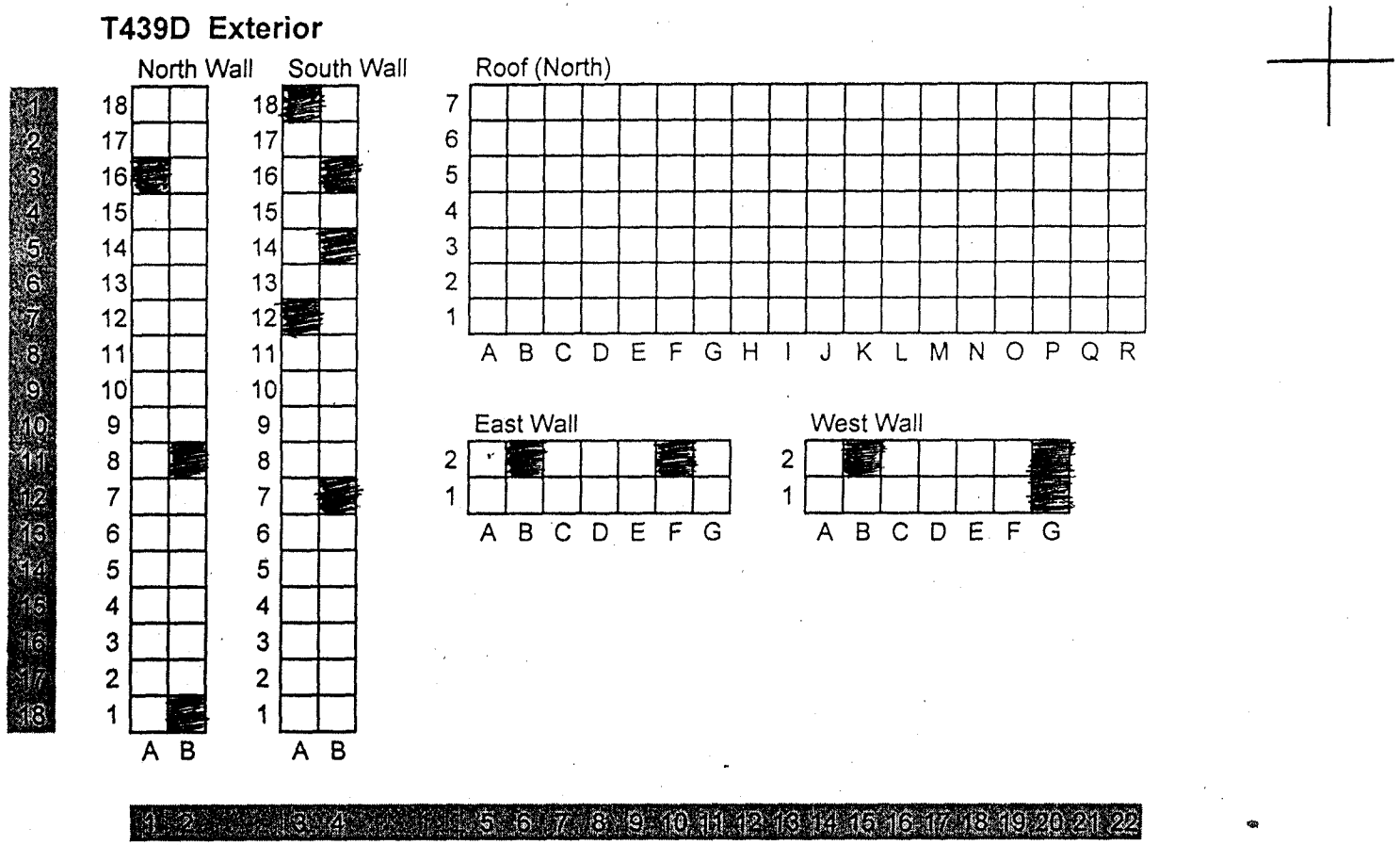
SCAN LOCATIONS:



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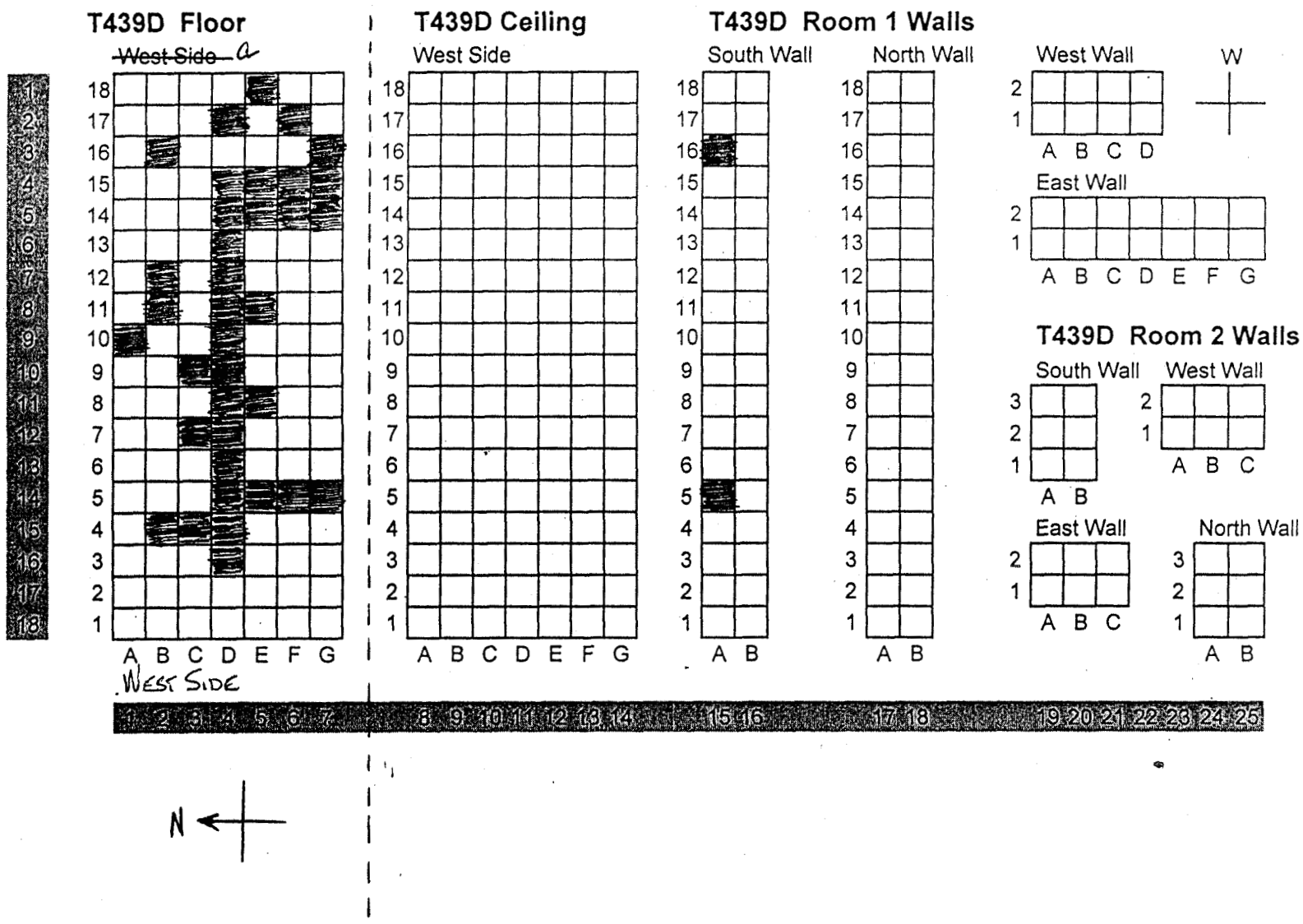
SCAN LOCATIONS:



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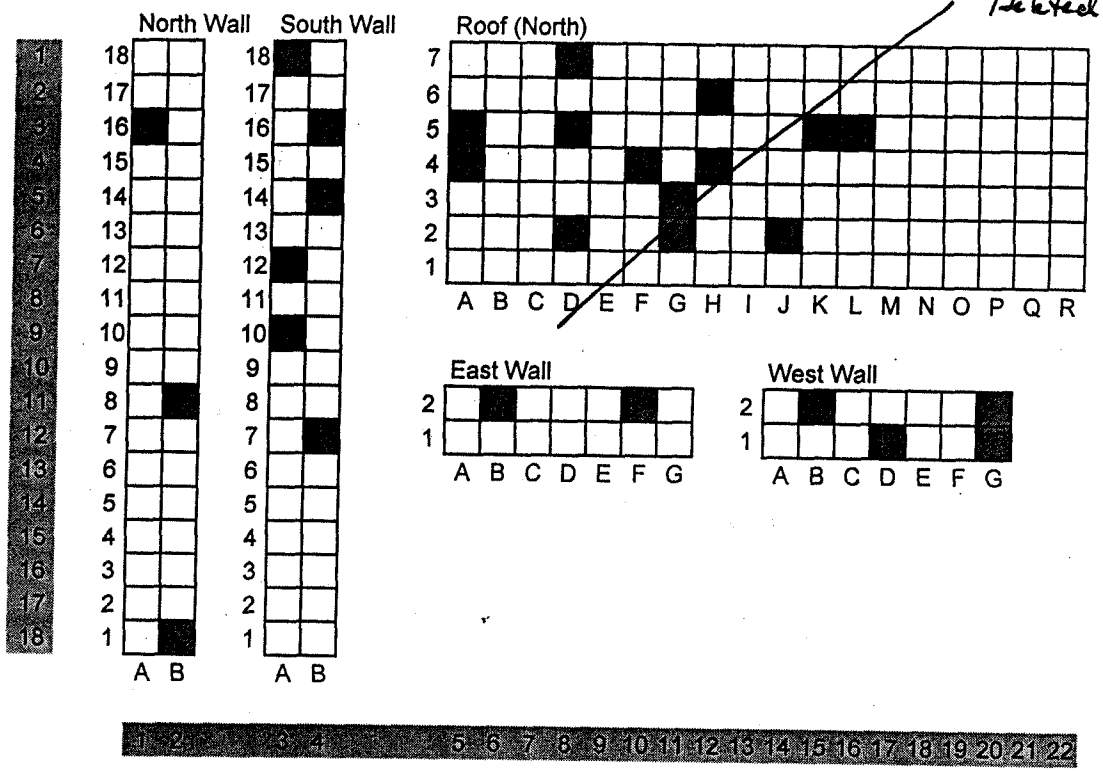
T439D Exterior



Deleted - Replaced with Roof - Rev. 1
2/24/00

X-Coordinate	Y-Coordinate
7	14

☐ = one square meter

■ = direct & swipe

	X	Y		X	Y		X	Y
1	11	5	11	2	11	21	8	1
2	15	11	12	4	12	22	5	4
3	14	6	13	11	6	23	20	11
4	2	18	14	1	3	24	12	4
5	10	4	15	3	7	25	4	5
6	20	12	16	3	1	26	6	11
7	16	3	17	15	3	27	3	9
8	10	11	18	12	2	28	8	3
9	4	3	19	5	3			
10	8	6	20	17	12			

Total Surface Area = 226 m^2

10% Scan Surface Area 23 m^2

217/242

RC

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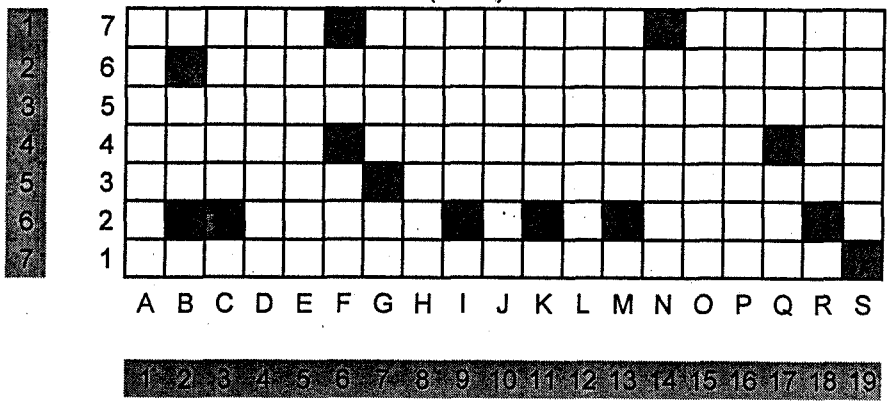
T439D Roof (north)



X-Coordinate	Y-Coordinate
11	3

= one square meter

= direct & swipe

Roof Surveys randomly chosen with original number of survey points (13 survey points)

	X	Y		X	Y
1	2	6	11	7	5
2	6	4	12	18	6
3	13	6	13	19	7
4	14	1			
5	2	2			
6	3	6			
7	9	6			
8	6	1			
9	17	4			
10	11	6			

2172/242 2/24/00

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Survey Area: N/A	Survey Unit: EXTERIOR	Building: T439D
Survey Unit Description: ROOF + WALLS OF TRAILER T439D		

Removable Contamination Data Sheet

Sample Location	RCT ID #	Inst ID #		Gross Counts (gcpm)		Net Counts (cpm)		Removable Activity (dpm/100cm2)	
		α	β	α	β	α	β	α	β
B-1N	1	1	3	0	30	-0.3	-13.6	-0.9	-54.4
B-8N	1	2	3	1.0	38	0.8	-5.6	2.4	-22.4
A-16N	1	1	3	0.5	46	0.2	2.4	0.6	9.6
B-7S	1	2	3	0.5	40	0.3	-3.6	0.9	-14.4
A-10S	1	1	3	0	43	-0.3	-0.6	-0.9	-2.4
A-12S	1	2	3	0.5	44	0.3	0.4	0.9	1.6
B-14S	1	1	3	0.5	46	0.2	2.4	0.6	9.6
B-16S	1	2	3	1.0	41	0.8	-2.6	2.4	-10.4
A-18S	1	1	3	0.5	40	0.2	-3.6	0.6	-14.4
B-2E	1	2	3	0	44	-0.2	0.4	-0.6	1.6
F-2E	1	1	3	0	36	-0.3	-7.6	-0.9	-30.4
B-2W	1	2	3	0.5	51	0.3	7.4	0.9	29.6
D-1W	1	1	3	1.5	42	1.2	-1.6	3.6	-6.4
E-1W	1	2	3	1.0	40	0.8	-3.6	2.4	-14.4
J-2W	1	1	3	0.5	51	~~0.3~~ 0.2	7.4	3/1/08 ~~0.9~~ 6	29.6
~~G-7~~ B-2R	6	4	6	1.0	36.5	0.7 3/1/08	-5.9	2.1	-23.6
B-6R	6	5	13	0.0	~~40~~ 42.5	-0.2	1.6	-0.6	6.4
C-2R	6	4	6	0.0	40.0	-0.3	-2.4	-0.9	-9.6
F-4R	6	5	13	1.0	38.5	0.8	-2.4	2.4	-9.6
F-7R	6	4	6	2.0	42.0	1.7	-0.4	5.2	-1.6
G-3R	6	5	13	0.0	28.5	-0.2	-12.4	-0.6	-49.6
I-2R	6	4	6	0.0	39.0	-0.3	-3.4	-0.9	-13.6
K-2R	6	5	13	1.5	45.5	1.3	4.6	3.9	18.4
M-2R	6	4	6	2.0	35.5	1.7	-6.9	5.2	-27.6
N-7R	6	5	13	1.0	40.5	0.8	-0.4	2.4	-1.6
Q-4R	6	4	6	1.5	34.5	1.2	-7.9	3.6	-31.6
R-2R	6	5	13	0.0	42.0	-0.2	1.1	-0.6	4.4
~~S-1~~ S-1R	6	4	6	1.5	38.0	1.2	-4.4	3.6	-17.6

N
A

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Survey Area: N/A	Survey Unit: EXTERIOR	Building: T439D
Survey Unit Description: ROOF + WALLS OF TRAILER T439D		

Total Surface Activity Data Sheet

Sample location	RCT ID #	Inst ID #		Survey count time (sec)		LAB (cpm)		Gross Count (gcpm)		Net counts (cpm)		Net Activity (dpm/100cm2)	
		α	β	α	β	α	β	α	β	α	β	α	β
B-1N	4	9	9	90	90	2.0	486	7.3	450	5.3	-36	24	-122
B-8N	4	9	9	90	90	0.7	509	16.7	461	16.0	-48	73	-163
A-16N	4	9	9	90	90	2.0	467	4.7	452	2.7	-15	12	-51
B-7S	4	9	9	90	90	4.0	517	16	440	12.0	-77	55	-261
A-10S	4	9	9	90	90	1.3	438	4.7	418	3.4	-20	16	-68
A-12S	4	9	9	90	90	2.0	496	5.3	431	3.3	-65	15	-221
B-14S	4	9	9	90	90	2.7	509	3.3	405	0.6	-104	3	-353
B-16S	4	9	9	90	90	1.3	467	4.7	458	3.4	-9	16	-31
A-18S	4	9	9	90	90	0.7	485	4.7	382	4.0	-103	18	-350
B-2E	4	9	9	90	90	0.0	509	6.0	423	6.0	-86	27	-292
F-2E	4	9	9	90	90	3.3	511	6.7	458	3.4	-53	16	-180
B-2W	4	9	9	90	90	2.0	511	12.0	423	10.0	-88	46	-299
D-1W	4	9	9	90	90	2.0	476	6.7	401	4.7	-75	21	-254
G-1W	4	9	9	90	90	1.3	496	6.0	482	4.7	-14	21	-48
[illegible]-2W	4	9	9	90	90	2.0	481	6.0	509	4.0	28	18	95
B-2R	5	11	11	90	90	1.3	615	34.7	513	33.4	-102	149	-336
B-6R	5	11	11	90	90	2.7	622	20.0	453	17.3	-169	77	-557
C-2R	5	11	11	90	90	1.3	635	34.7	487	33.4	-148	149	-487
F-4R	5	11	11	90	90	2.7	587	9.3	423	6.6	-164	30	-540
F-7R	5	11	11	90	90	2.0	567	24.0	491	22.0	-76	98	-250
G-3R	5	11	11	90	90	2.7	519	21.3	504	18.6	-15	83	-49
I-2R	5	11	11	90	90	6.0	458	26.0	495	20.0	37	89	122
K-2R	5	11	11	90	90	1.3	635	22.0	511	20.7	-124	93	-408
M-2R	5	11	11	90	90	3.3	583	22.0	489	18.7	-94	84	-310
N-7R	5	11	11	90	90	1.3	597	14.7	489	13.4	-108	60	-356
Q-4R	5	11	11	90	90	0.7	526	23.3	467	22.6	-59	101	-194
R-2R	5	11	11	90	90	1.3	577	19.3	484	18.0	-93	81	-306
S-1R	5	11	11	90	90	1.3	583	26.7	475	25.4	-108	114	-356
A-16N QC	8	10	10	90	90	0.7	456	8.0	396	7.3	-60	34	-196
A-18S QC	8	10	10	90	90	2.0	419	8.7	449	6.7	30	31	98
G-1W QC	8	10	10	90	90	3.3	417	10.7	443	7.4	26	34	85
G-3R QC	9	11	11	90	90	2.0	461	20.00	487	18.0	26	81	86
M-2R QC	9	11	11	90	90	1.3	453	16.7	437	15.4	-16	~~-69~~ 69	-53

Note: QC measurements are to be collected by a different technician than the original survey. Mark the QC location number in the "Sample Location" column. Material background is assumed to be zero unless otherwise noted. "LAB" ~ local area background.

N

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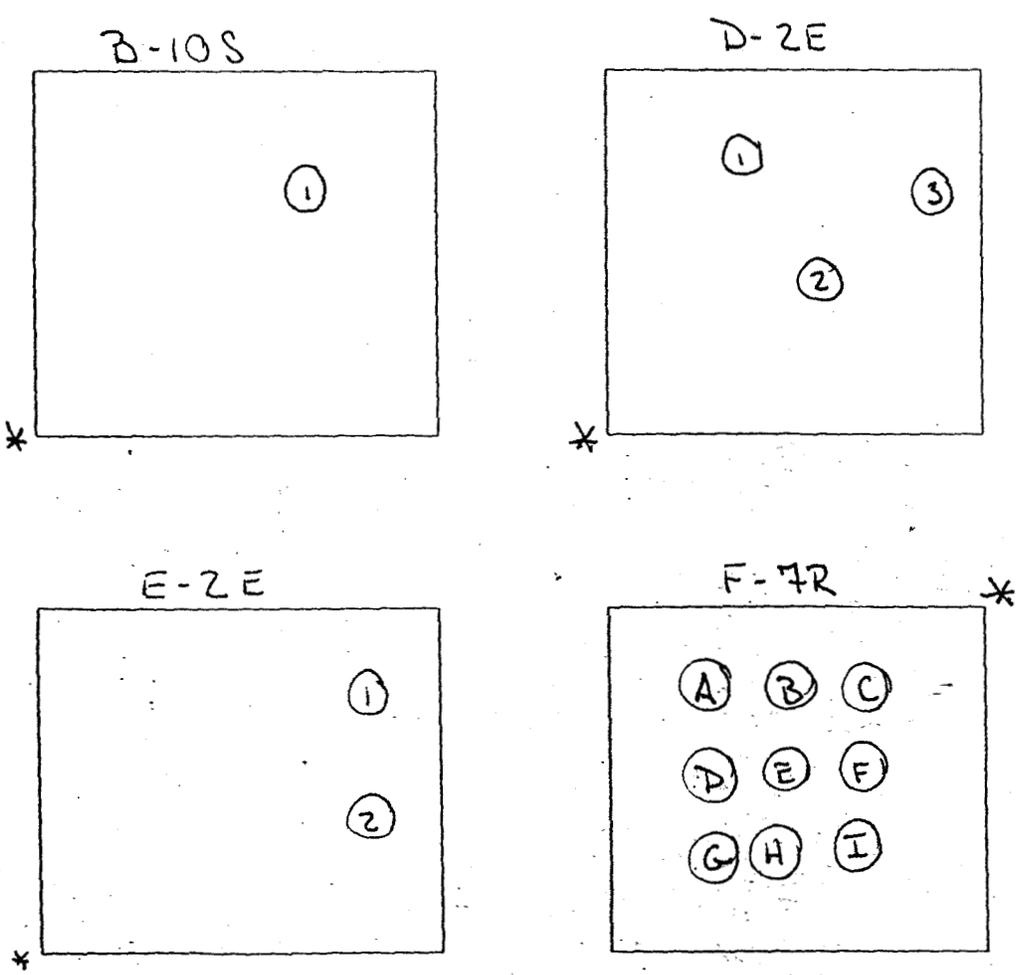
Final Survey NE Electra
Scan & Investigation Survey Map

Survey Area: NA	Survey Unit: EXTERIOR	Building: 439D
Survey Unit Description: WALLS, ROOF		
RCT Initials/Date: 3/3/00	RCT Initials/Date: N/A	RCT Initials/Date: N/A

Refer to the Final Survey NE Electra Scan & Investigation Survey Form for instrumentation, surveyor & approval information.

Legend: "R"- Roof, "W" – West Wall, "S" – South Wall, "E" – East Wall, "N" – North Wall "C" –Ceiling, "F" - Floor



*** Designates corner closest to A-1 point of reference**

Results/Comments:
Electra alpha scans were performed at the locations detailed on the survey map(s). All required accessible areas were scanned. All initial scan results were <225 dpm/100cm^2, unless noted on the survey form.
Electra beta scans were performed in required accessible areas. Initial scan results indicated no detectable activity above background unless noted on the survey form.

Final Survey NE Electra
Scan & Investigation Survey Form

Survey Area: NA	Survey Unit: Exterior	Building: T439D

Survey Unit Description: WALLS, Roof

Loc. ID #	Electra DP-6 Beta				Electra DP-6 Alpha				
	RCT ID #	Inst. ID #	Elevated Audible observed? "Y" or "N"	60-sec PAT (dpm/100cm2)	RCT ID #	Inst. ID #	4-sec Audible observed? "Y" or "N"	30-sec Static (gcpm)	90-sec PAT (dpm/100cm²)
B-10S	1	7	N	NA	1	7	Y	12	NA
B-12S	1	7	N	NA	1	7	N ~~Y~~ 3-3-00	NA	NA
B-18S	1	7	N	NA	1	7	N ~~Y~~ 3-3-00	NA	NA
C-2E	1	7	N	NA	1	7	N ~~Y~~ 3-3-00	NA	NA
D-2E1	1	7	N	NA	1	7	Y	8	NA
D-2E2	1	7	N	NA	1	7	Y	6	NA
D-2E3	1	7	N	NA	1	7	Y	10	NA
E-2E1	1	7	N	NA	1	7	Y	8	NA
E-2E2	1	7	N	NA	1	7	Y	4	NA
F-7RA	1	7	N	NA	1	7	NA	NA	92.6
F-7RB	1	7	N	NA	1	7	NA	NA	116.3
F-7RC	1	7	N	NA	1	7	NA	NA	116.3
F-7RD	1	7	N	NA	1	7	NA	NA	149.0
F-7RE	1	7	N	NA	1	7	NA	NA	119.5
F-7RF	1	7	N	NA	1	7	NA	NA	166.9
F-7RG	1	7	N	NA	1	7	NA	NA	140.0
F-7RH	1	7	N	NA	1	7	NA	NA	116.3
F-7RI	1	7	N	NA	1	7	NA	NA	119.5
B.16N1	2	8	N	N/A	2	8	Y	24	N/A
B.16N2	2	8	N	N/A	2	8	Y	12	N/A
B.9N1	2	8	N	N/A	2	8	Y	10	N/A
B.9N.2	2	8	N	N/A	2	8	Y	12	N/A
B.9N.3	2	8	N	N/A	2	8	Y	18	N/A
B.7N1	2	8	N	N/A	2	8	Y	24	N/A
B.7N.2	2	8	N	N/A	2	8	Y	12	N/A
B.7N.3	2	8	N	N/A	2	~~5~~ 8	Y	16	N/A

$1m^2$ AVG 126.3

Sample ID: **00A1148-016.001** **Type:** **Unknown**

Batch ID: unknowns
Acquisition Start: April 25, 2000 14:34:47
Analysis Date: April 25, 2000 18:32:19
Procedure: Po210 count
Device: Oasis:01:01
Analysis Method: ROI Analysis
Spectrum File: 00000490.OXS LiveTime: 10,800.00

Calibrations:
Energy = 3.865E+01 +2.790E+00 * Chn Coeff. of Correlation: -0.998
Calibration Date: April 03, 2000 17:45:10 Std: 1:1 energy cal
Shape not Calibrated.
Efficiency = 3.041E-01 ± 4.004E-03
Calibration Date: April 07, 2000 09:49:29 Std: TS4189

External Recovery No Ext.Recovery

Original Sample Amount:
1.000 ± 0.000 samp
Aliquot Amount: 1.000 ± 0.000 samp

ROI DATA

ROI ID #	ASSOCIATED NUCLIDE	EXTENTS START	EXTENTS END	PK EN (keV)	FWHM (keV)
1 Po218	Po218	5550.0	6104.5	5826.0	2.8
2 Po214	Po214	6588.5	7874.7	7229.6	2.8
3 Po212	Po212	8393.8	8808.6	8599.7	1.4
4 Po210	Po210	2180.3	5343.3	5150.8	3.8

ROI ANALYSIS RESULTS

ROI ID	NET COUNTS	BKG/INTERF	CPM	ROI TYPE
Po218	0.5 ± 1.0	0.47	2.95E-03 ± 5.62E-03	Unknown
Po214	0.7 ± 1.0	0.28	3.99E-03 ± 5.59E-03	Unknown
Po212	-0.1 ± 0.1	0.09	-5.21E-04 ± 3.68E-04	Unknown
Po210	394.4 ± 20.0	6.56	2.191 ± 0.111	Unknown

NUCLIDE ANALYSIS RESULTS

ROI ID	ASSOC NUC	EMM. PROB	ACTIVITY (dpm/samp)	MDA (dpm)
Po218	Po218	1.000	9.71E-03 ± 0.018	9.16E-02
Po214	Po214	1.000	0.013 ± 0.018	8.21E-02
Po212	Po212	1.000	-1.71E-03 ± 1.21E-03	6.83E-02
Po210	Po210	1.000	7.207 ± 0.378	2.07E-01

Activity reported as of April 25, 2000 14:34:47

ANALYSIS REVIEWED BY: [signature]

APPROVED BY: CJ Bianco 5/9/00

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OASIS - MCA

File Edit View Acq Parms Tools Reports Close Help

Library: OAS_STD.MDB

Nuclide: Am241

Acq ALL

Acquire

Stop

4096

LOG

Lin Log

Sqrt

Peak

0

4095

Presets

ROIs

Controls

Display

Info

Aux Disp

Spectrum ID

00A1148-016.001

System Date

25-Apr-2000 18:25:06

Message Window

Channel: 2562 Elapsed Real Time: 10800.01 Elapsed Live Time: 10800.00 Dead Time: 0.0

Energy: 7188.3 Counts: 0 ROI: Integral: 1 Peak: 7,229.64 FWHM: 2.79

156

Sample ID: **00A1148-017.001** **Type:** **Unknown**

Batch ID: unknowns
Acquisition Start: April 25, 2000 11:09:58
Analysis Date: April 25, 2000 14:11:29
Procedure: Po210 count
Device: Oasis:01:01
Analysis Method: ROI Analysis
Spectrum File: 00000486.OXS LiveTime: 10,800.00

Calibrations:
Energy = 3.865E+01 +2.790E+00 * Chn Coeff. of Correlation: -0.998
Calibration Date: April 03, 2000 17:45:10 Std: 1:1 energy cal
Shape not Calibrated.
Efficiency = 3.041E-01 ± 4.004E-03
Calibration Date: April 07, 2000 09:49:29 Std: TS4189

External Recovery No Ext.Recovery

Original Sample Amount:
1.000 ± 0.000 samp
Aliquot Amount: 1.000 ± 0.000 samp

ROI DATA

ROI ID #	ASSOCIATED NUCLIDE	EXTENTS START	EXTENTS END	PK EN (keV)	FWHM (keV)
1 Po218	Po218	5550.0	6104.5	5826.0	2.8
2 Po214	Po214	6588.5	7874.7	7229.6	2.8
3 Po212	Po212	8393.8	8808.6	8599.7	1.4
4 Po210	Po210	2180.3	5343.3	5178.7	6.5

ROI ANALYSIS RESULTS

ROI ID	NET COUNTS	BKG/INTERF	CPM	ROI TYPE
Po218	0.5 ± 1.0	0.47	2.95E-03 ± 5.62E-03	Unknown
Po214	1.7 ± 1.4	0.28	9.55E-03 ± 7.88E-03	Unknown
Po212	-0.1 ± 0.1	0.09	-5.21E-04 ± 3.68E-04	Unknown
Po210	280.4 ± 17.0	6.56	1.558 ± 0.094	Unknown

NUCLIDE ANALYSIS RESULTS

ROI ID	ASSOC NUC	EMM. PROB	ACTIVITY (dpm/samp)	MDA (dpm)
Po218	Po218	1.000	9.71E-03 ± 0.018	9.16E-02
Po214	Po214	1.000	0.031 ± 0.026	8.21E-02
Po212	Po212	1.000	-1.71E-03 ± 1.21E-03	6.83E-02
Po210	Po210	1.000	5.124 ± 0.317	2.07E-01

Activity reported as of April 25, 2000 11:09:58

ANALYSIS REVIEWED BY: [signature]

APPROVED BY: C J Brancon 5/9/00

157

OASIS - MCA

File Edit View Acq Parms Tools Reports Close Help

Library: OAS_STD.MDB

Nuclide: Am241

1:Static: 00000486.OXS

Acq ALL

Acquire

Stop

Erase

4096

LOG

Lin Log

Sqrt

Peak

0

4095

Presets

ROIs

Controls

Display

Info

Aux Disp

Spectrum ID

00A1148-017.001

System Date

09-May-2000 14:32:56

Message Window

Channel: 958 Elapsed Real Time: 10800.04 Elapsed Live Time: 10800.00 Dead Time: 0.0

Energy: 2711.6 Counts: 0 ROI: Integral: 287 Peak: 5,178.66 FWHM: 6.51

158

Sample ID: **00A1148-018.001** **Type:** **Unknown**

Batch ID: unknowns
Acquisition Start: May 04, 2000 13:14:27
Analysis Date: May 04, 2000 16:17:04
Procedure: Po210 count
Device: Oasis:01:03
Analysis Method: ROI Analysis
Spectrum File: 00000541.OXS LiveTime: 10,800.00

Calibrations:
Energy = 6.596E+01 +2.779E+00 * Chn Coeff. of Correlation: -0.998
Calibration Date: April 24, 2000 13:03:27 Std: 1:3 Energy Cal
Shape not Calibrated.
Efficiency = 3.120E-01 ± 4.098E-03
Calibration Date: April 24, 2000 10:05:48 Std: TS4189

External Recovery No Ext.Recovery

Air Filter Analysis Parameters:
Sample Type: Unknown
Air Filter Time on: May 04, 2000 13:12:09
Air Filter Time off: May 04, 2000 13:12:09
Total Collect Time: 0.000 hours
Air Volume: 1.000 ± 0.000 samp

ROI DATA

ROI #	ID	ASSOCIATED NUCLIDE	EXTENTS START	EXTENTS END	PK EN (keV)	FWHM (keV)
1	Po218	Po218	5550.0	6104.5	5827.5	2.8
2	Po214	Po214	6588.5	7874.7	7231.0	2.8
3	Po212	Po212	8393.8	8808.6	8601.2	2.8
4	Po210	Po210	2180.3	5343.3	5174.3	3.7

ROI ANALYSIS RESULTS

ROI ID	NET COUNTS	BKG/INTERF	CPM	ROI TYPE
Po218	5.5 ± 2.5	0.50	0.031 ± 0.014	Unknown
Po214	0.0 ± 1.1	1.00	0.00E+00 ± 6.21E-03	Unknown
Po212	4.0 ± 2.0	0.00	0.022 ± 0.011	Unknown
Po210	189.3 ± 14.1	6.75	1.051 ± 0.078	Unknown

NUCLIDE ANALYSIS RESULTS

ROI ID	ASSOC NUC	EMM. PROB	ACTIVITY (dpm/samp)	MDA (dpm/samp)
Po218	Po218	1.000	0.098 ± 0.044	9.45E-02
Po214	Po214	1.000	0.00E+00 ± 0.020	1.14E-01
Po212	Po212	1.000	0.071 ± 0.036	4.82E-02
Po210	Po210	1.000	3.370 ± 0.254	2.18E-01

Activity reported as of May 04, 2000 13:14:27

ANALYSIS REVIEWED BY: _____

APPROVED BY: C J Bianconi 5/9/00

159

OASIS - MCA

File Edit View Acq Parms Tools Reports Close Help

Library: OAS_STD.MDB

Nuclide: Am241

Acq ALL

Acquire

Stop

4096

LOG

Lin Log

Sqrt

Peak

0

4095

Presets

ROIs

Controls

Display

Info

Aux Disp

Spectrum ID

00A1148-018.001

System Date

09-May-2000 15:58:24

Message Window

Channel: 1111 Elapsed Real Time: 10800.05 Elapsed Live Time: 10800.00 Dead Time: 0.0

Energy: 3152.9 Counts: 0 ROI: Integral: 196 Peak: 5,174.32 FWHM: 3.71

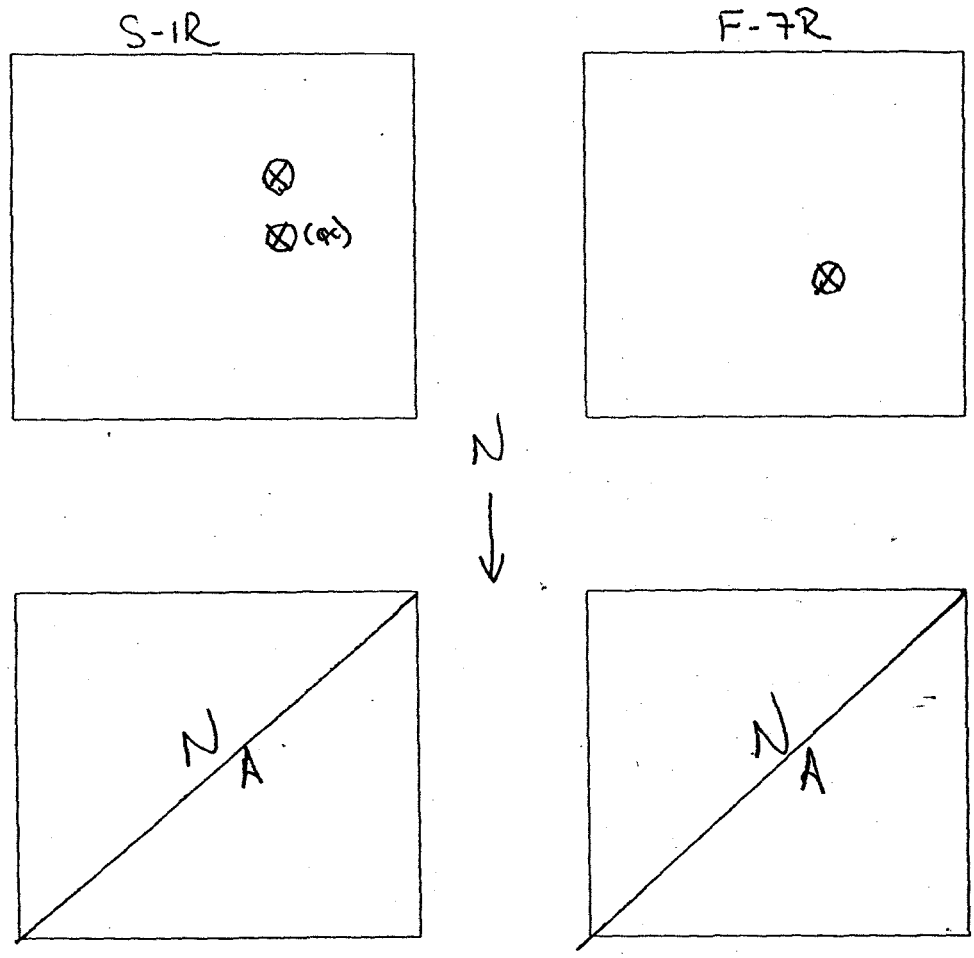
160

Final Survey NE Electra
Scan & Investigation Survey Map

Survey Area: NA	Survey Unit: EXTERIOR	Building: T439D
Survey Unit Description: ROOF SAMPLE LOCATIONS		
RCT Initials/Date: 3/28/00	RCT Initials/Date: NA	RCT Initials/Date: NA

Refer to the Final Survey NE Electra Scan & Investigation Survey Form for instrumentation, surveyor & approval information.

Legend: "R"- Roof, "W" – West Wall, "S" – South Wall, "E" – East Wall, "N" – North Wall "C" –Ceiling, "F" - Floor



⊗ SAMPLE CUT OUT

*** Designates corner closest to A-1 point of reference**

Results/Comments:
Electra alpha scans were performed at the locations detailed on the survey map(s). All required accessible areas were scanned. All initial scan results were <225 dpm/100cm^2, unless noted on the survey form.
Electra beta scans were performed in required accessible areas. Initial scan results indicated no detectable activity above background unless noted on the survey form.

1Cpl

Survey Area: NA	Survey Unit: EXTERIOR	Building: T439D
Survey Unit Description ROOF SAMPLE LOCATIONS		

Removable Contamination Data Sheet

Sample location	RCT ID #	Inst ID #		Gross Counts (gcpm)		Net Counts (cpm)		Removeable Activity (dpm/100cm2)	
		α	β	α	β	α	β	α	β
PRE						0	0	0.0	0
S-1R	3	1	2	0	33.5	-0.5	-9.4	-1.5	-38
POST						0	0	0.0	0
S-1R	3	3	4	2	38	1.7	2.8	5.2	11
PRE						0	0	0.0	0
S-1R QC	3	1	2	0.5	43.5	0	0.6	0.0	2
POST						0	0	0.0	0
S-1R QC	3	3	4	0	41	-0.3	5.8	-0.9	23
PRE						0	0	0.0	0
F-7R	3	1	2	0	42	-0.5	-0.9	-1.5	-4
POST						0	0	0.0	0
F-7R	3	3	4	0	41	-0.3	5.8	-0.9	23
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
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						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
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						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0
						0	0	0.0	0

162

Survey Area: NA	Survey Unit: EXTERIOR	Building: T439D
Survey Unit Description		
ROOF SAMPLE LOCATIONS		

Total Surface Activity Data Sheet

Sample location	RCT ID #	Inst ID #		Survey count time (sec)		Gross Count (gcpm)		LAB (cpm)		Net counts (cpm)		Net Activity (dpm/100cm2)	
		α	β	α	β	α	β	α	β	α	β*	α	β
PRE				90	90					0.0	0	0.0	0
S-1R	1	7	7	90	90	41.3	478	0.7	489	40.6	-11	194.7	-37
POST				90	90					0.0	0	0.0	0
S-1R	1	7	7	90	90	24.7	478	0.7	469	24.0	9	115.1	30
PRE				90	90					0.0	0	0.0	0
S-1R QC	2	8	8	90	90	36.0	519	1.3	384	34.7	135	169.6	455
POST				90	90					0.0	0	0.0	0
S-1R QC	2	8	8	90	90	28.0	461	0.7	389	27.3	72	133.4	242
PRE				90	90					0.0	0	0.0	0
F-7R	1	7	7	90	90	26.0	482	6.7	415	19.3	67	92.6	224
POST				90	90					0.0	0	0.0	0
F-7R	1	7	7	90	90	17.3	453	0.0	416	17.3	37	83.0	124
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
				90	90					0.0	0	0.0	0
QC				90	90					0.0	0	0.0	0
QC				90	90					0.0	0	0.0	0
QC				90	90					0.0	0	0.0	0
QC				90	90					0.0	0	0.0	0
QC				90	90					0.0	0	0.0	0

Note: QC measurements are to be collected by a different technician than the original survey. Mark the QC location number in the "Sample Location" column. Material background is assumed to be zero unless otherwise noted. "LAB" ~ local area background.

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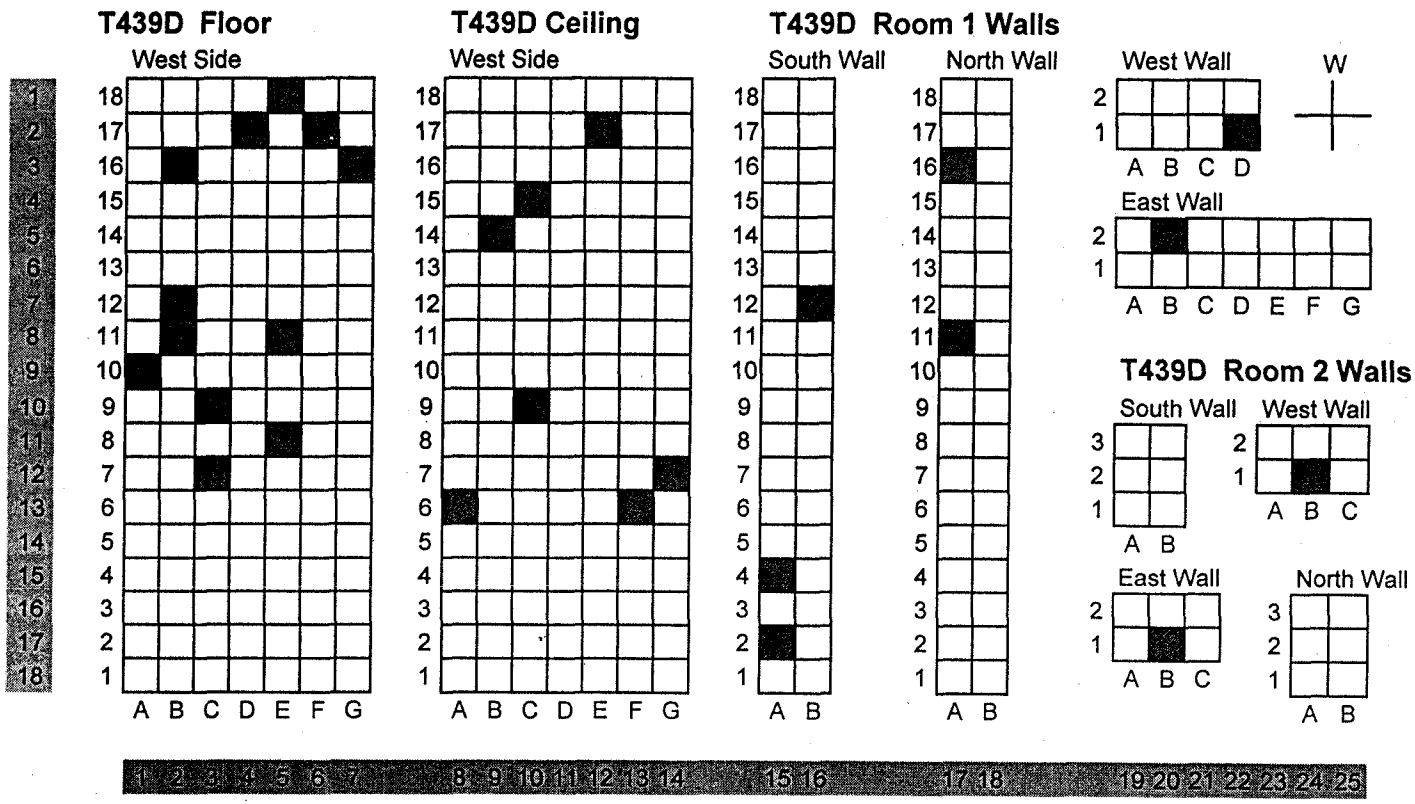
F-2

T439D – Radiological Survey Data for Interior Survey Unit

- Map of Locations
  - Scans
  - Surveys
- Removable and Total Survey Results - Detail

164

165



X-Coordinate	Y-Coordinate
7	9

= one square meter

= direct & swipe

	X	Y		X	Y		X	Y
1	10	4	11	12	2	21	2	7
2	16	7	12	2	3	22	14	7
3	5	8	13	7	3	23	22	2
4	15	15	14	17	3	24	4	2
5	5	1	15	20	5	25	5	11
6	13	13	16	2	8	26	17	8
7	1	9	17	10	10	27	20	17
8	9	5	18	8	13	28	15	17
9	6	2	19	3	10			
10	24	12	20	3	12			

Total Surface Area = 370 m^2

10% Scan Surface Area 37 m^2

202/242

Survey Area: N/A	Survey Unit: INTERIOR	Building: T439D
Survey Unit Description: FLOORS, WALLS, & CEILINGS OF TRAILER T439D		

Removable Contamination Data Sheet

Sample Location	RCT ID #	Inst ID #		Gross Counts (gcpm)		Net Counts (cpm)		Removable Activity (dpm/100cm2)	
		α	β	α	β	α	β	α	β
ROOM 1									
C-7F	1	1	3	0	43	-0.3	-0.6	-0.9	-2.4
E-8F	1	2	3	1.0	36	0.8	-7.6	2.4	-30.4
C-9F	1	1	3	1.0	40	0.7	-3.6	2.1	-14.4
A-10F	1	2	3	1.5	41	1.3	-2.6	3.9	-10.4
B-11F	1	1	3	1.0	52	0.7	8.4	2.1	33.6
E-11F	1	2	3	0	44	-0.2	0.4	-0.6	1.6
B-12F	1	1	3	0	46	-0.3	2.4	-0.9	9.6
B-16F	1	2	3	1.0	39	0.8	-4.6	2.4	-18.4
G-16F	1	1	3	0.5	50	0.2	6.4	0.6	25.6
D-17F	1	2	3	0.5	54	0.3	10.4	0.9	41.6
F-17F	1	1	3	0.5	42	0.2	-1.6	0.6	-6.4
E-18F	1	2	3	0.5	42	0.3	-1.6	0.9	-6.4
A-6C	1	1	3	0	48	-0.3	4.4	-0.9	17.6
F-6C	1	2	3	0	44	-0.2	0.4	-0.6	1.6
G-7C	1	1	3	0	44	-0.3	0.4	-0.9	1.6
C-9C	1	2	3	0	43	-0.2	-0.6	-0.6	-2.4
B-14C	1	1	3	0	36	-0.3	-7.6	-0.9	-30.4
C-15C	1	2	3	0.5	32	0.3	-11.6	0.9	-46.4
E-17C	1	1	3	0 ~~0.5~~	50	-0.3	6.4	-0.9	25.6
A-2S	1	2	3	0	45	-0.2	1.4	-0.6	5.6
A-4S	1	1	3	0.5	43	0.2	-0.6	0.6	-2.4
B-12S	1	2	3	0.5	41	0.3	-2.6	0.9	-10.4
A-1N	1	1	3	1.5	41	1.2	-2.6	3.6	-10.4
D-1W	1	2	3	0	43	-0.2	-0.6	-0.6	-2.4
B-2E	1	1	3	1.0	90	0.7	-3.6	2.1	-14.4
ROOM 2									
B-1W	1	2	3	0.5	43	0.3	-0.6	0.9	-2.4
B-1E	1	1	3	0	52	-0.3	8.4	-0.9	33.6
A-1N	1	2	3	1.5	55	1.3	11.4	3.9	45.6

N/A

1166

Survey Area: N/A	Survey Unit: INTERIOR	Building: T439D
Survey Unit Description: FLOORS, WALLS, & CEILINGS OF TRAILER T439D		

Total Surface Activity Data Sheet

Sample location	RCT ID #	Inst ID #		Survey count time (sec)		LAB (cpm)		Gross Count (gcpm)		Net counts (cpm)		Net Activity (dpm/100cm2)	
		α	β	α	β	α	β	α	β	α	β	α	β
Room 1				90	90								
C-7F	3	9	9	90	90	1.3	499	6.0	541	4.7	42	23	136
E-8F	3	9	9	90	90	2.7	534	2.0	533	-0.7	-1	-3	-3
C-9F	3	9	9	90	90	3.3	509	10.7	565	7.4	56	36	182
A-10F	3	9	9	90	90	1.3	508	2.7	519	1.4	11	7	36
B-11F	3	9	9	90	90	2.7	519	2.0	582	-0.7	63	-3	204
E-11F	3	9	9	90	90	2.7	539	0.7	548	-2.0	9	-10	29
B-12F	3	9	9	90	90	0.7	522	1.3	578	0.6	56	3	182
B-16F	3	9	9	90	90	2.7	532	3.3	594	0.6	62	3	201
G-16F	3	9	9	90	90	2.7	532	1.3	580	-1.4	48	-7	156
D-17F	3	9	9	90	90	1.3	509	2.0	540	0.7	31	3	101
F-17F	3	9	9	90	90	1.3	511	2.0	579	0.7	68	3	221
E-18F	3	9	9	90	90	5.3	487	2.0	533	-3.3	46	-16	149
A-6C	3	9	9	90	90	2.7	523	4.0	507	1.3	-16	6	-52
E-6C	3	9	9	90	90	2.7	507	4.7	507	2.0	0	10	0
B-7C	3	9	9	90	90	2.7	503	2.7	391	0	-112	0	-363
C-9C	3	9	9	90	90	1.3	497	1.3	367	0	-130	0	~~-427~~ -422
B-14C	3	9	9	90	90	0.0	515	4.0	582	4.0	67	19	217
C-15C	3	9	9	90	90	2.0	497	2.0	540	0	43	0	140
E-17C	3	9	9	90	90	5.3	498	5.3	519	0	21	0	68
A-2S	3	9	9	90	90	2.0	481	1.3	421	-0.7	-60	-3	-195
A-4S	3	9	9	90	90	2.7	479	2.0	367	-0.7	-112	-3	-363
B-12S	3	9	9	90	90	1.3	494	4.7	397	3.4	-97	17	-315
A-11N	3	9	9	90	90	2.0	467	1.3	399	-0.7	-68	-3	-221
D-1W	3	9	9	90	90	2.0	509	4.0	370	2.0	-139	10	-451
B-2E	3	9	9	90	90	2.7	508	4.0	407	1.3	-101	6	-328
				90	90								
				90	90								
___QC				90	90			N					
___QC				90	90			A					
___QC				90	90								
___QC				90	90								
___QC				90	90								

Note: QC measurements are to be collected by a different technician than the original survey. Mark the QC location number in the "Sample Location" column. Material background is assumed to be zero unless otherwise noted. "LAB" ~ local area background.

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Survey Area: N/A	Survey Unit: INTERIOR	Building: T439D
Survey Unit Description: FLOORS, WALLS, + CEILINGS OF TRAILER T439D		

Total Surface Activity Data Sheet

Sample location	RCT ID #	Inst ID #		Survey count time (sec)		LAB (cpm)		Gross Count (gcpm)		Net counts (cpm)		Net Activity (dpm/100cm2)	
		α	β	α	β	α	β	α	β	α	β	α	β
ROOM 2				90	90								
B-1W	3	9	9	90	90	1.3	495	2.7	421	1.4	-74	7	-240
B-1E	3	9	9	90	90	3.3	493	4.7	391	1.4	-102	7	~~-330~~ -3[illegible]
A-1N	3	9	9	90	90	1.3	505	2.7	450	1.4	-55	7	-178
				90	90								
				90	90								
				90	90								
				90	90								
				90	90								
				90	90								
				90	90								
				90	90								
				90	90			N/A					
				90	90								
				90	90								
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				90	90								
				90	90								
				90	90								
				90	90								
				90	90								
Room 1 ~~B-3[illegible]~~ 8-12F QC	8	11	11	90	90	0.7	489	2.0	534	1.3	45	6	147
C-7F QC	8	11	11	90	90	1.3	396	1.3	411	0	15	0	49
G-16F QC	8	11	11	90	90	2.0	562	2.7	587	0.7	25	3	82
A-45 QC	8	11	11	90	90	4.0	379	2.0	319	-2.0	-60	-9	-196
Room 2 A-1N QC	8	11	11	90	90	2.0	381	1.3	392	-0.7	11	-3	36

Note: QC measurements are to be collected by a different technician than the original survey. Mark the QC location number in the "Sample Location" column. Material background is assumed to be zero unless otherwise noted. "LAB" ~ local area background.

F-3

T439D – Asbestos Inspector's Report

T439D

ASBESTOS INSPECTOR'S REPORT

I, the undersigned Certified Asbestos Inspector, certification # [redacted] in the state of Colorado, attest to the asbestos inspection and sampling results as described below, for the following facility (at RFETS): Trailer 439D.

General Facility Location: south of Buildings 450 and 444.

INSPECTION RESULTS
Trailer 439D contains 2' x 4' drywall ceiling panels. The ceiling panels are considered non-friable and were not sampled. Fiberglass insulation was found throughout the walls. No other suspect friable asbestos containing materials were observed and no samples were collected.

SAMPLE RESULTS
None required; none taken.

Andre Gonzalez	[signature]	7/6/00
INSPECTOR'S NAME	SIGNATURE	DATE

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F-4

T439D – D&D Facility Characterization Interview Checklist

171

D&D Facility Characterization Interview Checklist

IDNo.:T439D
Date:6/16/99

Groups B & C Series

Check List for - Title: D&D Facility Characterization – Interviews

CRITERIA:
- Λ *D&D Characterization Protocol*, RFETS MAN-077-DDCP, Rev. 0
- Λ *Facility Disposition Program Manual*, RFETS MAN-076-FDPM
- Λ RFETS Radiological Safety Practices, January 12, 1998

Facility Name & Type (1, 2, or 3) T439D, Group B Type 1 Facility

Personnel Interviewed (Name & Title/Function) Dan Coyne/RMRS,X2820, Vicki Scott/RMRS,X7961, Sue Anderson, Ron Nokes (retired)

-- Y/N --

Does a current WSRIC exist for the facility? ..... __N__

If so, are there exceptions to the WSRIC as written? ..... __N/A__

COMMENTS (incl. WSRIC contacts)
Contacted Jim Schoen regarding WSRIC, X3579

Are rad surveys available that indicate current status of the facility? ..... __N__

Are historical rad surveys available that indicate historical status, or evolution, of the facility? ..... __N__

COMMENTS

Is an HRR available for the facility? ..... __N__

Do any other reports exist beyond the HRR (e.g., spill reports, reportable incidents, etc.) that further characterize the facility relative to chemical &/or radiological contamination? ..... _Y*_

Are engineering drawings (esp. "as-builts") available? ..... __N__

Are any nonconformances or issues with the facility status currently being tracked in PATS? ..... _N__

If so, what are the issues (note in Comments, below)?

COMMENTS Y* This unit is located inside of IHSS #157.2, per Nick Demos, ER Characterization/HRR Mgr., X4605. He indicated there are RADs and non-Rads, toxic metals, Be, and volatile organics in shallow soil.

Have any types of chemical characterization, incl. asbestos, been performed recently? ..... __N__

If so, what types of characterization were performed (note in Comments, below)?

COMMENTS No asbestos characterization data exists, according to Kevin Sheehan, X7250

Interviewed by: R. G. Alexander/ JR Sheets For R.G. Alexander / 6/16/99

Print Name | Signature | Interview Date

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D&D Facility Characterization Interview Checklist

ID No.:T439D
Date: 6/16/99

Groups B & C Series

What time frame did the interviewee work in the facility? Ron Nokes 89-93,Sue Anderson/Vicki Scott 94-95, Dan Coyne 95-97.

Has the building configuration changed since you worked in the building? If so, in what way? No

What types of equipment were in the building during the interviewee's time there? Copier/Fax machine.

Where was the equipment located? (specific rooms/areas) in cubicle opposite of office east wall

Were any radioactive materials or metals handled in the building? If so, what types? N/A

Which equipment handled radioactive material? N/A

Were any chemicals handled in the building? If so, what types? N/A

Did any spills or uncontrolled releases of radioactive materials or chemicals occur while you were working in the facility? No

Were these spills/releases cleaned-up? How were they cleaned-up? N/A

Where did these spills/releases occur? N/A

Interviewed by: Roy G. Alexander/ JR Sheets for Roy G. Alexander /6/16/99

Print Name Signature Interview Date

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Type 1 Facility Checklist

TYPE 1 FACILITY BUILDING T-439D

CURRENT LANDLORD: RFCSS

DATE OF COMPLETION: 02/29/00

ITEM	YES	NO
Does the facility contain radiological postings?		X
Does the facility contain chemical postings?		X
Are there any installed hazards?		X
Do the historical surveys (radiological and chemical) indicate the facility is clean?	X	
Are there RCRA units within the facility		X
Is there a history of the building available?	X	
Is there any equipment/furniture left in the facility?		X
Is there a future mission identified for the facility?		X
Will the facility be left unsecured after it is vacated?		X

If any answer to any of the above questions is "Yes", complete the following questions and complete the "graded" PEP in accordance with Chapter 2.

Note: An answer of "Yes" to any question, specifically one dealing with hazards, ***may*** *indicate the facility is not a Type 1 Facility. Check with the D&D Programs office.*

If the answer to all question is "No" complete the "graded" PEP in accordance with Chapter 2.

1. List the Radiological Hazards, location, and quantity:

   Based on the historical data found and interviews taken there are no hazards in this trailer.

2. List the Chemical Hazards, location, and quantity:

   None. Based on historical data and interviews taken no asbestos data exists and the paint may be lead based.

3. List the Physical Hazards:

   NONE

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Appendix G, General Group B Survey and Sampling Documentation

- Chain-of-Custody (for Groups B & C samples)
- MARSSIM Pre-Survey Calculations for Survey Frequency
- MARSSIM Post-Survey Calculation for Survey Frequency (typical)
- OASIS QC Data
- Verification of OASIS Results – Offsite (GEL) Alpha Spectroscopy Results

RMRS

RFETS

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # A1148#001

Sampler(s) (time/date)	Contact/Requester SZYDLOWSKI, TOM / NICK DEMOS	Telephone No. 8165 / 4605 MSIN FAX
RIN 00A1148	Sampling Origin B&C Facilities	Purchase Order/Charge Code NG2200C1
Project Title	Logbook No. NA	Ice Chest No. NA Temp. NA
To (Lab) Building 559 Laboratory	Method of Shipment Hand Carry	Bill of Lading/Air Bill No. NA
Protocol	Related COC (if any) NA	PRE

POSSIBLE SAMPLE HAZARDS/REMARKS
Are acid preserved samples DOT hazardous per 40 CFR Part 136.3 Table II? YES or NO
Are other known hazardous substances present? YES or NO
** ** **

SCREENING REQUIRED ☐

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes ☐ No ☐
(TRAILERS AROUND THE PLANTSITE)
(METAL DISKS)

Bottle No.	Customer Number	Matrix	Date	Time	Location	Container (size/type/quantity)	Sample Analysis	Preservative ; Packing
00A1148-003.001	T-4R/QC	SOLID	3/28/00	0820	T861A	1-SAMPLE / P/G /1	PA04A017 (Alpha Spec Qualitative) [Routine]	None None
00A1148-006.001	M-1R/QC	SOLID	3/27/00	1447	T881B	1-SAMPLE / P/G /1	PA04A017 (Alpha Spec Qualitative) [Routine]	None None
00A1148-009.001	F-20R/QC	SOLID	3/28/00	0850	T883A	1-SAMPLE / P/G /1	PA04A017 (Alpha Spec Qualitative) [Routine]	None None
00A1148-012.001	F-20R/QC	SOLID	3/28/00	0908	T883B	1-SAMPLE / P/G /1	PA04A017 (Alpha Spec Qualitative) [Routine]	None None
00A1148-015.001	A-7R/QC	SOLID	3/28/00	0932	T883C	1-SAMPLE / P/G /1	PA04A017 (Alpha Spec Qualitative) [Routine]	None None
00A1148-018.001	S-1R/QC	SOLID	3/27/00	1415	T439D	1-SAMPLE / P/G /1	PA04A017 (Alpha Spec Qualitative) [Routine]	None None
00A1148-021.001	A-2R/QC	SOLID	3/28/00	1243	T771D	1-SAMPLE / P/G /1	PA04A017 (Alpha Spec Qualitative) [Routine]	None None

Relinquished By:	Date/Time	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
	4/4/00 1445	J B Johnson	4/4/00 1445	J B Johnson	4/25/00 0815		4/25/00 0815
	4/25/00 1324	Gaye A Hess	4-25-00 1324				

FAX APR 4 2000

FINAL SAMPLE DISPOSITION — Disposal Method (e.g., returned to customer, disposed of per lab procedure, used in analytical process) — Disposed By

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RMRS

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # 00A1148#001

RIN	Contact/Requestor	Telephone No.	MSIN	FAX
00A1148	SZYDLOWSKI, TOM	8165		

Bottle No.	Customer Number	Matrix	Date	Time	Location	Container (size/type/quantity)	Sample Analysis	Preservative ; Packing
00A1148-024.001	C-1R/QC	SOLID	3/28/00	1423	T331	1-SAMPLE / P/G /1	PA04A017 (Alpha Spec Qualitative) [Routine]	None. None

LABORATORY USE ONLY

	Initials/Date	Y/N
TID/Intact:	NA	
Custody Seal Intact:	4/3/00	Y
Labels/COC Agree:		Y
TID # (if applicable):	NA	
TID Removed:		

Relinquished By:	Date/Time	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
	4.4.00 / 1445		4/4/00 1445		4/25/00 0815		4.25.00 0815
	4.25.00 / 1324		1324 4-25-00				

APR 4 2000

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., returned to customer, disposed of per lab procedure, used in analytical process)	Disposed By	Date/Time

RMRS

RFETS

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # A1148#003

Sampler(s) (time/date)	Contact/Requester SZYDLOWSKI TOM	Telephone No. 8165 MSIN FAX
RIN 00A1148	Sampling Origin	Purchase Order/Charge Code NG2200C1
Project Title 771 OU 4-12-00	Logbook No.	Ice Chest No. Temp.
To (Lab) Building ~~559~~ Laboratory	Method of Shipment	Bill of Lading/Air Bill No.
Protocol	Related COC (if any)	PRE

POSSIBLE SAMPLE HAZARDS/REMARKS
Are acid preserved samples DOT hazardous per 40 CFR Part 136.3 Table II? YES or NO
Are other known hazardous substances present? YES or NO
** ** **

SCREENING REQUIRED ☐

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☐ No ☐

Bottle No.	Customer Number	Matrix	Date	Time	Location	Container (size/type/quantity)	Sample Analysis	Preservative ; Packing
00A1148-001.001	I-4R	SOLID	3/28/00	0835	T881A	1-SAMPLE / P/G /1	PA04A017 (Alpha Spec Qualitative) [Routine]	None None
00A1148-002.001	T-4R	SOLID	3/28/00	0824	T881A	1-SAMPLE / P/G /1	PA04A017 (Alpha Spec Qualitative) [Routine]	None None
00A1148-004.001	G-3R	SOLID	3/27/00	1455	T881B	1-SAMPLE / P/G /1	PA04A017 (Alpha Spec Qualitative) [Routine]	None None
00A1148-005.001	M-1R	SOLID	3/27/00	1445	T881B	1-SAMPLE / P/G /1	PA04A017 (Alpha Spec Qualitative) [Routine]	None None
00A1148-007.001	H-5R	SOLID	3/28/00	0856	T883A	1-SAMPLE / P/G /1	PA04A017 (Alpha Spec Qualitative) [Routine]	None None
00A1148-008.001	F-20R	SOLID	3/28/00	0847	T883A	1-SAMPLE / P/G /1	PA04A017 (Alpha Spec Qualitative) [Routine]	None None
00A1148-010.001	H-19R	SOLID	3/28/00	0915	T883B	1-SAMPLE / P/G /1	PA04A017 (Alpha Spec Qualitative) [Routine]	None None

Relinquished By: Date/Time	Received By: Date/Time	Relinquished By: Date/Time	Received By: Date/Time
4-13-00 1510	4/13/00 1510		
5/11/00 1510	5/11/00 1510		

FINAL SAMPLE DISPOSITION Disposal Method (e.g., returned to customer, disposed of per lab procedure, used in analytical process) Disposed By Date/Time

RMRS

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # 00A1148#003

RIN	Contact/Requestor	Telephone No.	MSIN	FAX
00A1148	SZYDLOWSKI, TOM	8165		

Bottle No.	Customer Number	Matrix	Date	Time	Location	Container (size/type/quantity)	Sample Analysis	Preservative ; Packing
00A1148-011.001	F-20R	SOLID	3/28/00	0905	T883B	1-SAMPLE / P/G /1	PA04A017 (Alpha Spec Qualitative) [Routine]	None None
00A1148-013.001	H-11R	SOLID	3/28/00	0942	T883C	1-SAMPLE / P/G /1	PA04A017 (Alpha Spec Qualitative) [Routine]	None None
00A1148-014.001	A-7R	SOLID	3/28/00	0930	T883C	1-SAMPLE / P/G /1	PA04A017 (Alpha Spec Qualitative) [Routine]	None None
00A1148-016.001	F-7R	SOLID	3/27/00	1423	T439D	1-SAMPLE / P/G /1	PA04A017 (Alpha Spec Qualitative) [Routine]	None None
00A1148-017.001	S-1R	SOLID	3/27/00	1400	T439D	1-SAMPLE / P/G /1	PA04A017 (Alpha Spec Qualitative) [Routine]	None None
00A1148-019.001	O-1R	SOLID	3/28/00	1248	T771D	1-SAMPLE / P/G /1	PA04A017 (Alpha Spec Qualitative) [Routine]	None None
00A1148-020.001	A-2R	SOLID	3/28/00	1240	T771D	1-SAMPLE / P/G /1	PA04A017 (Alpha Spec Qualitative) [Routine]	None None
00A1148-022.001	H-1R	SOLID	3/28/00	1430	T331	1-SAMPLE / P/G /1	PA04A017 (Alpha Spec Qualitative) [Routine]	None None
00A1148-023.001	C-1R	SOLID	3/28/00	1420	T331	1-SAMPLE / P/G /1	PA04A017 (Alpha Spec Qualitative) [Routine]	None None
00A1148-025.001	H-2R	SOLID	3/28/00	1415	T750E	1-SAMPLE / P/G /1	PA04A017 (Alpha Spec Qualitative) [Routine]	None None
00A1148-026.001	E-3R	SOLID	3/28/00	1405	T750E	1-SAMPLE / P/G /1	PA04A017 (Alpha Spec Qualitative) [Routine]	None None

Relinquished By:	Date/Time	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	4.13.00 1170	C Bianconi	4/13/00 15:10				
C Bianconi	5/11/00 1510	[signature]	5.11.00 1510				

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., returned to customer, disposed of per lab procedure, used in analytical process)	Disposed By	Date/Time

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RMRS

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # 00A1148#003

RIN	Contact/Requestor	Telephone No.	MSIN	FAX
00A1148	SZYDLOWSKI, TOM	8165		

Bottle No.	Customer Number	Matrix	Date	Time	Location	Container (size/type/quantity)	Sample Analysis	Preservative ; Packing
00A1148-027.001	E-3R/QC	SOLID	3/28/00	1410	T750E	1-SAMPLE / P/G /1	PA04A017 (Alpha Spec Qualitative) [Routine]	None None
00A1148-028.001	L-1N	SOLID	3/28/00	1315	T903A	1-SAMPLE / P/G /1	PA04A017 (Alpha Spec Qualitative) [Routine]	None None
00A1148-029.001	N-2N	SOLID	3/28/00	1310	T903A	1-SAMPLE / P/G /1	PA04A017 (Alpha Spec Qualitative) [Routine]	None None
00A1148-030.001	N-2N/QC	SOLID	3/28/00	1311	T903A	1-SAMPLE / P/G /1	PA04A017 (Alpha Spec Qualitative) [Routine]	None None
00A1148-031.001	O-1R	SOLID	3/28/00	1325	T903A	1-SAMPLE / P/G /1	PA04A017 (Alpha Spec Qualitative) [Routine]	None None
00A1148-032.001	G-3R	SOLID	3/28/00	1319	T903A	1-SAMPLE / P/G /1	PA04A017 (Alpha Spec Qualitative) [Routine]	None None
00A1148-033.001	G-3R/QC	SOLID	3/28/00	1321	T903A	1-SAMPLE / P/G /1	PA04A017 (Alpha Spec Qualitative) [Routine]	None None
00A1148-034.001	A-16R	SOLID	3/28/00	1510	T331A	1-SAMPLE / P/G /1	PA04A017 (Alpha Spec Qualitative) [Routine]	None None
00A1148-035.001	C-13R	SOLID	3/28/00	1500	T331A	1-SAMPLE / P/G /1	PA04A017 (Alpha Spec Qualitative) [Routine]	None None
00A1148-036.001	C-13R/QC	SOLID	3/28/00	1503	T331A	1-SAMPLE / P/G /1	PA04A017 (Alpha Spec Qualitative) [Routine]	None None
00A1148-037.001	H-3R	SOLID	4/5/00	1205	TB595	1-SAMPLE / P/G /1	PA04A017 (Alpha Spec Qualitative) [Routine]	None None

Relinquished By:	Date/Time	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	4/13/00 1510	[signature]	4/13/00 15:10				
[signature]	* 5/11/00 1510	[signature]	5-11-00 1510				

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., returned to customer, disposed of per lab procedure, used in analytical process)	Disposed By	Date/Time

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* [illegible]

RMRS

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # 00A1148#003

RIN	Contact/Requestor	Telephone No.	MSIN	FAX
00A1148	SZYDLOWSKI, TOM	8165		

Bottle No.	Customer Number	Matrix	Date	Time	Location	Container (size/type/quantity)	Sample Analysis	Preservative ; Packing
00A1148-038.001	H-3R/QC	SOLID	4/5/00	1207	TB595	1-SAMPLE / P/G /1	PA04A017 (Alpha Spec Qualitative) [Routine]	None None
00A1148-039.001	E-5R	SOLID	4/5/00	1211	TB595	1-SAMPLE / P/G /1	PA04A017 (Alpha Spec Qualitative) [Routine]	None None

Relinquished By:	Date/Time	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	4.13.00 1510	C J Bianconi	4/13/00 1510				
C J Bianconi	5/11/00 1510	[signature]	5-11-00 1510				

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., returned to customer, disposed of per lab procedure, used in analytical process)	Disposed By	Date/Time

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RMI[redacted]

RFETS

CHAIN OF CUSTODY [redacted]AMPLE ANALYSIS REQUEST

C.O.C. # 00A[redacted]48#002

Page 1 of 1

Sampler(s) DEMOS / NEHIL (time/date)	Contact/Requester SZYDLOWSKI, TOM / NIKIC DEMOS	Telephone No. 8165 / 4605 MSIN FAX
RIN 00A1148	Sampling Origin B&C FACILITIES	Purchase Order/Charge Code NG2200C1
Project Title B&C CHARACTERIZATION	Logbook No.	Ice Chest No. N/A Temp. N/A
To (Lab) General Engineering	Method of Shipment	Bill of Lading/Air Bill No.
Protocol	Related COC (If any) 00A1148 #001	PRE 000515-00881-001

POSSIBLE SAMPLE HAZARDS/REMARKS
Are acid preserved samples DOT hazardous per 40 CFR Part 136.3 Table II? YES or NO
Are other known hazardous substances present? YES or NO
** ** **

SCREENING REQUIRED ☐

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes ☐ No ☐
The matrix investigation does not need to be performed on these samples They are the same matrix as RIN#00A1057.

Bottle No.	Customer Number	Matrix	Date	Time	Location	Container (size/type/quantity)	Sample Analysis	Preservative ; Packing
00A1148-015.002	A-7R/QC	SOLID	3/28/00	0932	T883C	1-SAMPLE / P /1	TR01A187 (Po-210, Pu, Am, U) [21dS]	None None
00A1148-019.002	O-1R	SOLID	3/28/00	1248	T771D	1-SAMPLE / P /1	TR01A187 (Po-210, Pu, Am, U) [21dS]	None None
00A1148-031.002	O-1R	SOLID	3/28/00	1325	T903A	1-SAMPLE / P /1	TR01A187 (Po-210, Pu, Am, U) [21dS]	None None
00A1148-034.002	A-16R	SOLID	3/28/00	1510	T331A	1-SAMPLE / P /1	TR01A187 (Po-210, Pu, Am, U) [21dS]	None None

L. Miller 5/15/00

Relinquished By:	Date/Time	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	5/15/00 1320	L. Miller	5-15-00/1320				

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., returned to customer, disposed of per lab procedure, used in analytical process)	Disposed By	Date/Time

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RMRS

RFETS

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # A1148#004

Page 1 of 1

Sampler(s) (time/date)	Contact/Requester SZYDLOWSKI, TOM	Telephone No. 8165 MSIN FAX
RIN 00A1148	Sampling Origin	Purchase Order/Charge Code NG2200C1
Project Title 771 DM 6/1/00	Logbook No.	Ice Chest No. CAS 122199 Temp.
To (Lab) Building ~~559~~ Laboratory	Method of Shipment	Bill of Lading/Air Bill No.
Protocol	Related COC (if any)	PRE

POSSIBLE SAMPLE HAZARDS/REMARKS
Are acid preserved samples DOT hazardous per 40 CFR Part 136.3 Table II? YES or NO
Are other known hazardous substances present? YES or NO
** ** **

SCREENING REQUIRED ☐

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☐ No ☐

Bottle No.	Customer Number	Matrix	Date	Time	Location	Container (size/type/quantity)	Sample Analysis	Preservative ; Packing
00A1148-040.001	D2R1	SOLID	6/1/00		B331A	1-SAMPLE / P/G /1	PA04A017 (Alpha Spec Qualitative) [Routine]	None None
00A1148-041.001	D2RQC	SOLID	6/1/00		B331A	1-SAMPLE / P/G /1	PA04A017 (Alpha Spec Qualitative) [Routine]	None None
00A1148-042.001	N/A	SOLID	N/A	N/A	N/A	1-SAMPLE / P/G /1	PA04A017 (Alpha Spec Qualitative) [Routine]	None None
						N		
						A		

Relinquished By: Date/Time	Received By: Date/Time	Relinquished By: Date/Time	Received By: Date/Time
6/1/00 1245	6/1/00 1245		
6/5/00 1356	6/5/00 1358		
6/5/00 1411	6/5/00 1411		

FINAL SAMPLE DISPOSITION Disposal Method (e.g., returned to customer, disposed of per lab procedure, used in analytical process) Disposed By Date/Time

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Survey Area: G	Building: 779
Survey Unit (s): 77939 through 77948	

Total Surface Activity Measurement Calculation Worksheet

Step 1: Determine the relative shift (Δ/δ) in accordance with MARSSIM, Section 5.5.2.3, as follows:

$\Delta/\delta = (DCGL_{TSA} - LBGR_{TSA}) / SD_{TSA}$

$\Delta/\delta_{transuranics} = 2.0 = (100\ dpm/100cm^2 - 40\ dpm/100cm^2)/30\ dpm/100cm^2$

Where:

Δ/δ is the relative shift or the resolution of measurements in units of measurement uncertainty (MARSSIM recommends a value between 1 and 3)

$DCGL_{TSA}$ is the total surface activity derived concentration guideline value (DOE Order 5400.5 total surface activity limit equals 100 dpm/100cm^2 for transuranics, per the B779 Cluster Radiological Closeout Survey Plan)

$LBGR_{TSA}$ is the lower bound of the gray region – the lower bound of the range of values of the parameter of interest in a survey unit where the consequences of making a decision error is relatively minor. The $LBGR_{TSA}$ was adjusted to obtain a relative shift between 1 and 3 (i.e., 40 dpm/100cm^2 for transuranics).

SD_{TSA} is the estimated standard deviation of the total surface activity measurements (MARSSIM recommends assuming a 30% coefficient of variation if scoping or characterization data is not available)

Step 2: Determine the Sign P value by looking up the relative shift (Δ/δ) in Table 5.4 of MARSSIM (the Sign P value is the estimated probability that a random measurement from the survey unit will be less than the DCGL when the survey unit median is actually at the LBGR). The Sign P value from Table 5.4, equals 0.977250 for a relative shift of 2.0.

Step 3: Determine the number of total surface activity measurements for the applicable survey unit using the following MARSSIM, Section 5.5.2.3 formula that is based on Plutonium contaminants not being present in the background:

$N = (1.645 + 1.645)^2 / 4(\text{Sign P} - 0.5)^2$

$N = (1.645 + 1.645)^2 / 4(0.977250-0.5)^2 = 11.88$

Where:

1.645 is the alpha and beta decision error value (95% confidence) per the B779 Cluster Radiological Closeout Survey Plan

Sign P equals 0.977250

Step 4: Increase N by 20% to allow for missing or invalid data points per MARSSIM, Section 5.5.2.3.

$N = 11.88 * 1.2 = 14.25$

Conclusion: A minimum of 15 Total Surface Activity measurements will be obtained in each of the above survey unit(s).

Prepared By: Printed Name	Employee #	Radiological Engineer Signature	Date
Reviewed By: Printed Name	Employee #	Radiological Engineer Signature	Date

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Removable Activity (dpm/100 cm^2) Alpha
0.6
0.0
3.3
0.6
4.5
1.8
-0.9
3.0
0.3
2.1
1.5
1.8
2.1
-1.5
0.3
-0.9
3.0
1.8
0.6
-1.5
1.8
2.1
3.0
1.8
2.1
-1.5
3.3
-0.9

Survey Area - N/A
Survey Unit - Exterior
Building - T331A
Survey Unit Description - Roof and walls of Trailer T331A
Removable Contamination Data Sheet

$DCGL_W$	20	dpm/100 cm^2
n	28	
Mean	1.2	dpm/100 cm^2
Std Dev	1.7	dpm/100 cm^2

No measurement exceeds the $DCGL_W$

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Removable Activity (dpm/100 cm^2) Beta
0.8
10.8
29.2
14.8
12.8
-24.8
-23.2
46.8
-2.8
16.8
2.8
-2.8
-7.2
30.8
15.2
-5.2
12.8
11.2
4.8
-1.2
-12.8
-1.2
4.8
-14.8
8.8
12.8
5.2
-17.2

Survey Area - N/A
Survey Unit - Exterior
Building - T331A
Survey Unit Description - Roof and walls of Trailer T331A
Removable Contamination Data Sheet

$DCGL_W$	**1000**	**dpm/100 cm^2**
n	**28**	
Mean	**4.6**	**dpm/100 cm^2**
Std Dev	**16.1**	**dpm/100 cm^2**

No measurement exceeds the $DCGL_W$

186

Total Surface Activity (dpm/100 cm^2) Alpha

172.5
143.2
149.6
117.3
91.4
97.8
110.5
143.7
127.1
146.6
127.1
41.6
17.9
35.8
3.1
-2.9
22.3
31.9
-22.3
-6.2
0
9.3
-12.1
12.6
43.3
18.6
27.9
24.7

Survey Area - N/A
Survey Unit - Exterior
Building - T331A
Survey Unit Description - Roof and walls of Trailer T331A
Total Surface Activity Data Sheet

$DCGL_W$	**100**	**dpm/100 cm^2**
n	**28**	
Mean	**59.7**	**dpm/100 cm^2**
Std Dev	**61.0**	**dpm/100 cm^2**

Nine measurement exceeds the $DCGL_W$
Eleven measurement exceeds 75% of the $DCGL_W$

Precision

Location	C_1	C_2	C_1-C_2	$(C_1+C_2)/2$	RPD
A-1N	41.6	32.3	9.3	36.95	25.16915
O-1E	-6.2	32.7	-38.9	13.25	-293.5849
C-2W	-12.1	38.6	-50.7	13.25	-382.6415
A-1W	0.0	29.3	-29.3	14.65	-200
C-1W	9.3	52.3	-43	30.8	-139.6104

Precision (RPD) is out of specification due to low value survey measurements

Recalculated N

Δ/σ_s = (DCGL-LBGR)/σ_s
Δ/σ_s = (100-50)/61.0
Δ/σ_s = 0.8
Sign p = 0.788145
N = 32.59
32.59*1.2 = 13.06
N = 39

Note: All measurements that exceed 75% of the $DCGL_W$ are from the roof. The roof is suspected to have deposition from naturally occurring radioactivity. Samples have ben collected to verify this. As a result, the number of measurements collected is acceptable.

187

Total Surface Activity (dpm/100 cm^2) Beta
-30
-74
17
-51
249
189
138
0
37
-20
-303
-158
-53
-372
-481
171
-184
-60
37
13
-428
47
-63
80
301
170
177
40

Survey Area - N/A
Survey Unit - Exterior
Building - T331A
Survey Unit Description - Roof and walls of Trailer T331A
Total Surface Activity Data Sheet

$DCGL_W$	**5000**	**dpm/100 cm^2**
n	**28**	
Mean	**-21.8**	**dpm/100 cm^2**
Std Dev	**194.4**	**dpm/100 cm^2**

No measurement exceeds the $DCGL_W$
No measurement exceeds 75% of the $DCGL_W$

Precision

Location	C_1	C_2	C_1-C_2	$(C_1+C_2)/2$	RPD
A-1N	-158	77	-235	-40.5	580.2469
O-1E	13	3	10	8	125
C-2W	-63	158	-221	47.5	0
A-1W	-428	111	-539	-158.5	340.0631
C-1W	47	-266	313	-109.5	-285.8447

Precision (RPD) is out of specification due to low value survey measurements

Recalculated N

Δ/σ_s = (DCGL-LBGR)/σ_s
Δ/σ_s = (5000-2500)/194.4
Δ/σ_s = 12.86 (default to 3)
Sign p = 0.998650
N = 10.88
10.88*1.2 = 13.05
N = 14

188

OASIS Direct Analysis Measurement Result Information

The samples listed below were analyzed using the Oxford Alpha Spectroscopy Integrated System (OASIS) at the Rocky Flats Environmental Technology Site. These samples were counted directly in the alpha spectrometer chambers, without chemical preparation. The technical basis for this type of analysis has been established in TBD-00143, Direct Analysis of Alpha Emitters Using the Oxford Alpha Spectroscopy Integrated System (OASIS), and TBD-00153, Use of the OASIS for Direct Differentiation between Po-210 and DOE-enhanced Materials.

In order to maintain the quality of OASIS measurements, the instrument is performance tested in accordance with Operations Order OO-771-228, Direct Analysis of Alpha Emitters Using the Oxford Alpha Spectroscopy Integrated System (OASIS). This Operations Order establishes the periodicity of performance test and background measurements, and the criteria against which these measurements are judged. All samples are counted by RCTs or REs qualified per JPM 036-119-53, Direct Analysis of Alpha Emitters Using the Oxford Alpha Spectroscopy Integrated System (OASIS) and approved by qualified REs.

A sample of the calibration and performance test data is attached for your review. All such data are maintained by the OASIS analysts and are available for your perusal.

The samples were 1-in coupons with an area of 4.82 cm^2. Calculation of the activity per 100 cm^2 was performed assuming that samples were representative. Errors are quoted at one standard deviation, accounting for all associated analytical uncertainties. Uranium results refer to the presence of U-238, U-234, or U-235.

Sample Number	OASIS dpm ± 1s		dpm/100cm²±1s	
00A1148-001.001	2.53	0.22	52.5	4.5
00A1148-002.001	1.83	0.12	37.8	2.6
00A1148-003.001	1.11	0.10	23.0	2.0
00A1148-004.001	2.90	0.24	60.0	4.9
00A1148-005.001	5.87	0.33	121.6	6.8
00A1148-006.001	3.54	0.16	73.3	3.4
00A1148-007.001	3.44	0.25	71.4	5.2
00A1148-008.001	5.93	0.22	122.8	4.5
00A1148-009.001	3.73	0.17	77.4	3.5
00A1148-010.001	4.13	0.27	85.7	5.7
00A1148-011.001	4.33	0.28	89.8	5.8
00A1148-012.001	5.58	0.21	115.7	4.4
00A1148-013.001	0.04	0.05	0.9	1.1
00A1148-014.001	7.91	0.39	163.9	8.1
00A1148-015.001	6.94	0.25	143.8	5.2
00A1148-016.001	7.21	0.38	149.4	7.8
00A1148-017.001	5.12	0.32	106.2	6.6
00A1148-018.001	3.37	0.25	69.9	5.3
00A1148-019.001	11.76	0.46	243.6	9.6
00A1148-020.001	8.92	0.40	184.8	8.4
00A1148-021.001	9.89	0.24	204.9	4.9
00A1148-022.001	0.13	0.08	2.7	1.6
00A1148-023.001	0.96	0.14	19.8	2.9

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00A1148-024.001	3.27	0.16	67.7	3.3
00A1148-025.001	7.58	0.37	157.1	7.7
00A1148-026.001	10.11	0.45	209.6	9.3
00A1148-027.001	10.40	0.46	215.6	9.5
00A1148-028.001	0.62	0.12	12.8	2.4
00A1148-029.001	2.87	0.15	59.5	3.1
00A1148-030.001	3.08	0.16	63.8	3.2
00A1148-031.001	10.33	0.46	214.1	9.4
00A1148-032.001	3.31	0.25	68.6	5.2
00A1148-033.001	6.06	0.22	125.6	4.5
00A1148-034.001	10.72	0.31	222.2	6.3
00A1148-035.001	9.53	0.42	197.5	8.8
00A1148-036.001	7.51	0.38	155.6	7.9
00A1148-037.001	2.37	0.14	49.1	2.8
00A1148-038.001	1.88	0.08	38.9	1.7
00A1148-039.001	2.21	0.09	45.7	1.8

Sample ID	Identified Peaks				Detection Sensitivity (dpm/100 cm²)			
	Pu+Am	Pu-239	Am-241	U	Pu+Am	Pu-239	Am-241	U
00A1148-001.001	No	No	No	No	79	70	10	79
00A1148-002.001	No	No	No	No	32	28	4	32
00A1148-003.001	No	No	No	No	30	26	4	30
00A1148-004.001	No	No	No	No	79	70	10	79
00A1148-005.001	No	No	No	No	79	70	10	79
00A1148-006.001	No	No	No	No	30	26	4	30
00A1148-007.001	No	No	No	No	79	70	10	79
00A1148-008.001	No	No	No	No	30	26	4	30
00A1148-009.001	No	No	No	No	30	26	4	30
00A1148-010.001	No	No	No	No	79	70	10	79
00A1148-011.001	No	No	No	No	79	70	10	79
00A1148-012.001	No	No	No	No	30	26	4	30
00A1148-013.001	No	No	No	No	79	70	10	79
00A1148-014.001	No	No	No	No	79	70	10	79
00A1148-015.001	No	No	No	No	34	30	4	34
00A1148-016.001	No	No	No	No	79	70	10	79
00A1148-017.001	No	No	No	No	79	70	10	79
00A1148-018.001	No	No	No	No	79	70	10	79
00A1148-019.001	No	No	No	No	70	61	8	70
00A1148-020.001	No	No	No	No	79	70	10	79
00A1148-021.001	No	No	No	No	17	15	2	17
00A1148-022.001	No	No	No	No	79	70	10	79
00A1148-023.001	No	No	No	No	79	70	10	79
00A1148-024.001	No	No	No	No	30	26	4	30
00A1148-025.001	No	No	No	No	79	70	10	79
00A1148-026.001	No	No	No	No	79	70	10	79
00A1148-027.001	No	No	No	No	79	70	10	79
00A1148-028.001	No	No	No	No	79	70	10	79

00A1148-029.001	No	No	No	No	30	26	4	30
00A1148-030.001	No	No	No	No	30	26	4	30
00A1148-031.001	No	No	No	No	79	70	10	79
00A1148-032.001	No	No	No	No	79	70	10	79
00A1148-033.001	No	No	No	No	30	26	4	30
00A1148-034.001	No	No	No	No	30	26	4	30
00A1148-035.001	No	No	No	No	75	66	9	75
00A1148-036.001	No	No	No	No	79	70	10	79
00A1148-037.001	No	No	No	No	30	26	4	30
00A1148-038.001	No	No	No	No	12	10	1	12
00A1148-039.001	No	No	No	No	12	10	1	12

Approved by:

C J Bianconi 5/10/00

C. J. Bianconi, CHP
B771 Radiological Engineering
303.966.7262
303.212.5706 dp

OASIS Direct Analysis Measurement Result Information

Two samples were received on 6/1/2000. The samples were 1-in coupons with an area of 4.82 cm².

The samples were analyzed using the Oxford Alpha Spectroscopy Integrated System (OASIS) at the Rocky Flats Environmental Technology Site. These samples were counted directly in the alpha spectrometer chamber, without chemical preparation. The basis for this type of analysis has been established in TBD-00143, Direct Analysis of Alpha Emitters Using the Oxford Alpha Spectroscopy Integrated System (OASIS), and TBD-00153, Use of the OASIS for Direct Differentiation between Po-210 and DOE-added Materials.

In order to maintain the quality of OASIS measurements, the instrument is performance tested in accordance with Operations Order OO-771-228, Direct Analysis of Alpha Emitters Using the Oxford Alpha Spectroscopy Integrated System (OASIS). This Operations Order establishes the periodicity of performance test and background measurements, and the criteria against which these measurements are judged. All samples are counted by RCTs or REs qualified per JPM 036-119-53, Direct Analysis of Alpha Emitters Using the Oxford Alpha Spectroscopy Integrated System (OASIS), and approved by qualified REs.

Calculation of the activity per 100 cm² was performed assuming that the activity was homogeneously distributed. Errors are quoted at two standard deviations in the final results, accounting for all associated analytical uncertainties. Uranium results refer to the presence of U-238, U-234, or U-235.

Sample ID	OASIS dpm ± 1s		dpm/100cm² ± 2s	
00A1148-040.001 D2R1	24.3	0.5	504	19
00A1148-041.001 D2RQC	30.7	0.9	637	35

Sample ID	Count time (seconds)	Detection Sensitivity dpm/100cm²			
		Pu+Am	Pu-239	Am-241	U
00A1148-040.001 D2R1	43200	20	17	2	20
00A1148-041.001 D2RQC	10800	79	70	10	79

Peaks for Pu-239, Am-241, and uranium were not identified in the spectra.

Approved by:

C. J. Bianconi, CHP
B771 Radiological Engineering
303.966.7262
303.212.5706 dp

192

00A1148
Data Package Narrative

Four waste samples, under the Subcontract Number KH700331EP6, were received on May 15, 2000. Four samples were analyzed by Alpha Spectroscopy for Polonium-210, Plutonium 239/240, Uranium-233/234,235,238, and Americium 241.

- Analytical Method: EPI A-011 (Alpha Spec)
- Matrix Interferences: There are no matrix interferences to report.
- QC Deficiencies: There were no deficiencies.
- Hold Times: All samples were analyzed within the required holding time.
- RDLs: There were no failed detection limits.
- Reanalysis Information: There were no reanalysis of the samples.
- Deviations from SOP: See following page.

Comments:

1. RC01CAL_EPI_3-JUN-2000, RC01CAL_EPI_4-JUN-2000 correspond to RC01CAL_EPI_01JUN2000.

2. The following samples did not meet the FWHM requirement of < 80 keV.

1000060362_PU	94 keV
1000060364_PU	92 keV
1000061142_UU	85 keV

3. Sample 00A1148-031.002, 00A1148-034.002 and QC 1000061142 were recounted due to failed yield.

Rocky Flats

Sample QC Results Summary
6/20/00

Batch # : 27172
RIN 00A1148
Line Item Code: TR01A187
Matrix: Misc. solid

KHCO ID #	GEL ID #	Analysis	Result pCi/g	2sigma Error pCi/g	MDA pCi/g	RDL pCi/g	Tracer Yield %
00A1148-015.002	25798001	Polonium-210	2.76E+00	8.17E-01	1.70E-01	1.00	68.72
00A1148-019.002	25798002	Polonium-210	2.74E+00	5.74E-01	1.56E-01	1.00	46.74
00A1148-031.002	25798003	Polonium-210	3.80E+00	8.39E-01	2.84E-01	1.00	54.27
00A1148-034.002	25798004	Polonium-210	5.07E+00	1.26E+00	2.22E-01	1.00	57.88
1000060356	Blank	Polonium-210	5.39E-02	8.61E-02	1.53E-01	1.00	49.73
1000061844	Duplicate 00A1057-002.001	Polonium-210	2.47E+00	5.60E-01	1.65E-01	1.00	70.11
1000060358	LCS	Polonium-210	1.37E+01	1.12E+00	1.73E-01	1.00	59.83

LCS recovery:

	Nom. Conc.	Recovery:
Po-210	15.4	89%

Equivalency:
Po-210 F/E = 1.319

General Engineering Labs, Inc.

Rock/ Flats

Sample QC Results Summary
6/13/00

Batch # : 27173
RIN 00A1148
Line Item Code: TR01A187
Matrix: Misc. solid

KHCO ID #	GEL ID #	Analysis	Result pCi/g	2sigma Error pCi/g	MDA pCi/g	RDL pCi/g	Tracer Yield %
00A1148-015.002	25798001	Americium-241	1.09E-01	9.57E-02	5.92E-02	0.30	81.49
00A1148-019.002	25798002	Americium-241	4.20E-02	3.72E-02	4.51E-02	0.30	89.13
00A1148-031.002	25798003	Americium-241	0.00E+00	0.00E+00	3.44E-02	0.30	85.19
00A1148-034.002	25798004	Americium-241	1.45E-02	6.08E-02	1.66E-01	0.30	64.68
1000060359	Blank	Americium-241	3.54E-02	4.01E-02	6.37E-02	0.30	86.16
1000061133	Duplicate 00A1148-031.002	Americium-241	0.00E+00	0.00E+00	4.27E-02	0.30	90.73
1000060361	LCS	Americium-241	4.39E+00	3.71E-01	2.21E-02	0.30	95.55

LCS recovery:

	Nom. Conc.	Recovery:
Am-241	4.5	98%

Equivalency:
Am-241 F/E = 0

Sample QC Results Summary
6/13/00

Batch # : 27174
RIN 00A1148
Line Item Code: TR01A187
Matrix: Misc. solid

KHCO ID #	GEL ID #	Analysis	Result pCi/g	2sigma Error pCi/g	MDA pCi/g	RDL pCi/g	Tracer Yield %
00A1148-015.002	25798001	Plutonium-239/240	3.74E-01	1.68E-01	5.33E-02	0.30	95.36
00A1148-019.002	25798002	Plutonium-239/240	-9.15E-03	1.79E-02	1.13E-01	0.30	39.51
00A1148-031.002	25798003	Plutonium-239/240	-2.74E-02	3.10E-02	1.58E-01	0.30	62.53
00A1148-034.002	25798004	Plutonium-239/240	1.62E-02	6.79E-02	1.85E-01	0.30	59.66
1000060362	Blank	Plutonium-239/240	0.00E+00	0.00E+00	2.62E-02	0.30	81.37
1000061141	Duplicate 00A1148-031.002	Plutonium-239/240	0.00E+00	0.00E+00	6.05E-02	0.30	66.68
1000060364	LCS	Plutonium-239/240	5.04E+00	3.93E-01	2.16E-02	0.30	97.91

LCS recovery:

	Nom. Conc.	Recovery:
Pu-239/240	5.7	88%

Equivalency:
Pu-239/240 F/E = 0.883

Sample QC Results Summary
6/19/00

Batch # : 27175
RIN 00A1148
Line Item Code: TR01A187
Matrix: Misc. solid

KHCO ID #	GEL ID #	Analysis	Result pCi/g	2sigma Error pCi/g	MDA pCi/g	RDL pCi/g	Tracer Yield %
00A1148-015.002	25798001	Uranium-233/234	3.48E-02	6.21E-02	1.24E-01	1.00	104.52
		Uranium-235	-7.52E-03	4.34E-02	1.41E-01	1.00	104.52
		Uranium-238	6.80E-04	4.04E-02	1.24E-01	1.00	104.52
00A1148-019.002	25798002	Uranium-233/234	1.72E-02	2.85E-02	5.57E-02	1.00	99.31
		Uranium-235	-2.69E-03	2.33E-02	6.66E-02	1.00	99.31
		Uranium-238	-9.39E-03	1.93E-02	6.66E-02	1.00	99.31
00A1148-031.002	25798003	Uranium-233/234	1.54E-02	3.96E-02	8.79E-02	1.00	107.82
		Uranium-235	-1.06E-02	1.46E-02	7.70E-02	1.00	107.82
		Uranium-238	1.04E-02	2.04E-02	2.82E-02	1.00	107.82
00A1148-034.002	25798004	Uranium-233/234	1.18E-01	8.36E-02	9.73E-02	1.00	105.49
		Uranium-235	-6.60E-03	1.30E-02	7.90E-02	1.00	105.49
		Uranium-238	6.56E-02	6.58E-02	9.73E-02	1.00	105.49
1000060365	Blank	Uranium-233/234	7.74E-04	2.65E-02	6.85E-02	1.00	104.63
		Uranium-235	-1.24E-02	1.21E-02	5.91E-02	1.00	104.63
		Uranium-238	2.58E-04	1.53E-02	4.69E-02	1.00	104.63
1000061142	Duplicate	Uranium-233/234	2.02E-02	2.87E-02	4.87E-02	1.00	97.21
	00A1148-031-002	Uranium-235	-8.22E-03	1.14E-02	6.00E-02	1.00	97.21
		Uranium-238	8.04E-03	2.52E-02	6.00E-02	1.00	97.21
1000060367	LCS	Uranium-233/234	3.89E+00	3.20E-01	6.78E-02	1.00	99.19
		Uranium-235	2.12E-01	7.62E-02	4.97E-02	1.00	99.19
		Uranium-238	4.19E+00	3.32E-01	5.67E-02	1.00	99.19

LCS recovery:

	Nom. Conc.	Recovery:
U-238	4.336	97%

Equivalency:

U-233/234	F/E = 0.098
U-235	F/E = 0.128
U-238	F/E = 0.073

Luker, Steve
From: Salmans, Michael
Sent: Tuesday, June 13, 2000 3:04 PM
To: Luker, Steve
Subject: FW: 00A1148

Mike Salmans
Analytical Services
Phone # 303-966-5057
Pager # 303-212-3149
Fax # 303-966-3578

-----Original Message-----

From: Lee Heath [SMTP:lmh@mail.gel.com]
Sent: Tuesday, June 13, 2000 2:26 PM
To: Michael Salmans
Subject: 00A1148

The 100% size of these circular disks of metal and rubber were:

(1-4 in order)
0.7182 g
1.8692 g
2.1784 g
0.7303 g (rubber)

198

C001

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. Eberline
Model SAC-4	Model SAC-4	Model SAC-4
Serial # 1160	Serial #	Serial #
Cal Due 7-31	Cal Due	Cal Due
Bkg. 0.2 cpm	Bkg.	Bkg.
Efficiency 0.33	Efficiency	Efficiency
MDA ≤20 dpm	MDA	MDA
Mfg. NE Tech.	Mfg.	Mfg.
Model Electra	Model	Model
Serial # 2358	Serial #	Serial #
Cal Due 9-29-00	Cal Due	Cal Due
Bkg. 1.0 cpm	Bkg.	Bkg.
Efficiency 22.89%	Efficiency	Efficiency
MDA 33 dpm	MDA	MDA

Survey Type: REN Contamination

Building: 771

Location: Room 152

Purpose: Survey Sample Coupons

RWP #: N/A

Date: 4-17-00 Time: 1500

RCT: George A. Haasl [signature] [redacted]
Print name Signature Emp. #

RCT: / /
Print name Signature Emp. #

PRN/REN # :

Comments: I.D. #'s 6, 12 and 20 were counted in SAC-4 all less than 20 dpm (I.D. #20 counted 4 counts #12 counted 1 #6 counted 0)

SURVEY RESULTS

I.D. #	Location/Description	dpm/100cm²α (swipe)	dpm/100cm²α (direct)
1	T331A C-13 RQC (13)		<33
	COUPON Btl. No		
	00A1148-036.001		
2	T331 C-1R (12)		
	Coupon Bottle No		<33
	0A1148-023.001		
3	883C A-7R (12)		
	Coupon Bottle No.		<33
	~~00A1148~~ 00A1148-014.001		
4	T771D A-2R (18)		<33
	Coupon Bottle No.		
	00A1148-020.001		
5	T771D 01R (24)		<33
	Coupon Bottle Number		
	00A1148-019.001		
6	883B H-19-R		36
	Coupon Bottle No.		
	~~00A1148~~ 00A1148-010.001		
7	T903A N-2N QC (12)		<33
	COUPON BOTTLE NO.		
	00A1148-030.001		

	Location/Description	dpm/100cm²α (swipe)	dpm/100cm²α (direct)
8	T903A N-2N (6)		<33
	COUPON BOTTLE NO.		
	00A1148-029.001		
9	883C H-11R (6)		<33
	COUPON BOTTLE NO		
	00A1148-013.001		
10	T903A L-1N (12)		<33
	COUPON BOTTLE NO.		
	00A1148-028.001		
11	883B F-20R (12)		<33
	COUPON BOTTLE NO		
	00A1148-011.001		
12	T331 H-1R (6)		<33
	COUPON BOTTLE NO.		
	00A1148-022.001		
13	883 A F-20R (24)		<33
	COUPON BOTTLE NO.		
	00A1148-008.001		
14	883A H-5R (8)		<33
	COUPON BOTTLE NO. (18)		
	00A1148-007.001		

Date Reviewed: 4/17/00 RS Supervision: A. WOLFF [signature] [redacted]
Print Name Signature

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ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

SURVEY RESULTS

I.D. #	Location/Description	dpm/100cm²-α (swipe)	dpm/100cm²-α (direct)
15	881A T-4R (19) COUPON BOTTLE NO. 00A1148-002.001		<33
16	750 E E-3R QC (24) COUPON BOTTLE NO 00A1148-027.001		~~479~~ <33 CAA 4-17-00
17	T903A C-3R (24) COUPON BOTTLE NO. 00A1148-032.001		<33
18	750E H-2R (24) COUPON BOTTLE NO. 00A1148-025.001		<33
19	T903A O-1R (18) COUPON BOTTLE NO. 00A1148-031.001		<33
20	881B M-1R COUPON BOTTLE NO. 00A1148-005.001		36
21	881B G-3R (0) COUPON BOTTLE NO. 00A1148-004.001		<33
22	T331A C-13R (24) COUPON BOTTLE NO. 00A1148-035.001		<33
23	T903A G-3R QC COUPON BOTTLE NO (3) 00A1148-033.001		<33
24	439D S-1R (3) COUPON BOTTLE NO. 00A1148-017.001		<33
25	124 E-5R (4) COUPON ~~BATTA~~ BOTTLE NO 00A1148-039.001		<33
26	750E E-3R (18) COUPON BOTTLE NO. 00A1148-026.001		<33
27	439D F-7R (18) COUPON BOTTLE NO 00A1148-016.001		<33
28	TB595 H3R QC (18) COUPON BOTTLE NO 00A1148-038.001		<33
29	881A I-4R (3) COUPON BOTTLE NO. 00A1148-001.001		<33
30	T331A A-16R (12) COUPON BOTTLE NO 00A1148-034.001		<33
31	TB595 H-3R (3) COUPON BOTTLE NO 00A1148-037.001		<33

CAA 4-17-00

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Rocky Flats

Sample QC Results Summary
6/12/00

Batch # : 27172
RIN 00A1148
Line Item Code: TR01A187
Matrix: Misc. solid

KHCO ID #	GEL ID #	Analysis	Result pCi/g	Sigma Error pCi/g	MDA pCi/g	RDL pCi/g	Tracer Yield %
00A1148-015.002	25798001	Polonium-210	2.76E+00	5.17E-01	1.70E-01	0.30	68.72
00A1148-019.002	25798002	Polonium-210	2.74E+00	5.74E-01	1.56E-01	0.30	46.74
00A1148-031.002	25798003	Polonium-210	3.80E+00	8.39E-01	2.84E-01	0.30	54.27
00A1148-034.002	25798004	Polonium-210	5.07E+00	1.26E+00	2.22E-01	0.30	57.88
1000060956	Blank	Polonium-210	5.39E-02	8.61E-02	1.69E-02	0.30	49.79
1000061644	Duplicate 00A1057-002.001	Polonium-210	2.47E+00	5.60E-01	1.65E-01	0.30	70.11
1000060958	LCS	Polonium-210	1.37E-01	1.12E+00	1.73E-01	0.30	59.83

LCS recovery:

	Nom. Conc.	Recovery:
Po-210	15.4	89%

Equivalency:
Po-210 F/E = 1.319

General Engineering Labs, Inc.

PRELIMINARY INFORMATION

Rocky Flats

Sample QC Results Summary
6/12/00

Batch # : 27174
RIN 00A1148
Line Item Code: TR01A187
Matrix: Misc. solid

KHCO ID #	GEL ID #	Analysis	Result pCi/g	2sigma Error pCi/g	MDA pCi/g	RDL pCi/g	Tracer Yield %
00A1148-015.002	25798001	Plutonium-239/240	3.74E-01	1.68E-01	5.33E-02	0.30	95.36
00A1148-019.002	25798002	Plutonium-239/240	-9.15E-03	1.79E-02	1.13E-02	0.30	39.51
00A1148-031.002	25798003	Plutonium-239/240	-2.74E-02	3.10E-02	1.58E-01	0.30	62.53
00A1148-034.002	25798004	Plutonium-239/240	1.62E-02	6.79E-02	1.86E-01	0.30	59.66
1000060962	Blank	Plutonium-239/240	0.00E+00	0.00E+00	2.62E-02	0.30	81.37
1000061141	Duplicate 00A1148-031.002	Plutonium-239/240	0.00E+00	0.00E+00	6.05E-02	0.30	66.68
1000060964	LCS	Plutonium-239/240	8.04E+00	3.95E-01	2.16E-02	0.30	97.91

LCS recovery:

	Nom. Conc.	Recovery:
Pu-239/240	8.7	88%

Equivalency:
Pu-239/240 F/E = 0.883

PRELIMINARY INFORMATION

General Engineering Labs, Inc.

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Rocky Flats

Sample QC Results Summary
6/16/00

Batch # : 27175
RIN 00A1148
Line Item Code: TR01A187
Matrix: Misc. solid

KHCO ID #	GEL ID #	Analysis	Result pCi/g	2sigma Error pCi/g	MDA pCi/g	RDL pCi/g	Tracer Yield %
00A1148-015.002	25798001	Uranium-233/234	3.48E-02	6.21E-02	1.24E-01	1.00	104.52
		Uranium-235	-7.52E-03	4.30E-02	1.41E-01	1.00	104.52
		Uranium-238	6.80E-04	4.04E-02	1.24E-01	1.00	104.52
00A1148-019.002	25798002	Uranium-233/234	1.72E-02	2.85E-02	5.57E-02	1.00	99.31
		Uranium-235	-2.69E-03	2.33E-02	6.66E-02	1.00	99.31
		Uranium-238	-9.39E-03	1.93E-02	6.66E-02	1.00	99.31
00A1148-031.002	25798003	Uranium-233/234	1.54E-02	3.96E-02	8.79E-02	1.00	107.82
		Uranium-235	-1.06E-02	1.46E-02	7.70E-02	1.00	107.82
		Uranium-238	1.04E-02	2.04E-02	2.82E-02	1.00	107.82
00A1148-034.002	25798004	Uranium-233/234	1.18E-01	8.36E-02	9.73E-02	1.00	105.49
		Uranium-235	-6.60E-03	1.30E-02	7.90E-02	1.00	105.49
		Uranium-238	6.56E-02	6.58E-02	9.73E-02	1.00	105.49
1000023036	Blank	Uranium-233/234	7.70E-04	2.65E-02	6.85E-02	1.00	104.63
		Uranium-235	-1.24E-02	1.21E-02	5.92E-02	1.00	104.63
		Uranium-238	2.60E-04	1.53E-02	4.69E-02	1.00	104.63
1000023037	Duplicate	Uranium-233/234	2.02E-02	2.87E-02	4.87E-02	1.00	97.21
		Uranium-235	-8.22E-03	1.14E-02	6.00E-02	1.00	97.21
		Uranium-238	8.04E-03	2.52E-02	6.00E-02	1.00	97.21
1000023038	LCS	Uranium-233/234	3.89E+00	3.20E-01	6.78E-02	1.00	99.19
		Uranium-235	2.12E-01	7.62E-02	4.97E-02	1.00	99.19
		Uranium-238	4.19E+00	3.32E-01	5.67E-02	1.00	99.19

LCS recovery:

	Nom. Conc.	Recovery:
U-238	4.829	87%

Equivalency:

U-233/234	F/E = 0.09815
U-235	F/E = 0.128485
U-238	F/E = 0.07338

PRELIMINARY INFORMATION

General Engineering Labs, Inc.

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