ASI SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 007
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 334
CUSTOMER SAMPLE ID: 707-P-07-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK:

Comments/Problems encountered during sampling: Radscreen - 2 grams / 50 cm2 (1/2 grid). I-50 - 7 grams / 150 cm2 (1 1/2 grid). Total = 200 cm2 - 2 grids.

Location Description: Bldg. 707, Module B, Near an HCA by Glovebox B-105, east of door 54 & 55.

Other ID: 707-P-07-00

Sample Appearance: Red paint scrapings

Sampling Device: Heat gun & chisel

Sample Date: 4/25/00 Sample Time: 19:45 Rad Screen Sample Date: 4/25/00

Was generator notified to receive excess sample? (Yes) X (No)

Sampler's Signatur[redacted]

Employee [redacted]

Date: 4/25/00 4/25/00

399

Lmc 05/26/98

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#013/014	Matrix:	Waste
Site Sample ID:	008.002				
Other Sample ID:	707-P-08-00	Collection Date:	4/25/00	Date Received:	5/2/00
		Batch Number:	1929	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1929-08	0.147	0.094	0.099	0.040
ACW03	U-235	KH100-1929-08	0.073	0.073	0.076	0.049
ACW03	U-238	KH100-1929-08	0.513	0.180	0.207	0.040
ACW03	PU-238	KH100-1929-08	0.120	0.086	0.089	0.040
ACW03	PU-239/240	KH100-1929-08	4.39	0.766	1.17	0.040
ACW03	AM-241	KH100-1929-08	0.719	0.327	0.358	0.085

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1929-LC1	SCAQC-1929-LD1	SCAQC-1929-PB
Pu	SCAQC-1929-LC1	SCAQC-1929-LD1	SCAQC-1929-PB
Am	SCAQC-1929-LC1	SCAQC-1929-LD1	SCAQC-1929-PB

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

ASI SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 008
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-08-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen - 2 grams/50cm2 (1/2 grid). ISO - 7 grams/150 cm2 (1 1/2 grid). Total = 200 cm2 - 2 grids.

Location Description: Bldg. 707, Module B, Glovebox B-10 on floor next to crit. drain directly under port 0020.

Other ID: 707-P-08-00

Sample Appearance: Red paint scrapings

Sampling Device: Heat gun + chisel

Sample Date: 4/25/00 Sample Time: 20:05 Rad Screen Sample Date: 4/25/00

Was generator notified to receive excess sample? (Yes) X (No) ____

Sampler's Signature: [redacted]

Employee Num[redacted]

Date: 4/25/00 4/25/00

401

Lmc 05/26/98

A-3
RLC RADIOLOGICAL DATA
Survey Area N
Concrete Core

402

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1197

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1197#003	Matrix:	Waste
Site Sample ID:	010.003				
Other Sample ID:	Bldg 707 Module B	Collection Date:	5/2/00	Date Received:	5/4/00
		Batch Number:	1936	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1936-10	0.882	0.246	0.303	0.041
ACW03	U-235	KH100-1936-10	0.068	0.077	0.079	0.090
ACW03	U-238	KH100-1936-10	0.848	0.240	0.294	0.041
ACW03	PU-238	KH100-1936-10	-0.003	0.098	0.098	0.180
ACW03	PU-239/240	KH100-1936-10	0.150	0.101	0.106	0.075
ACW03	AM-241	KH100-1936-10	0.020	0.040	0.041	0.055

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1936-LC1	SCAQC-1936-LD1	SCAQC-1936-PB
Pu	SCAQC-1936-LC1	SCAQC-1936-LD1	SCAQC-1936-PB
Am	SCAQC-1936-LC1	SCAQC-1936-LD1	SCAQC-1936-PB

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

103

026

A-3

RLC RADIOLOGICAL DATA

Survey Area O

1st Floor, Module C [Room 110] & Pit C

Radiological Survey/Sample Results for Survey Area O (99-0002)

Total Surface Activity Measurements dpm/100 cm^2

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	58	58
MIN	0	N/A
MAX	8910	N/A
MEAN	762.8	N/A
STD DEV	2017.3	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	14	14
MIN	6	N/A
MAX	1704	N/A
MEAN	576.7	N/A
STD DEV	607.0	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	40	40
MIN	-18	N/A
MAX	888	N/A
MEAN	30.9	N/A
STD DEV	141.1	N/A
Equipment Biased	# Required	# Obtained
	45	45
MIN	30	N/A
MAX	37806	N/A
MEAN	3895.9	N/A
STD DEV	7673.4	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm^2

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	58	58
MIN	0	-52
MAX	3480	84
MEAN	80.4	11.2
STD DEV	462.8	32.6
Floors/Walls < 2 m Biased	# Required	# Obtained
	14	14
MIN	0	-40
MAX	45	56
MEAN	6.2	10.9
STD DEV	11.7	28.8
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	40	40
MIN	0	-52
MAX	1032	88
MEAN	33.4	9.1
STD DEV	164.2	36.4
Equipment Biased	# Required	# Obtained
	45	45
MIN	0	-48
MAX	147	60
MEAN	18.7	-1.4
STD DEV	32.3	29.7
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
4	4

Total Uranium Results dpm/100 cm^2

MIN	1
MAX	3
MEAN	1.8
STD DEV	1.0
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm^2

MIN	63
MAX	4426
MEAN	1954.3
STD DEV	1827.5
$DCGL_W$	100

105

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 3265
Cal Due 4-16-00	Cal Due 5-17-00	Cal Due 7-3-00
Bkg. 0.0 cpm	Bkg. 0.5 cpm	Bkg. 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency .2101
MDA 8.2 dpm	MDA 15.6 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg. NETech
Model BC-4	Model BC-4	Model Electra
Serial # 872	Serial # 833	Serial # 3120
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due 4-26-00
Bkg. 61 cpm	Bkg. 52 cpm	Bkg. 2.0 cpm
Efficiency 25%	Efficiency 25%	Efficiency .2109
MDA 118.6 dpm	MDA 110.4 dpm	MDA 94 dpm

Survey Type: **Contamination**

Building: **707**

Location: Module C Survey Area C

Purpose: **Reconnaisance Level Characterization**

RWP # 00 707 1204

Date: 3-9 3-10-00 Time: Days

[redacted]

Comments: Equipment : Biased survey points.
1 minute pats and swipes. See map for locations. 1 of 3
3 bkgd counts alpha electra <8cpm (2,2,4)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	GB 5 & B	0	-4	144	16.	GB-008 Port 12	0	20	996
2.	GB 521	6	-40	108	17.	GB 008 Port 18	30	24	4638
3.	S-5 CNVYR Port 109	60	-40	8490	18.	Crit Drain	21	-4	690
4.	S-5 CNVYR under Port 13	0	-36	84	19.	7-C-110 Port 0029	9	-12	4032
5.	Air Vent #31	0	-32	336	20.	GB-7-C-110 Window 0033	27	44	4344
6.	GB C-50	3	0	66	21.	GB 7-C-110 Port 43	12	-28	216
7.	GB C-60	6	-24	60	22.	GB C120 Bagout Port	0	-48	120
8.	GB C-70 S-5 CNVYR	3	40	66	23.	3 Step rollaround stool	0	0	840
9.	Air Vent #27	0	-32	222	24.	S-5 CNVYR Crit Drain	3	24	1080
10.	GB C-80	3	20	90	25.	GB 125 Port 28	3	8	156
11.	GB C 80 S-5 CNVYR	0	16	30	26.	GB 115 Port 18	129	-36	37806
12.	GB C-90 S-5 CNVYR	0	-12	78	27.	GB 115 Port 16	36	-40	9096
13.	GB C-90 Port 325	3	-20	36	28.	GB 115 Port 8	39	28	2646
14.	Air vent #25	3	-28	354	29.	GB 115 Port 5	147	-8	8178
15.	S-5 CNVYR	6	-12	60	30.	GB 105 S-5 CNVYR	3	44	12894

Date Reviewed: 3-16-00 **RS Supervisio**[redacted]

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

2 of 3

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	GB 105 S-5CNVYR	0	-20	33750	61.				
32.	GB C-95 Port 45	3	52	642	62.				
33.	GB C95 Port 17	0	-32	990	63.				
34.	Crit Drain	3	60	432	64.				
35.	S-5 CNVYR Port 34	0	28	36	65.				
36.	GB C65B Port 0043	21	20	4716	66.				
37.	GB C65 under Port 0034	15	-36	144	67.				
38.	GB C65 Port 0025	6	28	10086	68.				
39.	S-5 CNVYR Port 32	9	24	7578 ~~1265~~	69.				
40.	GB C45 S-5CNVYR	51	-8	2418	70.				
41.	GB C45B on Heald sign	30	24	4338	71.				
42.	GB C45B Port 0057	81	36	3492	72.				
43.	GB 25B S-5CONVYR	0	8	1824	73.				
44.	GB 25B Port 57	12	-24	2238	74.				
45.	GB 25A under Port 32	60	-36	4674	75.	N/A			
46.	END OF SURVEY				76.				
47.					77.				
48.					75.				
49.					79.				
50.					80.				
51.					81.				
52.					82.				
53.	N/A				83.				
54.					84.				
55.					85.				
56.					86.				
57.					87.				
58.					88.				
59.					89.				
60.					90.				

RS FORMS 07.02-01

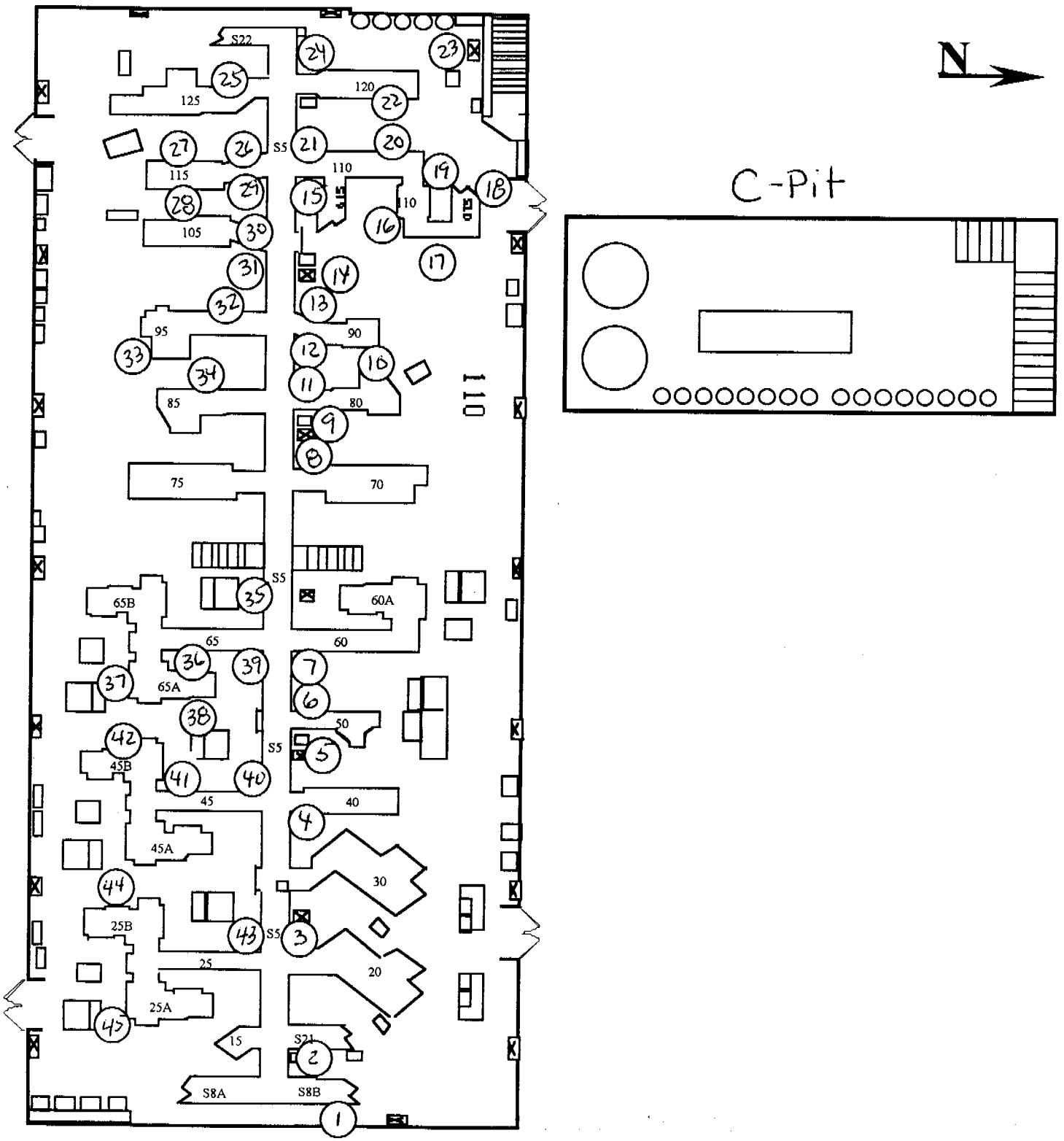
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

3 of 3

Drawing Showing Survey Points

MODULE C



 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 3265
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 7-3-00
Bkg. 0.1 cpm	Bkg. 0.2 cpm	Bkg. 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency .2/0.1
MDA 11.5 dpm	MDA 12.9 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg. NETech
Model BC-4	Model BC-4	Model Electra
Serial # 872	Serial # 833	Serial # 3120
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due 4-26-
Bkg. 51 cpm	Bkg. 53 cpm	Bkg. 2.0
Efficiency 25%	Efficiency 25%	Efficiency .2/0
MDA 109.4 dpm	MDA 111.3 dpm	MDA 94 dpm

Survey Type: **Contamination**

Building: 707

Location: Module C Survey Area C

Purpose: **Reconnaisance Level Characterization**

RWP # 00707 1204

Date: 3-9 3-10-00 Time: Days

[redacted]

Comments: Ceiling / Walls > 2 meters : Biased survey points.

1 minute pats and swipes. See map for locations. 1 of 2

3 bkgd Counts alpha electra < 8cpm (0,2,3) 3-9-00

3 bkgd Counts alpha electra < 8cpm (0,0,3) 3-10-00

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	W > 2m	0	64	-12	16.	W > 2m	0	24	0
2.	" "	0	64	-6	17.	" "	6	-40	0
3.	" "	0	-12	-12	18.	" "	0	24	-6
4.	" "	0	-16	6	19.	" "	3	48	-18
5.	" "	0	-12	0	20.	" "	3	-40	-12
6.	" "	0	32	18	21.	Ceiling	3	16	6
7.	" "	0	40	0	22.	"	0	-20	-12
8.	" "	0	88	12	23.	"	0	12	0
9.	" "	0	-40	6	24.	"	3	-16	12
10.	" "	0	4	6	25.	"	0	80	12
11.	" "	0	20	-6	26.	"	3	28	-6
12.	" "	0	16	0	27.	"	0	32	0
13.	" "	3	24	-18	28.	"	0	-40	-12
14.	" "	3	32	12	29.	"	21	40	6
15.	" "	3	36	12	30	"	0	48	48

Date Reviewed: 3-16-00 **RS Supervision:** [redacted]

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1233
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 5-11-00
Bkg. 0.2 cpm	Bkg. 1.0 cpm	Bkg. 1.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 1.2063
MDA 12.9 dpm	MDA 11.5 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due
Bkg. 53 cpm	Bkg. 52 ~~dpm~~ cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 111.3 dpm	MDA 110.4 dpm	MDA

[redacted]

Survey Type: Contamination

Building: 707

Location: Pit Survey Area 3-14-00 Rev 440

Purpose: Reconnaisance Level Characterization

RWP # 00 707 1204

Date: 3-14-00 Time: Days

RCT: Print name / Signature / Emp. #

Comments: Ceiling / Walls > 2 meters : Biased survey points.
1 minute pats and swipes. See map for locations. BKGD <8cpm
3 bkgd counts alpha electra <8cpm (1,1,3)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	W >2m	3	-12	6	16.				
2.	" "	3	-8	66	17.				
3.	" "	6	-28	24	18.				
4.	" "	6	-8	120	19.				
5.	" "	1032	-16	12	20.				
6.	" "	159	16	18	21.				
7.	" "	69	-52	888	22.	N/A			
8.	" "	3	28	24	23.				
9.	Ceiling	0	-48	12	24.				
10.	Ceiling	3	-44	30	25.				
11.	End of Survey				26.				
12.					27.				
13.	N/A				28.				
14.					29.				
5.					30.				

Date Reviewed: 3-16-00 **RS Supervis** [redacted]

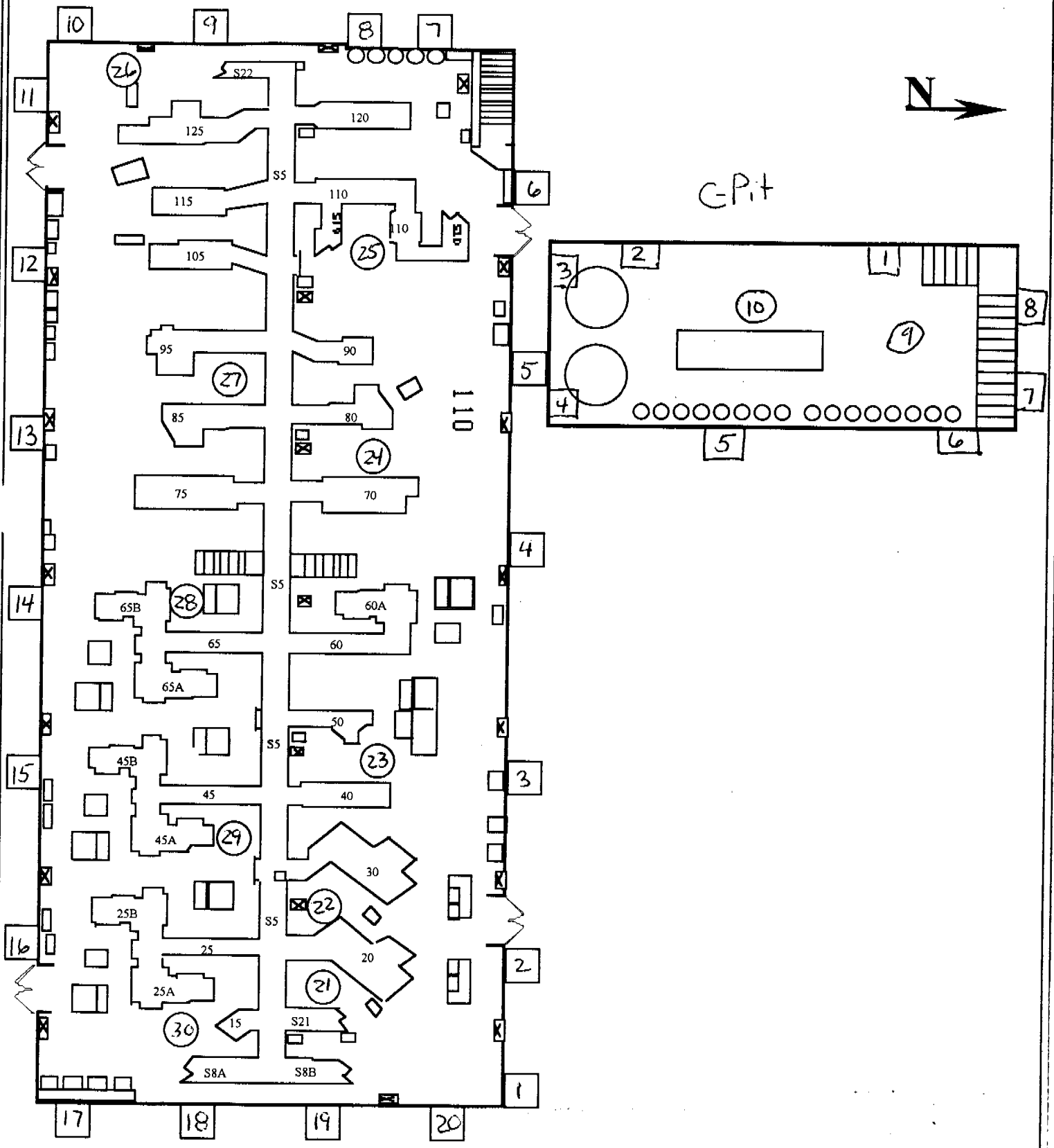
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

MODULE C



 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1518
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 6-29-00
Bkg. 0.0 cpm	Bkg. 0.5 cpm	Bkg. 20 cpm
Efficiency 33%	Efficiency 33%	Efficiency .2186
MDA 8.2 dpm	MDA 15.6 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg. NETech
Model BC-4	Model BC-4	Model Electra
Serial # 872	Serial # 833	Serial # 3265
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due 7-3-00
Bkg. 61 cpm	Bkg. 52 cpm	Bkg. 2.0 cpm
Efficiency 25%	Efficiency 25%	Efficiency .2101
MDA 118.6 dpm	MDA 110.4 dpm	MDA 94 dpm

Survey Type: **Contamination**

Building: **707**

Location: Module C Survey Area O

Purpose: **Reconnaisance Level Characterization**

RWP # 00707 1204

Date: 3-10-00 Time: Days

[redacted]

Comments: Floor / Walls < 2 meters : Biased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations. 1082
3 bkgd Counts alpha electra <8cpm (3,3,5)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	F C Pit under GB	9	16	360	16.				
2.	S-8B F under GB	3	-20	360	17.				
3.	F under GB C40	12	56	6	18.				
4.	F under GB C80	0	-4	12	19.				
5.	F under S-19 CNVYR	3	-24	1416	20.				
6.	F Crit Drain	3	28	630	21.				
7.	F under GB 125	0	40	18	22.				
8.	F under GB 105	3	32	54	23.	N/A			
9.	F under GB 45B	0	44	30	24.				
10.	F under GB 45B	0	-16	120	25.				
11.	Wall next to GB 45B	0	16	930	26.				
12.	F under GB 45B	6	-40	1350	27.				
13.	F under GB 45A CNVYR105	45	0	1084	28.				
14.	F mat GB 25B	3	24	1764	29.				
15.	END OF SURVEY				30				

Date Reviewed: 3-16-00 **RS Supervision:** [redacted]

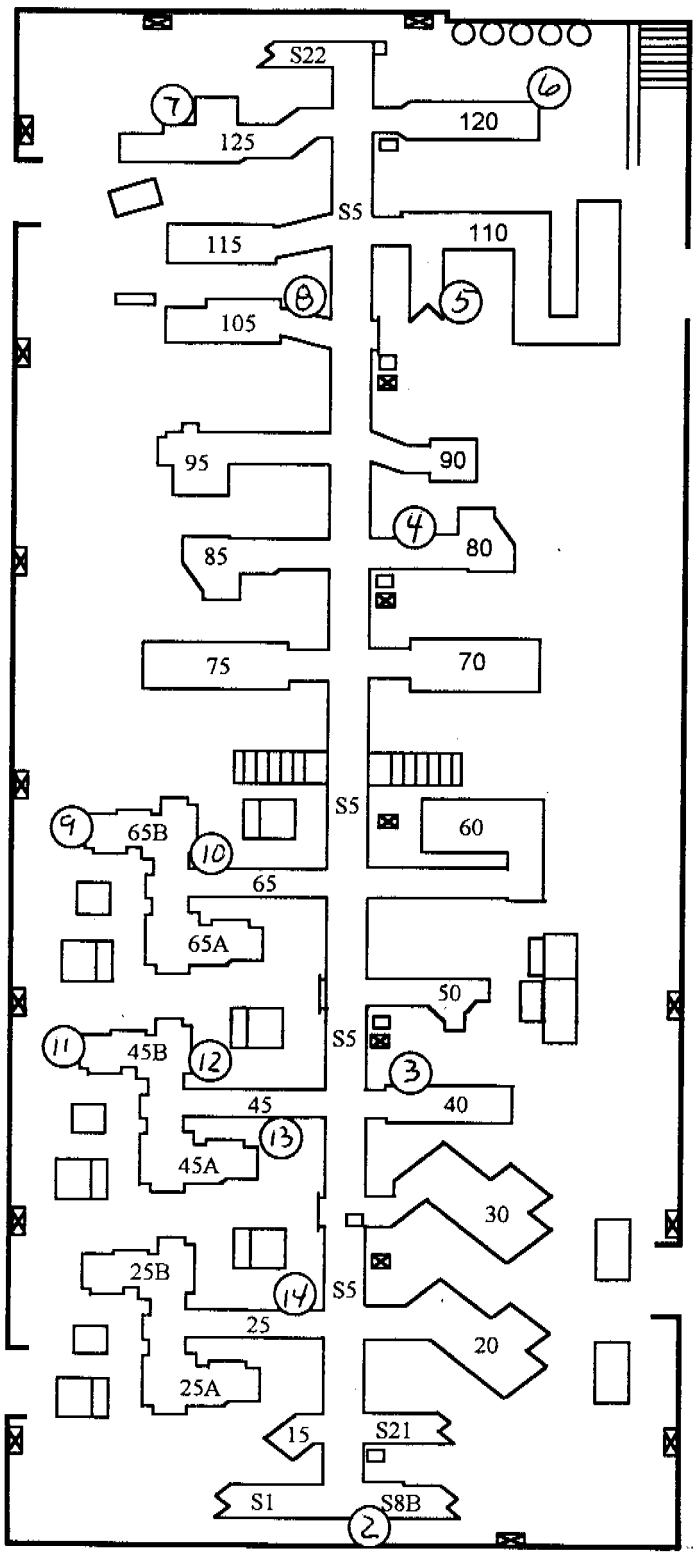
RS FORMS 07.02-01

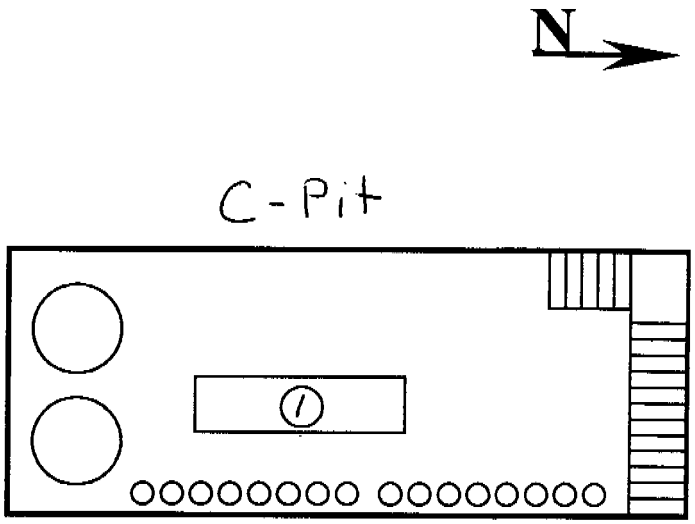
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

MODULE C





 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 3265
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 7-3-00
Bkg. 0.1 cpm	Bkg. 0.4 cpm	Bkg. 1.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency .2101
MDA 11.5 dpm	MDA 14.8 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg. NE Tech
Model BC-4	Model BC-4	Model Electra
Serial # 872	Serial # 833	Serial # 1389
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due 6-29-00
Bkg. 47 cpm	Bkg. 44 cpm	Bkg. 0.0 cpm
Efficiency 25%	Efficiency 25%	Efficiency .2077
MDA 105.5 dpm	MDA 102.4 dpm	MDA 94 dpm

Survey Type: **Contamination**

Building: **707**

Location: C Module Survey Area O

Purpose: **Reconnaisance Level Characterization**

RWP # 00 707 1204

Date: 3-6/3-7-00 Time: Days

[redacted]

Comments: Floor / Walls < 2 meters : Unbiased survey points. 102.4 3-7-00

1 m² scans, 1 minute pats and swipes. See map for locations.

3 bkgd counts alpha electra <8cpm (1,1,3) 3-6-00

3 bkgd counts alpha electra <8cpm (2,3,3) 3-7-00

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	F	0	12	6	16.	F	6	16	60
2.	F	6	36	150	17.	F	15	32	144
3.	F	3	28	54	18.	F	9	28	24
4.	F	3	4	6	19.	F	0	24	24
5.	F	0	16	66	20.	F	3	60	486
6.	F	6	76	36	21.	F	12	0	60
7.	F	0	36	12	22.	F	9	-28	258
8.	F	0	-40	18	23.	F	6	44	24
9.	F	6	40	18	24.	F	9	24	162
10.	F	0	32	18	25.	F	0	24	144
11.	F	0	40	18	26.	F	0	40	138
12.	F	0	16	12	27.	F	0	84	78
13.	F	0	-32	66	28.	F	0	-40	12
14.	F	0	8	78	29.	F	0	28	6
15.	F	3	0	0	30.	F	15	4	270

Date Reviewed: 3-16-00 **RS Supervision** [redacted]

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

2 of 24
3-7-00

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	F	3	-48	30	61.				
32.	F	9	60	54	62.				
33.	F	0	-40	36	63.				
34.	W < 2 meters	6	24	36	64.				
35.	" "	0	12	42	65.				
36.	" "	0	-16	12	66.				
37.	" "	0	4	121	67.				
38.	" "	21	-52	1878	68.				
39.	" "	48	-4	7596	69.				
40.	" "	0	-4	18	70.				
41.	" "	0	84	48	71.				
42.	" "	3	20	18	72.				
43.	" "	3	48	9446	73.				
44.	" "	0	-16	48	74.				
45.	" "	3	-24	36	75.				
46.	END OF SURVEY				76.				
47.					77.				
48.					75.				
49.					79.				
50.					80.				
51.					81.				
52.					82.				
53.					83.				
54.					84.				
55.					85.				
56.					86.				
57.					87.				
58.					88.				
59.					89.				
60.					90.				

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1245
Cal Due 4-16-00	Cal Due 5-17-00	Cal Due 7-3-00
Bkg. 0.2 cpm	Bkg. 0.3 cpm	Bkg. 1.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency .2236
MDA 12.9 DPM	MDA 13.9 DPM	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg. NE Tech
Model BC-4	Model BC-4	Model Electra
Serial # 872	Serial # 833	Serial # 3265
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due 7-3-00
Bkg. 52 cpm	Bkg. 50 cpm	Bkg. 1.0 cpm
Efficiency 25%	Efficiency 25%	Efficiency .2101
MDA 110.4 DPM	MDA 108.4 DPM	MDA 94 dpm

Survey Type: **Contamination**

Building: 707

Location: C Pit Survey Area A

Purpose: **Reconnaisance Level Characterization**

RWP # 00 707 1204

Date: 3-7-00 3-8-00 Time: Days

[redacted]

Comments: Floor / Walls < 2 meters : Unbiased survey points. 3 of 4

1 m² scans, 1 minute pats and swipes. See map for locations.

3 bkgd counts alpha electra <8 cpm (0, 2, 4) 3-7-00

3 bkgd counts alpha electra <8 cpm (0, 0, 3) 3-8-00

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	F	6	-4	12	16.				
2.	F	648	-20	7800	17.				
3.	F	84	4	1650	18.				
4.	F	6	16	78	19.				
5.	F	0	8	36	20.				
6.	10 < 2 m	9	-28	678	21.				
7.	" "	3480	-20	8910	22.				
8.	" "	9	-40	366	23.				
9.	" "	6	-12	768	24.				
10.	" "	0	16	186	25.				
11.	" "	3	48	540	26.				
12.	" "	0	40	54	27.				
13.	" "	204	-16	4300	28.				
14.	NA End of Survey				29.				
15.					30.				

NA

Date Reviewed: 3-16-00 RS Supervision: [redacted]

Print Name Signature Emp. #

RS FORMS 07.02-01

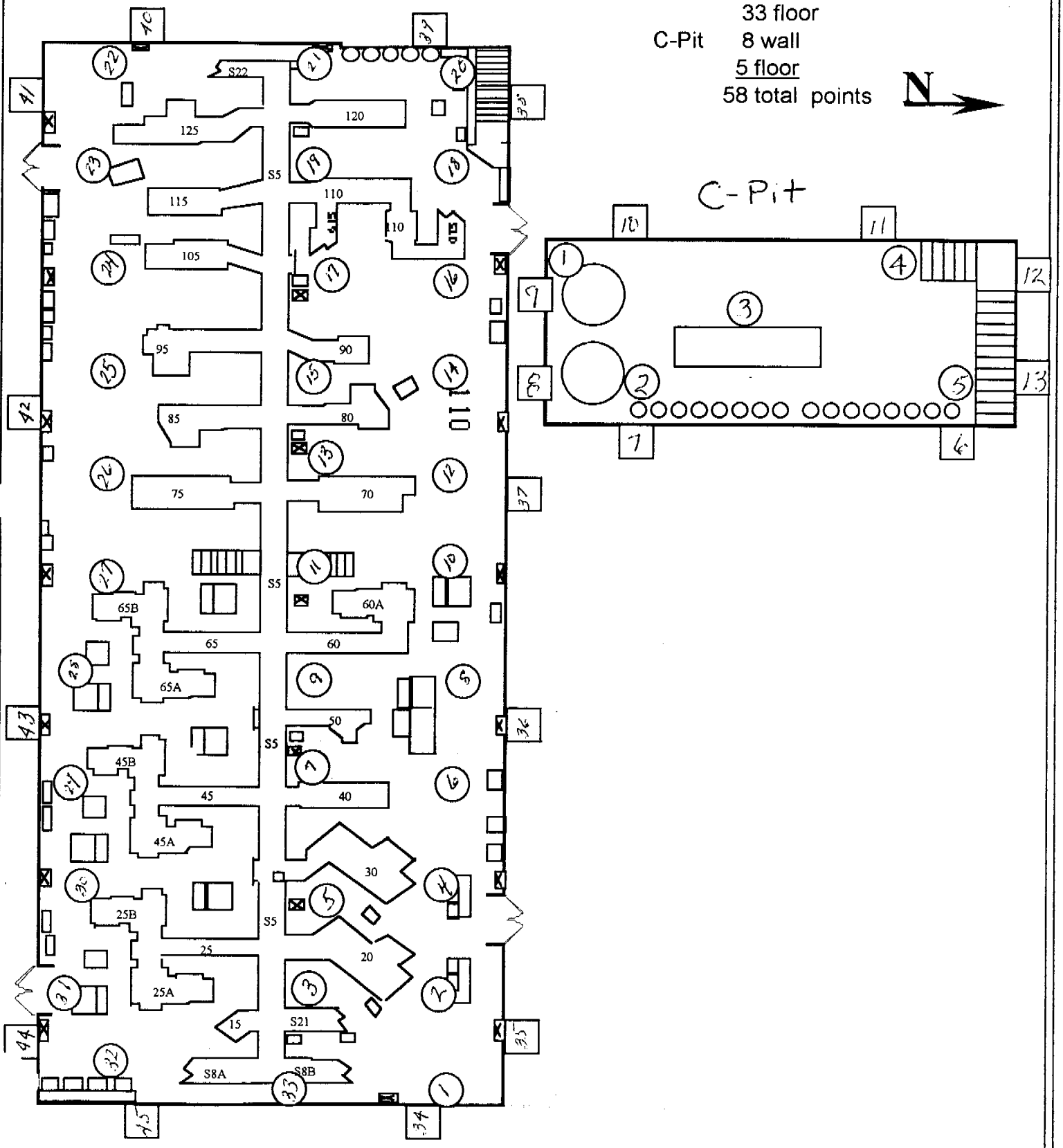
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points 4 of 4

MODULE C

Floor / Walls <2meters unbiased
C-mod 12 wall
33 floor
C-Pit 8 wall
5 floor
58 total points



RS FORMS 07.02-01

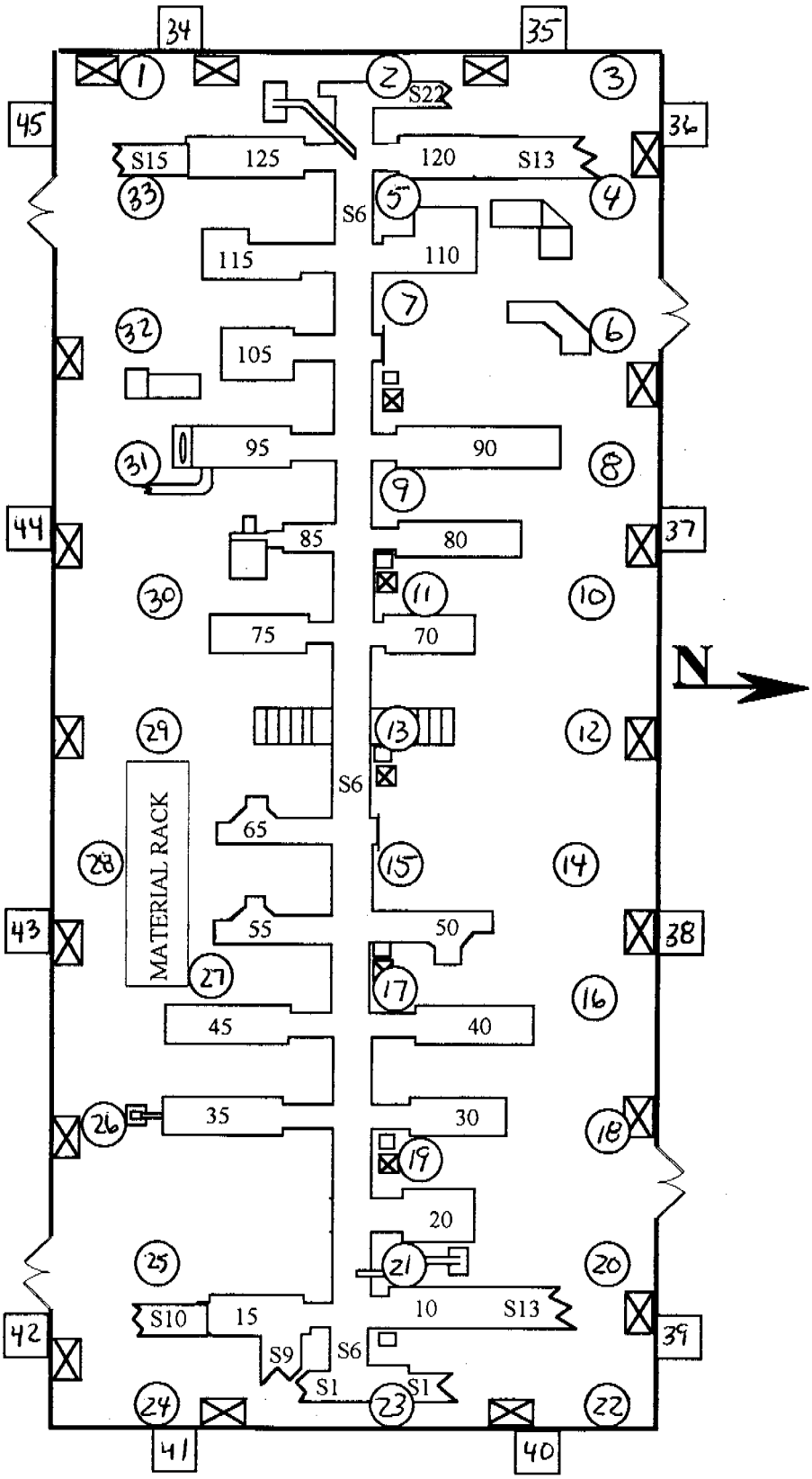
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Floor / Walls <2meters unbiased
12 wall
33 floor
45 total points

MODULE D



Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#013/014	Matrix:	Waste
Site Sample ID:	009.002				
Other Sample ID:	707-P-09-00	Collection Date:	4/26/00	Date Received:	5/2/00
		Batch Number:	1929	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1929-09	0.227	0.112	0.121	0.036
ACW03	U-235	KH100-1929-09	0.043	0.059	0.060	0.079
ACW03	U-238	KH100-1929-09	0.180	0.101	0.107	0.064
ACW03	PU-238	KH100-1929-09	7.89	3.00	3.39	0.258
ACW03	PU-239/240	KH100-1929-09	217	68.2	80.9	0.258
ACW03	AM-241	KH100-1929-09	37.3	7.75	10.7	0.211

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1929-LC1	SCAQC-1929-LD1	SCAQC-1929-PB
Pu	SCAQC-1929-LC1	SCAQC-1929-LD1	SCAQC-1929-PB
Am	SCAQC-1929-LC1	SCAQC-1929-LD1	SCAQC-1929-PB

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

CAS SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 009
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-09-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen - 2 grams / 50 cm² (1/2 grid). ISO - 7 grams over 150 cm² (1 1/2 grids) Total = 200 cm² - 2 grids

Location Description: Bldg. 707, Module C, floor next to N.W. Door

Other ID: 707-P-09-00

Sample Appearance: Red paint scrapings

Sampling Device: Heat gun + chisel

Sample Date: 4/26/00 Sample Time: 13:15 Rad Screen Date: 4/26/00

Was generator notified to receive excess sample? (YES) X (NO) ____

Samplers Signatur[redacted]
Employee Number[redacted]

Date: 4/26/00 4/26/00

4/20

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#013/014	Matrix:	Waste
Site Sample ID:	010.002				
Other Sample ID:	707-P-10-00	Collection Date:	4/26/00	Date Received:	5/2/00
		Batch Number:	1929	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1929-10	0.057	0.074	0.075	0.101
ACW03	U-235	KH100-1929-10	-0.026	0.031	0.032	0.139
ACW03	U-238	KH100-1929-10	0.174	0.122	0.127	0.112
ACW03	PU-238	KH100-1929-10	6.78	2.72	3.04	0.270
ACW03	PU-239/240	KH100-1929-10	301	96.8	114	0.374
ACW03	AM-241	KH100-1929-10	22.9	4.42	6.37	0.144

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1929-LC1	SCAQC-1929-LD1	SCAQC-1929-PB
Pu	SCAQC-1929-LC1	SCAQC-1929-LD1	SCAQC-1929-PB
Am	SCAQC-1929-LC1	SCAQC-1929-LD1	SCAQC-1929-PB

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

038

421

CAS SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 010
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-10-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen - 2 grams/ 100 cm2 (1 grid). I30 - 7 grams/300 cm2 (3 grids) Total = 400 cm2/4 grids.

Location Description: Bldg. 707, Module C, floor under Glovebox C-110 directly under port 0014

Other ID: 707-P-10-00

Sample Appearance: Red paint scraping

Sampling Device: Heat gun & chisel

Sample Date: 4/26/00 Sample Time: 13:25 Rad Screen Date: 4/26/00

Was generator notified to receive excess sample? (YES) X (NO) ____

Samplers Employee [redacted]

Date: 4/25/00 4/26/00

422

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#014/002	Matrix:	Waste
Site Sample ID:	011.002				
Other Sample ID:	707-P-11-00	Collection Date:	4/26/00	Date Received:	5/2/00
		Batch Number:	1930	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1930-01	0.072	0.065	0.066	0.039
ACW03	U-235	KH100-1930-01	0.011	0.038	0.038	0.085
ACW03	U-238	KH100-1930-01	0.057	0.058	0.059	0.039
ACW03	PU-238	KH100-1930-01B	26.2	11.1	12.3	0.746
ACW03	PU-239/240	KH100-1930-01B	912	342	388	0.746
ACW03	AM-241	KH100-1930-01B	74.9	10.8	18.5	0.194

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB
Pu	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB
Am	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

CAS SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 011
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707P-11-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: |
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen - 2 grams, 100cm² (1 grid). ISO - 7 grams / 200cm² (2 grids) Total = 300cm² / 3 grids. ~~Barcode for events 011 through 040 is event 056~~ MY 4/27/00 MY 4/26/00

Location Description: Bldg. 707, Module C, floor under glovebox C-120 between ports 17+18 near Crit. drain.

Other ID: 707-P-11-00

Sample Appearance: Red paint scrapings with some purple paint

Sampling Device: Heat gun & chisel

Sample Date: 4/26/00 Sample Time: 13:48 Rad Screen Date: 4/26/00

Was generator notified to receive excess sample? (YES) X (NO) ____

Samplers Sig[redacted]
Employee Nu[redacted]

Date: ~~05/01/00~~ 4/26/00

424

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#014/002	Matrix:	Waste
Site Sample ID:	012.002				
Other Sample ID:	707-P-12-00	Collection Date:	4/26/00	Date Received:	5/2/00
		Batch Number:	1930	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1930-02	0.078	0.070	0.071	0.067
ACW03	U-235	KH100-1930-02	0.052	0.060	0.062	0.047
ACW03	U-238	KH100-1930-02	0.230	0.117	0.126	0.066
ACW03	PU-238	KH100-1930-02	0.244	0.166	0.173	0.199
ACW03	PU-239/240	KH100-1930-02	8.65	1.25	2.14	0.083
ACW03	AM-241	KH100-1930-02	1.03	0.356	0.412	0.065

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB
Pu	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB
Am	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

038

425

ASI SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 012
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-12-00
FIELD BLANK ID:
EQUIPMENT BLANK ID:
TRIP BLANK:

Comments/Problems encountered during sampling: Radscreen - 2 grams over 50 cm² (1/2 grid). ISO - 7 grams over 150 cm² (1 1/2 grids). Total = 200 cm² (2 grids)

Location Description: Bldg. 707, Module C, floor outside of HCA, below glovebox C-40 under ports 9 + 10.

Other ID: 707-P-12-00

Sample Appearance: Red paint scrapings

Sampling Device: Heat gun + chisel

Sample Date: 4/26/00 Sample Time: 14:42 Rad Screen Sample Date: 4/26/00

Was generator notified to receive excess sample? (Yes) X (No)

Sampler's Signatur [redacted]

Employee I [redacted]

Date: 4/26/00 4/26/00

426

Lmc 06/29/98

A-3
RLC RADIOLOGICAL DATA
Survey Area O
Concrete Core

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1197

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1197#003	Matrix:	Waste
Site Sample ID:	011.003				
Other Sample ID:	BLDG 707 Module C	Collection Date:	5/2/00	Date Received:	5/4/00
		Batch Number:	1937	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1937-01	0.924	0.240	0.303	0.037
ACW03	U-235	KH100-1937-01	0.044	0.060	0.061	0.080
ACW03	U-238	KH100-1937-01	0.880	0.233	0.292	0.037
ACW03	PU-238	KH100-1937-01	0.030	0.042	0.043	0.040
ACW03	PU-239/240	KH100-1937-01	0.000	0.000	0.000	0.040
ACW03	AM-241	KH100-1937-01	-0.006	0.012	0.012	0.069

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1937-LC1	SCAQC-1937-LD1	SCAQC-1937-PB
Pu	SCAQC-1937-LC1	SCAQC-1937-LD1	SCAQC-1937-PB
Am	SCAQC-1937-LC1	SCAQC-1937-LD1	SCAQC-1937-PB

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

A-3
RLC RADIOLOGICAL DATA
Survey Area P
1st Floor, Module D [Room 115]

Radiological Survey/Sample Results for Survey Area P (99-0002)

Total Surface Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	45	45
MIN	-12	N/A
MAX	324	N/A
MEAN	22.9	N/A
STD DEV	50.3	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	7	7
MIN	6	N/A
MAX	54	N/A
MEAN	19.7	N/A
STD DEV	17.2	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	30
MIN	6	N/A
MAX	60	N/A
MEAN	20.2	N/A
STD DEV	15.4	N/A
Equipment Biased	# Required	# Obtained
	40	40
MIN	6	N/A
MAX	9700	N/A
MEAN	625.5	N/A
STD DEV	1969.5	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	45	45
MIN	0	-60
MAX	3	100
MEAN	0.7	26.4
STD DEV	1.3	34.3
Floors/Walls < 2 m Biased	# Required	# Obtained
	7	7
MIN	0	-44
MAX	3	52
MEAN	0.4	-1.7
STD DEV	1.1	35.8
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	30
MIN	0	0
MAX	3	48
MEAN	0.9	20.3
STD DEV	1.4	11.7
Equipment Biased	# Required	# Obtained
	40	40
MIN	0	0
MAX	39	76
MEAN	3.2	23.3
STD DEV	7.7	19.0
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
4	3

Total Uranium Results dpm/100 cm²

MIN	1
MAX	3
MEAN	2.0
STD DEV	1.0
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm²

MIN	16
MAX	199
MEAN	123.3
STD DEV	95.5
$DCGL_W$	100

430

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 3265
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 7-3-00
Bkg. 0.1 cpm	Bkg. 0.0 cpm	Bkg. 1.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 21.01%
MDA 11.5 DPM	MDA 8.2 DPM	MDA 94 DPM
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 58 cpm	Bkg. 52 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 116 DPM	MDA 110.4 DPM	MDA

Survey Type: **Contamination**

Building: 707

Location: D - mod Survey Area P

Purpose: **Reconnaisance Level Characterization**

RWP # 00 - 707 - 1204

Date: 3-8-00 Time: 1530

[redacted]

Comments: Floor / Walls < 2 meters : Biased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.
3 bkgd readings < 8cpm alpha (0,0,4) electra

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	crit DRAIN	0	-40	6	16.				
2.	Floor	0	52	54	17.				
3.	Floor	0	-44	18	18.				
4.	Crit Drain	0	-4	12	19.				
5.	Floor	3	28	12	20.				
6.	Floor	0	-20	30	21.				
7.	Floor	0	16	6	22.				
8.	END OF SURVEY				23.	N/A			
9.					24.				
10.					25.				
11.	N/A				26.				
12.					27.				
13.					28.				
14.					29.				
15.					30.				

Date Reviewed: 3-14-00 RS Supervision: [redacted]

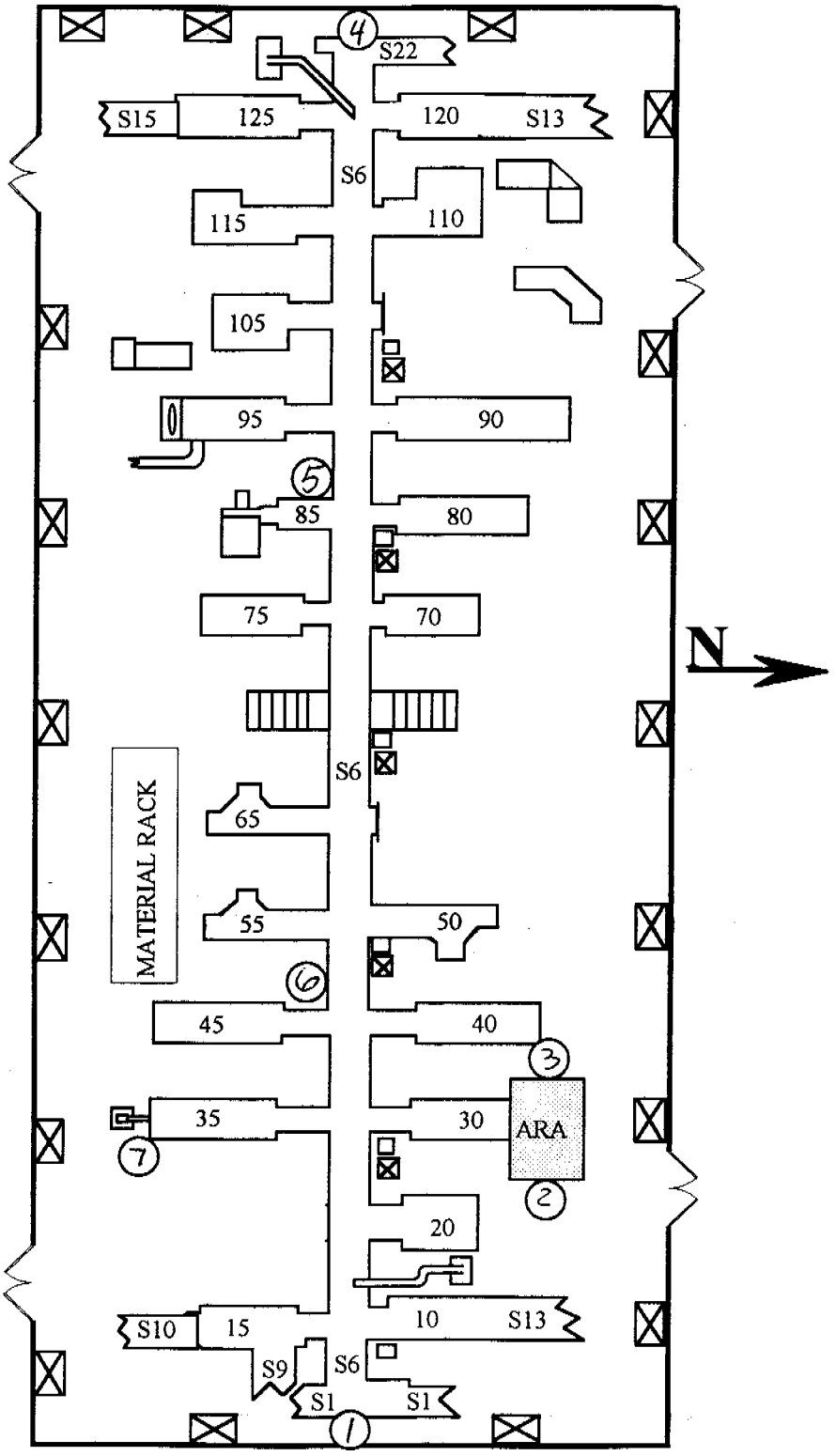
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

MODULE D



 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1389
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 6-29-00
Bkg. 0.1 cpm	Bkg. 0.2 cpm	Bkg. α 3.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 20.77%
MDA 11.5 DPM	MDA 12.9 DPM	MDA 94 DPM
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial # N/A
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due
Bkg. 51 cpm	Bkg. 63 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 109.4 DPM	MDA 120.4 DPM	MDA

Survey Type: Contamination
Building: 707
Location: D-mod Survey Area P
Purpose: Reconnaisance Level Characterization

RWP # 00-707-1204
Date: 3-9-00 Time: 1500

[redacted]

Comments: Ceiling / Walls > 2 meters : Biased survey points.
1 minute pats and swipes. See map for locations.
3 background readings alpha <8cpm (1,3,3) electra

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	WALLS	0	12	18.0	16.	WALLS	0	12	12.0
2.	"	0	(28)	54.0	17.	"	3	(20)	30.0
3.	"	0	(40)	30.0	18.	"	3	8	18.0
4.	"	0	0	60.0	19.	"	3	(12)	12.0
5.	"	3	(12.0)	18.0	20.	"	0	(36)	6.0
6.	"	0	(48)	18.0	21.	"	0	(32)	(6.0)
7.	"	0	(28)	(12.0)	22.	"	0	(20)	6.0
8.	"	0	(12)	12.0	23.	"	0	(20)	18.0
9.	"	3	(24)	6.0	24.	OVERHEAD	3	(12)	18.0
10.	"	0	(20)	24.0	25.	"	0	36	6.0
11.	"	0	(32)	(6.0)	26.	"	0	12	48.0
12.	"	0	12	6.0	27.	"	0	(24)	(6.0)
13.	"	3	8	(6.0)	28.	"	3	8	36.0
14.	"	0	24	36.0	29.	"	3	(36)	24.0
15.	"	0	(12)	12.0	30.	"	0	8	42.0

Date Reviewed: 3-14-00 **RS Supervision** [redacted]

RS FORMS 07.02-01

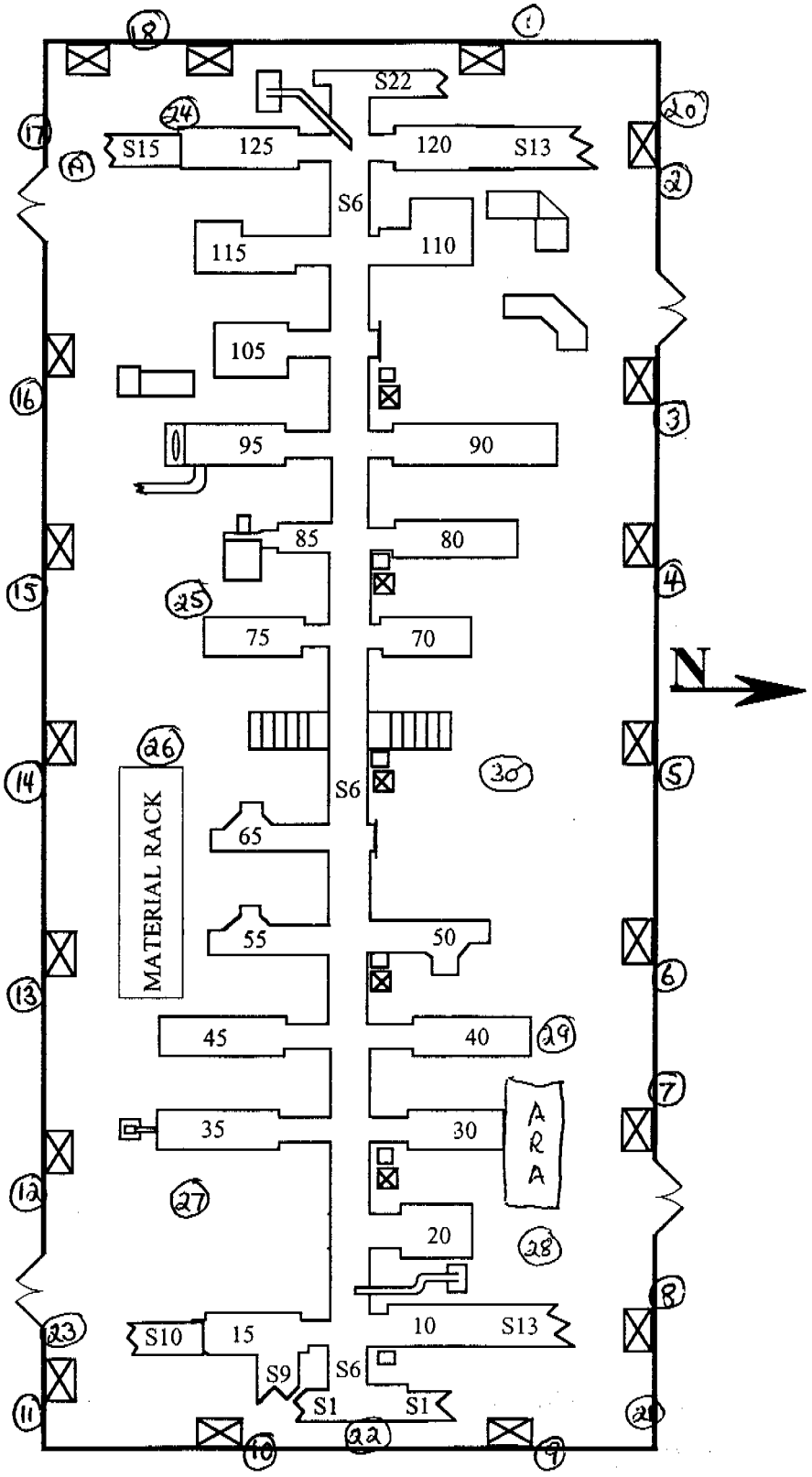
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Ceiling / Walls >2 meters
30 biased points

MODULE D



434

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 3265
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 7-3-00
Bkg. 0.0 cpm	Bkg. 0.5 cpm	Bkg. a 3.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 21.01%
MDA 8.2 DPM	MDA 16.6 DPM	MDA 94 DPM
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial # N/A
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due
Bkg. 61 cpm	Bkg. 52 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 118.6 DPM	MDA 110.4 DPM	MDA

Survey Type: Contamination

Building: 707

Location: D-mod Survey Area P

Purpose: Reconnaisance Level Characterization

RWP # 00-707-1204

Date: 3-10-00 Time: 1500

[redacted]

Comments: Equipment : Biased survey points.
1 minute pats and swipes. See map for locations.
3 background counts alpha < 8cpm (0,3,7) electra

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	EXHAUST DUCT	0	(16)	162.0	16.	GB	0	36	48.0
2.	" "	0	(24)	144.0	17.	BAG OUT (0012)	6	(48)	(6.0)
3.	" "	0	(24)	120.0	18.	GB	39	(8)	582.0
4.	" "	0	12	276.0	19.	GB - SAMPLE PORT	3	(12)	54.0
5.	" "	0	36	180.0	20.	GB	0	(4)	(6.0)
6.	" "	0	(4)	102.0	21.	BAG OUT (0016)	3	4	30.0
7.	" "	0	8	270.0	22.	BAG OUT (0012)	3	48	12.0
8.	" "	0	8	102.0	23.	GB	0	(16)	6.0
9.	" "	0	12	90.0	24.	GB	0	76	1818.
10.	" "	0	48	204.0	25.	GB	6	48	8.1K
11.	" "	0	24	60.0	26.	GB	0	8	12.0
12.	" "	3	32	60.0	27.	GB	3	(16)	96.0
13.	BAG OUT (0222)	3	8	30.0	28.	GB	6	(32)	42.0
14.	GB	6	4	6.0	29.	GB	3	(24)	1560.
5.	BAG OUT	0	(20)	72.0	30.	BAG OUT (0183E)	6	72	72.0

Date Reviewed: 3-14-00 RS Supervision: [redacted]

135

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	GB	0	(36)	(6.0)	61.				
32.	GB	0	0	894.0	62.				
33.	GB	30	52	9.7K	63.				
34.	GB	3	(40)	18.0	64.				
35.	GB	0	(16)	6.0	65.				
36.	OVERHEAD PIPING	0	8	6.0	66.				
37.	"	3	(24)	12.0	67.				
38.	"	0	4	6.0	68.				
39.	"	0	8	36.0	69.				
40.	"	0	(12)	12.0	70.				
41.	END OF SURVEY				71.				
42.					72.				
43.					73.				
44.					74.				
45.					75.				
46.					76.	N/A			
47.					77.				
48.					75.				
49.					79.				
50.	N/A				80.				
51.					81.				
52.					82.				
53.					83.				
54.					84.				
55.					85.				
56.					86.				
57.					87.				
58.					88.				
59.					89.				
60.					90.				

RS FORMS 07.02-01

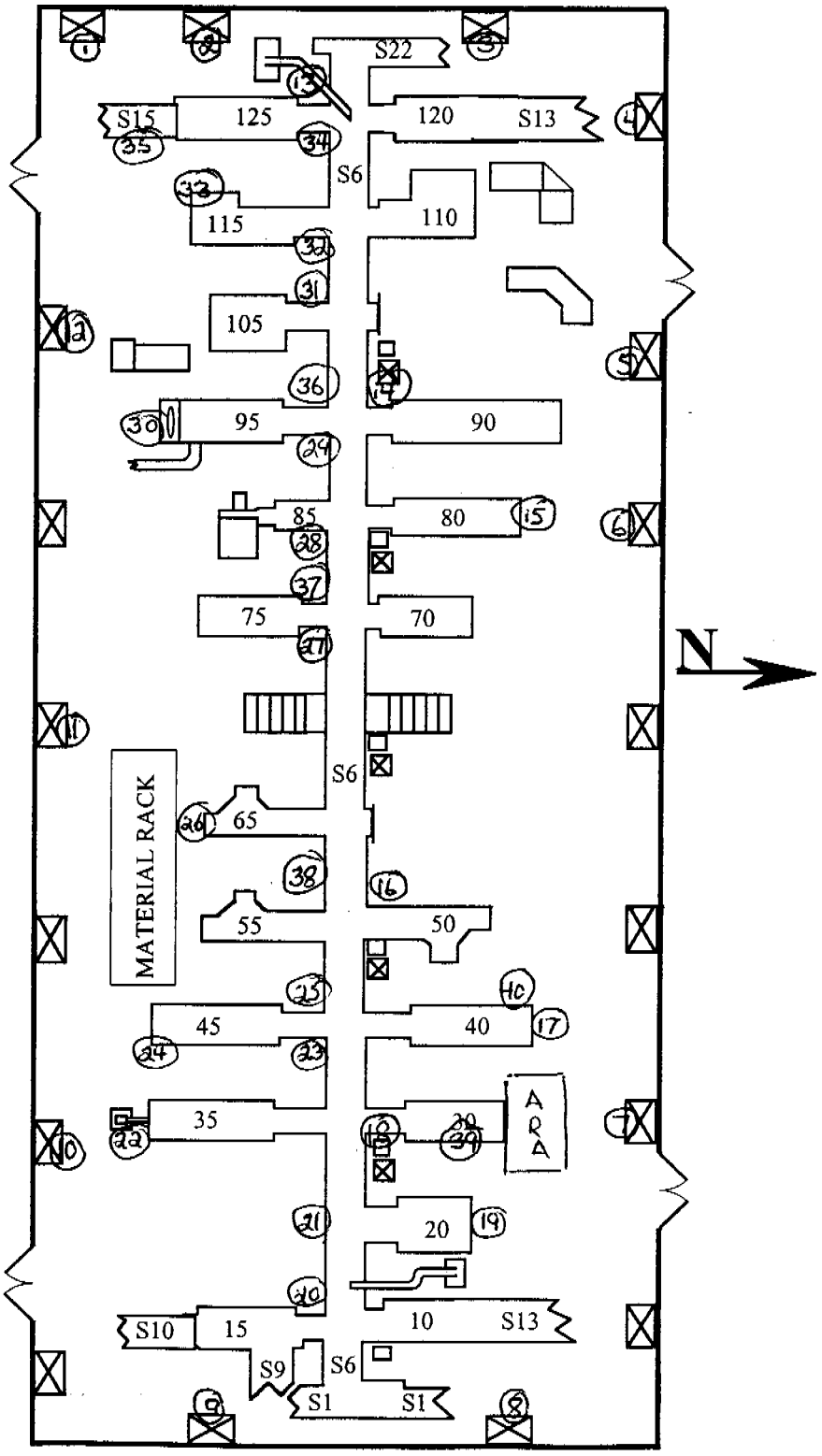
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Equipment
40 biased points

MODULE D



C:\Modulemaps\maps\map-d.cdd

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 879	Serial # 837	Serial # 1245
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 7-3-00
Bkg. 0.1 cpm	Bkg. 0.4 cpm	Bkg. < 3.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 22.36%
MDA 11.5 dpm	MDA 14.8 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 47 cpm	Bkg. 44 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 105.5 dpm	MDA 102.4 dpm	MDA

Survey Type: **Contamination**
Building: **707**
Location: Module D Survey Area P
Purpose: **Reconnaisance Level Characterization**
RWP # 00-707-1204
Date: 3-6-00 Time: 1600

[redacted]

Comments: Floor / Walls < 2 meters : Unbiased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.
3 bkgd Counts alpha < 8cpm electra (1,4,5)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Floor	0	8	12	16.	Floor	0	64	48
2.	Floor	0	28	18	17.	Floor	0	44	12
3.	Floor	0	-4	21	18.	Floor	0	-24	12
4.	Floor	0	56	18	19.	Floor	0	32	6
5.	Floor	0	4	36	20.	Floor	0	32	12
6.	Floor	3	0	18	21.	Floor	3	24	12
7.	Floor	0	88	30	22.	Floor	3	16	24
8.	Floor	0	92	24	23.	Floor	3	-8	-6
9.	Floor	3	20	90	24.	Floor	0	12	324
10.	Floor	0	-12	60	25.	Floor	0	36	0
11.	Floor	3	32	6	26.	Floor	0	68	6
12.	Floor	0	-12	~~32~~ 48	27.	Floor	0	-24	-12
13.	Floor	0	32	24	28.	Floor	0	24	-12
14.	Floor	0	40	12	29.	Floor	0	44	6
5.	Floor	0	88	66	30.	Floor	0	4	12

Date Reviewed: 3-14-00 RS Supervision: [redacted]

138

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	Floor	0	24	12	61.				
32.	Floor	0	-32	6	62.				
33.	Floor	0	64	6	63.				
34.	wall	3	40	18	64.				
35.	wall	0	44	-6	65.				
36.	wall	0	36	0	66.				
37.	wall	3	100	12	67.				
38.	wall	3	28	12	68.				
39.	wall	0	32	-6	69.				
40.	wall	3	16	6	70.				
41.	wall	0	76	6	71.				
42.	wall	0	8	12	72.				
43.	wall	0	4	6	73.				
44.	wall	0	4	-12	74.				
45.	wall	0	-60	30	75.	N/A			
46.	End of Survey				76.				
47.					77.				
48.					75.				
49.					79.				
50.					80.				
51.					81.				
52.					82.				
53.	N/A				83.				
54.					84.				
55.					85.				
56.					86.				
57.					87.				
58.					88.				
59.					89.				
60.					90.				

RS FORMS 07.02-01

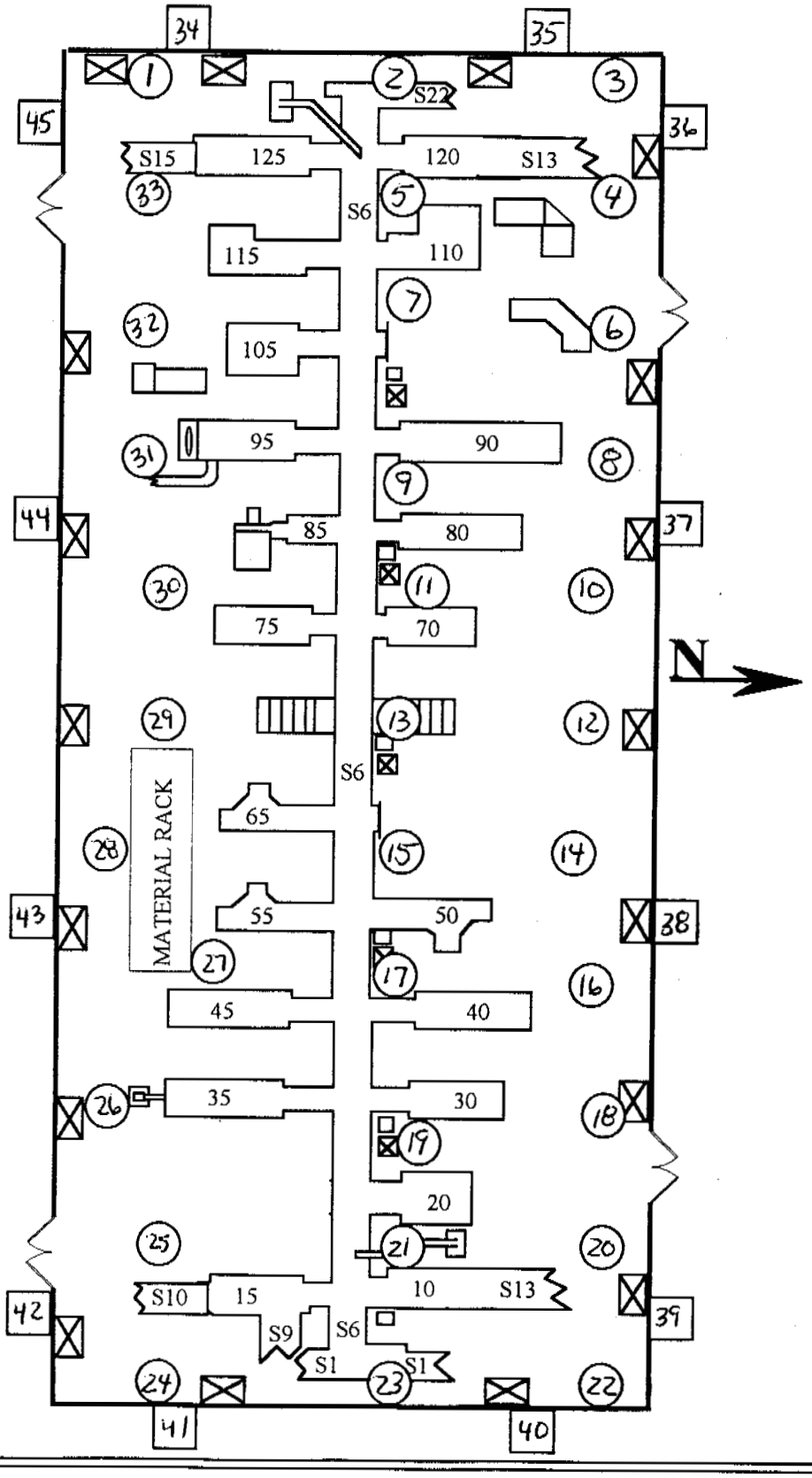
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Floor / Walls <2meters unbiased
12 wall
33 floor
45 total points

MODULE D



Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#014/002	Matrix:	Waste
Site Sample ID:	013.002				
Other Sample ID:	707-P-13-00	Collection Date:	4/27/00	Date Received:	5/2/00
		Batch Number:	1930	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1930-03	0.096	0.068	0.071	0.032
ACW03	U-235	KH100-1930-03	0.009	0.032	0.032	0.071
ACW03	U-238	KH100-1930-03	0.174	0.094	0.100	0.057
ACW03	PU-238	KH100-1930-03	0.545	0.216	0.242	0.196
ACW03	PU-239/240	KH100-1930-03	33.4	4.28	7.93	0.064
ACW03	AM-241	KH100-1930-03	4.46	0.955	1.31	0.063

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB
Pu	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB
Am	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

039

141

CAS SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 013
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-13-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen 2 grams/ 50cm2 (1/2 grid). I50-7 grams over 250cm2 (2 1/2 grids) Total 300cm2 (3 grids).

Location Description: Bldg. 707, Module D, inside on floor just west of doors 76+77.

Other ID: 707-P-13-00

Sample Appearance: Red paint scrapings

Sampling Device: Heat gun & chisel

Sample Date: 4/27/00 Sample Time: 12:50 Rad Screen Date: 4/27/00

Was generator notified to receive excess sample? (YES) X (NO) _____

Samplers Signature: [redacted]
Employee Number: [redacted]

Date: 4/27/00 4/27/00

442

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#014/002	Matrix:	Waste
Site Sample ID:	014.002				
Other Sample ID:	707-P-14-00	Collection Date:	4/27/00	Date Received:	5/2/00
		Batch Number:	1930	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1930-04	0.179	0.094	0.100	0.055
ACW03	U-235	KH100-1930-04	0.028	0.040	0.041	0.038
ACW03	U-238	KH100-1930-04	0.252	0.110	0.121	0.031
ACW03	PU-238	KH100-1930-04	0.540	0.234	0.258	0.222
ACW03	PU-239/240	KH100-1930-04	25.0	3.50	6.11	0.073
ACW03	AM-241	KH100-1930-04	3.34	0.864	1.09	0.141

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB
Pu	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB
Am	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

443

040

CAS SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 014
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-14-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen 2 grams / 50 cm² (1/2 grid). TSO-7 grams / 250 cm² (2 1/2 grids). Total = 300 cm² (3 grids).

Location Description: Building 707, Module D, floor under glovebox D-20 in between ports 0395 + 0396.

Other ID: 707-P-14-00

Sample Appearance: Red paint scrapings

Sampling Device: Heat gun + Chisel

Sample Date: 4/27/00 Sample Time: 13:20 Rad Screen Date: 4/27/00

Was generator notified to receive excess sample? (YES) X (NO) |

[redacted]

Date: 4/27/00 4/27/00

444

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#014/002	Matrix:	Waste
Site Sample ID:	015.002				
Other Sample ID:	707-P-15-00	Collection Date:	4/27/00	Date Received:	5/2/00
		Batch Number:	1930	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1930-05	0.092	0.070	0.072	0.036
ACW03	U-235	KH100-1930-05	0.010	0.035	0.035	0.078
ACW03	U-238	KH100-1930-05	0.183	0.099	0.106	0.035
ACW03	PU-238	KH100-1930-05	0.028	0.113	0.113	0.182
ACW03	PU-239/240	KH100-1930-05	2.53	0.469	0.689	0.060
ACW03	AM-241	KH100-1930-05	0.327	0.188	0.199	0.115

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB
Pu	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB
Am	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

CAS SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 015
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-15-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen 2 grams/50cm2 (1/2 grid). ISO - 7 gram/250cm2 (2 1/2 grids). Total - 300cm2 (3 grids) 9 grams

Location Description: Bldg. 707, Module D, on the floor near crit. drain that is connected to conveyor 8-1, directly under ports 0569 + 0570.

Other ID: 707-P-15-00

Sample Appearance: Red paint scrapings

Sampling Device: Heat gun + chisel

Sample Date: 4/27/00 Sample Time: 13:35 Rad Screen Date: 4/27/00

Was generator notified to receive excess sample? (YES) X (NO) _____

Samplers Signa[redacted]
Employee Numb[redacted]

Date: 4/27/00 4/27/00

446

A-3
RLC RADIOLOGICAL DATA
Survey Area Q
1st Floor, Module E [Room 120]

Radiological Survey/Sample Results for Survey Area Q (99-0002)

Total Surface Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	45	45
MIN	-6	N/A
MAX	120	N/A
MEAN	17.5	N/A
STD DEV	23.0	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	7	7
MIN	12	N/A
MAX	108	N/A
MEAN	59.1	N/A
STD DEV	40.0	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	30
MIN	0	N/A
MAX	60	N/A
MEAN	20.6	N/A
STD DEV	13.9	N/A
Equipment Biased	# Required	# Obtained
	40	40
MIN	18	N/A
MAX	7536	N/A
MEAN	312.9	N/A
STD DEV	1179.7	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	45	45
MIN	0	-96
MAX	6	56
MEAN	0.7	-2
STD DEV	1.6	39.1
Floors/Walls < 2 m Biased	# Required	# Obtained
	7	7
MIN	0	-32
MAX	6	88
MEAN	1.3	5.7
STD DEV	2.4	41.9
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	30
MIN	0	-52
MAX	3	60
MEAN	0.7	-2.5
STD DEV	1.3	26.4
Equipment Biased	# Required	# Obtained
	40	40
MIN	0	-40
MAX	195	80
MEAN	7.8	19
STD DEV	30.8	32.3
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
3	3

Total Uranium Results dpm/100 cm²

MIN	3
MAX	7
MEAN	4.7
STD DEV	2.1
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm²

MIN	8
MAX	31
MEAN	16.7
STD DEV	12.5
$DCGL_W$	100

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1518
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 6-29-00
Bkg. 0.1 cpm	Bkg. 0.2 cpm	Bkg. 3.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 21.86
MDA 11.5 dpm	MDA 12.9 dpm	MDA ~~49.3~~ 94 DPM 3-9-00
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due
Bkg. 51 cpm	Bkg. 63 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 109.4 dpm	MDA 120.4 dpm	MDA

Survey Type: Contamination
Building: 707
Location: MODULE E Survey Area Q
Purpose: Reconnaisance Level Characterization

RWP # 00-707-1204
Date: 3-9-00 Time: 1400

[redacted]

RCT: _____
Print name / Signature / Emp. #

Comments: Floor / Walls < 2 meters : Unbiased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.
Three Background Counts in Module = 3cpm, 1cpm, 4cpm electra (Alpha)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	W	0	8	~~18~~ 16	16.	F	0	-24	0
2.	F	3	-40	12	17.	F	0	20	18
3.	W	0	18	12	18.	F	0	-20	-6
4.	F	0	-28	24	19.	W	0	-4	18
5.	F	6	24	-6	20.	F	0	0	0
6.	F	6	4	0	21.	F	0	40	6
7.	F	0	44	36	22.	F	0	-76	78
8.	F	0	-96	0	23.	F	3	40	12
9.	F	0	16	-6	24.	W	0	24	24
10.	F	0	-15	6	25.	F	0	4	30
11.	F	0	36	12	26.	F	0	-40	18
12.	W	0	-20	6	27.	W	0	20	12
13.	F	0	24	6	28.	F	0	40	18
14.	F	0	-60	12	29.	W	0	-4	-6
15.	F	0	25	60	30.	F	3	36	24

Date Reviewed: 3-10-00 **RS Super** [redacted]

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	W	0	-68	36	61.				
32.	F	3	40	-6	62.				
33.	F	0	-64	24	63.				
34.	F	0	44	24	64.				
35.	W	0	-40	6	65.				
36.	F	0	-12	18	66.				
37.	F	0	-28	30	67.				
38.	F	3	16	18	68.				
39.	W	0	44	0	69.				
40.	F	0	16	120	70.				
41.	F	0	-52	6	71.				
42.	F	0	56	6	72.				
43.	W	3	-32	6	73.				
44.	F	0	52	42	74.				
45.	W	0	-56	18	75.				
46.	END OF SURVEY				76.				
47.					77.				
48.					75.				
49.					79.				
50.					80.				
51.					81.				
52.					82.				
53.					83.				
54.					84.				
55.					85.				
56.					86.				
57.					87.				
58.					88.				
59.					89.				
60.					90.				

RS FORMS 07.02-01

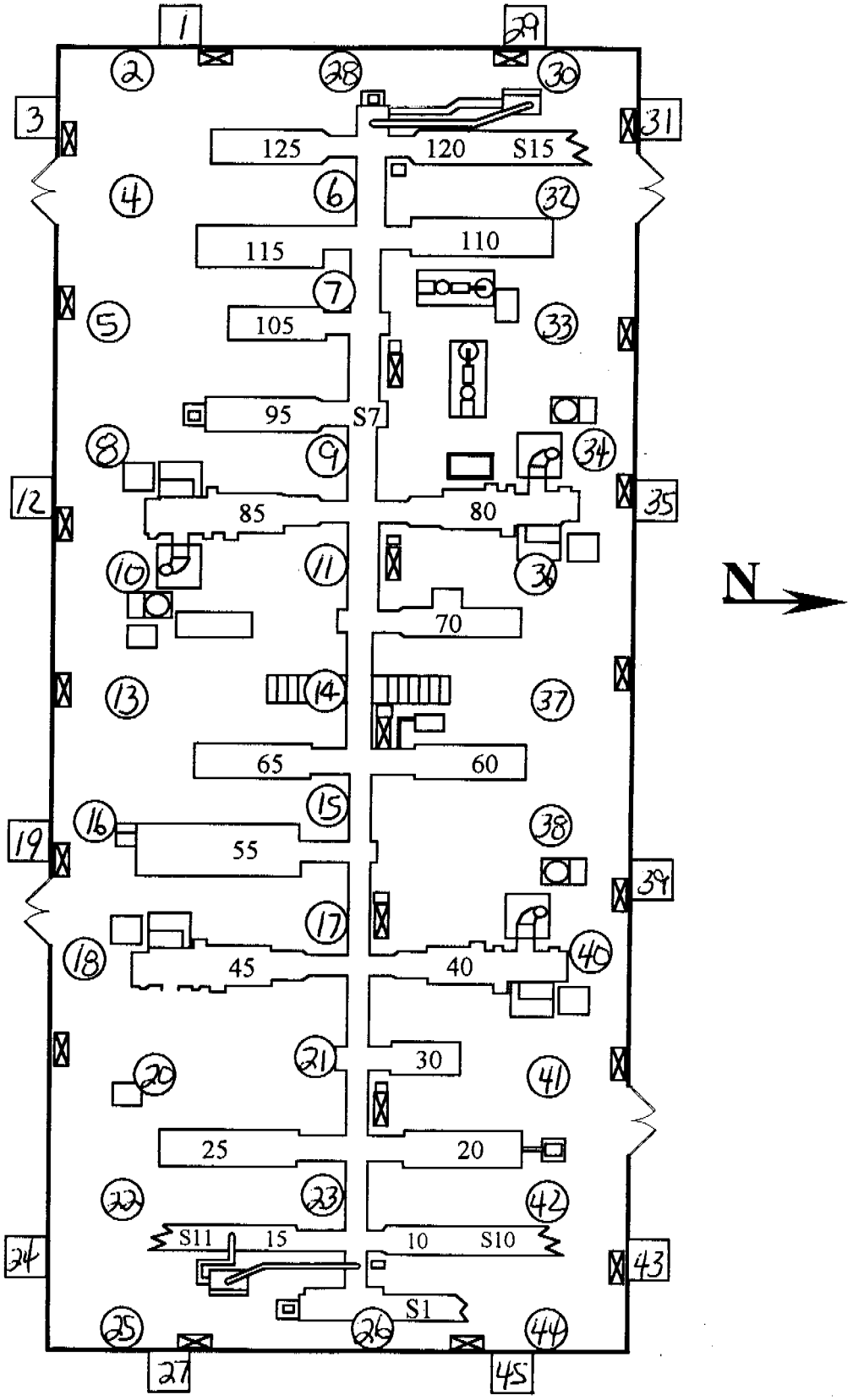
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Floor / Walls <2meters unbiased
12 wall
33 floor
45 total points

MODULE E



151

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 320
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 4-26-00
Bkg. 0.1 cpm	Bkg. 0.2 cpm	Bkg. 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 11.5 dpm	MDA 12.9 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 51 cpm	Bkg. 53 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 109.4 dpm	MDA 111.3 dpm	MDA

Survey Type: **Contamination**

Building: 707

Location: Module E Survey Area Q

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 3-9-00 Time: 1630

R [redacted]

RCT: N/A

Print name / Signature / Emp. #

Comments: Floor / Walls < 2 meters : Biased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.
3 bkgd counts <8cpm alpha (2,2,5) - Electra
No Contained Contam areas (but SSC's) - so took non reading by centerline

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Floor by SSC (E-65)	0	88	66	16.				
2.	F. crit drain E-45	0	32	108	17.				
3.	F. crit drain centerline	6	-32	102	18.				
4.	F. crit drain E-40	0	-24	78	19.				
5.	Floor by SSC (E-70)	0	-16	12	20.				
6.	F. crit drain E-110	3	-12	36	21.				
7.	F. crit drain centerline	0	4	12	22.				
8.	End of Survey				23.	N/A			
9.					24.				
10.					25.				
11.					26.				
12.	N/A				27.				
13.					28.				
14.					29.				
15.					30.				

Date Reviewed: 3-14-00 RS Supervisor [redacted]

RS FORMS 07.02-01

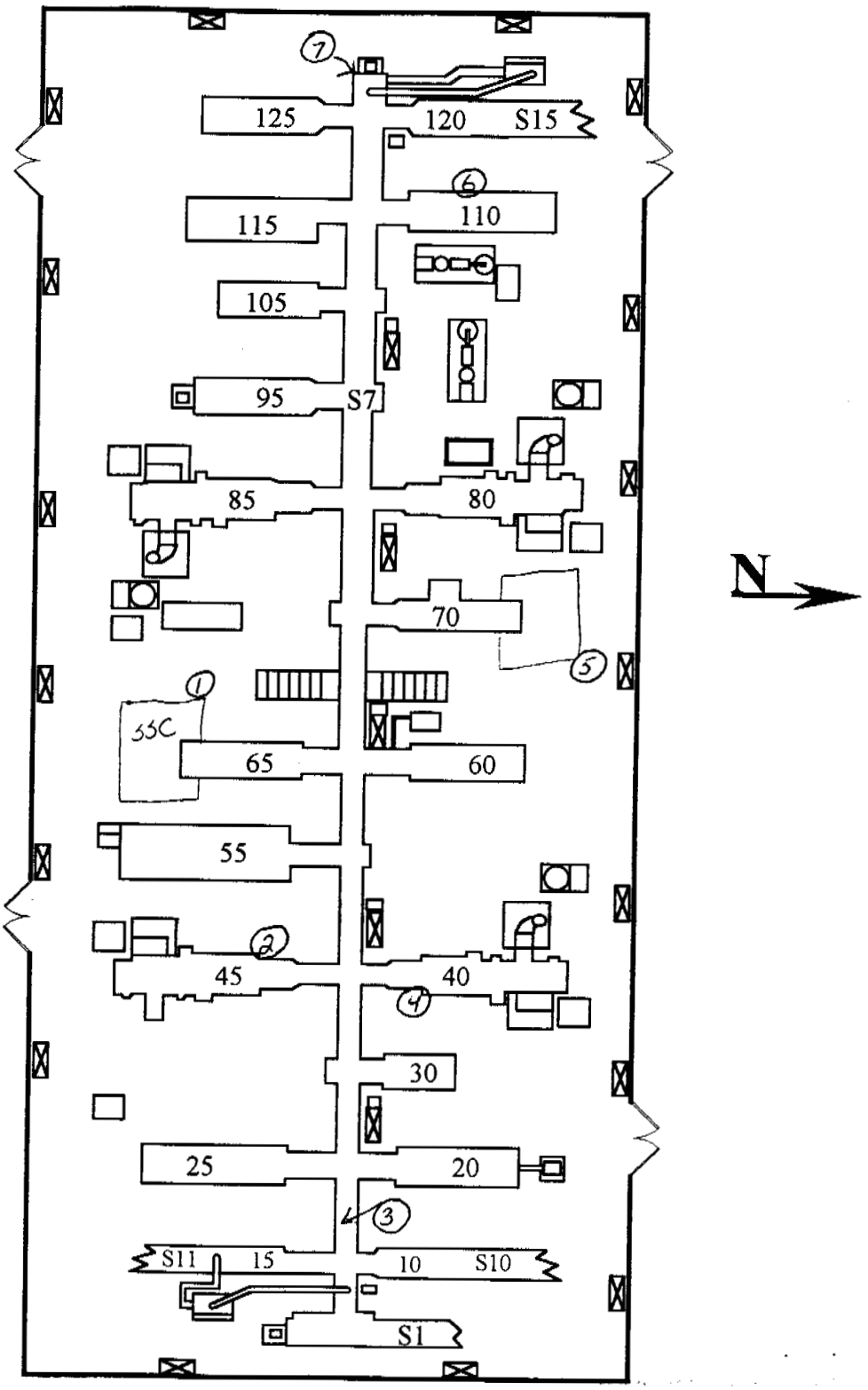
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Floors/walls <2 m Biased

MODULE E



53

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 3120
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 4.26-00
Bkg. 0.1 cpm	Bkg. 0.2 cpm	Bkg. 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 11.5 dpm	MDA 12.9 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 51 cpm	Bkg. 53 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 109.4 dpm	MDA 111.3 dpm	MDA

Survey Type: **Contamination**

Building: **707**

Location: Module E Survey Area Q

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 3-9-00 Time: 1630

RC [redacted]

RCT: N/A
Print name / Signature / Emp. #

Comments: Equipment : Biased survey points.
1 minute pats and swipes. See map for locations.
3 broad Counts alpha <8cpm (1,1,0) electra
overhead pipes too difficult to access NO survey points in overhead

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	E-125 port 214	0	-8	48	16.	E-45	0	-32	78
2.	E-125 port 216	3	-28	18	17.	centerline Port	0	24	132
3.	E-125	0	-20	600	18.	E-25 port 430	195	0	498
4.	E-115 port 231	3	12	54	19.	E-25 port 432	3	64	132
5.	E-115 port 239	0	60	36	20.	E-25 tooldrop	0	4	102
6.	E-115 port 246	0	76	42	21.	E-15	9	48	102
7.	E-105 connect to centerline	27	12	7536	22.	S-1 tooldrop	6	-40	54
8.	E-95 port 285	3	76	72	23.	E-10	6	16	108
9.	E-95 tooldrop	0	24	42	24.	E-20 Bag Port	0	20	138
10.	E-85 Pump	0	-16	24	25.	E-20 connect	0	80	486
11.	E-85 port 336	0	48	66	26.	E-30 tooldrop	3	-16	90
12.	E-65 tooldrop	0	20	96	27.	E-40	0	56	390
13.	E-65	0	-12	66	28.	E-60	3	12	96
14.	E-55 connect	0	56	126	29.	E-70	0	44	36
15.	E-45 port 411	6	-28	96	30.	E-80 port 182	0	-12	30

Date Reviewed: 3-14-00 RS Supervisi[redacted]

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	E-80	0	20	36	61.				
32.	E-110 Bag Port	0	-8	36	62.				
33.	E-120 port 197	12	40	96	63.				
34.	Vent	6	32	60	64.				
35.	Vent	3	52	108	65.				
36.	Vent	3	12	390	66.				
37.	Vent	18	8	174	67.				
38.	Vent	3	0	156	68.				
39.	vent	0	48	24	69.				
40.	crit drain Pipe	0	16	48	70.				
41.	End of survey				71.				
42.					72.				
43.					73.				
44.					74.	N/A			
45.					75.				
46.					76.				
47.					77.				
48.					75.				
49.					79.				
50.	N/A				80.				
51.					81.				
52.					82.				
53.					83.				
54.					84.				
55.					85.				
56.					86.				
57.					87.				
58.					88.				
59.					89.				
60.					90.				

RS FORMS 07.02-01

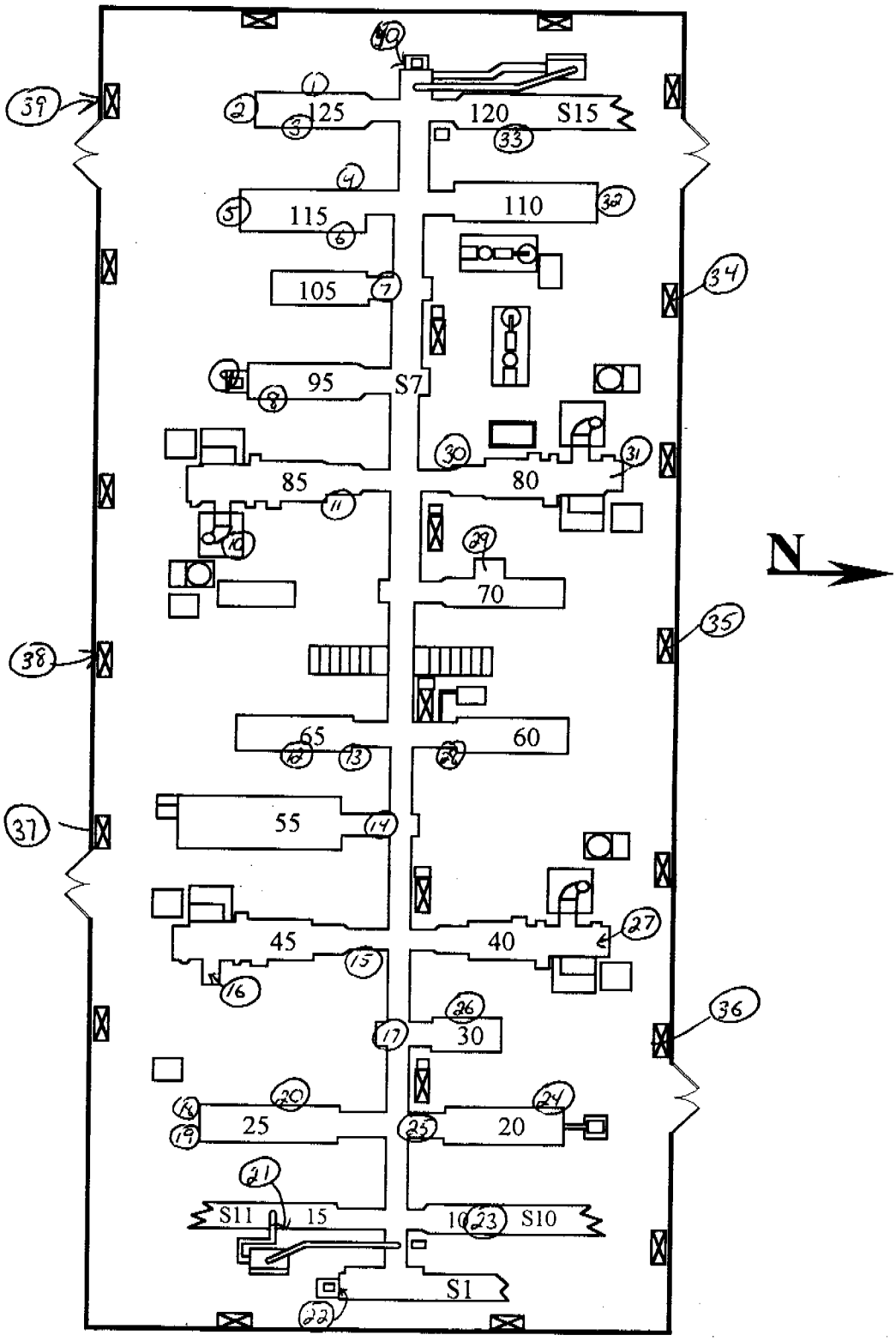
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Equipment

MODULE E



ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1233
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 5-11-00
Bkg. 0.1 cpm	Bkg. 0.0 cpm	Bkg. 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 20.63%
MDA 115 dpm	MDA 8.2 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 58 cpm	Bkg. 52 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 116.0 dpm	MDA 110.4 dpm	MDA

Survey Type: **Contamination**

Building: **707**

Location: Module E Survey Area Q

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 3-8-00 Time: 1630

[redacted]

Comments: Ceiling / Walls > 2 meters : Biased survey points.
1 minute pats and swipes. See map for locations.
3 background Counts alpha < 8cpm (4,4,5) electra
survey below ceiling tiles

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	wall	0	4	6	16.	Ceiling	3	48	12
2.	wall	0	0	18	17.	Ceiling	0	-32	30
3.	wall	0	8	30	18.	Ceiling	0	36	18
4.	wall	3	60	42	19.	Ceiling	0	-24	24
5.	wall	0	-16	48	20.	Ceiling	0	-32	24
6.	wall	0	-4	12	21.	Ceiling	0	-32	18
7.	wall	0	4	30	22.	Ceiling	0	-12	12
8.	wall	0	12	24	23.	Ceiling	0	-8	0
9.	wall	0	-28	6	24.	Ceiling	3	-20	24
10.	wall	0	-8	6	25.	Ceiling	0	32	18
11.	wall	3	-36	6	26.	Ceiling	0	0	30
12.	wall	0	-12	12	27.	Ceiling	0	0	30
13.	wall	0	4	12	28.	Ceiling	3	-4	60
14.	wall	3	-24	18	29.	Ceiling	3	-52	36
15.	wall	0	32	6	30.	Ceiling	0	28	6

Date Reviewed: 3-14-00 **RS Supervisio** [redacted]

RS FORMS 07.02-01

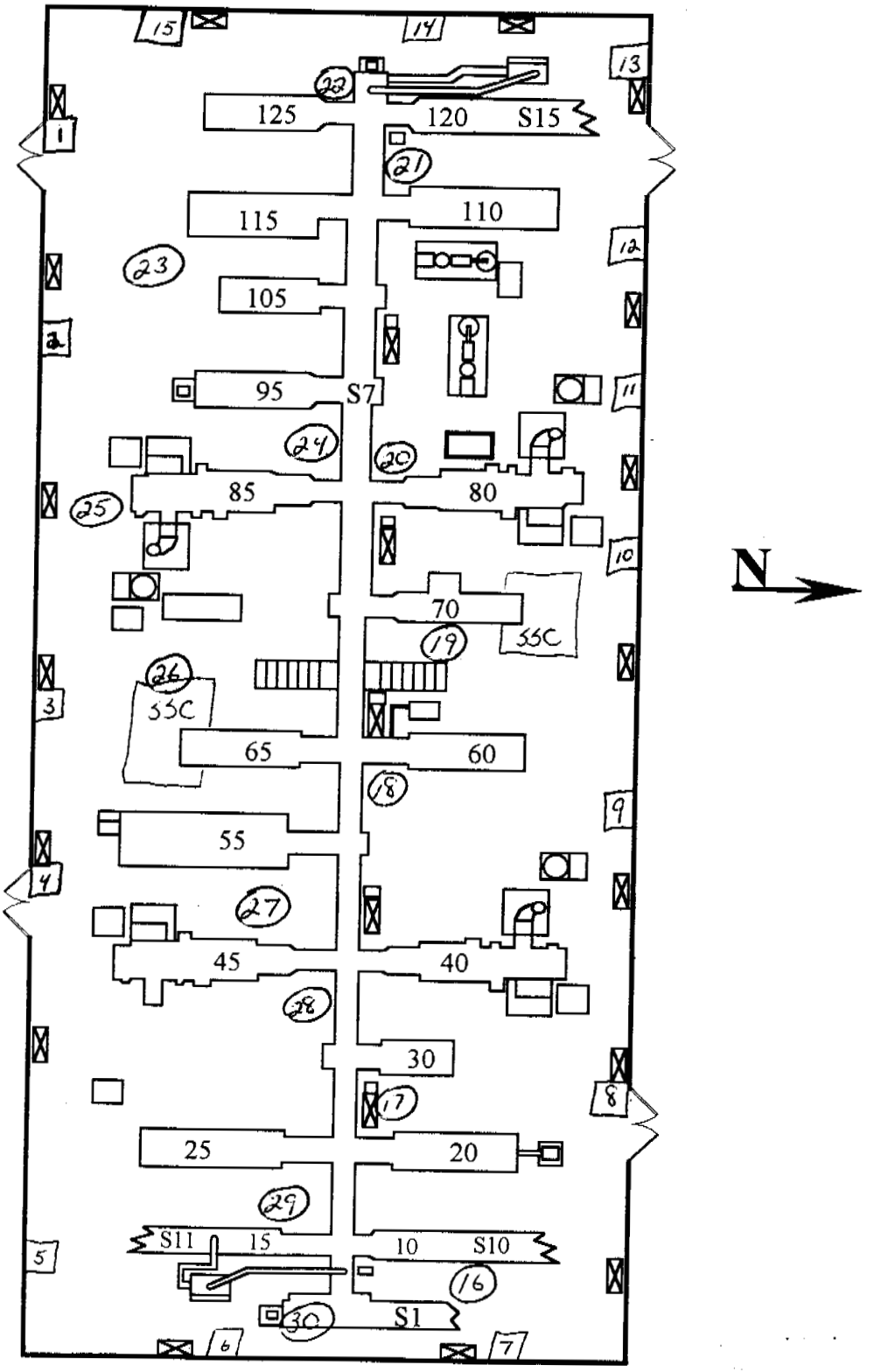
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Ceilings + walls >2M

MODULE E



458

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#014/002	Matrix:	Waste
Site Sample ID:	016.002				
Other Sample iD:	707-P-16-00	Collection Date:	4/27/00	Date Received:	5/2/00
		Batch Number:	1930	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1930-06	0.182	0.098	0.105	0.060
ACW03	U-235	KH100-1930-06	0.061	0.062	0.064	0.042
ACW03	U-238	KH100-1930-06	0.533	0.169	0.200	0.034
ACW03	PU-238	KH100-1930-06	0.129	0.127	0.129	0.165
ACW03	PU-239/240	KH100-1930-06	1.86	0.414	0.556	0.085
ACW03	AM-241	KH100-1930-06	0.257	0.154	0.162	0.058

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB
Pu	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB
Am	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

CAS SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 016
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-116-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radium 2 gram/100 cm² (1 grid). I 50-7 grams over 250 cm² (2½) grids. Total = 9 grams/300 cm² (3 grids).

Location Description: Bldg. 707, Module E, 4/27/00 ~~Air~~ floor near Crit. drain, under glovebox E-55, between ports 0622 + 0623

Other ID: 707-P-116-00

Sample Appearance: Red paint scrapings

Sampling Device: Heat gun + chisel

Sample Date: 4/27/00 Sample Time: 14:20 Rad Screen Date: 4/27/00

Was generator notified to receive excess sample? (YES) X (NO) ____

Samplers Signat[redacted]
Employee Numbe[redacted]

Date: 4/27/00 4/27/00

460

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#014/002	Matrix:	Waste
Site Sample ID:	017.002				
Other Sample ID:	707-P-17-00	Collection Date:	4/27/00	Date Received:	5/2/00
		Batch Number:	1930	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1930-07	0.408	0.156	0.176	0.066
ACW03	U-235	KH100-1930-07	0.051	0.059	0.061	0.046
ACW03	U-238	KH100-1930-07	0.456	0.166	0.189	0.078
ACW03	PU-238	KH100-1930-07	0.072	0.116	0.117	0.173
ACW03	PU-239/240	KH100-1930-07	2.09	0.445	0.611	0.072
ACW03	AM-241	KH100-1930-07	0.238	0.164	0.170	0.072

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB
Pu	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB
Am	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

CAS SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 017
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-17-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen - 2 grams/100cm2 (1 grid). ISO - 7 grams/350cm2 (3 1/2 grids). Total = 450 cm2 (4 1/2 grids).

Location Description: Bldg. 707, Module E, inside ~~clo~~ NW SE doors on floor, below fire extinguisher 707-45

Other ID: 707-P-17-00

Sample Appearance: Red paint scrapings

Sampling Device: Heat gun + chisel

Sample Date: 4/27/00 Sample Time: 14:37 Rad Screen Date: 4/27/00

Was generator notified to receive excess sample? (YES) X (NO) ____

Samplers Signat[redacted]
Employee Numbe[redacted]

Date: 4/27/00 4/27/00

462

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#014/002	Matrix:	Waste
Site Sample ID:	018.002				
Other Sample ID:	707-P-18-00	Collection Date:	4/27/00	Date Received:	5/2/00
		Batch Number:	1930	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1930-08	0.650	0.199	0.238	0.065
ACW03	U-235	KH100-1930-08	0.044	0.060	0.061	0.081
ACW03	U-238	KH100-1930-08	0.307	0.134	0.147	0.065
ACW03	PU-238	KH100-1930-08	-0.060	0.108	0.109	0.212
ACW03	PU-239/240	KH100-1930-08	3.57	0.656	0.969	0.085
ACW03	AM-241	KH100-1930-08	0.437	0.197	0.215	0.054

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB
Pu	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB
Am	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

COMMODORE ADVANCED SCIENCES, INC.

SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 018
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-18-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID:
TRIP BLANK:

Comments/Problems encountered during sampling: Radscreen - 2 grams/100 cm² (1 grid). ISO - 7 grams/250 cm² (2 1/2 grids) Total - 9 grams/300 cm² (3 grids)

Location Description: Bldg. 707, Module E, floor under Glovebox E-25

Other ID: 707-P-18-00

Sample Appearance: Red paint scrapings

Sampling Device: Heat gun + Chisel

Sample Date: 4/27/00 Sample Time: 18:07 Rad Screen Sample Date: 4/27/00

Was generator notified to receive excess sample? (Yes) X (No)

Sampler's Signature [redacted]

Employee N[redacted]

Date: 4/27/00 4/27/00

Lmc 02/17/99

464

A-3

RLC RADIOLOGICAL DATA

Survey Area R

1st Floor, Module F [Rooms 125, 126, 127]

465

Radiological Survey/Sample Results for Survey Area R (99-0002)

Total Surface Activity Measurements dpm/100 cm^2

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	45	50
MIN	0	N/A
MAX	186	N/A
MEAN	37.7	N/A
STD DEV	30.0	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	12	12
MIN	24	N/A
MAX	312	N/A
MEAN	66.5	N/A
STD DEV	78.5	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	30
MIN	6	N/A
MAX	42	N/A
MEAN	25.0	N/A
STD DEV	10.1	N/A
Equipment Biased	# Required	# Obtained
	30	30
MIN	6	N/A
MAX	960	N/A
MEAN	123.0	N/A
STD DEV	186.7	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm^2

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	45	50
MIN	0	-80
MAX	15	88
MEAN	0.9	21.8
STD DEV	2.6	31.3
Floors/Walls < 2 m Biased	# Required	# Obtained
	12	12
MIN	0	-12
MAX	12	68
MEAN	2.8	24.3
STD DEV	3.7	22.9
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	30
MIN	0	-40
MAX	6	76
MEAN	1.9	17.1
STD DEV	2.2	28.7
Equipment Biased	# Required	# Obtained
	30	30
MIN	0	-44
MAX	18	48
MEAN	4.9	3.5
STD DEV	4.6	26.2
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
3	3

Total Uranium Results dpm/100 cm^2

MIN	3
MAX	6
MEAN	4.7
STD DEV	1.5
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm^2

MIN	2
MAX	18
MEAN	8.3
STD DEV	8.5
$DCGL_W$	100

166

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 3260
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 7-17-00
Bkg. 0.1 cpm	Bkg. 0.4 cpm	Bkg. 0.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 19.99%
MDA 11.5 DPM	MDA 14.8 DPM	MDA 94 DPM
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial # N/A
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due
Bkg. 47 cpm	Bkg. 44 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 105.5 DPM	MDA 102.4 DPM	MDA

Survey Type: **Contamination**

Building: 707

Location: F-mod Survey Area R

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 3-6-00 Time: 1500

[redacted]

RCT: _____
Print name / Signature / Emp. #

Comments: Floor / Walls < 2 meters : Unbiased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.
3 alpha bkgd Counts electra <8cpm (0,2,2)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	F	0	20	12	16.	F	0	60	24
2.	F	0	20	42	17.	F	0	44	48
3.	F	0	56	6	18.	F	9	-40	24
4.	F	0	40	36	19.	F	0	-20	30
5.	F	0	12	42	20.	F	0	80	72
6.	F	0	-40	30	21.	F	3	4	36
7.	F	0	48	24	22.	F	0	44	186
8.	F	3	36	48	23.	F	0	4	72
9.	F	3	52	54	24.	F	0	48	18
10.	F	0	20	30	25.	F	0	24	48
11.	F	3	-4	12	26.	F	0	60	36
12.	F	0	-4	12	27.	F	0	12	24
13.	F	0	-20	18	28.	F	0	-12	36
14.	F	3	24	36	29.	F	0	68	102
15.	F	0	20	84	30.	F	3	48	48

Date Reviewed: 3-21-00 **RS Supervisio** [redacted]

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

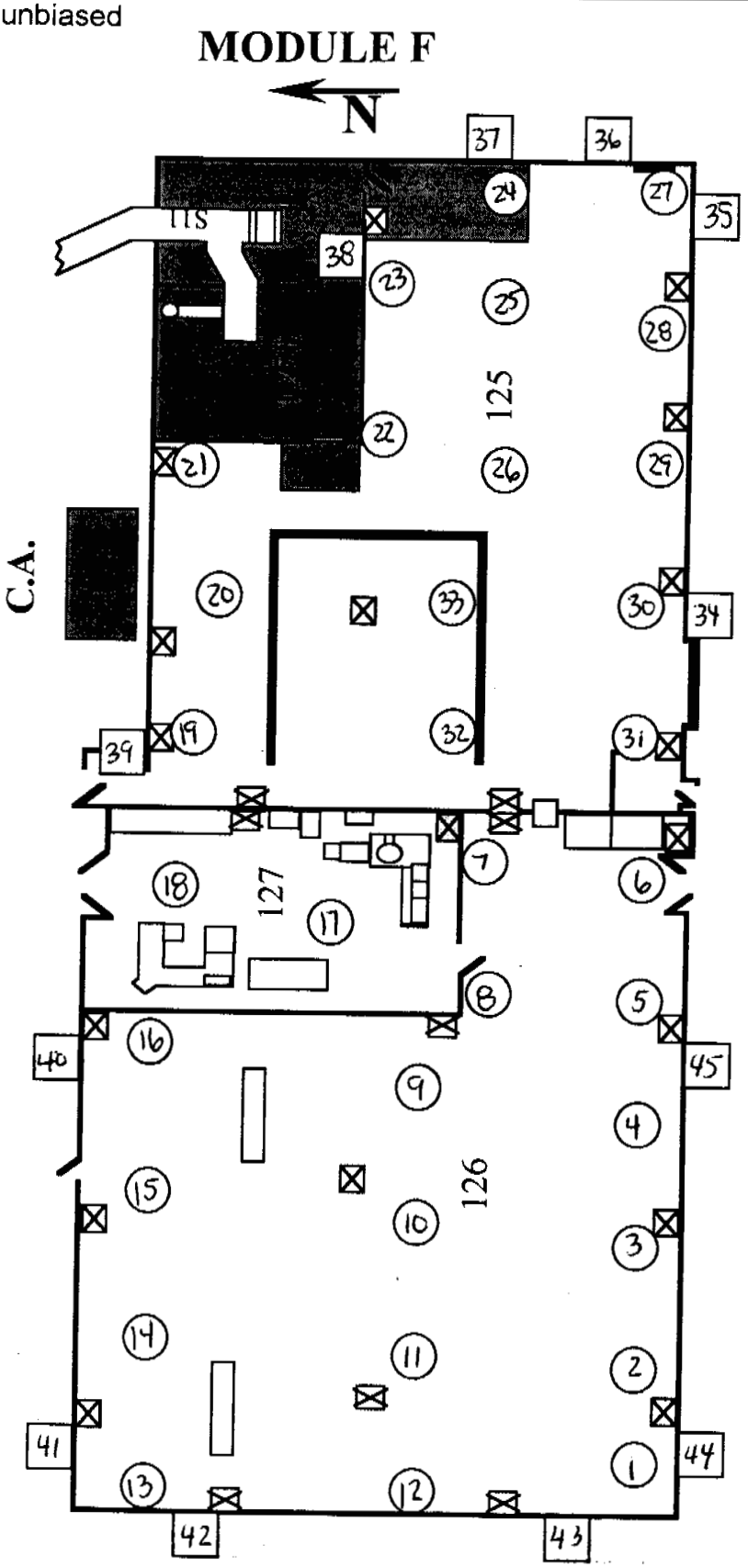
Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	F	0	4	12	61.				
32.	F	0	0	48	62.				
33.	F	0	4	72	63.				
34.	W >2	0	12	48	64.				
35.	W >2	0	48	18	65.				
36.	W >2	3	80	18	66.				
37.	W >2	0	24	0	67.				
38.	W >2	15	32	24	68.				
39.	W >2	0	0	48	69.				
40.	W >2	0	88	24	70.				
41.	W >2	0	40	30	71.				
42.	W >2	0	24	12	72.				
43.	W >2	0	20	18	73.				
44.	W >2	0	0	12	74.				
45.	W >2	0	48	42	75.	N/A			
46.	END OF SURVEY				76.				
47.					77.				
48.					75.				
49.					79.				
50.					80.				
51.					81.				
52.					82.				
53.					83.				
54.	N/A				84.				
55.					85.				
56.					86.				
57.					87.				
8.					88.				
59.					89.				
60.					90.				

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Floor / Walls <2meters unbiased
12 wall
33 floor
45 total points



 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 3265
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due 7-3-00
Bkg. 0.1 cpm	Bkg. 0.2 cpm	Bkg. 2 cpm
Efficiency 33%	Efficiency 33%	Efficiency 21.01%
MDA 11.5 DPM	MDA 12.9 DPM	MDA 94 DPM
Mfg. Eberline	Mfg. Eberline	Mfg. NA
Model BC-4	Model BC-4	Model
Serial # 959	Serial # 833	Serial #
Cal Due 7-19-00	Cal Due 7-14-00	Cal Due
Bkg. 35 cpm	Bkg. 43 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 92.5 DPM	MDA 101.3 DPM	MDA NA

Survey Type: Contamination

Building: 707

Location: F-mod Survey Area R

Purpose: Reconnaisance Level Characterization

RWP # 00-707-1204

Date: 5-2-00 Time: 1300

[redacted]

RCT: NA

Print name / Signature / Emp. #

Comments: Floor / Walls < 2 meters : Unbiased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.

Additional Point in Rm 127 Per instructions

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Wall	0	28	18	16.	NA			
2.	Wall	0	16	36	17.				
3.	Floor	0	4	66	18.				
4.	Floor	0	40	24	19.				
5.	Floor	0	32	24	20.				
6.	END OF SURVEY			NA	21.				
7.					22.				
8.					23.				
9.					24.				
10.					25.				
11.					26.				
12.					27.				
13.					28.				
14.					29.				
5.	NA				30				NA

Date Reviewed: 5-2-00 **RS Supervision:** [redacted]

Rev. 02/00

170

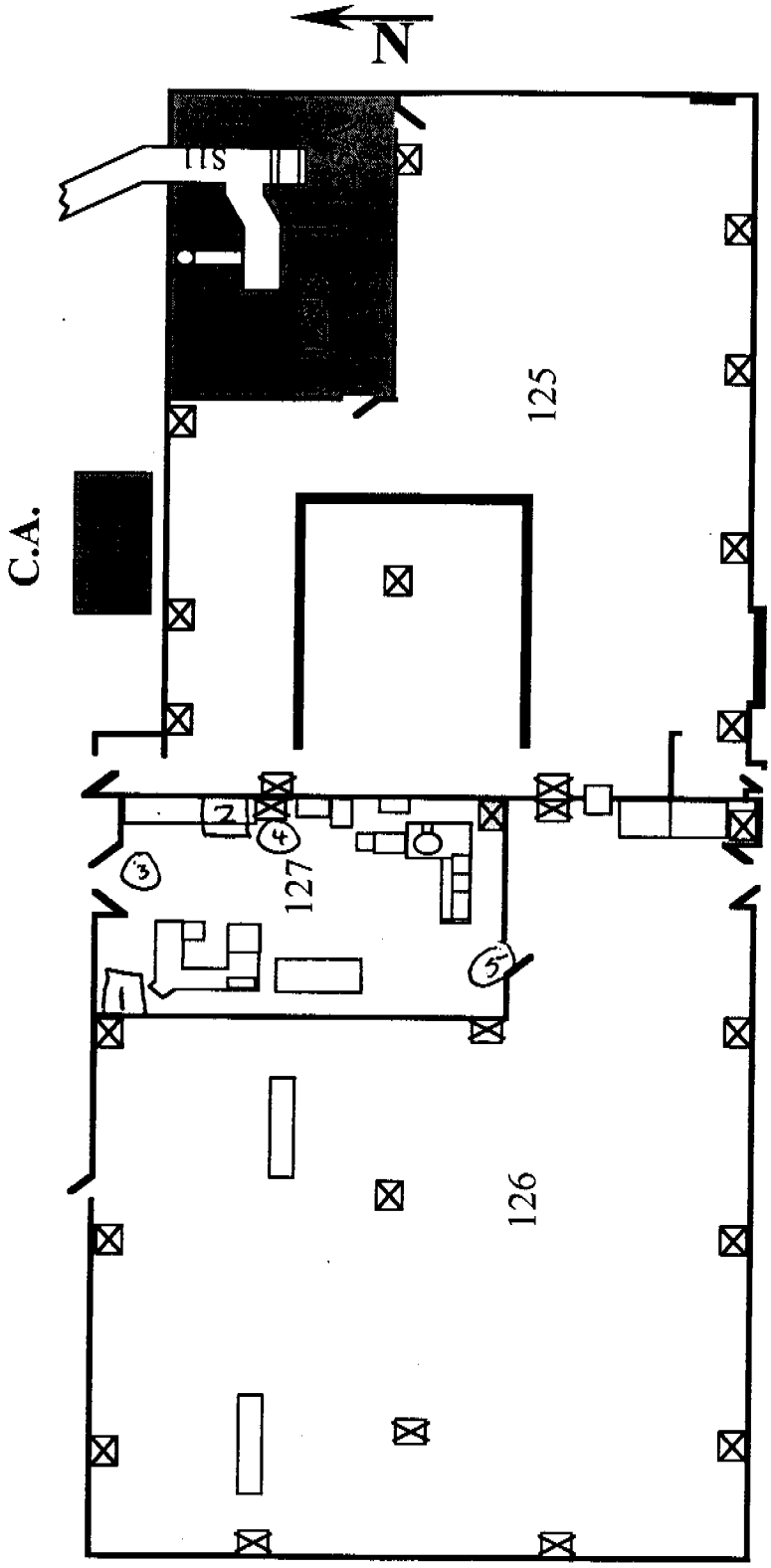
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

MODULE F



 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1233
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 5-11-00
Bkg. 0.2 cpm	Bkg. 0.3 cpm	Bkg. 0.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 20.63%
MDA 12.9 DPM	MDA 13.9 DPM	MDA 94 DPM
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 52 cpm	Bkg. 50 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 110.4 DPM	MDA 108.4	MDA

Survey Type: Contamination
Building: 707
Location: F-MOD Survey Area R
Purpose: Reconnaisance Level Characterization

RWP # 00-707-1204
Date: 3-7-00 Time: 1400

[redacted]

RCT:
Print name / Signature / Emp. #

Comments: Floor / Walls < 2 meters : Biased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.
⑨ Contained Contamination 600 DPM Removable 3000 DPM Fixed
3 alpha bkgd counts electra ~8cpm (0,0,1)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	B-Box	3	40	48	16.				
2.	B-Box	12	36	48	17.				
3.	Piping	3	68	36	18.				
4.	F	0	32	30	19.				
5.	F	0	-12	24	20.				
6.	F	6	32	48	21.				
7.	F	3	-12	78	22.				
8.	F	0	24	312	23.	N/A			
9.	F	6	24	36	24.				
10.	F	0	4	48	25.				
11.	F	0	40	54	26.				
12.	F	0	16	36	27.				
13.	END OF SURVEY				28.				
14.	N	A			29.				
15.					30.				

Date Reviewed: 3-21-00 **RS Supervision:** Stan Kiatt / [signature]
Print Name Signature

[redacted]

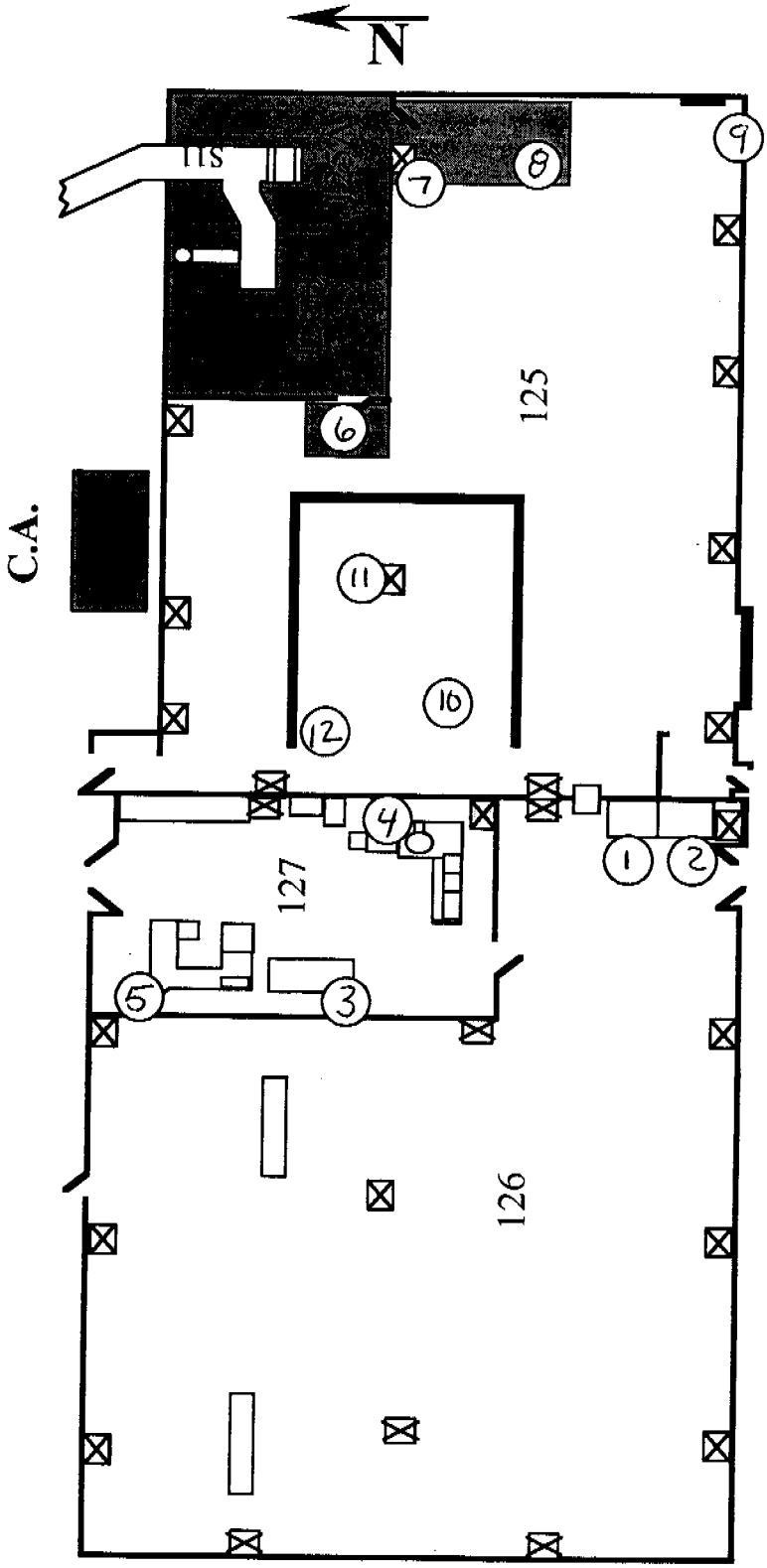
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

MODULE F



 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 3260
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 7-17-00
Bkg. 0.0 cpm	Bkg. 0.5 cpm	Bkg. 1.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 19.99%
MDA 8.2 DPM	MDA 15.6 DPM	MDA 94 DPM
Mfg. Eberline	Mfg. Eberline	Mfg. Ne Tech
Model BC-4	Model BC-4	Model Electra
Serial # 872	Serial # 833	Serial # 1233
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due 5-11-00
Bkg. 61 cpm	Bkg. 52 cpm	Bkg. 1.0 cpm
Efficiency 25%	Efficiency 25%	Efficiency 20.63%
MDA 118.6 DPM	MDA 110.4 DPM	MDA 94 DPM

Survey Type: **Contamination**

Building: **707**

Location: F-mod Survey Area R

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 3-10-00 Time: 1100

[redacted]

RCT: _____
Print name / Signature / Emp. #

Comments: Equipment : Biased survey points.
1 minute pats and swipes. See map for locations.
6 - Fixed 2200 DPM under label - Contained
3 alpha bkgd counts electra <8cpm (2,2,4)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Exhaust	3	-44	114	16.	B-Box	9	16	24
2.	Exhaust	0	-8	24	17.	B-Box	3	-32	114
3.	Exhaust	3	-16	156	18.	Exhaust	3	20	96
4.	Exhaust	0	-32	6	19.	Exhaust	3	-12	72
5.	Elect. Box overhead	0	-16	18	20.	Exhaust	9	16	960
6.	Exhaust overhead	18	40	354	21.	Exhaust	6	-20	150
7.	Elect. Box overhead	6	-20	18	22.	Exhaust	9	4	60
8.	Exhaust	3	28	96	23.	Exhaust	6	36	120
9.	Exhaust	0	40	258	24.	Exhaust	6	0	66
10.	Work bench	3	36	24	25.	Storage	0	-36	72
11.	Equipment	0	0	36	26.	Elect. Box overhead	3	40	24
12.	Exhaust	12	8	378	27.	Elect. Box overhead	9	-12	18
13.	Equipment	6	-16	30	28.	Duct overhead	15	4	42
14.	Equipment	3	-12	6	29.	Duct overhead	0	36	30
5.	Exhaust	3	48	270	30.	Storage	6	8	54

Date Reviewed: 3-21-00 **RS Supervision:** [redacted]

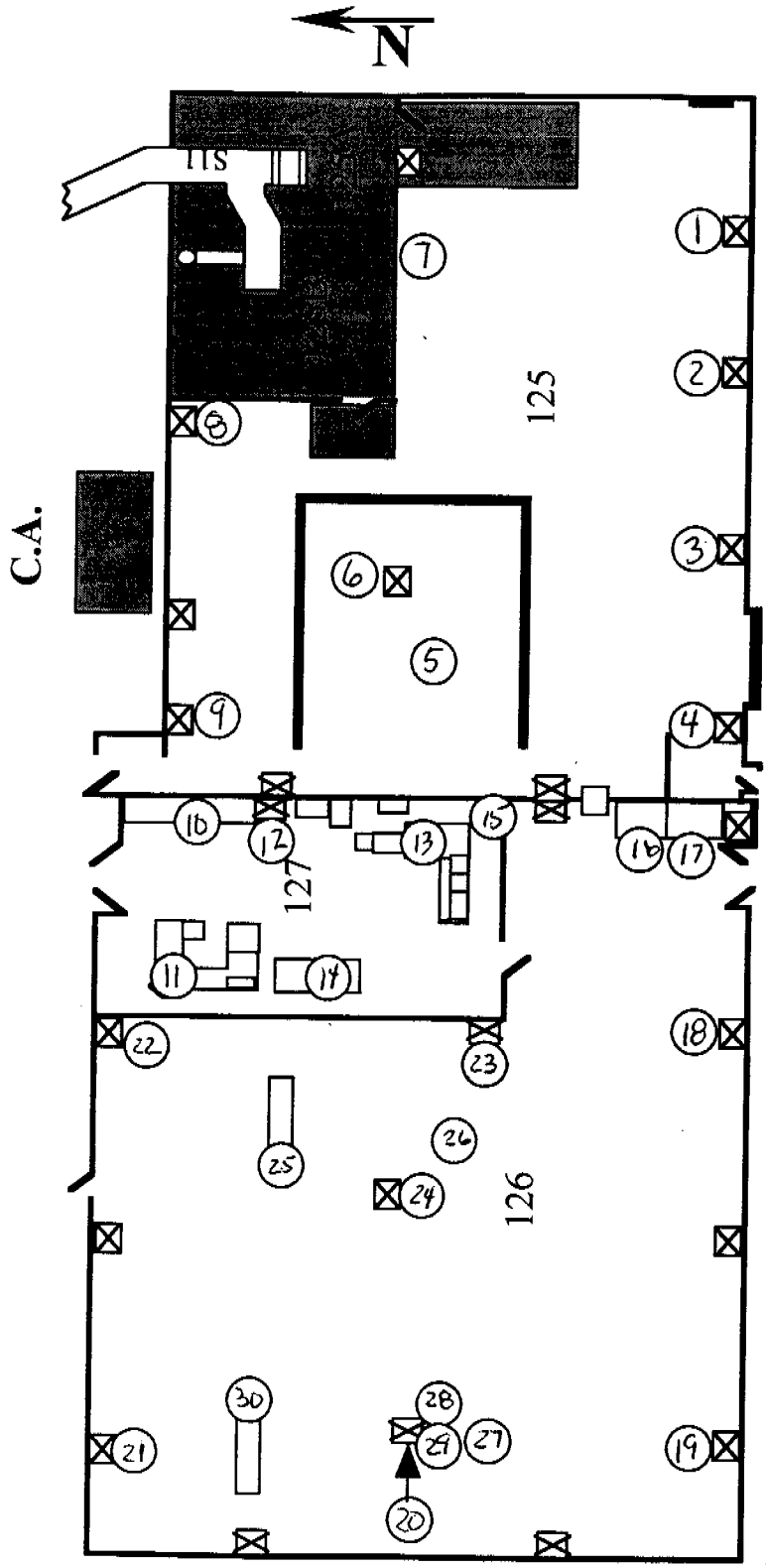
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

MODULE F



 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1233
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 5-11-00
Bkg. 0.6 cpm	Bkg. 0.4 cpm	Bkg. 1.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 20.63%
MDA 16.3 DPM	MDA 14.8 DPM	MDA 94 DPM
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial # N/A
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due
Bkg. 56 cpm	Bkg. 50 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 114.1 DPM	MDA 108.4 DPM	MDA

Survey Type: **Contamination**

Building: **707**

Location: F-MOD Survey Area R

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 3-16-00 Time: 1500

R [redacted]

RCT:

Print name / Signature / Emp. #

Comments: Ceiling / Walls > 2 meters : Biased survey points.
1 minute pats and swipes. See map for locations.
3 alpha bkgd Counts alpha electra <8 cpm (1,1,1)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	W >2	6	52	36	16.	W >2	3	40	30
2.	W >2	3	76	12	17.	C	6	64	12
3.	W >2	0	-8	42	18.	C	6	60	24
4.	W >2	0	4	30	19.	C	0	-12	12
5.	W >2	3	32	12	20.	C	0	-4	30
6.	W >2	0	28	36	21.	C	0	16	24
7.	W >2	0	-24	24	22.	C	3	4	36
8.	W >2	0	-28	36	23.	C	0	48	24
9.	W >2	3	4	30	24.	C	0	16	12
10.	W >2	6	24	30	25.	C	3	12	36
11.	W >2	3	12	18	26.	C	3	8	30
12.	W >2	3	-40	6	27.	C	0	40	36
13.	W >2	0	-32	12	28.	C	3	16	36
14.	W >2	0	20	18	29.	C	0	44	30
15.	W >2	3	20	12	30.	C	0	20	24

Date Reviewed: 3-21-00 **RS Super** [redacted]

116

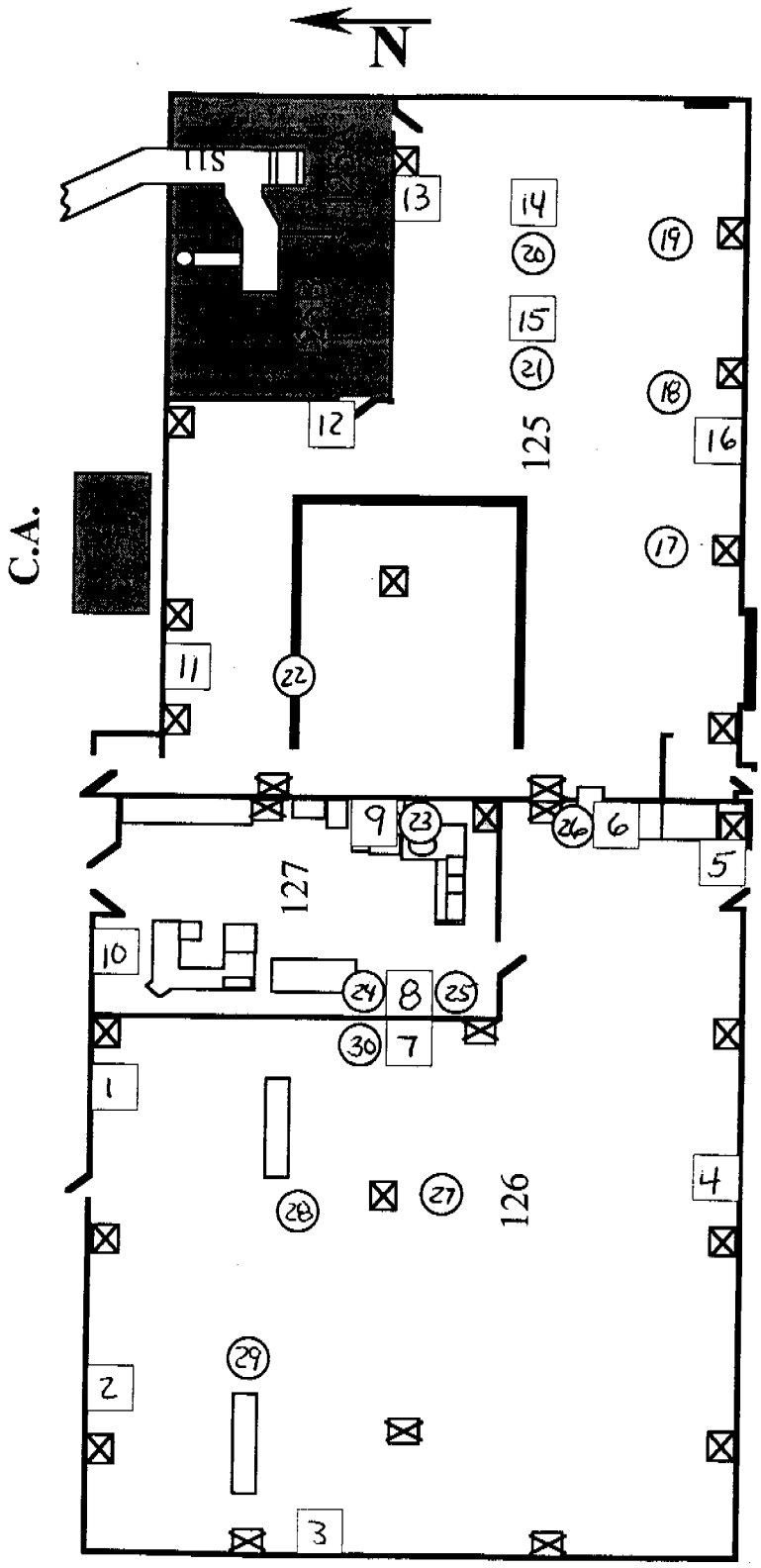
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

MODULE F



477

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A11963#002/004	Matrix:	Waste
Site Sample ID:	022.002				
Other Sample ID:	707-P-22-00	Collection Date:	4/27/00	Date Received:	5/2/00
		Batch Number:	1931	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1931-02	0.756	0.217	0.265	0.038
ACW03	U-235	KH100-1931-02	0.028	0.051	0.052	0.083
ACW03	U-238	KH100-1931-02	0.223	0.113	0.122	0.038
ACW03	PU-238	KH100-1931-02B	0.059	0.120	0.120	0.181
ACW03	PU-239/240	KH100-1931-02B	2.01	0.398	0.566	0.078
ACW03	AM-241	KH100-1931-02	1.05	0.357	0.414	0.065

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1931-LC1	SCAQC-1931-LD1	SCAQC-1931-PB
Pu	SCAQC-1931-LC1B	SCAQC-1931-LD1B	SCAQC-1931-PBB
Am	SCAQC-1931-LC1	SCAQC-1931-LD1	SCAQC-1931-PB

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

478

048

COMMODORE ADVANCED SCIENCES, INC.

SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 022
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-22-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen 2 grams/100 cm² (1 grid). Iso - 7 grams/300 cm² (3 grids). Total = 400 cm² (4 grids) 9 grams. Rinsate event #.056.

Location Description: Bldg. 707, Module F, room 126, east wall on the floor in front of CA.

Other ID: 707-P-22-00

Sample Appearance: Red paint scrapings

Sampling Device: Heat gun + chisel

Sample Date: 4/27/00 Sample Time: 20:44 Rad Screen Sample Date: 4/27/00

Was generator notified to receive excess sample? (Yes) X (No) ____

Sampler's Signature: [redacted]

Employee Numb[redacted]

Date: 4/27/00 4/27/00

179

Lmc 02/17/99

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A11963#002/004	Matrix:	Waste
Site Sample ID:	023.002				
Other Sample ID:	707-P-23-00	Collection Date:	4/27/00	Date Received:	5/2/00
		Batch Number:	1931	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1931-03	0.301	0.134	0.147	0.067
ACW03	U-235	KH100-1931-03	0.017	0.034	0.035	0.047
ACW03	U-238	KH100-1931-03	0.924	0.243	0.305	0.066
ACW03	PU-238	KH100-1931-03B	0.022	0.118	0.118	0.194
ACW03	PU-239/240	KH100-1931-03B	0.482	0.173	0.198	0.065
ACW03	AM-241	KH100-1931-03	0.090	0.105	0.107	0.081

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1931-LC1	SCAQC-1931-LD1	SCAQC-1931-PB
Pu	SCAQC-1931-LC1B	SCAQC-1931-LD1B	SCAQC-1931-PBB
Am	SCAQC-1931-LC1	SCAQC-1931-LD1	SCAQC-1931-PB

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

COMMODORE ADVANCED SCIENCES, INC.

SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 023
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-23-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen - 2 grams/100cm2 (1 grid). ISO - 7 grams/300cm2 (3 grids). Total = 9 grams/400cm2, 4 grids. Bunsets - event#: 056.

Location Description: Bldg. 707, Module, inside on the floor to the west of doors 29+30.

Other ID: 707-P-23-00

Sample Appearance: Red/maroon paint scrapings

Sampling Device: Heat gun + chisel

Sample Date: 4/27/00 Sample Time: 21:10 Rad Screen Sample Date: 4/27/00

Was generator notified to receive excess sample? (Yes) X (No) ____

Sampler's Signature [redacted]

Employee N[redacted]

Date: 4/27/00 4/27/00

181

Lmc 02/17/99

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A11963#002/004	Matrix:	Waste
Site Sample ID:	024.002				
Other Sample ID:	707-P-24-00	Collection Date:	4/27/00	Date Received:	5/2/00
		Batch Number:	1931	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1931-04	0.115	0.077	0.081	0.035
ACW03	U-235	KH100-1931-04	0.025	0.046	0.047	0.075
ACW03	U-238	KH100-1931-04	0.427	0.153	0.176	0.061
ACW03	PU-238	KH100-1931-04B	0.013	0.108	0.108	0.181
ACW03	PU-239/240	KH100-1931-04B	0.962	0.251	0.316	0.035
ACW03	AM-241	KH100-1931-04	0.205	0.149	0.154	0.069

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1931-LC1	SCAQC-1931-LD1	SCAQC-1931-PB
Pu	SCAQC-1931-LC1B	SCAQC-1931-LD1B	SCAQC-1931-PBB
Am	SCAQC-1931-LC1	SCAQC-1931-LD1	SCAQC-1931-PB

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

CAS SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 024
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-24-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen - 2 grams/100 cm² (1 grid). TSO - 7 grams 200 cm² (2 grids) Total = 300 cm²/3 grids, 9 grams

Location Description: Building 707, Module F, room 127, near west wall

Other ID: 707-P-24-00

Sample Appearance: Red paint scrapings

Sampling Device: Heat gun + chisel

Sample Date: 4/27/00 Sample Time: 21:26 Rad Screen Date: 4/27/00

Was generator notified to receive excess sample? (YES) X (NO) _____

Samplers Signatu[redacted]
Employee Number[redacted]

Date: 4/27/00 4/27/00

183

A-3
RLC RADIOLOGICAL DATA
SURVEY AREA S
1st Floor [Rooms 187, 186,
130, 130A, 130b, 131, 132,132A, 133, and 133A]

Radiological Survey/Sample Results for Survey Area S (99-0002)

Total Surface Activity Measurements dpm/100 cm^2

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	92	92
MIN	-18	N/A
MAX	3942	N/A
MEAN	67.4	N/A
STD DEV	410.9	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	10	10
MIN	12	N/A
MAX	6720	N/A
MEAN	1627.6	N/A
STD DEV	2456.9	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	35	35
MIN	-6	N/A
MAX	48	N/A
MEAN	9.1	N/A
STD DEV	11.9	N/A
Equipment Biased	# Required	# Obtained
	40	40
MIN	6	N/A
MAX	22320	N/A
MEAN	1082.7	N/A
STD DEV	3988.7	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm^2

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	92	92
MIN	0	-52
MAX	12	88
MEAN	1.8	16.5
STD DEV	2.4	31.7
Floors/Walls < 2 m Biased	# Required	# Obtained
	10	10
MIN	0	-52
MAX	6	44
MEAN	3.0	-8.8
STD DEV	2.8	36.3
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	35	35
MIN	0	-40
MAX	6	56
MEAN	0.9	12.2
STD DEV	1.7	23.9
Equipment Biased	# Required	# Obtained
	40	40
MIN	0	-44
MAX	156	72
MEAN	10.1	8.8
STD DEV	27.8	28.8
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
3	3

Total Uranium Results dpm/100 cm^2

MIN	7
MAX	295
MEAN	186.0
STD DEV	156.2
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm^2

MIN	28
MAX	70
MEAN	44.0
STD DEV	22.7
$DCGL_W$	100

185

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1518
Cal Due 4-16-00	Cal Due 5-17-00	Cal Due 6-29-00
Bkg. 0.5 cpm	Bkg. 0.0 cpm	Bkg. 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency .2186
MDA 15.6 dpm	MDA 8.2 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg. NE Tech
Model BC-4	Model BC-4	Model Electra
Serial # 833	Serial # 872	Serial # 2307
Cal Due 7-14-00	Cal Due 4-12-00	Cal Due 7-12-00
Bkg. 62 cpm	Bkg. 64 cpm	Bkg. 20 cpm
Efficiency 25%	Efficiency 25%	Efficiency .1940
MDA 119.5 dpm	MDA 121.3	MDA 94 dpm

Survey Type: **Contamination**

Building: **707**

Location: G module Survey Area S

Purpose: **Reconnaisance Level Characterization**

RWP # 00707 1204

Date: 3-20 3-21-00 Time: Days

RC [redacted]

RC [redacted]

Comments: Floor / Walls < 2 meters: Biased survey points. 1 m² scans, 1 minute pats and swipes. See map for locations. 1 of 4

b.kgd counts alpha electra <8cpm

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	F	0	8	6	16.	F	0	36	42
2.	F	0	28	-6	17.	F	3	4	6
3.	F	3	12	24	18.	F	0	-24	48
4.	F	0	-24	0	19.	F	0	76	355
5.	F	6	-32	18	20.	F	0	12	24
6.	F	0	20	-6	21.	F	0	28	-12
7.	F	0	-12	30	22.	F	3	60	12
8.	F	3	8	30	23.	F	3	20	24
9.	F	0	-48	36	24.	F	0	56	24
10.	F	0	12	54	25.	F	3	12	3942
11.	F	3	-40	252	26.	F	0	16	30
12.	F	3	0	24	27.	F	3	-12	6
13.	F	0	76	6	28.	F	6	36	30
14.	F	0	8	6	29.	F	0	76	6
15.	F	3	28	18	30.	F	3	-12	36

Date Reviewed: 4-3-00 **RS Supervisi** [redacted]

186, Rev. 02/00

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

2 of 4

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	F	6	4	24	61.	W <2m	3	16	18
32.	F	0	16	0	62.	" "	6	28	30
33.	F	3	0	12	63.	" "	0	76	12
34.	F	6	60	54	64.	" "	0	4	24
35.	F	0	12	42	65.	" "	3	44	0
36.	F	0	40	30	66.	" "	0	-20	6
37.	F	0	4	12	67.	" "	0	8	18
38.	F	0	68	30	68.	" "	0	76	18
39.	F	0	20	6	69.	" "	3	-16	18
40.	F	0	-44	12	70.	" "	0	44	0
41.	F	3	8	24	71.	" "	6	48	6
42.	F	0	88	30	72.	" "	3	16	30
43.	F	3	16	-6	73.	" "	3	-28	18
44.	F	0	-4	6	74.	" "	3	8	-6
45.	W <2m	3	-16	0	75.	" "	0	8	42
46.	" "	3	-52	-6	76.	" "	0	54	24
47.	" "	0	44	-18	77.	" "	0	8	12
48.	" "	6	48	12	78.	" "	0	48	24
49.	" "	0	36	24	79.	" "	0	12	66
50.	" "	0	60	12	80.	" "	0	-20	6
51.	" "	3	60	18	81.	" "	0	32	18
52.	" "	3	0	18	82.	" "	0	-12	30
53.	" "	3	20	30	83.	" "	0	-20	12
54.	" "	0	-8	72	84.	" "	6	-24	18
55.	" "	0	28	42	85.	" "	0	8	6
56.	" "	0	-12	18	86.	" "	3	-4	18
57.	" "	12	76	30	87.	" "	0	28	30
58.	" "	0	16	6	88.	" "	9	24	18
59.	" "	0	36	24	89.	" "	0	4	42
60.	" "	3	20	6	90.	" "	6	36	-12

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

3 of 4

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
91.	W < 2m	6	-48	18	121.				
92.	W < 2m	0	4	6	122.				
93.	End of Survey				123.				
94.					124.				
95.					125.				
96.					126.				
97.					127.				
98.					128.				
99.					129.				
100.					130.				
101.					131.				
102.					132.				
103.					133.				
104.					134.				
105.					135.				
106.					136.				
107.					137.				
108.					138.				
109.					139.				
110.					140.				
111.					141.				
112.					142.				
113.					143.				
114.					144.				
115.					145.				
116.					146.				
117.					147.				
118.					148.				
119.					149.				
120.					150.				

NA

NA

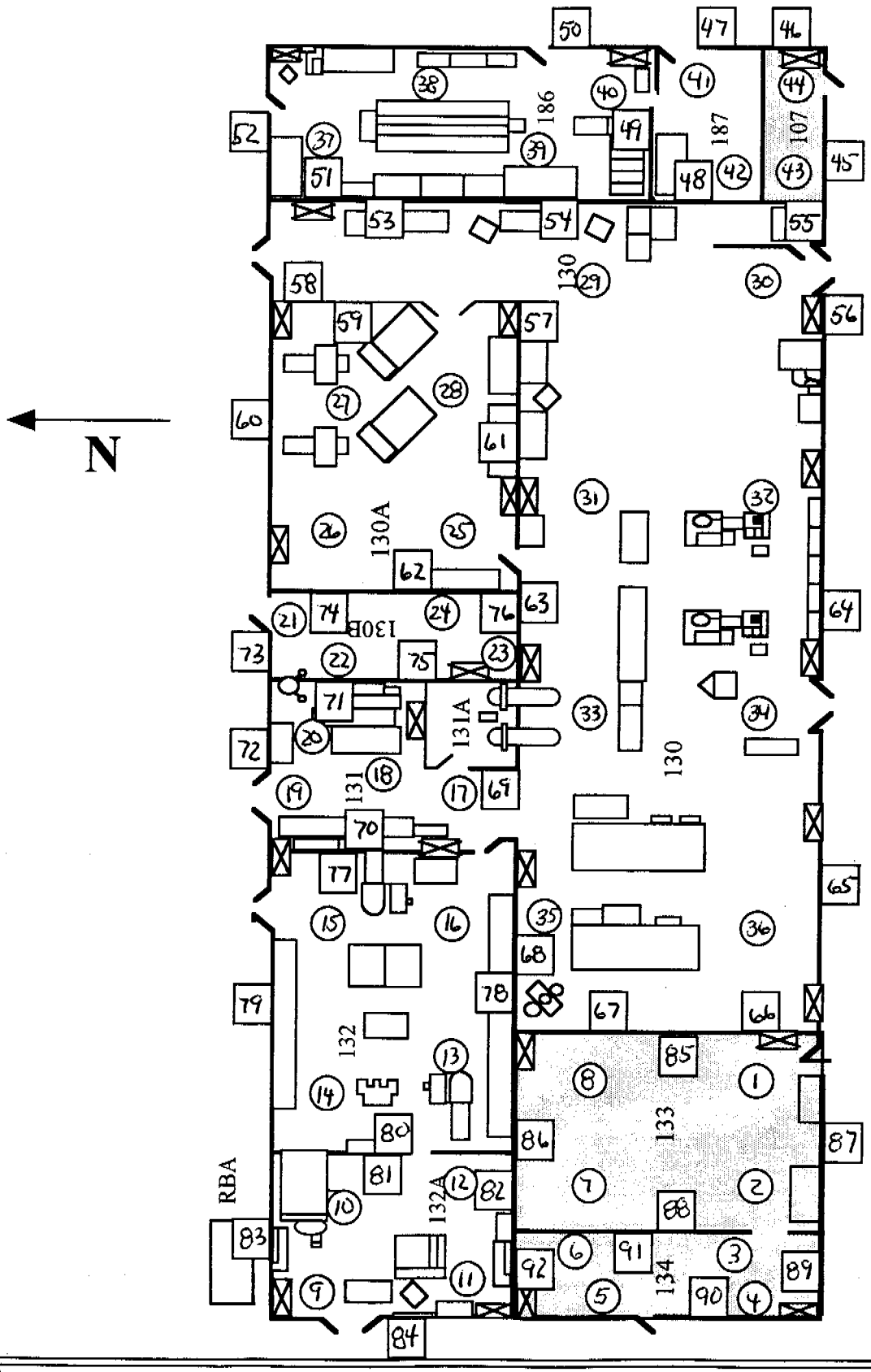
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

MODULE G



ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1518
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 6-29-00
Bkg. 0.5 cpm	Bkg. 0.0 cpm	Bkg. 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency .12186
MDA 15.6 dpm	MDA 8.2 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg. NE Tech
Model BC-4	Model BC-4	Model Electra
Serial # 872	Serial # 833	Serial # 1349
Cal Due 4-12-00	Cal Due 2-14-00	Cal Due 6-29-00
Bkg. 54 cpm	Bkg. 53 cpm	Bkg. 1.0 cpm
Efficiency 25%	Efficiency 25%	Efficiency .2096
MDA 112.3 dpm	MDA 111.3 cpm	MDA 94 dpm

Survey Type: **Contamination**

Building: 707

Location: 6 Module Survey Area S

Purpose: **Reconnaisance Level Characterization**

RWP # 00 707 1204

Date: 3-23 3-27 - 00 Time: Days

[redacted]

Comments: Floor / Walls < 2 meters : Biased survey points. 1 of 2

1 m² scans, 1 minute pats and swipes. See map for locations.

bkgd Counts alpha electra < 8cpm

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	F Rm 132A Center of Rm	6	4	5448	16.				
2.	F Rm 132A Near South wall	0	-20	6720	17.	NA			
3.	F Rm 132 yellow Arrow	3	-16	72	18.				
4.	F Rm 131 Front of Door	3	36	24	19.				
5.	F Rm 130 Old Paint	6	-48	1320	20.				
6.	F Rm 130 Old Paint	0	-20	1980	21.				
7.	F Rm 130 Front of Door	6	32	154	22.				
8.	F Rm 130 Front of Door	0	44	534	23.				
9.	F Rm 130A	0	-52	12	24.				
10.	F Rm 130	6	-48	12	25.				
11.	End of Survey				26.				
12.	NA				27.				
13.					28.				
14.					29.				
15.					30.				

Date Reviewed: 4-3-00 **RS Supervision:** [redacted]

 RS FORMS 07.02-01

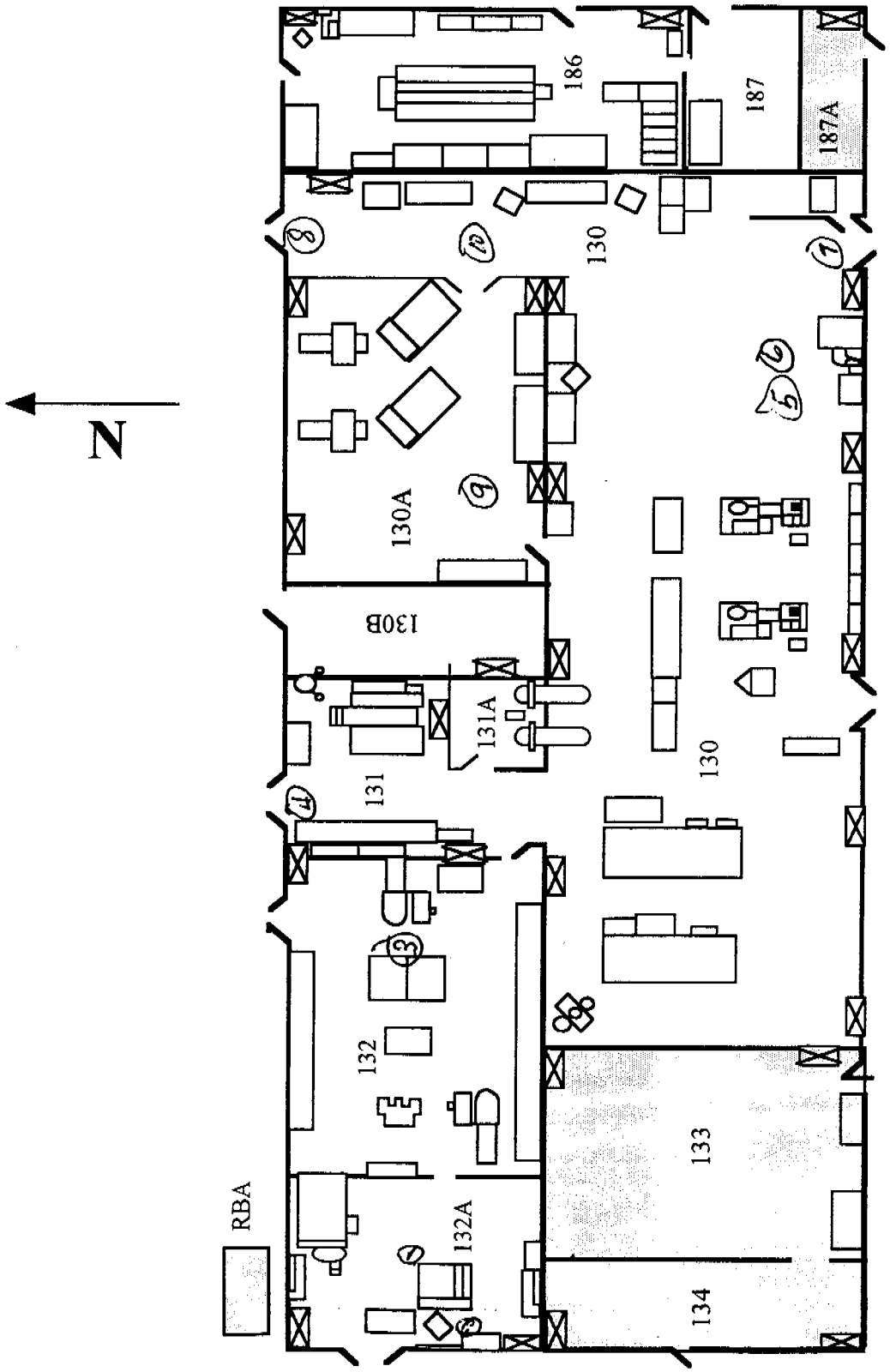
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

2 of 2

Drawing Showing Survey Points

MODULE G



191

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1233
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 5-11-00
Bkg. 0.5 cpm	Bkg. 0.3 cpm	Bkg. 1.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency .2063
MDA 15.6 dpm	MDA 13.9 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due
Bkg. 59 cpm	Bkg. 55 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 116.9 dpm	MDA 113.2 dpm	MDA

Survey Type: **Contamination**

Building: **707**

Location: Module G Survey Area 5

Purpose: **Reconnaisance Level Characterization**

RWP # 00 707 1204

Date: 3-22-00 Time: Days

RCT [redacted]

RCT [redacted]

Print name [redacted]

Comments: Ceiling / Walls > 2 meters : Biased survey points.
1 minute pats and swipes. See map for locations. 1 of 3
bkgd counts alpha beta <8cpm

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	W >2m	0	44	6	16.	W >2m	0	32	6
2.	" "	0	-12	24	17.	" "	0	4	12
3.	" "	0	0	6	18.	" "	0	16	12
4.	" "	0	12	0	19.	" "	0	-8	12
5.	" "	0	28	6	20.	" "	3	44	12
6.	" "	0	24	0	21.	" "	0	4	0
7.	" "	0	20	0	22.	" "	0	-36	12
8.	" "	0	-8	6	23.	" "	0	-24	-6
9.	" "	0	48	0	24.	" "	0	-16	6
10.	" "	3	8	-6	25.	" "	3	-16	6
11.	" "	6	32	6	26.	Ceiling	0	-20	6
12.	" "	0	24	6	27.	"	6	-40	12
13.	" "	3	44	12	28.	"	0	28	12
14.	" "	0	56	-6	29.	"	0	20	12
15.	" "	0	24	[redacted]	30.	"	[redacted]	[redacted]	[redacted]

Date Reviewed: 4-3-00 RS Supervision: [redacted]

Print Name Signature Emp. #

442 Rev. 02/00

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points 2 of 3

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	Ceiling	0	8	6	61.				
32.	"	3	4	24	62.	N/A			
33.	"	0	16	48	63.				
34.	"	3	32	6	64.				
35.	"	3	12	12	65.				
36.	End of Survey				66.				
37.	N/A				67.				
38.					68.				
39.					69.				
40.					70.				
41.					71.				
42.					72.				
43.					73.				
44.					74.				
45.					75.				
46.					76.				
47.					77.				
48.					78.				
49.					79.				
50.					80.				
51.					81.				
52.					82.				
53.					83.				
54.					84.				
55.					85.				
56.					86.				
57.					87.				
58.					88.				
59.					89.				
60.					90.				

RS FORMS 07.02-01

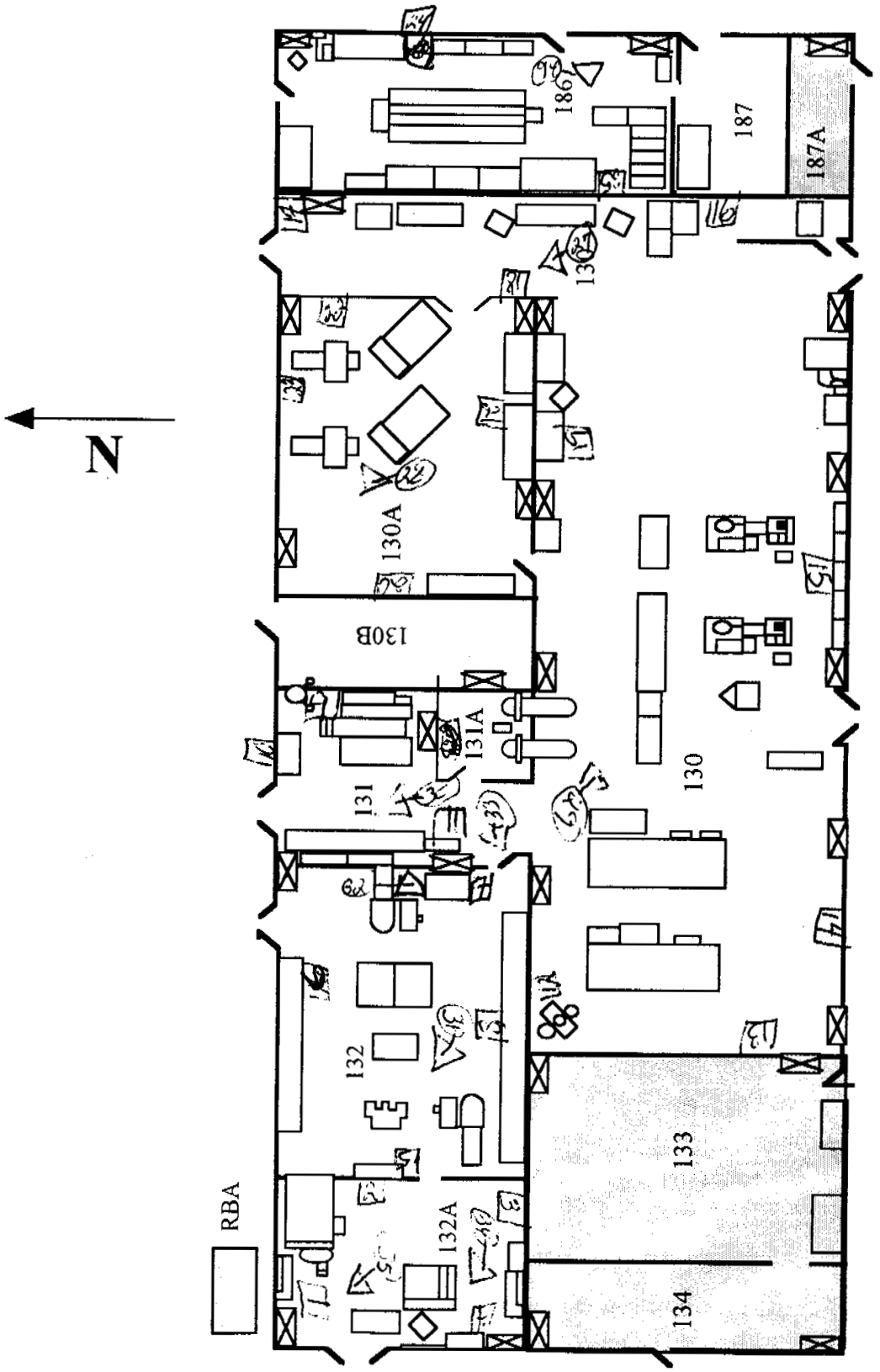
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

383

MODULE G



ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1518
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 6-29-00
Bkg. 0.5 cpm	Bkg. 0.0 cpm	Bkg. 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency .2186
MDA 15.6 dpm	MDA 8.2 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg. NETech
Model BC-4	Model BC-4	Model Electra
Serial # 872	Serial # 833	Serial # 1389
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due 6-29-00
Bkg. 54 cpm	Bkg. 53 cpm	Bkg. 1.0 cpm
Efficiency 25%	Efficiency 25%	Efficiency .2096
MDA ~~117.6~~ 172.3 dpm	MDA 111.3 dpm	MDA 94 dpm

Survey Type: **Contamination**

Building: 707

Location: G Module Survey Area 5

Purpose: **Reconnaisance Level Characterization**

RWP # 00 707 1204

Date: 3-23 3-27-00 Time: Days

RC [redacted]

RC [redacted]

Comments: Equipment : Biased survey points. 143

1 minute pats and swipes. See map for locations.

bkgd Counts alpha electra ~8cpm

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	Rm 132A Air Vent # 18	0	36	90	16.	Rm 130 Tank	0	24	12
2.	Rm 132A Air Vent #17	3	32	312	17.	Rm 130 Air Vent # 10	3	36	816
3.	Rm 132A ½" Copper pipe, Valve	3	4	30	18.	Rm 130 Air Vent # 8	12	-20	150
4.	Rm 132A Power Control Box welded	0	36	18	19.	Rm 130A Boston Gear Ratiotrol	9	64	1500
5.	Rm 132 Pipe, Valve, Box	3	40	30	20.	Rm 130A Air Vent # 7	3	8	60
6.	Rm 132 Air Vent #16	0	0	138	21.	Rm 130A Air Vent # 5	9	0	180
7.	Rm 132 Mover Cart	6	48	180	22.	Rm 130 Air Vent # 3	9	-20	210
8.	Rm 132 Air Vent #15	3	4	120	23.	Rm 130 Air Vent	90	4	228
9.	Rm 132 Box	3	52	24	24.	Rm 130 Down Draft Table	0	-32	36
10.	Rm 132 Electrical Pipe Box	0	-20	6	25.	Rm 130 Air Vent # 32	6	72	180
11.	Rm 131 Trich. Tank	156	12	12714	26.	Rm 130 Air Vent # 33	3	44	126
12.	Rm 131 Work Bench	0	-44	654	27.	Rm 130 Manual Table # 28	4	0	22320
13.	Rm 131 Platform	12	-12	300	28.	Rm 130 Manual Tube # 27	0	-32	120
14.	Rm 131 Top of Trich. Tank	3	32	48	29.	Rm 130 Electrical Connection Box	0	44	108
15.	Rm 130 Air Vent # 17	27	-16	90	30.	Rm 130 Air Vent # 25	3	-4	66

Date Reviewed: 4-3-00 **RS Supervision:** [redacted]

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

2 of 3

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	Rm 130 Air Vent # 23	3	0	90	61.				
32.	Rm 130 Manual table # 32	3	-8	1962	62.				
33.	Rm 186 Air Vent #2	0	-28	198	63.				
34.	Rm 186 Air Vent	6	0	48	64.				
35.	Rm 187 File Cabinet	0	-28	42	65.				
36.	Rm 187A Air Vent #1	0	0	96	66.				
37.	Rm 133 Air Vent #34	12	16	12	67.				
38.	Rm 133 Air Vent #35	0	-20	18	68.				
39.	Rm 134 Air Vent #37	0	32	12	69.				
40.	Rm 134 Air Vent #36	6	-4	30	70.				
41.	End of Survey				71.				
42.	N/A				72.				
43.					73.				
44.					74.				
45.					75.				
46.					76.				
47.					77.				
48.					78.				
49.					79.				
50.					80.				
51.					81.				
52.					82.				
53.					83.				
54.					84.				
55.					85.				
56.					86.				
57.					87.				
58.					88.				
59.					89.				
60.					90.				

RS FORMS 07.02-01

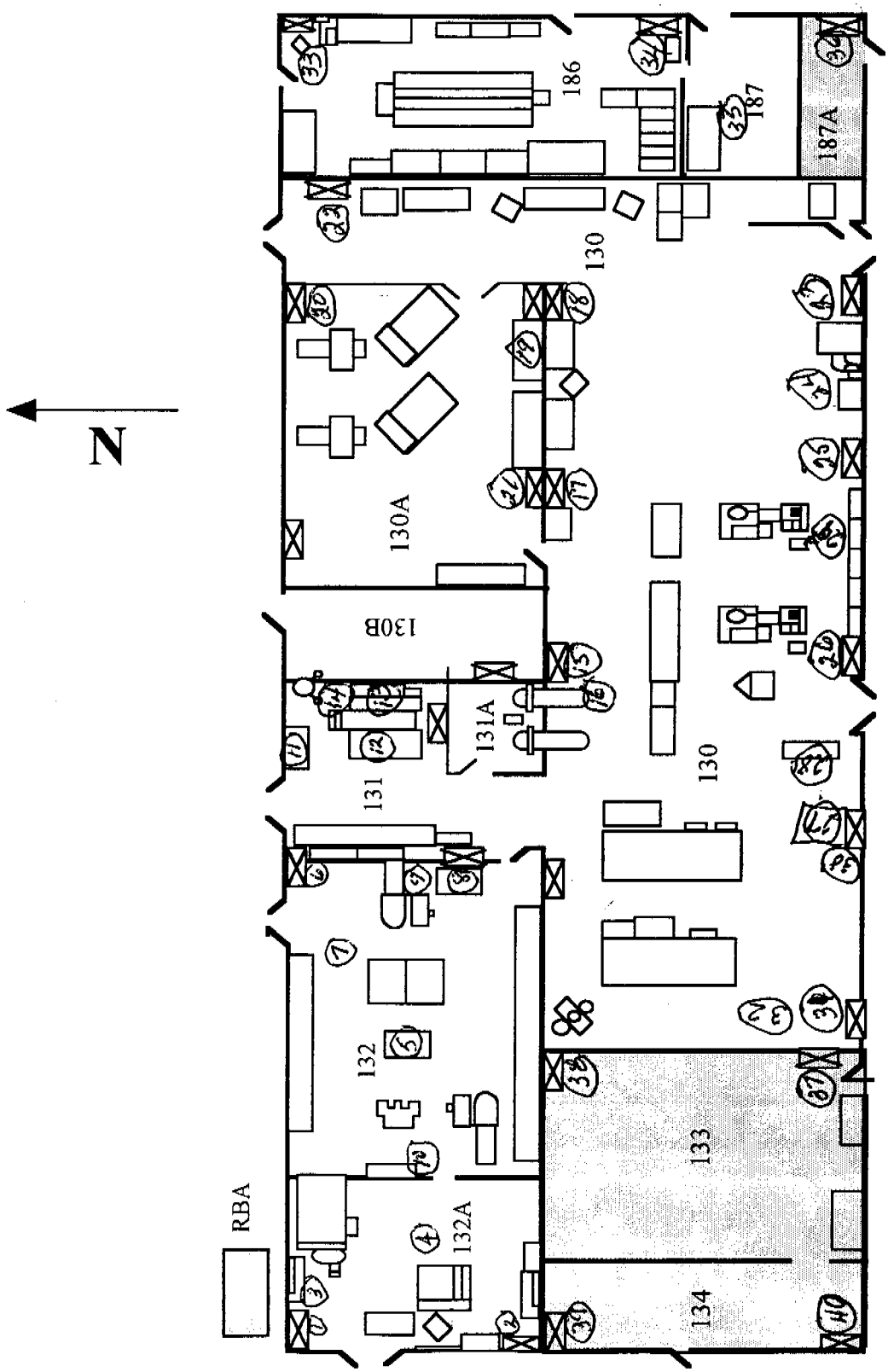
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

3 of 3

Drawing Showing Survey Points

MODULE G



497

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#014/002	Matrix:	Waste
Site Sample ID:	019.002				
Other Sample ID:	707-P-19-00	Collection Date:	4/27/00	Date Received:	5/2/00
		Batch Number:	1930	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1930-09	12.7	1.45	2.92	0.039
ACW03	U-235	KH100-1930-09	0.518	0.198	0.252	0.048
ACW03	U-238	KH100-1930-09	0.432	0.163	0.184	0.039
ACW03	PU-238	KH100-1930-09	-0.006	0.081	0.081	0.153
ACW03	PU-239/240	KH100-1930-09	1.29	0.313	0.405	0.067
ACW03	AM-241	KH100-1930-09	0.206	0.173	0.178	0.093

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB
Pu	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB
Am	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

COMMODORE ADVANCED SCIENCES, INC.

SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 019
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-19-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK:

Comments/Problems encountered during sampling: Radscreen - 2 grams/25 cm² (1/4 grid) - ISO - 7 grams/75 cm² (3/4 grid) Total - 9 grams/100 cm² (1 grid)

Location Description: 4/26/00 Building 707, Module G, just inside door ~~108~~ 103 on floor.

Other ID: 707-P-19-00

Sample Appearance: Red/maroon paint scrapings

Sampling Device: Heat gun, stainless steel putty knife

Sample Date: 4/26/00 Sample Time: 1440 Rad Screen Sample Date: 4/26/00

Was generator notified to receive excess sample? (Yes) X (No)

Sampler's Signature: [redacted]

Employee N[redacted]

Date: 4/26/00 4/26/00

Lmc 02/17/99

499

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#014/002	Matrix:	Waste
Site Sample ID:	020.002				
Other Sample ID:	707-P-20-00	Collection Date:	4/27/00	Date Received:	5/2/00
		Batch Number:	1930	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1930-10	18.6	1.92	4.20	0.061
ACW03	U-235	KH100-1930-10	0.729	0.224	0.313	0.075
ACW03	U-238	KH100-1930-10	0.664	0.193	0.235	0.061
ACW03	PU-238	KH100-1930-10	0.024	0.092	0.092	0.154
ACW03	PU-239/240	KH100-1930-10	1.92	0.398	0.552	0.064
ACW03	AM-241	KH100-1930-10	0.390	0.226	0.240	0.138

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB
Pu	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB
Am	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

COMMODORE ADVANCED SCIENCES, INC.

SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 020
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-20-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen-2 grams/25 cm² (1/4 grid). ISO-7 grams/75 cm² (3/4 grids) Total-9 grams/100 cm² (1 grid). Completed Rinsate on this event-number: 055.

Location Description: Building 707, Module G, on floor by door R131A.

Other ID: 707-P-20-00

Sample Appearance: Red/Maroon ~~pte~~ alkyd paint scrapings

Sampling Device: Heat gun + stainless steel putty knife

Sample Date: 4/24/00 Sample Time: 14:45 Rad Screen Sample Date: 4/24/00

Was generator notified to receive excess sample? (Yes) X (No) ____

Sampler's Signature [redacted]

Employee N[redacted]

Date: 4/20/00 4/24/00

Lmc 02/17/99

501

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A11963#002/004	Matrix:	Waste
Site Sample ID:	021.002				
Other Sample ID:	707-P-21-00	Collection Date:	4/27/00	Date Received:	5/2/00
		Batch Number:	1931	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1931-01	0.142	0.087	0.091	0.035
ACW03	U-235	KH100-1931-01	0.064	0.064	0.067	0.043
ACW03	U-238	KH100-1931-01	0.183	0.102	0.108	0.073
ACW03	PU-238	KH100-1931-01B	0.146	0.144	0.147	0.191
ACW03	PU-239/240	KH100-1931-01B	3.41	0.624	0.924	0.082
ACW03	AM-241	KH100-1931-01	0.597	0.320	0.341	0.172

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1931-LC1	SCAQC-1931-LD1	SCAQC-1931-PB
Pu	SCAQC-1931-LC1B	SCAQC-1931-LD1B	SCAQC-1931-PBB
Am	SCAQC-1931-LC1	SCAQC-1931-LD1	SCAQC-1931-PB

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

COMMODORE ADVANCED SCIENCES, INC.

SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 021
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-21-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen - 2 gram/25cm² (1/4 grid). TSD - 7 grams/75 cm² (3/4 grid) Total - 9 grams/100 cm² 1 grid. Started another Rinsate. Event .056.

Location Description: Bldg. 707 module G, floor under Downdraft table # 7GA23

Other ID: 707-P-21-00

Sample Appearance: Red/Maroon paint scrapings

Sampling Device: Heat gun + Stainless Steel Putty Knife

Sample Date: 4/26/00 Sample Time: 1505 Rad Screen Sample Date: 4/26/00

Was generator notified to receive excess sample? (Yes) X (No) ____

Sampler's Signat[redacted]

Employe[redacted]

Date: 4/26/00 4/26/00

503

Lmc 02/17/99

A-3
RLC RADIOLOGICAL DATA
SURVEY AREA T
1ST Floor [Rooms 189, 190, 191, 135,
Vaults 135A-135F and 136]

504

Radiological Survey/Sample Results for Survey Area T (99-0002)

Total Surface Activity Measurements dpm/100 cm^2

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	72	63
MIN	6	N/A
MAX	210	N/A
MEAN	56.8	N/A
STD DEV	42.8	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	10	11
MIN	6	N/A
MAX	126	N/A
MEAN	64.9	N/A
STD DEV	42.1	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	25	25
MIN	12	N/A
MAX	264	N/A
MEAN	58.5	N/A
STD DEV	52.7	N/A
Equipment Biased	# Required	# Obtained
	30	30
MIN	12	N/A
MAX	144	N/A
MEAN	67.0	N/A
STD DEV	31.7	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm^2

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	72	63
MIN	0	-80
MAX	6	96
MEAN	1.3	5.1
STD DEV	1.8	31.7
Floors/Walls < 2 m Biased	# Required	# Obtained
	10	11
MIN	0	-44
MAX	6	72
MEAN	1.1	2.2
STD DEV	2.4	32.8
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	25	25
MIN	0	-44
MAX	9	100
MEAN	1.1	29.6
STD DEV	2.4	37.7
Equipment Biased	# Required	# Obtained
	30	30
MIN	0	-48
MAX	6	48
MEAN	1.5	-2.7
STD DEV	1.8	23.9
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
3	2

Total Uranium Results dpm/100 cm^2

MIN	0
MAX	0
MEAN	0.0
STD DEV	0.0
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm^2

MIN	0
MAX	1
MEAN	0.5
STD DEV	0.7
$DCGL_W$	100

505

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial #	Serial # 1518
Cal Due 4-10-00	Cal Due N/A	Cal Due 6-29-00
Bkg. 0.4 cpm	Bkg.	Bkg. 1 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 14.8 dpm	MDA	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 56 cpm	Bkg. 53 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 114.1 dpm	MDA 111.3 dpm	MDA

Survey Type: **Contamination**

Building: 707

Location: Module H Survey Area T

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 3-27-00 Time: 1630

[redacted]

Print name / Signature / Emp. #

Comments: Floor / Walls < 2 meters : Biased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.
All on floor

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	See map	0	0	114	16.				
2.	See map	0	-16	24	17.				
3.	See map	0	-8	6	18.				
4.	See map	0	72	30	19.				
5.	See map	0	-20	24	20.				
6.	See map	0	-32	42	21.				
7.	See map	0	-44	78	22.				
8.	See map	6	0	126	23.	N/A			
9.	See map	6	28	66	24.				
10.	See map	0	12	108	25.				
11.	See map	0	32	96	26.				
12.	End of Survey				27.				
13.	N				28.				
14.	A				29.				
15.					30.				

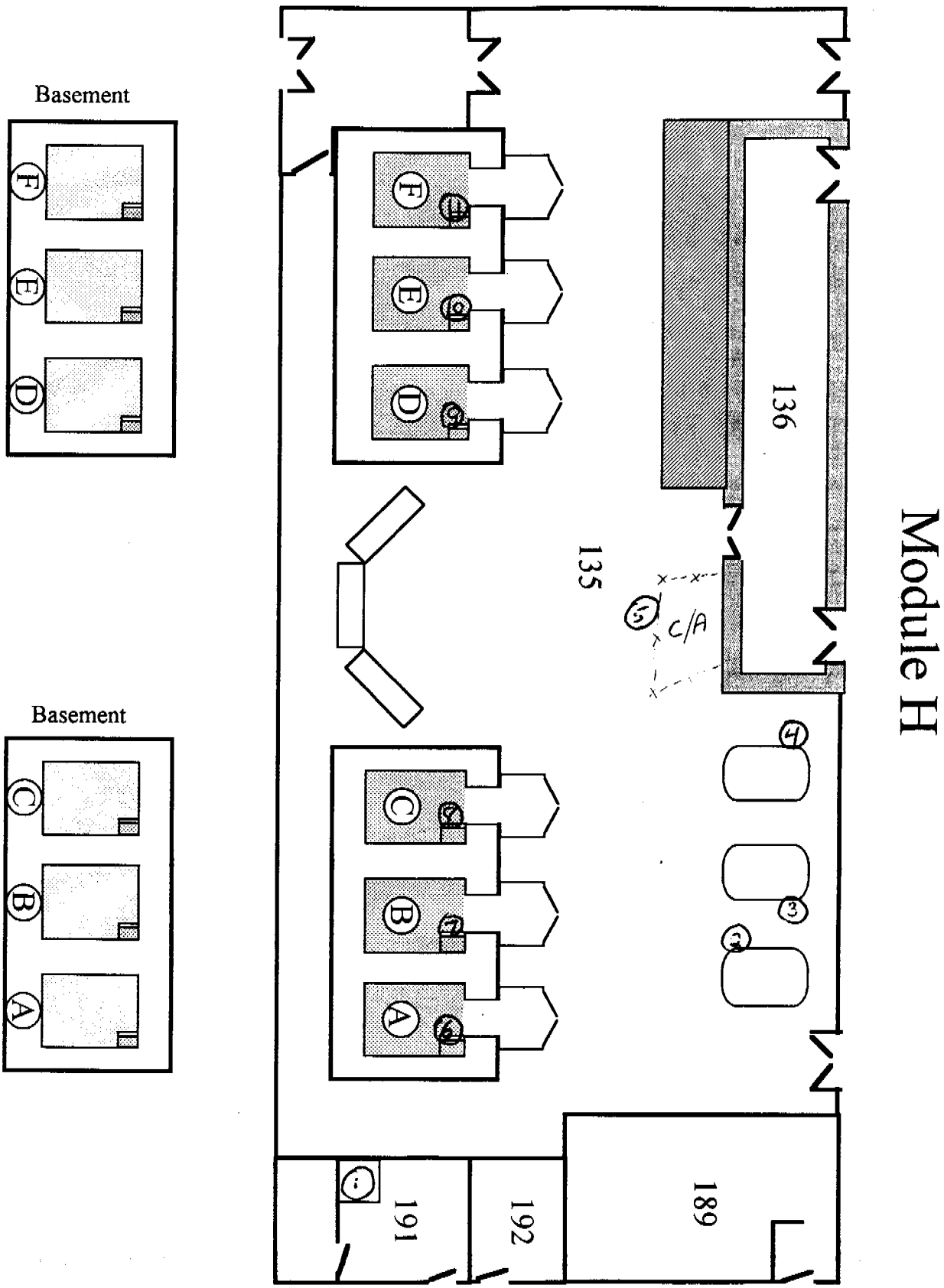
Date Reviewed: 4-26-00 **RS Supervision:** [redacted]

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



507

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 812	Serial # 849	Serial # 1518
Cal Due 9-25-00	Cal Due 4-10-00	Cal Due 6-29-00
Bkg. 0.2 cpm	Bkg. 0.3 cpm	Bkg. 2 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 12.9 dpm	MDA 13.9 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 60 cpm	Bkg. 53 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 117.8 dpm	MDA 111.3 dpm	MDA

Survey Type: **Contamination**

Building: 707

Location: Module 14 Survey Area T

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 3-29-00 Time: 1630

RC [redacted]

RC [redacted]

Print name / Signature / Emp. #

Comments: Equipment : Biased survey points.
1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	Panel	3	0	102	16.	canberra Equip	3	8	84
2.	Vent	0	-16	48	17.	Transformer	0	0	90
3.	autoclave	0	-16	48	18.	work station	3	0	54
4.	autoclave	3	-16	54	19.	work station	3	-8	42
5.	autoclave	3	-24	66	20.	Hydralic system	6	-16	66
6.	autoclave	3	24	90	21.	Furnace Panel	0	-24	36
7.	Furnace	0	-32	~~90~~ #30 3-28-00	22.	Furnace Pump	3	32	66
8.	Furnace	3	-16	66	23.	Hydraulic system	0	-40	60
9.	Furnace	0	48	72	24.	cabinet	4	28	78
10.	~~Vent~~ #31 3-28-00 Panel	0	-20	72	25.	Hydraulic System	0	-4	78
11.	Air lines	0	0	24	26.	Air lines	3	44	144
12.	Helium system (old)	0	0	36	27.	Air lines (cooling lines)	0	20	12
13.	Air lines	0	-48	138	28.	Sink	0	-20	18
14.	Cooling water	0	28	102	29.	Basin	0	-8	66
15.	Furnace Panel	3	-20	108	30.	[redacted]	3	16	60

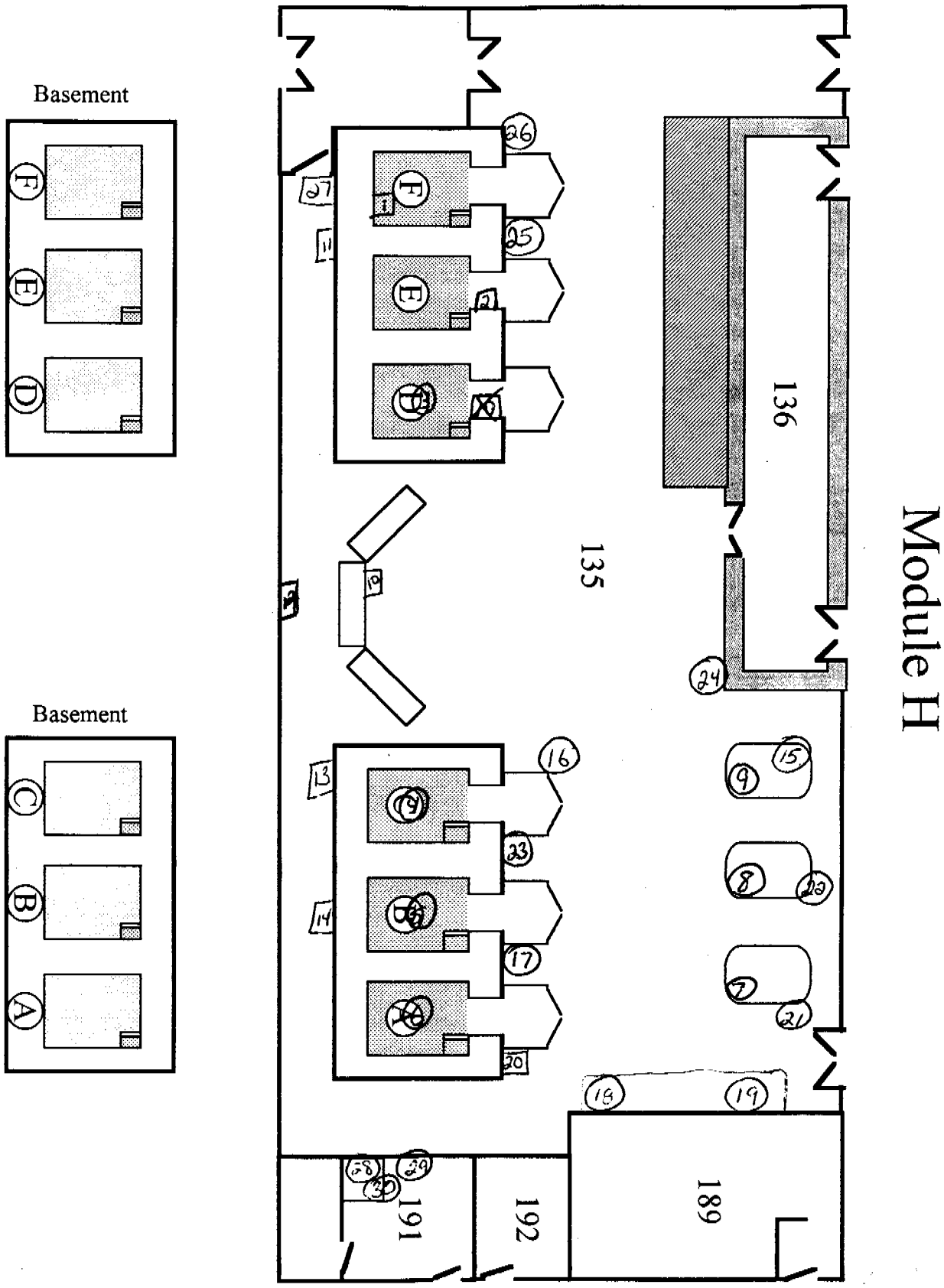
Date Reviewed: 4-26-00 RS Supervision: [redacted]

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 812	Serial # 849	Serial # 1233
Cal Due 9-25-00	Cal Due 4-10-00	Cal Due 5-11-00
Bkg. 0.1 cpm	Bkg. 0.6 cpm	Bkg. 1.0
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 11.5 dpm	MDA 16.3 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 52 cpm	Bkg. 54 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 110.4 dpm	MDA 112.3 dpm	MDA

Survey Type: Contamination
Building: 707
Location: Module H Survey Area T
Purpose: Reconnaisance Level Characterization

RWP # 00-707-1204

Date: 3-28-00 Time: 1630

[redacted]

Comments: Ceiling / Walls > 2 meters : Biased survey points.
1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	wall	3	96	48	16.	Ceiling	0	-20	36
2.	wall	0	-8	84	17.	Ceiling	0	32	30
3.	wall	6	20	66	18.	Ceiling	0	-8	42
4.	wall	0	52	90	19.	Ceiling	0	60	54
5.	wall	0	72	30	20.	Ceiling	0	-20	264
6.	wall	0	60	18	21.	Ceiling	0	60	76
7.	wall	0	36	30	22.	Ceiling	0	12	42
8.	wall	0	100	30	23.	Ceiling	6	12	120
9.	wall	3	56	18	24.	Ceiling	0	8	102
10.	wall	0	8	42	25.	Ceiling	0	40	108
11.	wall	0	36	54	26.	End of Survey			
12.	wall	9	-44	12	27.				
13.	Ceiling	0	60	18	28.	N A			
14.	Ceiling	0	-24	30	29.				
15.	Ceiling	0	44	18	30.				

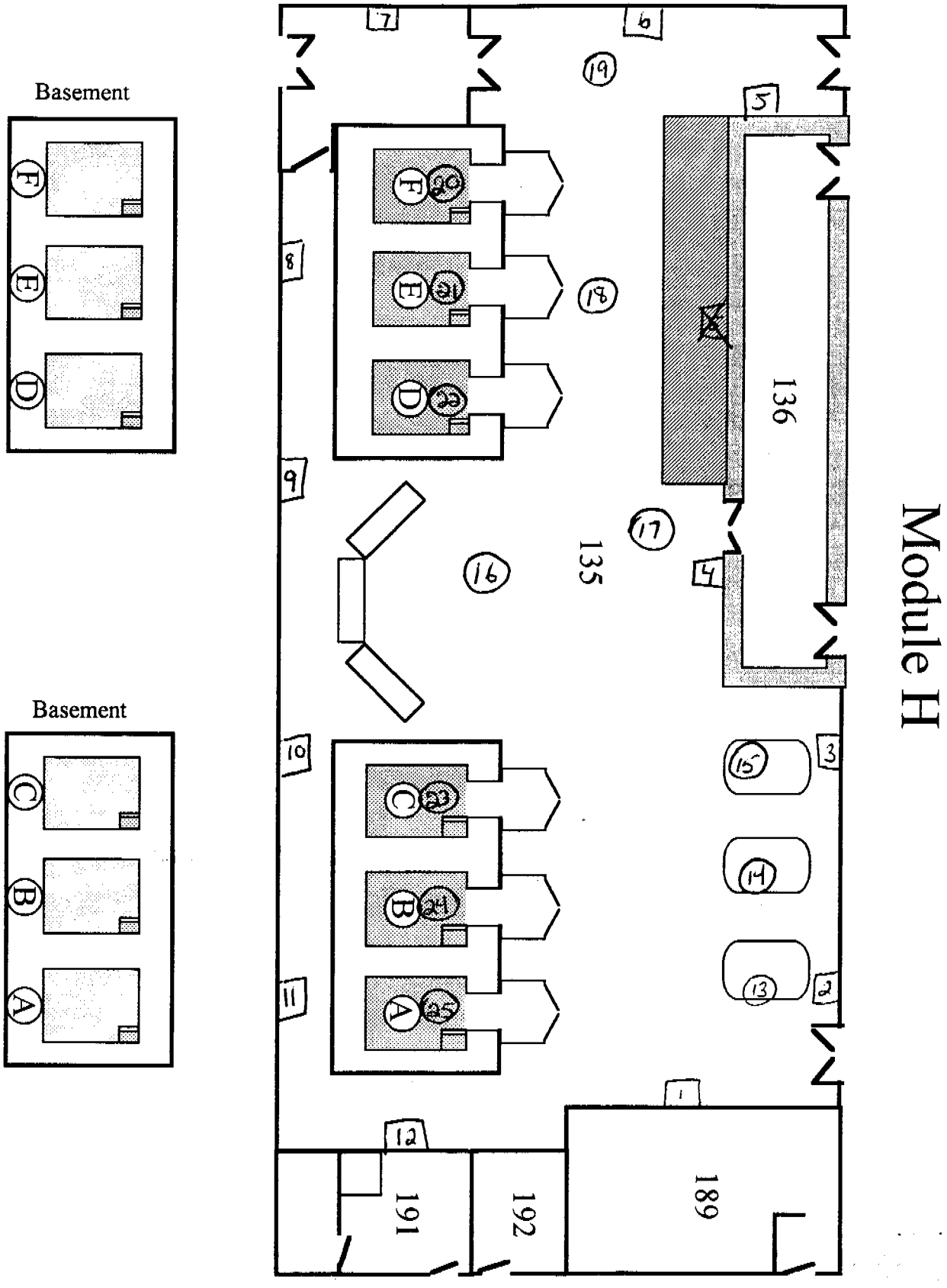
Date Reviewed: 4-26-00 RS Supervision: [redacted]

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial #	Serial # 1518
Cal Due 4-10-00	Cal Due N/A	Cal Due 6-29-00
Bkg. 0.4 cpm	Bkg.	Bkg. 1 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 14.8 dpm	MDA	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 56 cpm	Bkg. 53 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 114.1 dpm	MDA 111.3 dpm	MDA

Survey Type: **Contamination**

Building: 707

Location: Module H Survey Area T

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 3-27-00 Time: 1630

[redacted]

Comments: Floor / Walls < 2 meters : Unbiased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.
Locations 64-72 in Vault - full of drum.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Floor	0	28	42	16.	Floor	0	44	90
2.	wall	3	4	72	17.	wall	0	36	6
3.	Floor	0	28	54	18.	Floor	0	36	24
4.	wall	0	16	18	19.	Floor	0	4	42
5.	wall	0	-24	54	20.	wall	0	8	18
6.	Floor	0	-24	60	21.	Floor	6	16	54
7.	wall	3	40	66	22.	wall	0	-4	42
8.	Floor	3	20	60	23.	Floor	0	-32	24
9.	Floor	0	0	24	24.	Floor	3	-12	30
10.	Floor	0	4	24	25.	Floor	6	8	24
11.	wall	0	-28	24	26.	wall	0	-12	42
12.	Floor	3	20	30	27.	Floor	0	12	42
13.	wall	3	20	24	28.	Floor	0	~~42~~ -28	66
14.	Floor	0	0	42	29.	Floor	3	32	60
15.	wall	3	-40	48	30.	Floor	3	48	36

Date Reviewed: 4-26-00 **RS Supervision:** [redacted]

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

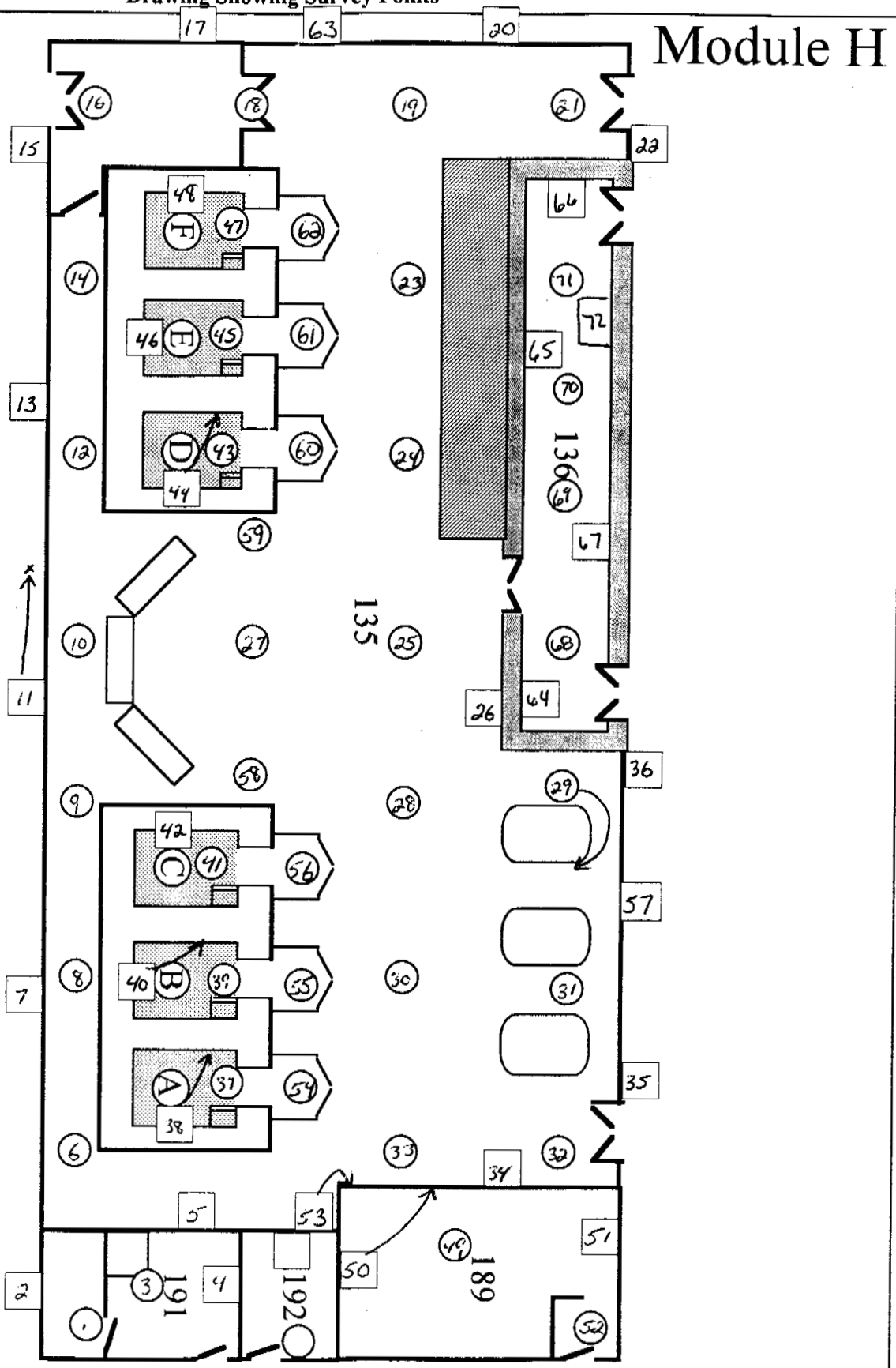
Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	Floor	3	24	66	61.	Floor	3	20	96
32.	Floor	0	48	60	62.	Floor	0	-32	108
33.	Floor	3	36	30	63.	Wall	3	0	66
34.	wall	3	-12	48	64.	see note			
35.	wall	0	-12	24	65.				
36.	wall	0	96	60	66.				
37.	Floor	0	-20	180	67.				
38.	wall	3	12	180	68.				
39.	Floor	0	20	~~252~~ 210	69.				
40.	wall	3	8	108	70.				
41.	Floor	3	-12	48	71.	see note			
42.	wall	0	48	54	72.	see note			
43.	Floor	0	-28	96	73.	END OF SURVEY			NA
44.	wall	0	40	192	74.				
45.	Floor	3	24	96	75.				
46.	wall	0	-80	78	76.				
47.	Floor	3	-52	66	77.				
48.	wall	3	4	72	78.				
49.	Floor	0	-8	24	79.				
50.	wall	0	-44	6	80.				
51.	wall	0	-20	48	81.				
52.	Floor	0	44	24	82.				
53.	wall	0	60	36	83.				
54.	Floor	3	-28	24	84.				
55.	Floor	0	20	78	85.				
56.	Floor	3	-16	30	86.				
57.	wall	0	8	48	87.				
58.	Floor	0	-52	18	88.				
59.	Floor	6	36	30	89.				
60.	Floor	0	-52	30	90.	NA			

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A11963#002/004	Matrix:	Waste
Site Sample ID:	025.002				
Other Sample ID:	707-P-25-00	Collection Date:	4/28/00	Date Received:	5/2/00
		Batch Number:	1931	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1931-05	0.176	0.103	0.109	0.067
ACW03	U-235	KH100-1931-05	0.017	0.035	0.035	0.047
ACW03	U-238	KH100-1931-05	0.106	0.080	0.083	0.067
ACW03	PU-238	KH100-1931-05B	0.070	0.120	0.120	0.178
ACW03	PU-239/240	KH100-1931-05B	0.431	0.156	0.178	0.060
ACW03	AM-241	KH100-1931-05	0.090	0.150	0.151	0.231

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1931-LC1	SCAQC-1931-LD1	SCAQC-1931-PB
Pu	SCAQC-1931-LC1B	SCAQC-1931-LD1B	SCAQC-1931-PBB
Am	SCAQC-1931-LC1	SCAQC-1931-LD1	SCAQC-1931-PB

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

515

COMMODORE ADVANCED SCIENCES, INC.

SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 025
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-25-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen - 2 grams / 200 cm² (2 grids). ISO - 7 grams / 850 cm² (8½ grids) Total = 9 grams / 1050 cm², 10½ grids. Rinsate ~~[illegible]~~ #. 056.

Location Description: Building 707, Module H, floor near doors 17 + 18.

Other ID: 707-P-25-00

Sample Appearance: Red paint scrapings. Paint is very thin

Sampling Device: Heat gun + chisel

Sample Date: 4/28/00 Sample Time: 06:12 Rad Screen Sample Date: 4/28/00

Was generator notified to receive excess sample? (Yes) X (No) ____

Sampler's Signature: [redacted]

Employee N[redacted]

Date: 4/28/00 4/28/00

516

Lmc 02/17/99

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A11963#002/004	Matrix:	Waste
Site Sample ID:	026.002				
Other Sample ID:	707-P-26-00	Collection Date:	4/28/00	Date Received:	5/2/00
		Batch Number:	1931	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1931-06	0.180	0.098	0.104	0.035
ACW03	U-235	KH100-1931-06	0.089	0.079	0.084	0.076
ACW03	U-238	KH100-1931-06	0.167	0.094	0.099	0.035
ACW03	PU-238	KH100-1931-06B	0.008	0.085	0.085	0.152
ACW03	PU-239/240	KH100-1931-06B	0.265	0.129	0.139	0.078
ACW03	AM-241	KH100-1931-06	0.044	0.082	0.083	0.133

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1931-LC1	SCAQC-1931-LD1	SCAQC-1931-PB
Pu	SCAQC-1931-LC1B	SCAQC-1931-LD1B	SCAQC-1931-PBB
Am	SCAQC-1931-LC1	SCAQC-1931-LD1	SCAQC-1931-PB

1000 Monticello Court • Montgomery, Alabama • 36117 • 334.272.2234 • FAX 334.213.0407

COMMODORE ADVANCED SCIENCES, INC.

SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 026
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-26-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen - 2 grams / 400 cm² (4 grids). I30 - 7 grams / 1000 cm², (10 grids) Total - 9 grams / 1400 cm² (14 grids) Rinsate - event. 056.

Location Description: Bldg. 707, Module H, just outside door to vault 4.

Other ID: 707-P-26-00

Sample Appearance: Red paint scrapings

Sampling Device: Heat gun + chisel

Sample Date: 4/28/00 Sample Time: 06:52 Rad Screen Sample Date: 4/28/00

Was generator notified to receive excess sample? (Yes) X (No) ____

Sampler's Signature: [redacted]

Employee N[redacted]

Date: 4/28/00 4/28/00

518

Lmc 02/17/99

A-3

RLC RADIOLOGICAL DATA

SURVEY AREA U

1st Floor [Rooms 167, 169, 173, 175, 179, 171, 180, 181, 181A,B,C, 182A,B,C, 183, 184A, 184, 185, 188, 197, 194, 195, 193, 196, 196A]

Radiological Survey/Sample Results for Survey Area U (99-0002)

Total Surface Activity Measurements dpm/100 cm^2

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	93	93
MIN	-18	N/A
MAX	96	N/A
MEAN	25.2	N/A
STD DEV	19.0	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	10	10
MIN	0	N/A
MAX	54	N/A
MEAN	26.4	N/A
STD DEV	14.5	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	40	40
MIN	-18	N/A
MAX	72	N/A
MEAN	19.1	N/A
STD DEV	21.7	N/A
Equipment Biased	# Required	# Obtained
	30	30
MIN	0	N/A
MAX	252	N/A
MEAN	55.6	N/A
STD DEV	51.9	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm^2

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	93	93
MIN	0	-112
MAX	6	84
MEAN	0.7	-23.9
STD DEV	1.5	37.8
Floors/Walls < 2 m Biased	# Required	# Obtained
	10	10
MIN	0	-40
MAX	9	84
MEAN	2.7	21.6
STD DEV	3.6	41.8
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	40	40
MIN	0	-100
MAX	6	60
MEAN	1.0	-6.2
STD DEV	1.8	36.3
Equipment Biased	# Required	# Obtained
	30	30
MIN	0	-40
MAX	3	88
MEAN	1.2	-2.7
STD DEV	1.5	33.3
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
1	1

Total Uranium Results dpm/100 cm^2

MIN	1
MAX	1
MEAN	1.0
STD DEV	0.0
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm^2

MIN	1
MAX	1
MEAN	1.0
STD DEV	0.0
$DCGL_W$	100

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1518
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 6-29-00
Bkg. 0.5 cpm	Bkg. 0.0 cpm	Bkg. 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 15.6 dpm	MDA 8.2 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 64 cpm	Bkg. 62 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 121.3 dpm	MDA 119.5 dpm	MDA

Survey Type: Contamination
Building: 707
Location: RBA Rooms Survey Area A
Purpose: Reconnaisance Level Characterization

RWP # 00-707-1204

Date: 3-21-00 Time: 1630

[redacted]

Comments: Floor / Walls < 2 meters : Unbiased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.
3 bkgd counts alpha <8 cpm (electra)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Floor	0	-56	12	16.	Floor	0	-28	18
2.	Floor	0	-48	-6	17.	wall	0	-60	18
3.	Floor	3	36	36	18.	wall	0	-48	30
4.	wall	0	-48	-6	19.	gHl 3-21-00 ~~Floor~~ wall	3	-44	12
5.	wall	3	-20	12	20.	Floor	0	-8	48
6.	Floor	6	-16	30	21.	Floor	0	-28	24
7.	Floor	0	4	0	22.	Floor	0	-56	60
8.	wall	0	-40	12	23.	wall	0	-8	48
9.	wall	0	-36	12	24.	wall	0	-60	48
10.	gHl 3-21-00 ~~Floor~~ wall	0	28	0	25.	Floor	3	-60	36
11.	Floor	0	-20	24	26.	Floor	0	-16	42
12.	Floor	0	-20	12	27.	wall	0	-8	54
13.	wall	0	-64	54	28.	Floor	0	-36	24
14.	Floor	0	-68	24	29.	wall	0	-96	24
15.	Floor	0	-32	6	30.	Floor	0	-56	30

Date Reviewed: 4-3-00 **RS Supervision:** [redacted]

Rev. 02/00

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	Floor	0	-92	24	61.	Floor	0	-52	18
32.	wall	3	-36	66	62.	wall	0	-44	36
33.	Floor	0	-68	54	63.	Floor	0	-112	0
34.	Floor	0	-32	30	64.	wall	0	-68	18
35.	wall	0	-12	12	65.	Floor	0	-56	6
36.	Floor	0	-4	36	66.	wall	0	-40	0
37.	Floor	0	64	96	67.	Floor	0	-56	12
38.	wall	0	-60	48	68.	wall	0	-12	30
39.	Floor	0	-52	36	69.	Floor	0	8	-18
40.	Floor	0	-8	0	70.	Floor	0	0	36
41.	wall	0	-80	12	71.	wall	0	-52	18
42.	wall	0	-40	18	72.	wall	0	44	6
3.	wall	0	-44	0	73.	wall	3	0	-18
44.	wall	0	-12	18	74.	Floor	6	4	30
45.	wall	0	-56	24	75.	wall	3	-40	18
46.	Floor	0	-68	18	76.	END OF SURVEY			
47.	Floor	0	-16	30	77.				
48.	Floor	3	-40	6	75.				
49.	Floor	0	-44	12	79.				
50.	Floor	0	-28	36	80.				
51.	Floor	0	-24	36	81.				
52.	Floor	0	-28	48	82.				
53.	wall	3	-64	0	83.	N/A			
54.	wall	0	-16	30	84.				
55.	wall	3	24	48	85.				
56.	Floor	0	4	36	86.				
57.	Floor	0	-64	6	87.				
58.	Floor	0	-8	18	88.				
59.	wall	3	-40	36	89.				
60.	wall	0	-76	24	90.				

RS FORMS 07.02-01

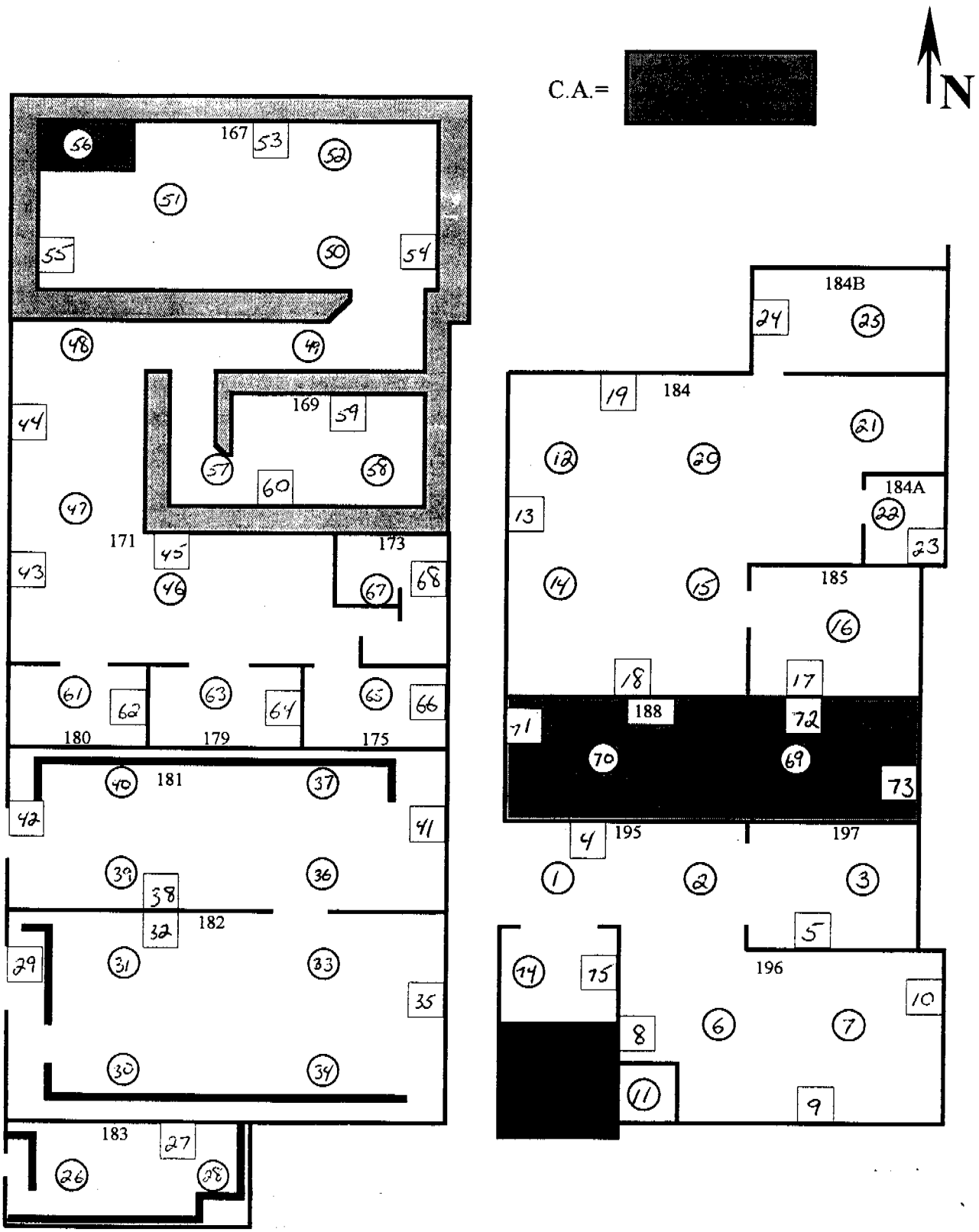
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

707 RBA ROOMS

C.A.= [redacted]



 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1518
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 6-29-00
Bkg. 0.6 cpm	Bkg. 0.4 cpm	Bkg. 1.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 16.3 dpm	MDA 14.8 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 56 cpm	Bkg. 50 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 114.1 dpm	MDA 108.4 dpm	MDA

Survey Type: Contamination

Building: 707 RBA OFFICES U

Location: ~~South Corr.~~ Site 3-20-00 Survey Area ~~W~~ 3-20

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 3-16-00 Time: 1630

RC [redacted]

RC

Comments: Floor / Walls < 2 meters : Unbiased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.
3 bkgd counts alpha electra < 8 cpm (0,0,2)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Floor	0	-88	18	16.	wall	0	32	30
2.	Floor	0	12	12	17.	Floor	0	-4	48
3.	wall	0	4	24	18.	wall	0	84	54
4.	wall	0	16	24	19.	End of Survey			
5.	wall	0	28	42	20.				
6.	Floor	0	-4	12	21.				
7.	wall	3	4	6	22.				
8.	Floor	0	48	24	23.				
9.	Floor	6	-4	30	24.				
10.	wall	0	16	42	25.	N/A			
11.	Floor	3	-20	54	26.				
12.	Floor	3	64	36	27.				
13.	wall	0	4	42	28.				
14.	Floor	0	0	30	29.				
15.	Floor	3	-20	30	30.				

Date Reviewed: 3-16-00 **RS Supervision:** [redacted]

Rev. 02/00

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1233
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 5-11-00
Bkg. 0.3 cpm	Bkg. 0.2 cpm	Bkg. 3.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 13.9 dpm	MDA 12.9 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 63 cpm	Bkg. 54 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 120.4 dpm	MDA 112.3 dpm	MDA

Survey Type: Contamination
Building: 707
Location: RBA Rooms Survey Area U
Purpose: Reconnaisance Level Characterization

RWP # 00-707-1204
Date: 3-24-00 Time: 1630
RCT [redacted]
RCT [redacted]
Print name / Signature / Emp. #

Comments: Floor / Walls < 2 meters : Biased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.
3 bkgd counts alpha beta < 8cpm

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Floor by SCALE	9	-12	30	16.				
2.	Floor	0	32	54	17.				
3.	Floor	0	16	30	18.				
4.	Floor	0	84	42	19.				
5.	Floor	3	-40	0	20.				
6.	Floor	0	64	18	21.				
7.	Floor	9	68	24	22.				
8.	Floor	3	28	18	23.	N/A			
9.	Floor	3	4	24	24.				
10.	Floor	0	-28	24	25.				
11.	END OF SURVEY				26.				
12.					27.				
13.	N/A				28.				
14.					29.				
15.					30.				

Date Reviewed: 4-3-00 **RS Supervision:** [redacted]
Print Name Signature Emp. #

Rev. 02/00

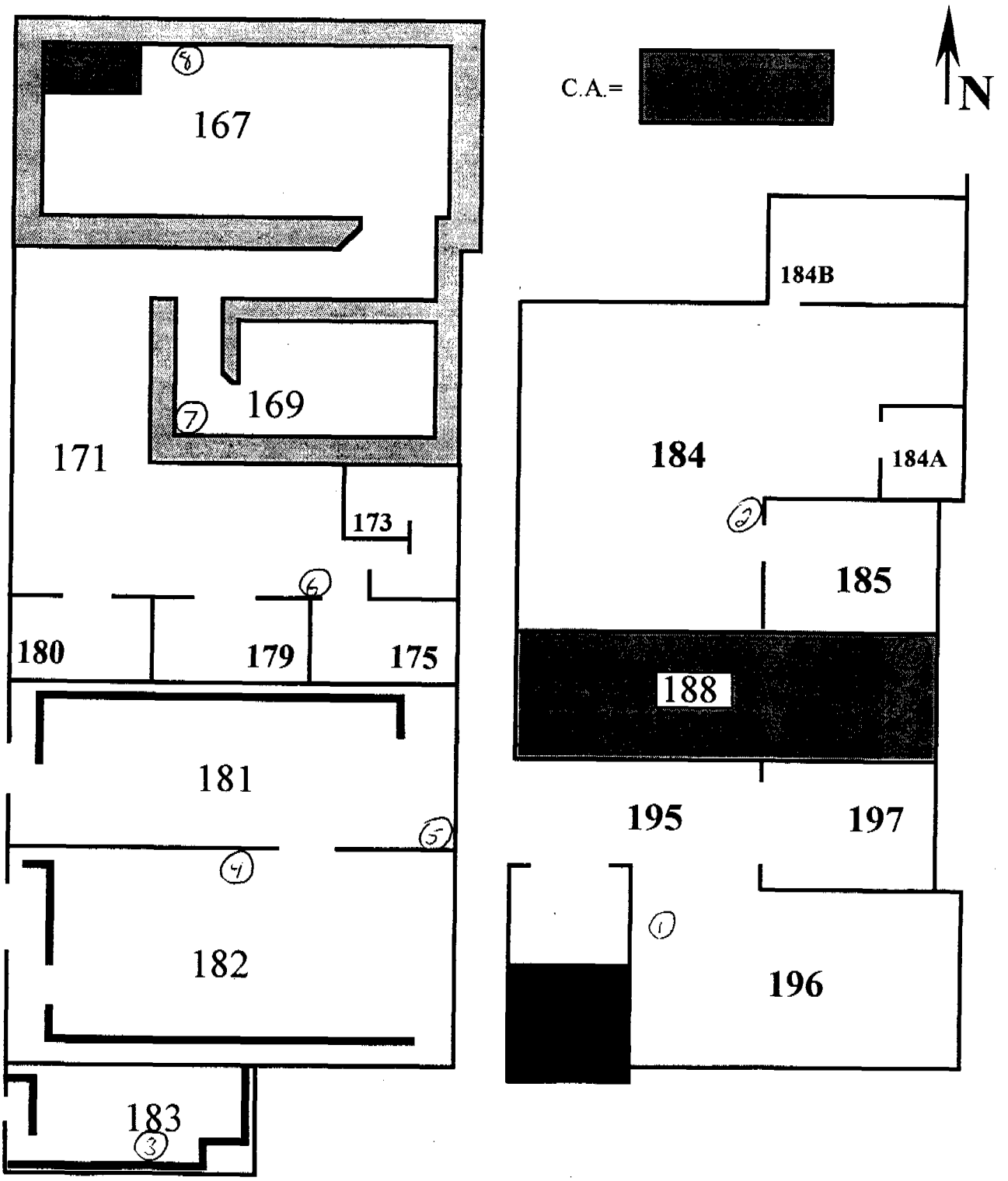
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

707 CAL GAMMA / SHIPPING



RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1518
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 6-29-00
Bkg. 0.5 cpm	Bkg. 0.3 cpm	Bkg. 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 15.6 dpm	MDA 13.9 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 59 cpm	Bkg. 55 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 116.9 dpm	MDA 113.2 dpm	MDA

Survey Type: **Contamination**

Building: 707

Location: RBA Rooms Survey Area U

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 3-22-00 Time: 1630

[redacted]

Comments: Equipment : Biased survey points.
1 minute pats and swipes. See map for locations.
3 blank Counts alpha Electra <8cpm

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	~~Vent~~ storage rack	0	12	54	16.	Vent	0	56	30
2.	Vent	0	-8	90	17.	Vent	3	0	6
3.	Pipe	0	-36	18	18.	Vent	3	88	18
4.	Vent	0	8	54	19.	Vent	0	16	66
5.	Vent	0	-36	120	20.	Pipes	3	-36	0
6.	Vent	3	-24	84	21.	Vent	0	-20	102
7.	Box	0	16	18	22.	Vent	3	-4	252
8.	Vent	0	-28	120	23.	Pipes	0	28	30
9.	Vent	0	-40	48	24.	Scale	0	-40	42
10.	Vent	0	-16	18	25.	Doors	0	16	60
11.	Vent	3	28	72	26.	Vent	0	56	66
12.	Vent	3	0	0	27.	Vent	3	-28	60
13.	Vent	3	20	18	28.	Vent	0	28	102
14.	Vent	3	-36	60	29.	Elevator	3	-40	18
15.	Vent	3	-32	18	30.	Elevator	0	-28	6

Date Reviewed: 4-3-00 RS Supervision: [redacted]

528

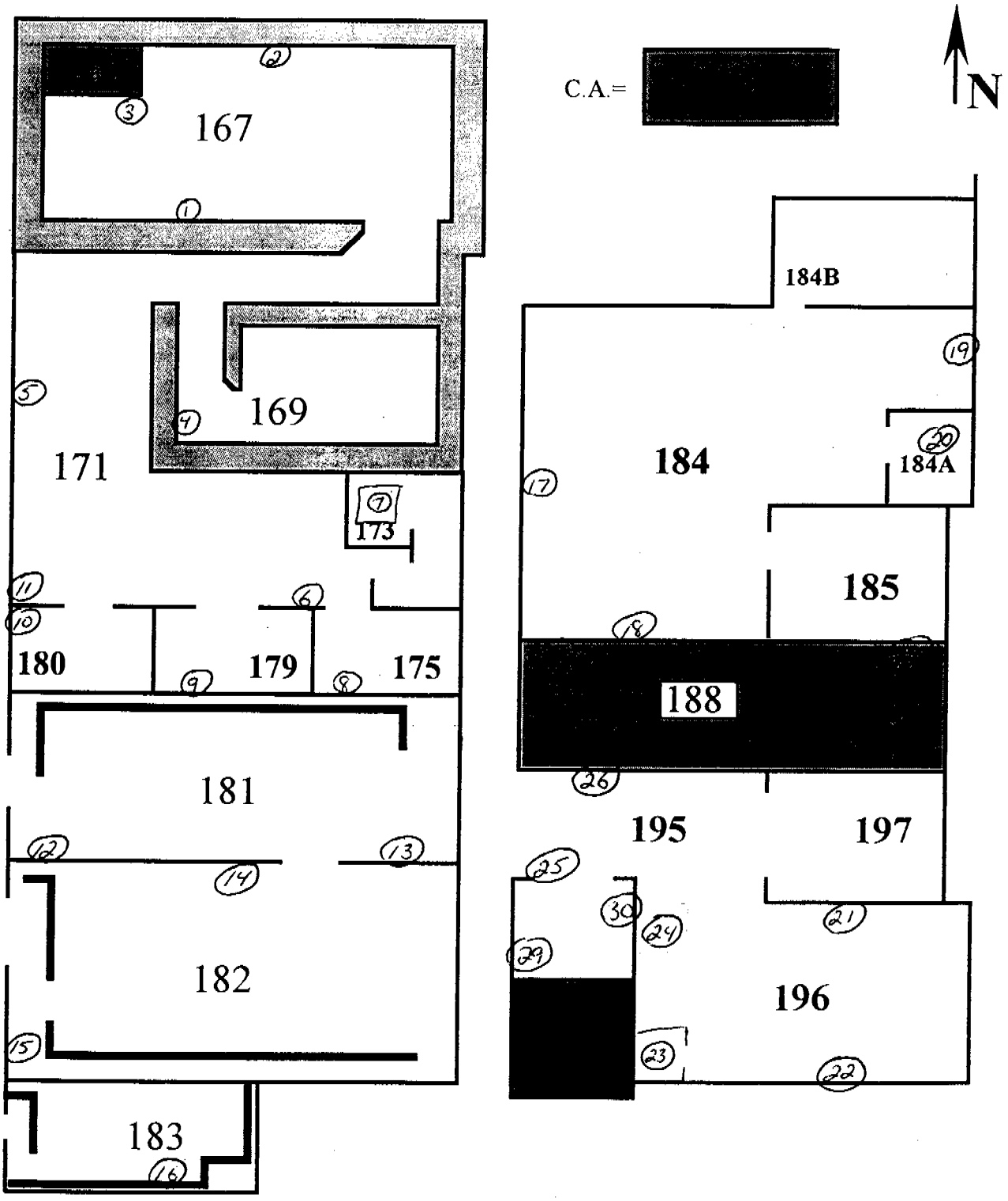
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

707 CAL GAMMA / SHIPPING



 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1233
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 5-11-00
Bkg. 0.3 cpm	Bkg. 0.2 cpm	Bkg. 3.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 13.9 dpm	MDA 12.9 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 63 cpm	Bkg. 54 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 120.4 dpm	MDA 112.3 dpm	MDA

Survey Type: Contamination

Building: 707

Location: ABA Room Survey Area U

Purpose: Reconnaisance Level Characterization

RWP # 00-707-1204

Date: 3-24-00 Time: 1630

[redacted]

Comments: Ceiling / Walls > 2 meters : Biased survey points.
1 minute pats and swipes. See map for locations.
3 bkgd counts alpha electra <8 cpm

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	Wall	0	-84	42	16.	wall	3	60	12
2.	Wall	0	-16	12	17.	wall	6	-100	12
3.	Wall	6	36	18	18.	wall	3	36	6
4.	wall	0	16	-6	19.	Ceiling	0	-20	18
5.	wall	0	-48	54	20.	Ceiling	0	-28	30
6.	wall	0	-28	18	21.	Ceiling	0	28	0
7.	wall	0	-36	66	22.	Ceiling	0	8	6
8.	Wall	0	20	24	23.	Ceiling	0	-28	18
9.	Wall	3	8	18	24.	Ceiling	0	24	30
10.	Wall	0	-36	0	25.	Ceiling	0	0	6
11.	wall	0	28	60	26.	Ceiling	0	-28	42
12.	Wall	0	4	72	27.	Ceiling	3	16	24
13.	wall	0	56	18	28.	Ceiling	0	12	12
14.	wall	0	36	30	29.	Ceiling	0	-4	18
15.	wall	0	44	0	30.	Ceiling	0	20	60

Date Reviewed: 4-3-00 RS Supervision: [redacted]

530

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	Ceiling	3	-56	0	61.				
32.	Ceiling	3	8	0	62.				
33.	Ceiling	6	-20	-12	63.				
34.	Ceiling	0	-32	-18	64.				
35.	Ceiling	0	0	42	65.				
36.	Ceiling	0	8	24	66.				
37.	Ceiling	0	-32	0	67.				
38.	Ceiling	0	-32	0	68.				
39.	wall	0	-36	6	69.				
40.	wall	3	-52	0	70.				
41.	End of Survey				71.				
42.					72.				
43.					73.				
44.					74.				
45.					75.				
46.					76.				
47.					77.				
48.					75.				
49.					79.				
50.					80.				
51.					81.				
52.					82.				
53.					83.				
54.					84.				
55.					85.				
56.					86.				
57.					87.				
58.					88.				
59.					89.				
60.					90.				

NA

NA

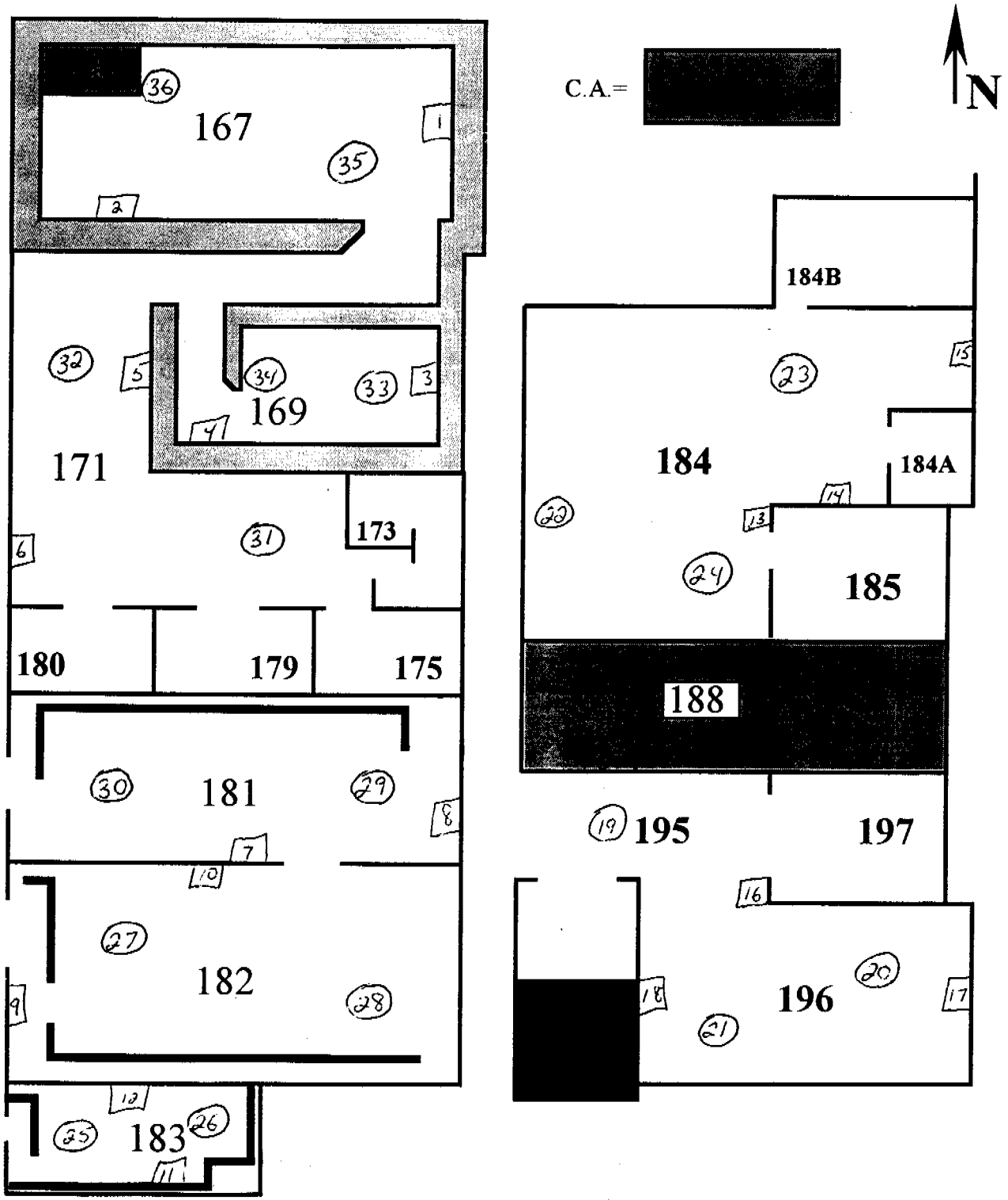
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

707 CAL GAMMA / SHIPPING



Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A11963#002/004	Matrix:	Waste
Site Sample ID:	030.002				
Other Sample ID:	707-P-30-00	Collection Date:	4/28/00	Date Received:	5/2/00
		Batch Number:	1931	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1931-10	0.306	0.125	0.139	0.033
ACW03	U-235	KH100-1931-10	0.060	0.061	0.063	0.041
ACW03	U-238	KH100-1931-10	0.756	0.203	0.253	0.033
ACW03	PU-238	KH100-1931-10B	0.094	0.114	0.115	0.159
ACW03	PU-239/240	KH100-1931-10B	1.98	0.412	0.571	0.066
ACW03	AM-241	KH100-1931-10	0.081	0.095	0.096	0.074

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1931-LC1	SCAQC-1931-LD1	SCAQC-1931-PB
Pu	SCAQC-1931-LC1B	SCAQC-1931-LD1B	SCAQC-1931-PBB
Am	SCAQC-1931-LC1	SCAQC-1931-LD1	SCAQC-1931-PB

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

CAS SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 030
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-30-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen - 2 grams/400 cm² (4 grids). ISO - 5 grams/800 cm² (8 grids) Total = 7 grams/1200 cm² (12 grids). Rinsate-event# 056.

Location Description: Bldg. 707, Corridor F, room 171, floor near process drain against east wall. Inside near dark room used to be.

Other ID: 707-P-30-00

Sample Appearance: Red paint scrapings, paint is very thin.

Sampling Device: Heat gun + chisel

Sample Date: 4/28/00 Sample Time: 10:14 Rad Screen Date: 4/28/00

Was generator notified to receive excess sample? (YES) X (NO) _____

Samplers Signat[redacted]
Employee Numbe[redacted]

Date: 4/28/00 4/28/00

534

A-3

RLC RADIOLOGICAL DATA

Survey Area V

1st Floor [Corridors H, J, K, S, T, U, V,
Partial F & G; Rooms 164, 166, 170]

Radiological Survey/Sample Results for Survey Area V (99-0002)

Total Surface Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	110	110
MIN	-18	N/A
MAX	1170	N/A
MEAN	25.0	N/A
STD DEV	114.3	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	10	35
MIN	6	N/A
MAX	96	N/A
MEAN	44.1	N/A
STD DEV	21.4	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	98	55
MIN	-6	N/A
MAX	84	N/A
MEAN	28.1	N/A
STD DEV	19.4	N/A
Equipment Biased	# Required	# Obtained
	30	30
MIN	-24	N/A
MAX	384	N/A
MEAN	61.6	N/A
STD DEV	80.3	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	110	110
MIN	0	-92
MAX	12	80
MEAN	1.1	-1.2
STD DEV	1.8	29.1
Floors/Walls < 2 m Biased	# Required	# Obtained
	10	35
MIN	0	-56
MAX	12	72
MEAN	1.9	6.6
STD DEV	2.6	30
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	98	55
MIN	0	-60
MAX	12	68
MEAN	1.5	-1.8
STD DEV	2.4	30.2
Equipment Biased	# Required	# Obtained
	30	30
MIN	0	-80
MAX	9	56
MEAN	1.3	-7.1
STD DEV	2.0	32.1
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
3	3

Total Uranium Results dpm/100 cm²

MIN	10
MAX	125
MEAN	51.0
STD DEV	64.2
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm²

MIN	14
MAX	50
MEAN	26.3
STD DEV	20.5
$DCGL_W$	100

536

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1389
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 6-29-00
Bkg. 0.3 cpm	Bkg. 0.1 cpm	Bkg. 1 cpm
Efficiency 33%	Efficiency 33%	Efficiency 20.77%
MDA 13.9 DPM	MDA 11.5 DPM	MDA 94 DPM
Mfg. Eberline	Mfg. Eberline	Mfg. NETech
Model BC-4	Model BC-4	Model Electra
Serial # 872	Serial # 833	Serial # 3265
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due 7-3-00
Bkg. 59 cpm	Bkg. 52 cpm	Bkg. 0.0 cpm
Efficiency 25%	Efficiency 25%	Efficiency 21.01%
MDA 116.9 DPM	MDA 110.4 DPM	MDA 94 DPM

Survey Type: Contamination
Building: 707
Location: Corridors Survey Area V
Purpose: Reconnaisance Level Characterization

RWP # 00-707-1204

Date: 2-24-00 Time: 1530

RCT [redacted]

RCT: _____
Print name / Signature / Emp. #

Comments: Floor / Walls < 2 meters : Unbiased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.
3 background Counts alpha ~8cpm (1,1,1)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	F	0	-12	0	16.	F	0	0	6
2.	F	0	-48	12	17.	F	3	-20	-6
3.	F	0	60	-12	18.	F	0	-36	0
4.	F	0	-8	-6	19.	F	3	48	28
5.	F	0	-24	12	20.	F	0	-40	24
6.	F	0	0	18	21.	F	0	-24	6
7.	F	0	0	78	22.	F	0	0	0
8.	F	3	-36	168	23.	F	0	-24	12
9.	F	0	-32	108	24.	F	0	-4	-6
10.	F	0	4	12	25.	F	0	80	-18
11.	F	12	-12	1170	26.	F	3	0	-6
12.	F	3	-4	24	27.	F	6	-36	18
13.	F	3	-4	0	28.	F	3	-52	6
14.	F	3	-48	-6	29.	F	3	20	18
15.	F	0	36	0	30.	F	3	-52	18

Date Reviewed: 3-21-00 **RS Supervision:** [redacted]

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	F	0	16	18	61.	W < 2	0	4	18
32.	F	0	-8	0	62.	W < 2	3	-4	12
33.	F	0	8	12	63.	W < 2	0	-16	36
34.	F	0	0	6	64.	W < 2	0	36	12
35.	F	0	-16	6	65.	W < 2	0	-28	18
36.	F	0	20	66	66.	W < 2	0	0	12
37.	F	3	-16	6	67.	W < 2	0	32	12
38.	F	0	0	18	68.	W < 2	0	0	30
39.	F	0	54	18	69.	W < 2	0	4	0
40.	F	0	-40	12	70.	W < 2	0	-4	6
41.	W < 2	3	-40	0	71.	W < 2	0	20	-6
42.	W = 2	0	12	-12	72.	W < 2	0	-8	-6
43.	W < 2	0	46	18	73.	W < 2	0	4	0
44.	W < 2	0	-12	30	74.	W < 2	0	0	6
45.	W < 2	0	-52	24	75.	W < 2	0	-36	12
46.	W < 2	0	-12	6	76.	W < 2	0	52	18
47.	W < 2	0	20	6	77.	W < 2	0	-16	12
48.	W < 2	0	24	0	78.	W < 2	3	44	-12
49.	W < 2	3	-92	-12	79.	W < 2	3	-8	-6
50.	W < 2	3	40	0	80.	W < 2	0	-16	0
51.	W < 2	6	36	0	81.	W < 2	0	-16	6
52.	W < 2	0	-8	6	82.	W < 2	0	-16	36
53.	W < 2	0	54	12	83.	W < 2	0	-4	-6
54.	W < 2	0	12	18	84.	W < 2	3	0	-6
55.	W < 2	0	-48	30	85.	W < 2	3	-4	-12
56.	W < 2	3	-40	12	86.	W < 2	0	4	-12
57.	W < 2	0	4	36	87.	W < 2	0	32	-12
58.	W < 2	0	0	120	88.	W < 2	3	-4	18
59.	W < 2	3	-20	108	89.	W < 2	0	32	0
60.	W < 2	3	-20	156	90.	W < 2	0	52	0

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

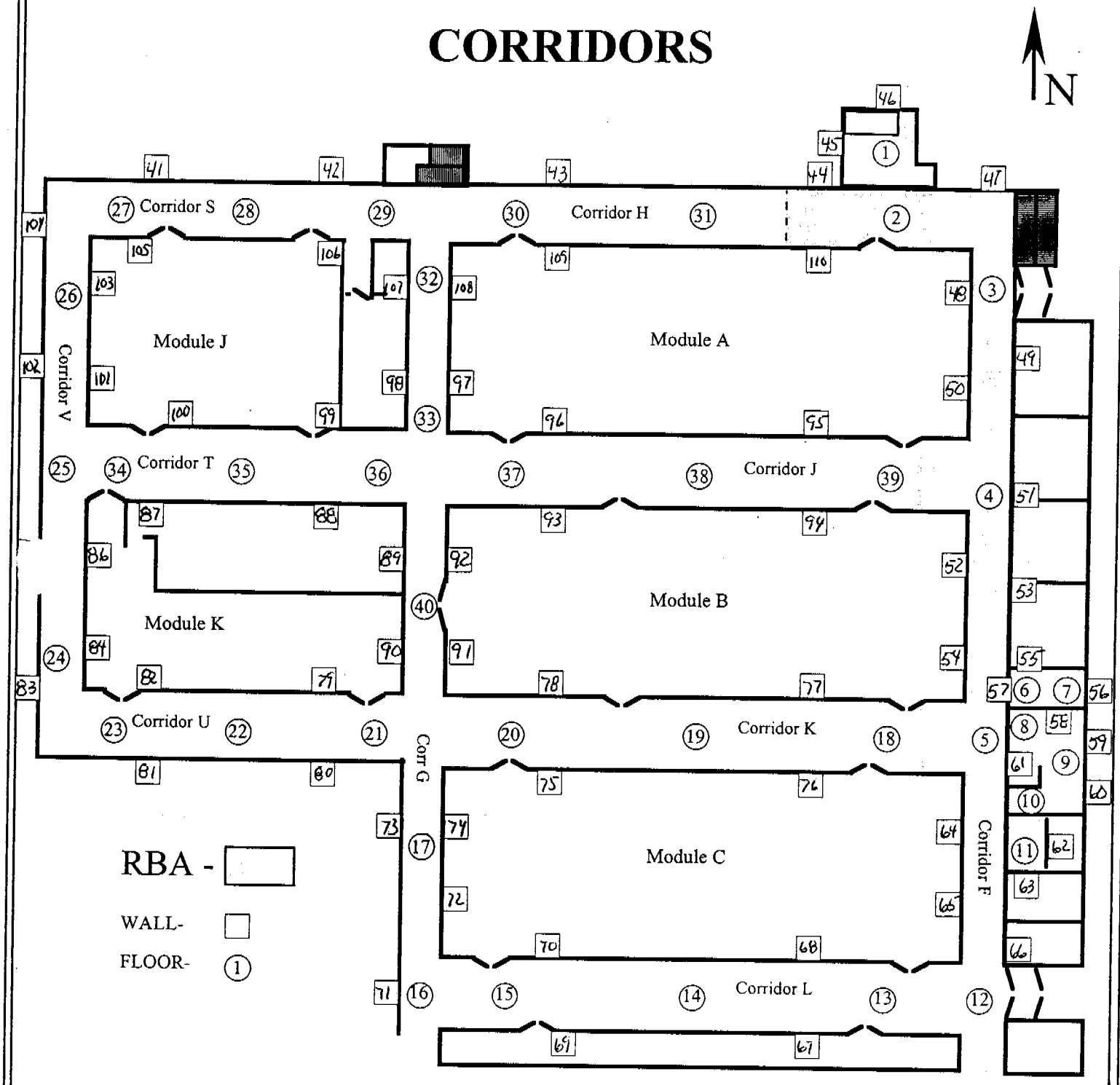
Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
91.	W<2	0	-12	0	121.				
92.	W<2	0	36	24	122.				
93.	W<2	3	-4	36	123.				
94.	W<2	0	40	18	124.				
95.	W<2	0	-16	18	125.				
96.	W<2	0	-8	-6	126.				
97.	W<2	3	-8	24	127.				
98.	W<2	0	-28	12	128.				
99.	W<2	0	36	0	129.				
100.	W<2	0	49	-12	130.				
101.	W<2	3	-4	-12	131.				
102.	W<2	3	4	-6	132.				
103.	W<2	0	-8	+18	133.				
104.	W<2	3	8	0	134.				
105.	W<2	0	0	12	135.	N/A			
106.	W<2	3	32	18	136.				
107.	W<2	0	-40	0	137.				
108.	W<2	3	-4	6	138.				
109.	W<2	3	0	18	139.				
110.	W<2	0	4	0	140.				
111.	END OF SURVEY				141.				
112.					142.				
113.					143.				
114.					144.				
115.					145.				
116.	N/A				146.				
117.					147.				
118.					148.				
119.					149.				
120.					150.				

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

CORRIDORS



110 – Total Survey Points

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1389
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 6-29-00
Bkg. 0.5 cpm	Bkg. 0.3 cpm	Bkg. 0.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 20.77%
MDA 15.6 DPM	MDA 13.9 DPM	MDA 94 DPM
Mfg. Eberline	Mfg. Eberline	Mfg. NE Tech
Model BC-4	Model BC-4	Model Electra
Serial # 872	Serial # 833	Serial # 3265
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due 7-3-00
Bkg. 49 cpm	Bkg. 52 cpm	Bkg. 0.0 cpm
Efficiency 25%	Efficiency 25%	Efficiency 21.01%
MDA 107.5 DPM	MDA 110.4 DPM	MDA 94 dpm

Survey Type: Contamination
Building: 707
Location: Corridors Survey Area V
Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 2-29-00 Time: 1500

[redacted]

Comments: Floor / Walls < 2 meters : Biased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.
3 alpha bkgd counts electra <8cpm (0,0,4)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	F - AT DOOR	3	24	64	16.				
2.	F " "	3	-56	48	17.				
3.	F " "	0	-24	24	18.				
4.	F " "	3	-36	48	19.				
5.	F " "	3	-24	12	20.				
6.	F " "	6	20	60	21.				
7.	F " "	0	68	18	22.				
8.	F " "	3	-4	36	23.	N/A			
9.	F " "	0	-36	18	24.				
10.	F " "	0	-16	12	25.				
11.	END OF SURVEY				26.				
12.					27.				
13.	N A				28.				
14.					29.				
15.					30.				

Date Reviewed: 3.21.00 **RS Supervision:** [redacted]
Print Name Signature Emp. #

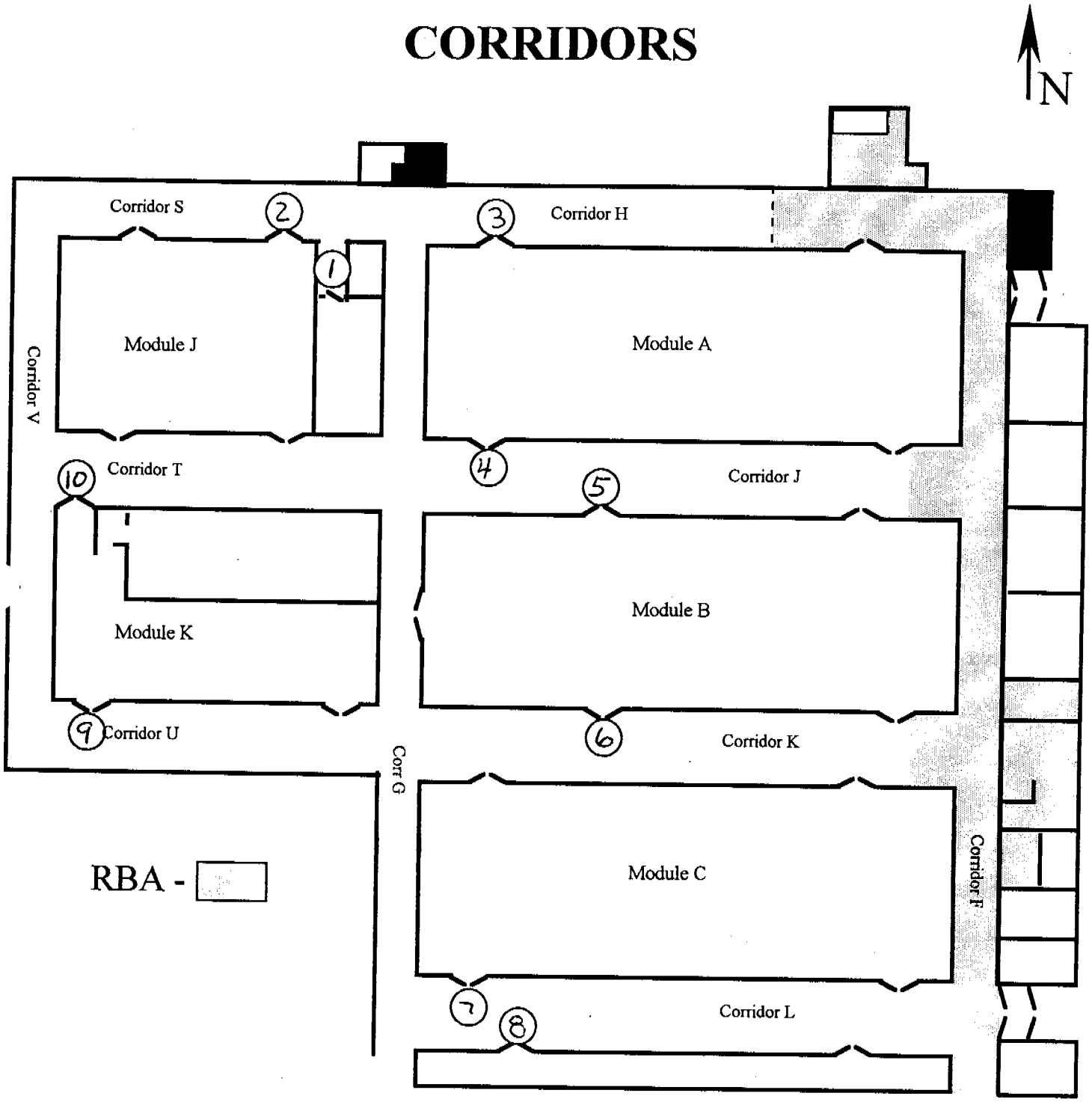
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

CORRIDORS

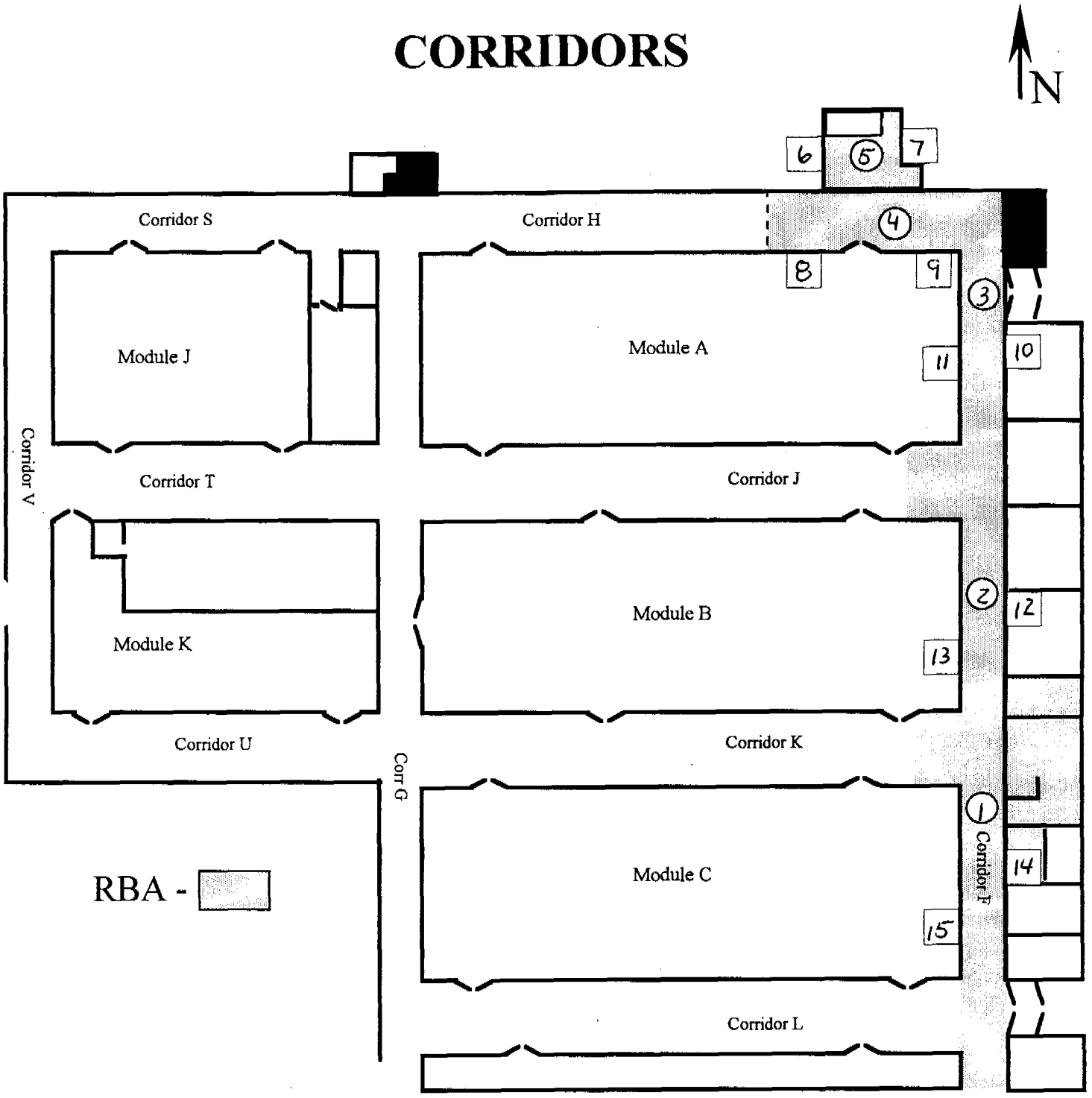


RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



552

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1233
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 5-11-00
Bkg. 0.5 cpm	Bkg. 0.3 cpm	Bkg. 0.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 20.63%
MDA 15.6 DPM	MDA 13.9 DPM	MDA 94 DPM
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 49 cpm	Bkg. 52 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 167.5 DPM	MDA 1104 DPM	MDA

Survey Type: **Contamination**

Building: 707

Location: corridors North Survey Area V

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 2-28-00 Time: 1600

R [redacted]

R

Comments: Ceiling / Walls > 2 meters : Biased survey points.
1 minute pats and swipes. See map for locations. 3 bkgd counts alpha electra <8cpm (0,2,3)
False Ceiling Tiles CA - only
using correction facters Sac4 = x3 BC-4 = x4 Electra alpha = x6

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	16' 22m	0	68	84	16.	16' "	12	0	36
2.	16' "	0	-52	18	17.	16' "	0	20	42
3.	16' "	0	-8	30	18.	16' "	3	-20	48
4.	16' "	0	-8	12	19.	16' "	0	-24	12
5.	16' "	0	-28	36	20.	16' "	0	8	60
6.	16' "	3	4	18	21.	16' "	0	8	30
7.	16' "	0	40	18	22.	16' "	3	36	18
8.	16' "	3	-36	24	23.	16' "	0	12	48
9.	16' "	3	-8	30	24.	16' "	0	-8	12
10.	16' "	0	8	24	25.	16' "	0	24	24
11.	16' "	0	56	18	26.	16' "	0	28	48
12.	16' "	0	-32	30	27.	16' "	0	-48	48
13.	16' "	0	-44	60	28.	16' "	0	-28	18
14.	16' "	3	-36	18	29.	16' "	0	-60	42
5.	16' "	0	24	48	30.	16' "	0	-36	60

Date Reviewed: 3 21 00 RS Supervision: [redacted]

Print Name Signature Emp. #

553

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	Ceiling Tiles	3	52	72	61.				
32.	Ceiling Tiles	3	-16	18	62.				
33.	Ceiling Tiles	3	16	30	63.				
34.	Ceiling Tiles	0	-52	54	64.				
35.	Ceiling Tiles	3	-16	36	65.				
36.	Ceiling Tiles	6	-44	36	66.				
37.	Ceiling Tiles	0	44	30	67.				
38.	Ceiling Tiles	9	4	36	68.				
39.	Ceiling Tiles	0	-16	54	69.				
40.	Ceiling Tiles	3	8	42	70.				
41.					71.				
42.					72.				
43.					73.				
44.	N/A				74.				
45.					75.				
46.					76.				
47.					77.				
48.					75.				
49.					79.				
50.					80.				
51.					81.				
52.					82.				
53.					83.				
54.					84.				
55.					85.				
56.					86.				
57.					87.				
58.					88.				
59.					89.				
60.					90.				

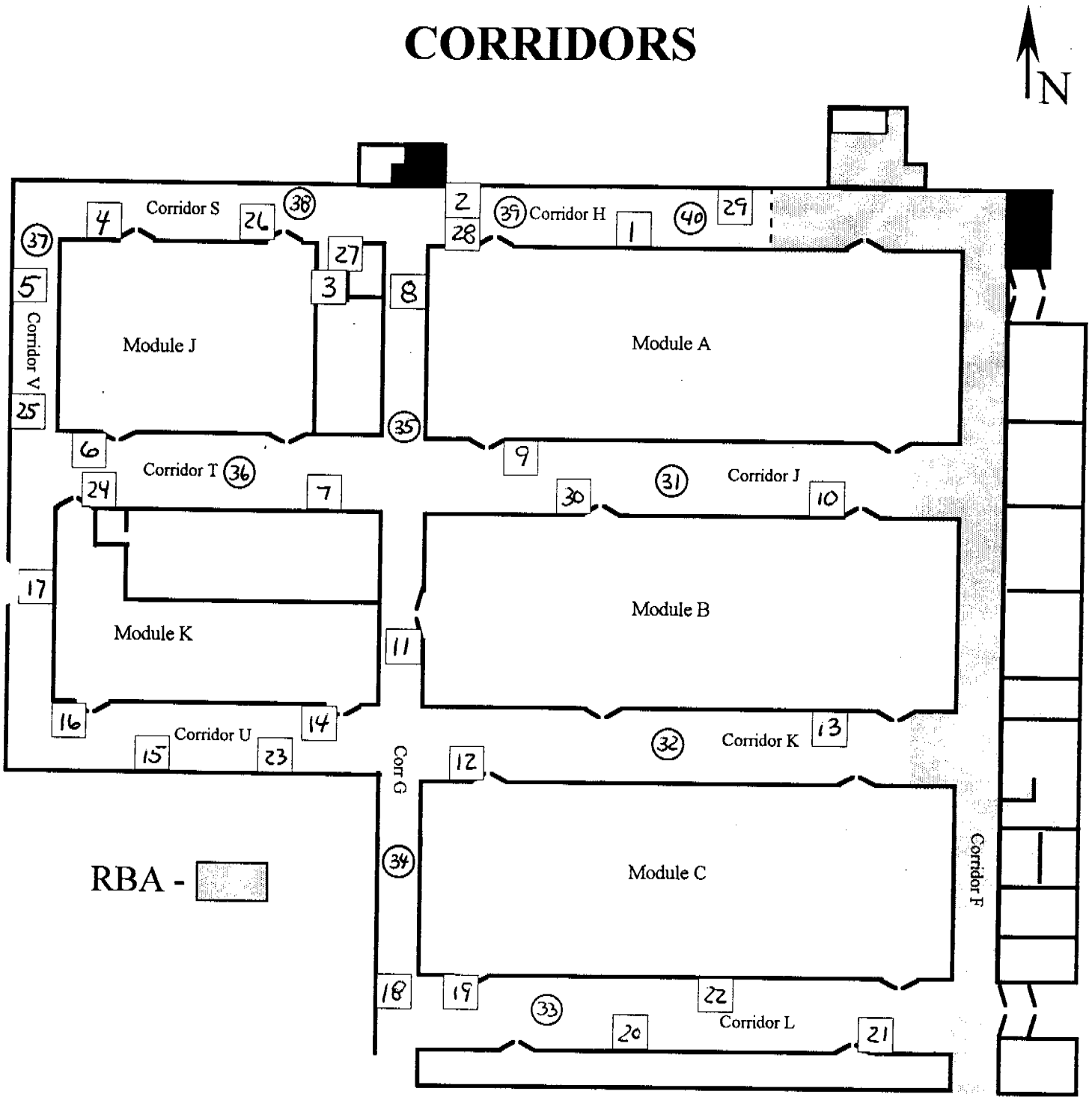
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

CORRIDORS



Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#004	Matrix:	Waste
Site Sample ID:	031.002				
Other Sample ID:	707-P-31-00	Collection Date:	4/28/00	Date Received:	5/2/00
		Batch Number:	1932	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1932-01	0.248	0.119	0.129	0.037
ACW03	U-235	KH100-1932-01	0.051	0.059	0.061	0.046
ACW03	U-238	KH100-1932-01	1.65	0.335	0.470	0.037
ACW03	PU-238	KH100-1932-01	0.009	0.129	0.129	0.218
ACW03	PU-239/240	KH100-1932-01	2.28	0.477	0.659	0.073
ACW03	AM-241	KH100-1932-01	0.661	0.276	0.306	0.115

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1932-LC1	SCAQC-1932-LD1	SCAQC-1932-PB
Pu	SCAQC-1932-LC1	SCAQC-1932-LD1B	SCAQC-1932-PB
Am	SCAQC-1932-LC1	SCAQC-1932-LD1B	SCAQC-1932-PB

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

ASI SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 031
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-31-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen - 2 grams/5x20 cm² (1 strip). TSO - 15x20 (3 strips) 7 grams. Total - 9 grams/20x20 cm² (4 strips). Rinsate - Event. 056

Location Description: Bldg. 707, Module C, Corridor L, outside doors 74+75, eastside.

Other ID: 707-P-31-00

Sample Appearance: See event. 027 — TAW 5.18.2000

Sampling Device: Heat gun + Chisel

Sample Date: 4/28/00 Sample Time: 10:53 Rad Screen Sample Date: 4/28/00

Was generator notified to receive excess sample? (Yes) X (No) ____

Sampler's Signature: [redacted]

Employee Numb[redacted]

Date: 4/28/00 4/28/00

557

Lmc 06/29/98

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#004	Matrix:	Waste
Site Sample ID:	032.002				
Other Sample ID:	707-P-32-00	Collection Date:	4/28/00	Date Received:	5/2/00
		Batch Number:	1932	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1932-02	0.165	0.100	0.106	0.041
ACW03	U-235	KH100-1932-02	0.092	0.083	0.088	0.050
ACW03	U-238	KH100-1932-02	0.778	0.230	0.278	0.084
ACW03	PU-238	KH100-1932-02	0.051	0.128	0.128	0.198
ACW03	PU-239/240	KH100-1932-02	0.604	0.199	0.232	0.085
ACW03	AM-241	KH100-1932-02	0.206	0.134	0.140	0.093

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1932-LC1	SCAQC-1932-LD1	SCAQC-1932-PB
Pu	SCAQC-1932-LC1	SCAQC-1932-LD1B	SCAQC-1932-PB
Am	SCAQC-1932-LC1	SCAQC-1932-LD1B	SCAQC-1932-PB

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

55P

ASI SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 032
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-32-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen - 2 grams/ 25 cm² (1/4 grid). ISO - 7 grams, 75 grams. Total 9 grams/100 cm² (1 grid). Rinsate Events. 056

Location Description: Bldg. 707, Module A, Corridor F, first eyewash in corridor F. Just north of eyewash 707-1-2

Other ID: MW P 707-P-32-00

Sample Appearance: See event. 027 - TAN

Sampling Device: Neat gun + chisel

Sample Date: 4/28/00 Sample Time: 11:08 Rad Screen Sample Date: 4/28/00

Was generator notified to receive excess sample? (Yes) X (No) ____

Sampler's Signature: [redacted]

Employee Numb[redacted]

Date: 4/28/00 4/28/00

559

Lmc 06/29/98

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#004	Matrix:	Waste
Site Sample ID:	033.002				
Other Sample ID:	707-P-33-00	Collection Date:	4/28/00	Date Received:	5/2/00
		Batch Number:	1932	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1932-03	0.865	0.232	0.289	0.037
ACW03	U-235	KH100-1932-03	0.078	0.077	0.081	0.081
ACW03	U-238	KH100-1932-03	6.20	0.814	1.48	0.037
ACW03	PU-238	KH100-1932-03	0.008	0.111	0.111	0.187
ACW03	PU-239/240	KH100-1932-03	2.08	0.415	0.587	0.063
ACW03	AM-241	KH100-1932-03	0.754	0.252	0.294	0.048

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1932-LC1	SCAQC-1932-LD1	SCAQC-1932-PB
Pu	SCAQC-1932-LC1	SCAQC-1932-LD1B	SCAQC-1932-PB
Am	SCAQC-1932-LC1	SCAQC-1932-LD1B	SCAQC-1932-PB

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

ASI SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 033
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 0336
CUSTOMER SAMPLE ID: 707-P-33-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen - 2 gram/25 cm² (1/4 grid). ISO - 7 grams/75 cm² (3/4 grid). Total - 9 grams/100 cm² (1 grid). Kinate - 0.56

Location Description: Bldg. 707, Module A, floor outside of doors 32 & 33

Other ID: 707-P-33-00

Sample Appearance: See event 027 - TAN

Sampling Device: Heat gun + Chisel

Sample Date: 4/28/00 Sample Time: 11:19 Rad Screen Sample Date: 4/28/00

Was generator notified to receive excess sample? (Yes) X (No) ____

Sampler's Signature: [redacted]

Employee Nu[redacted]

Date: 4/28/00 4/28/00

Lmc 06/29/98

A-3

RLC RADIOLOGICAL DATA

Survey Area W

1st Floor Corridors M, N, P, R, Partial F & G; Rooms 178, 178A]

562

Radiological Survey/Sample Results for Survey Area W (99-0002)

Total Surface Activity Measurements dpm/100 cm^2

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	79	79
MIN	0	N/A
MAX	2040	N/A
MEAN	73.0	N/A
STD DEV	245.6	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	10	10
MIN	6	N/A
MAX	48	N/A
MEAN	28.8	N/A
STD DEV	15.2	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	40	40
MIN	-6	N/A
MAX	42	N/A
MEAN	9.9	N/A
STD DEV	10.2	N/A
Equipment Biased	# Required	# Obtained
	30	30
MIN	0	N/A
MAX	102	N/A
MEAN	35.6	N/A
STD DEV	21.6	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm^2

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	79	79
MIN	0	-44
MAX	6	100
MEAN	1.1	3.3
STD DEV	1.8	28.5
Floors/Walls < 2 m Biased	# Required	# Obtained
	10	10
MIN	0	-52
MAX	3	40
MEAN	1.2	0.4
STD DEV	1.5	30.6
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	40	40
MIN	0	-56
MAX	9	124
MEAN	1.1	7.8
STD DEV	2.0	29.5
Equipment Biased	# Required	# Obtained
	30	30
MIN	0	-32
MAX	90	104
MEAN	4.7	14.1
STD DEV	16.4	34.0
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
3	3

Total Uranium Results dpm/100 cm^2

MIN	4
MAX	6
MEAN	0.0
STD DEV	1.0
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm^2

MIN	2
MAX	6
MEAN	4.0
STD DEV	2.0
$DCGL_W$	100

563

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 3265
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due ~~30 cpm~~ 94 cpm 7-3-00
Bkg. 0.2 cpm	Bkg. 0.1 cpm	Bkg. 30 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 12.9 dpm	MDA 11.5 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 52 cpm	Bkg. 51 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 110.4 dpm	MDA 109.4 dpm	MDA

Survey Type: **Contamination**

Building: 707

Location: South Corridors Survey Area W

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 3-14-00 Time: 1630

RC [redacted]

RCT: N/A
Print name / Signature / Emp. #

Comments: Floor / Walls < 2 meters : Unbiased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.
3 background alpha counts electra <8cpm (1,1,5)
CA only

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Wall	0	20	30	16.	Wall	3	-24	36
2.	Floor	6	-40	36	17.	Floor	0	42	12
3.	Wall	0	0	36	18.	Floor	0	20	8
4.	Wall	0	4	54	19.	Wall	0	-8	6
5.	Floor	0	-28	18	20.	Wall	0	-24	12
6.	Wall	0	0	42	21.	Wall	3	-20	18
7.	Wall	3	52	36	22.	Floor	0	56	48
8.	Floor	3	28	12	23.	Floor	0	16	24
9.	Wall	0	-8	0	24.	Wall	6	16	18
10.	Wall	0	-36	6	25.	Wall	0	40	30
11.	Floor	0	0	24	26.	Floor	0	-16	24
12.	Wall	0	-32	12	27.	Wall	0	8	30
13.	Floor	3	12	48	28.	Wall	0	40	36
14.	Wall	3	20	24	29.	Floor	0	-8	0
15.	Wall	0	-12	0	30.	Wall	0	24	48

Date Reviewed: 3-16-00 **RS Supervision:** [redacted]

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	wall	0	-4	30	61.				
32.	wall	0	12	18	62.				
33.	Floor	0	0	36	63.				
34.	End of survey				64.				
35.					65.				
36.					66.				
37.					67.				
38.					68.				
39.					69.				
40.					70.				
41.					71.				
42.					72.				
43.					73.				
44.					74.				
45.					75.				
46.					76.	N/A			
47.	N/A				77.				
48.					75.				
49.					79.				
50.					80.				
51.					81.				
52.					82.				
53.					83.				
54.					84.				
55.					85.				
56.					86.				
57.					87.				
58.					88.				
59.					89.				
60.					90.				

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

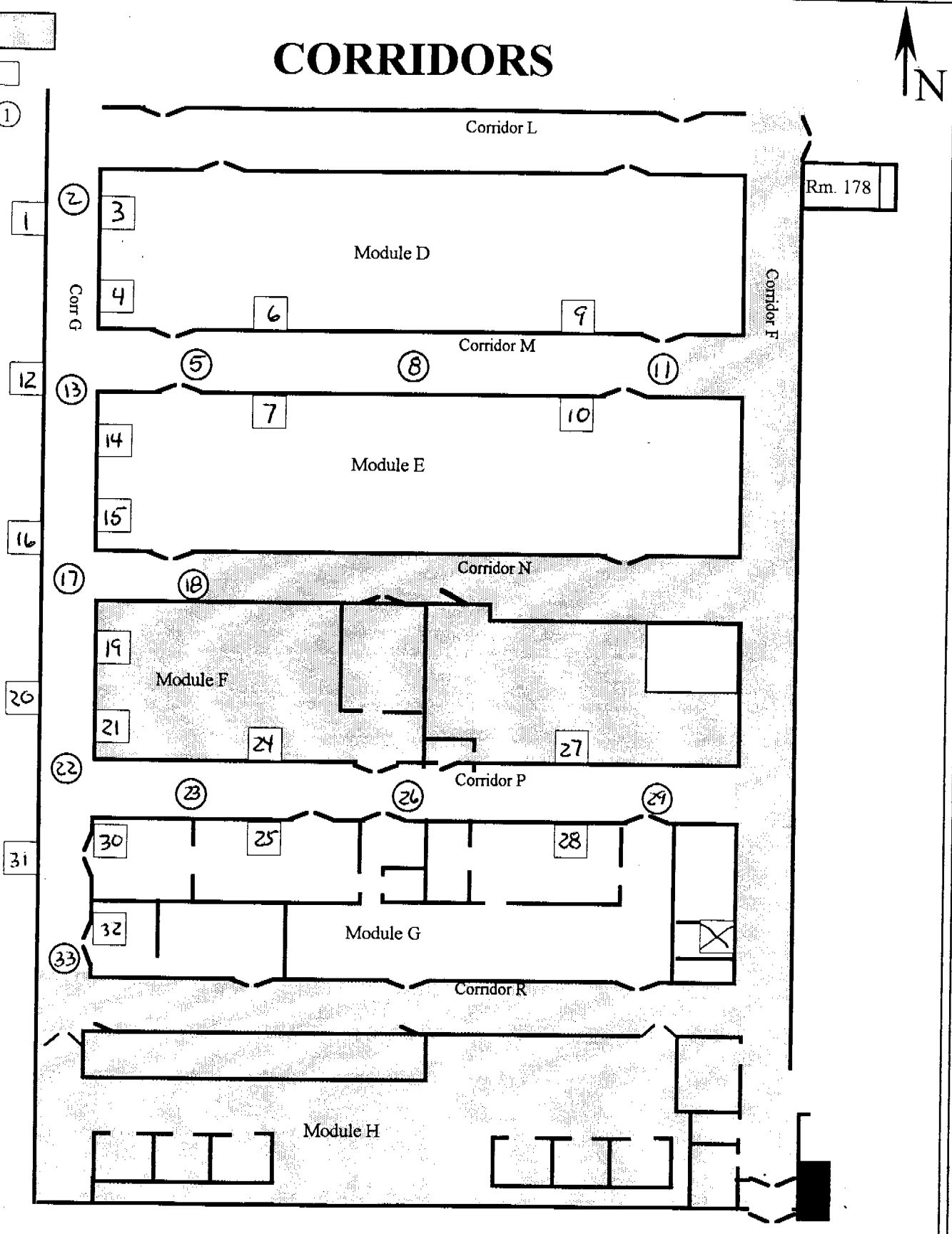
Drawing Showing Survey Points

RBA -

WALL-

FLOOR- 1

CORRIDORS



 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1518
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 6-27-00
Bkg. 0.2 cpm	Bkg. 0.1 cpm	Bkg. 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 21.86
MDA 12.9 dpm	MDA 82 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 873	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 52 cpm	Bkg. 51 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 110.4 dpm	MDA 109.4 dpm	MDA

Survey Type: Contamination
Building: 707
Location: CORRIDORS Survey Area W
Purpose: Reconnaisance Level Characterization

RWP # 00-707-1204
Date: 3/14/00 Time: 12 DAYS

[redacted]

RCT: _____
Print name / Signature / Emp. #

Comments: Floor / Walls < 2 meters : Unbiased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations. RBA ONLY (SEE MAP)
3 bkgd Counts alpha electra <8cpm (1,0,6)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	FLOOR	3	-12	684	16.	F	0	20	18
2.	"	3	-20	294	17.	"	3	44	24
3.	"	0	4	150	18.	W	0	-12	30
4.	"	3	8	2040	19.	W	3	20	12
5.	W	0	-12	540	20.	F	3	-4	48
6.	"	6	20	120	21.	W	0	-28	54
7.	"	0	-44	108	22.	F	0	20	30
8.	"	0	100	96	23.	W	0	0	12
9.	F	0	60	6	24.	F	0	-32	12
10.	W	3	32	12	25.	W	3	16	36
11.	W	0	-28	12	26.	F	0	-44	12
12.	W	0	8	12	27.	"	0	0	18
13.	F	3	32	12	28.	"	0	-12	36
14.	W	0	44	6	29.	"	3	-8	12
15.	F	0	-28	24	30.	W	3	-32	18

Date Reviewed: 3-15-00 RS Supervision: [redacted]

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

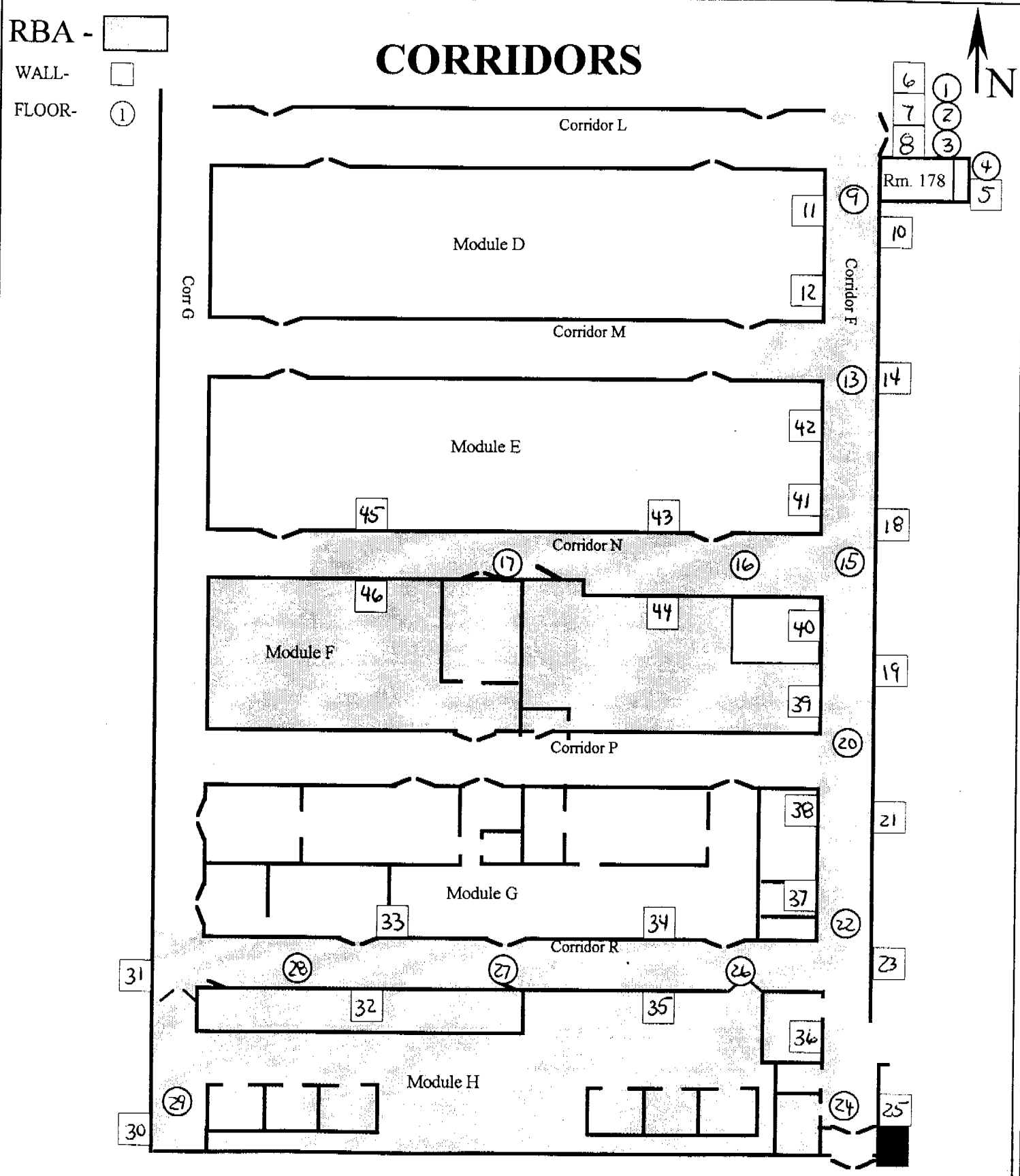
Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	W	0	-40	24	61.				
32.	W	6	-24	18	62.				
33.	W	0	-16	6	63.				
34.	"	0	-4	24	64.				
35.	"	0	64	6	65.				
36.	"	6	8	6	66.				
37.	"	3	44	6	67.				
38.	"	0	-16	18	68.				
39.	"	0	12	54	69.				
40.	"	0	0	48	70.				
41.	"	0	-40	48	71.				
42.	"	3	28	66	72.				
3.	"	0	-24	48	73.				
44.	"	0	-16	12	74.				
45.	"	0	8	24	75.				
46.	"	3	12	60	76.				
47.	End of Survey				77.				
48.					75.				
49.					79.				
50.					80.				
51.					81.				
52.					82.				
53.					83.				
54.					84.				
55.					85.				
56.					86.				
57.					87.				
58.					88.				
59.					89.				
60.					90.				

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 3265
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 7-3-00
Bkg. 0.2 cpm	Bkg. 0.1 cpm	Bkg. 3.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 12.9 dpm	MDA 11.5 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 52 cpm	Bkg. 51 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 110.4 dpm	MDA 109.4 dpm	MDA

Survey Type: **Contamination**

Building: 707

Location: South Corridors Survey Area W

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 3-14-00 Time: 1630

RCT: [redacted]

RCT: N/A
Print name / Signature / Emp. #

Comments: Floor / Walls < 2 meters : Biased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.
3 bkgd counts alpha electra ~8cpm (1,2,5)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Floor	0	-52	12	16.				
2.	Floor	3	4	48	17.				
3.	Floor	0	40	24	18.				
4.	Floor	0	16	30	19.				
5.	Floor	0	8	12	20.				
6.	Floor	0	-44	42	21.				
7.	Floor	3	4	30	22.				
8.	Floor	3	-20	48	23.	N/A			
9.	Floor	0	12	6	24.				
10.	Floor	3	36	36	25.				
11.	End of Survey				26.				
12.					27.				
13.	N/A				28.				
14.					29.				
15.					30.				

Date Reviewed: 3-16-00 **RS Supervision:** [redacted]

RS FORMS 07.02-01

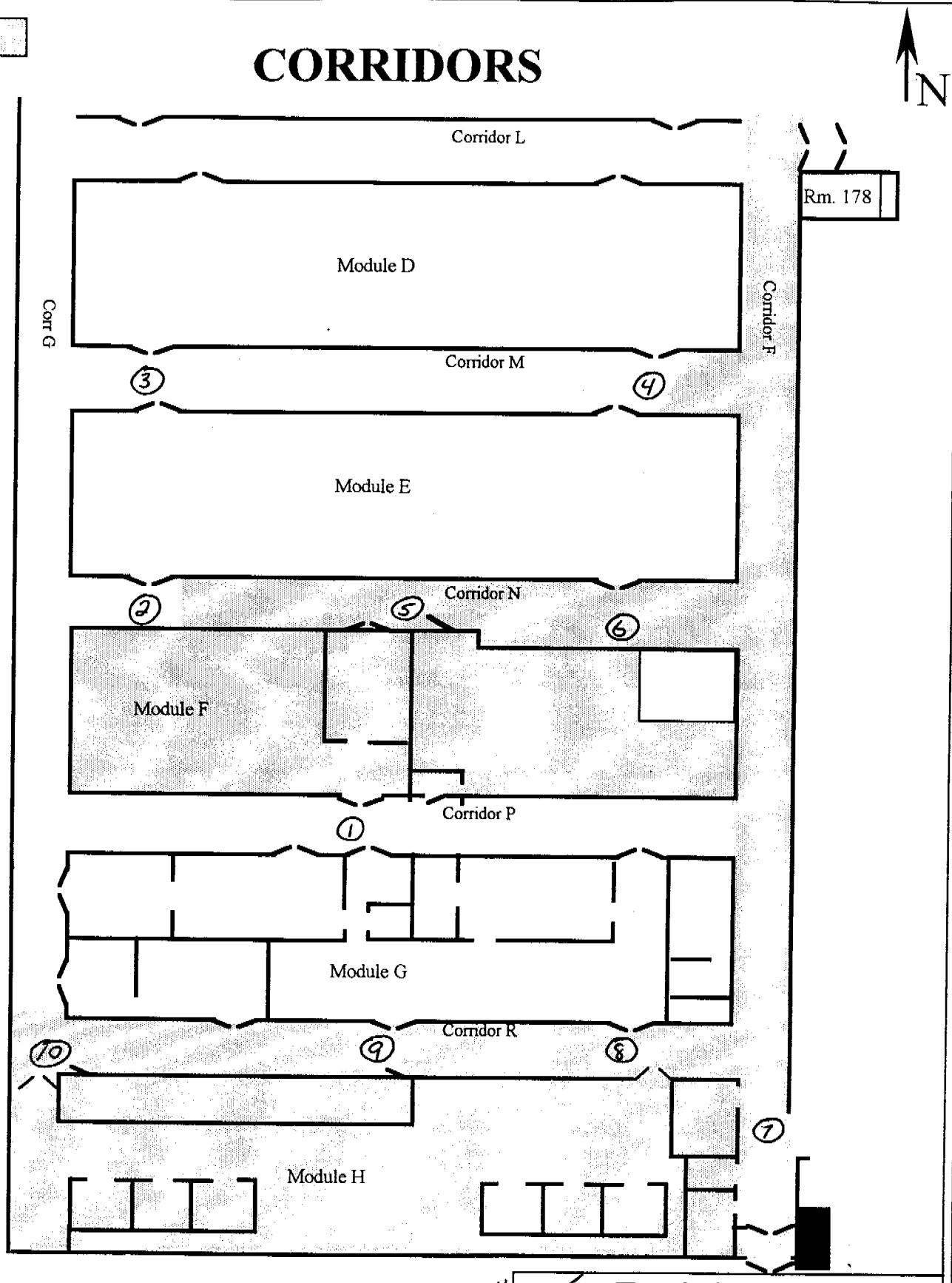
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

RBA -

CORRIDORS



GW 3-14-00 79 - Total Survey Points

571

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 3265
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 7-3-00
Bkg. 0.2 cpm	Bkg. 0.1 cpm	Bkg. 3.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17 %
MDA 12.9 dpm	MDA 11.5 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 52 cpm	Bkg. 51 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 110.4 dpm	MDA 109.4 dpm	MDA

Survey Type: **Contamination**

Building: 707

Location: South corridors Survey Area W

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 3-14-00 Time: 1630

[redacted]

RCT: N/A
Print name / Signature / Emp. #

Comments: Equipment : Biased survey points.
1 minute pats and swipes. See map for locations.
3 bkgd counts alpha electra <8cpm (1,4,5)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	vent	3	-16	36	16.	vent	0	16	60
2.	vent	0	-24	18	17.	Drop	0	48	36
3.	vent	0	-32	30	18.	chain layer	6	0	12
4.	vent	9	-8	60	19.	Box	3	12	6
5.	vent	90	76	54	20.	Box	0	40	12
6.	vent	12	24	30	21.	Box	0	0	54
7.	Temp indicater	0	48	36	22.	Box	0	-24	12
8.	Door	0	24	60	23.	cage	0	4	42
9.	Door	0	64	30	24.	vent	0	16	18
10.	Vent	3	104	24	25.	cage	0	24	30
11.	vent	0	60	60	26.	Box	0	-8	0
12.	vent	6	-20	30	27.	Box	0	-32	54
13.	vent	6	24	36	28.	Box	0	-8	36
14.	vent	3	16	54	29.	Box	0	-12	18
15.	vent	0	-24	102	30.	Box	0	32	18

Date Reviewed: 3-16-00 **RS Supervision:** [redacted]

RS FORMS 07.02-01

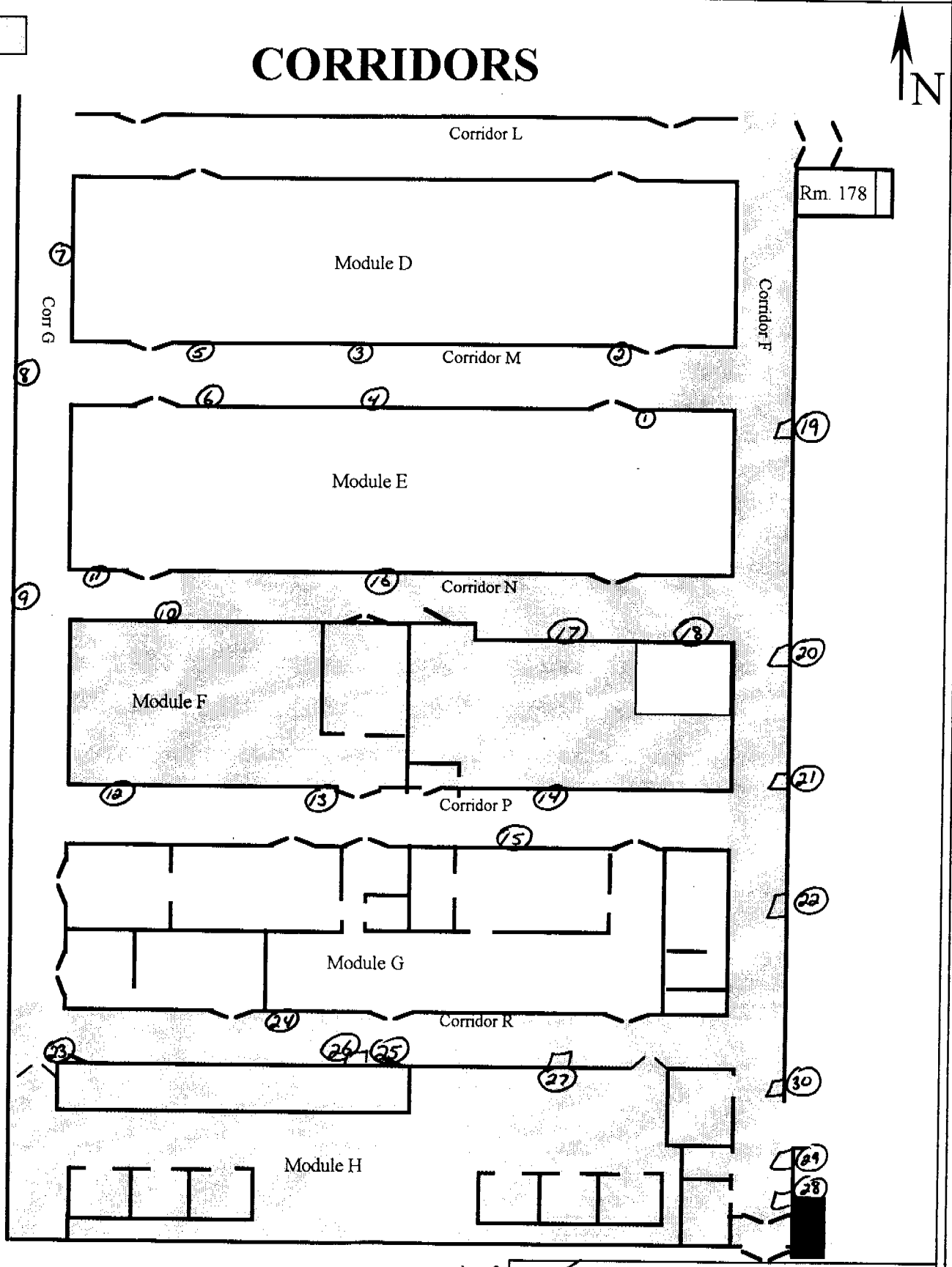
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

RBA - [ ]

CORRIDORS



4 4 3.14.00

~~79~~ 30 Total Survey Points

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1233
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 5-11-00
Bkg. 0.4 cpm	Bkg. 0.1 cpm	Bkg. 1 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 14.8 dpm	MDA 11.5 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 9.4 cpm	Bkg. 52 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 111.3 dpm	MDA 110.4 dpm	MDA

Survey Type: **Contamination**

Building: **707**

Location: South Corridors Survey Area W

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 3-15-00 Time: 1630

RC [redacted]

RC [redacted]

Comments: Ceiling / Walls > 2 meters : Biased survey points.
1 minute pats and swipes. See map for locations.
3 bkgd Counts alpha electra <8cpm (1,1,4)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	Ceiling Tile	0	28	0	16.	wall	0	20	6
2.	Ceiling Vent	0	12	6	17.	wall	3	12	12
3.	Ceiling Vent	3	-56	12	18.	wall	0	124	6
4.	Ceiling Tile	0	0	6	19.	wall	0	0	6
5.	ceiling Vent	3	-4	18	20.	wall on Stain	0	12	18
6.	Ceiling Tile	0	8	24	21.	wall	0	20	12
7.	Ceiling Vent	0	52	0	22.	wall	0	-8	0
8.	Ceiling Vent	3	-28	0	23.	wall	9	-32	6
9.	Ceiling Vent	3	4	42	24.	wall	0	-20	6
10.	wall	0	4	18	25.	wall	6	32	12
11.	wall	3	-12	0	26.	wall	0	-4	6
12.	wall	3	48	12	27.	wall	0	-16	0
13.	wall	3	-8	6	28.	wall	0	12	36
14.	wall	0	-16	6	29.	wall	0	-36	0
15.	wall	0	36	12	30.	wall	0	12	-6

Date Reviewed: 5-16-00 **RS Supervision:** [redacted]

(Survey Area Pkg. Page [illegible] of [illegible])

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	Wall	3	20	0	61.				
32.	Wall C-N	3	20	18	62.				
33.	Ceiling	0	-24	0	63.				
34.	Ceiling Vent	0	12	24	64.				
35.	Ceiling Vent	0	4	0	65.				
36.	Ceiling Vent	0	40	18	66.				
37.	Ceiling Vent	0	4	6	67.				
38.	Ceiling Vent	0	8	12	68.				
39.	Ceiling Vent	0	8	24	69.				
40.	Ceiling Tile	0	24	12	70.				
41.	End of Survey				71.				
42.					72.				
43.					73.				
44.					74.				
45.					75.				
46.					76.	N/A			
47.					77.				
48.					78.				
49.					79.				
50.	N/A				80.				
51.					81.				
52.					82.				
53.					83.				
54.					84.				
55.					85.				
56.					86.				
57.					87.				
58.					88.				
59.					89.				
60.					90.				

575

RS FORMS 07.02-01

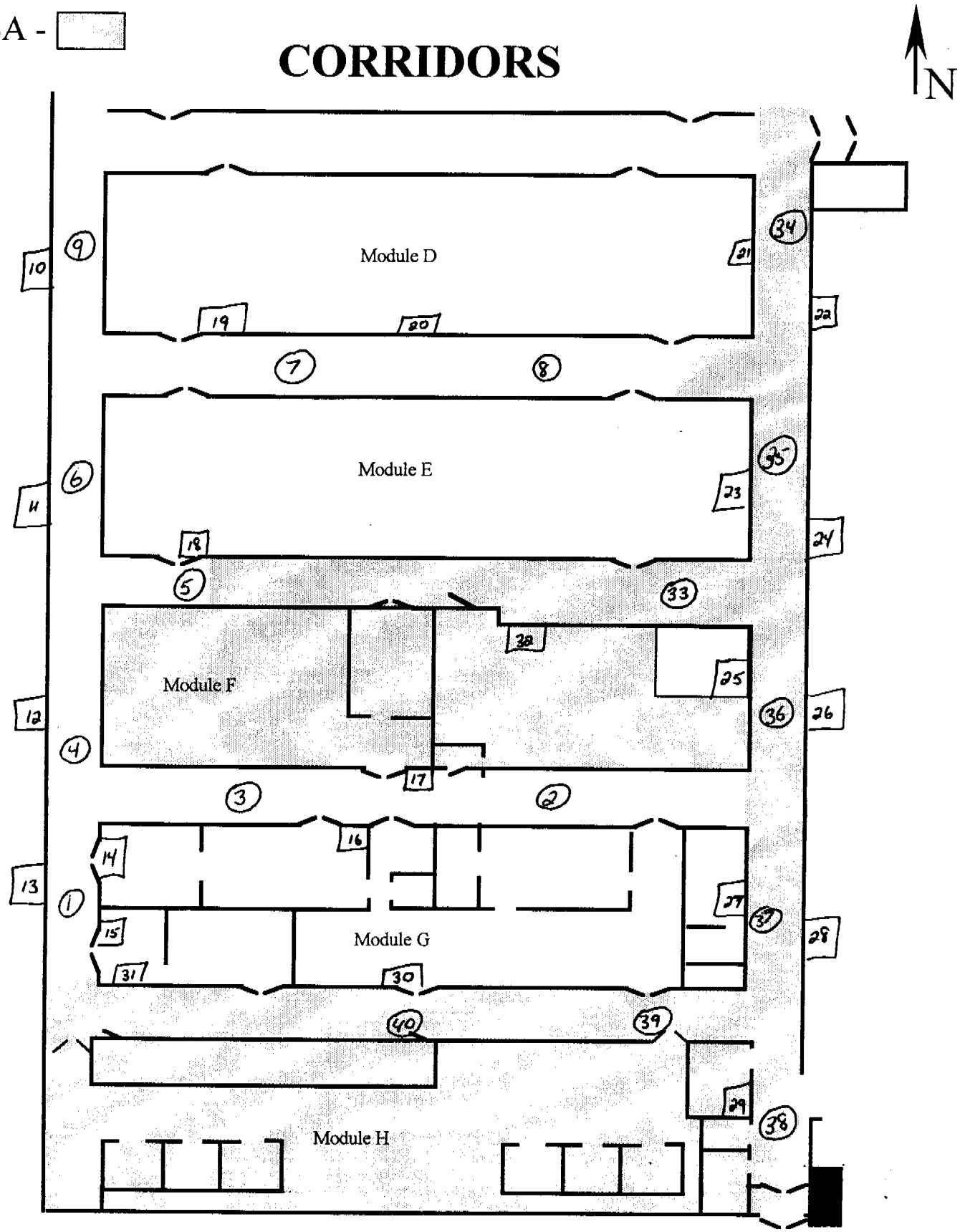
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

RBA -

CORRIDORS



Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A11963#002/004	Matrix:	Waste
Site Sample ID:	027.002				
Other Sample ID:	707-P-27-00	Collection Date:	4/28/00	Date Received:	5/2/00
		Batch Number:	1931	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1931-07	0.122	0.087	0.090	0.068
ACW03	U-235	KH100-1931-07	0.018	0.035	0.035	0.047
ACW03	U-238	KH100-1931-07	0.566	0.186	0.218	0.038
ACW03	PU-238	KH100-1931-07B	0.101	0.123	0.125	0.172
ACW03	PU-239/240	KH100-1931-07B	0.381	0.160	0.177	0.071
ACW03	AM-241	KH100-1931-07	0.075	0.076	0.078	0.051

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1931-LC1	SCAQC-1931-LD1	SCAQC-1931-PB
Pu	SCAQC-1931-LC1B	SCAQC-1931-LD1B	SCAQC-1931-PBB
Am	SCAQC-1931-LC1	SCAQC-1931-LD1	SCAQC-1931-PB

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1518
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 6-29-00
Bkg. 0.6 cpm	Bkg. 0.4 cpm	Bkg. 1.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 16.3 dpm	MDA 14.8 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 56 cpm	Bkg. 50 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 114.1 dpm	MDA 108.4 dpm	MDA

Survey Type: **Contamination**
Building: 707
Location: North Corr. Survey Area V
Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 3-16-00 Time: 1630

[redacted]

Comments: Floor / Walls < 2 meters : Biased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.
3 alpha bkgd counts electra <8cpm (2,2,3)
note contained Fixed α on Map

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	wall	0	-20	96	16.	Floor	3	8	54
2.	Floor	3	32	60	17.	Floor	3	-12	36
3.	Floor	6	-20	90	18.	Floor	0	4	24
4.	wall	0	48	36	19.	wall	0	-8	60
5.	wall	0	16	42	20.	Floor	0	32	30
6.	Floor	0	32	60	21.	Floor	3	24	66
7.	Floor	0	8	66	22.	wall	3	32	18
8.	wall	0	48	54	23.	Floor	12	8	48
9.	Floor	0	-20	6	24.	Floor	0	-24	54
10.	wall	0	-8	24	25.	wall	6	-4	48
11.	Floor	3	16	24	26.	End of Survey			
12.	wall	0	72	60	27.				
13.	Floor	0	32	66	28.	N/A			
14.	wall	0	32	48	29.				
15.	wall	3	-12	42	30.				

Date Reviewed: 3 21 00 RS Supervisi [redacted]

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

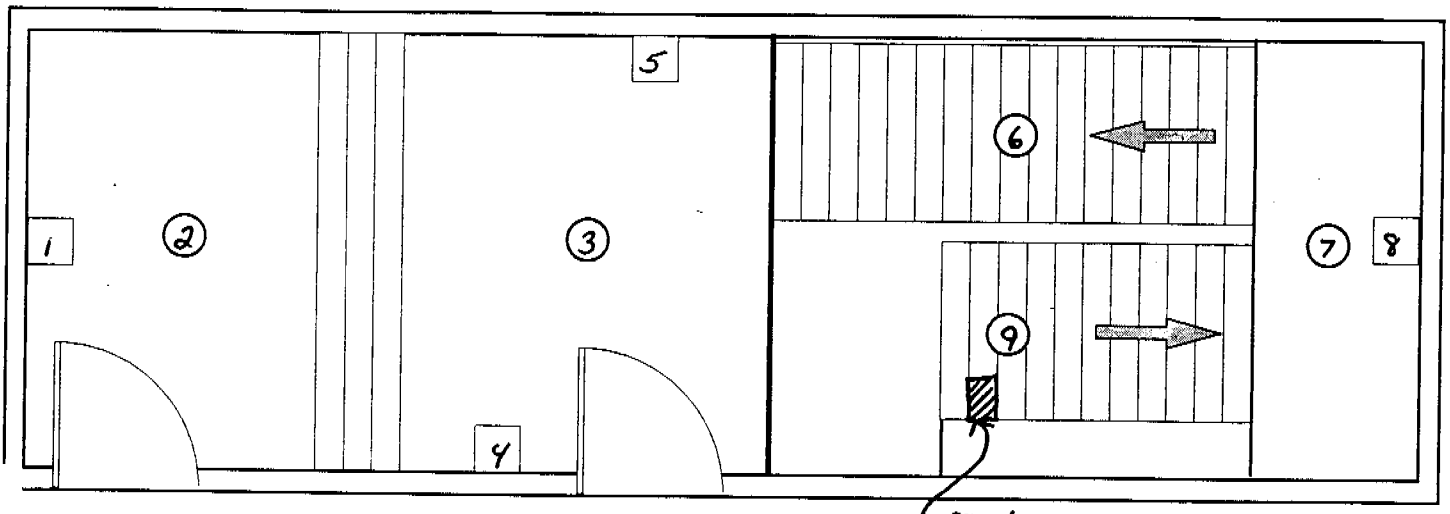
Drawing Showing Survey Points

Stairwell

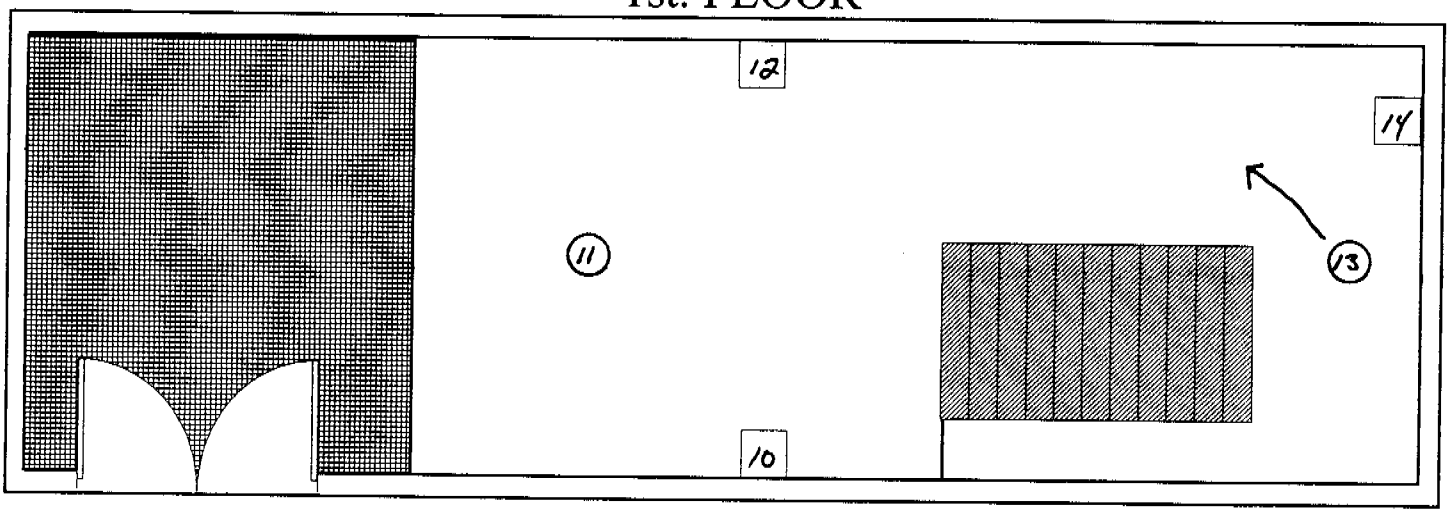
NW Corner
Rm. 200

N

2nd. FLOOR



1st. FLOOR



045

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

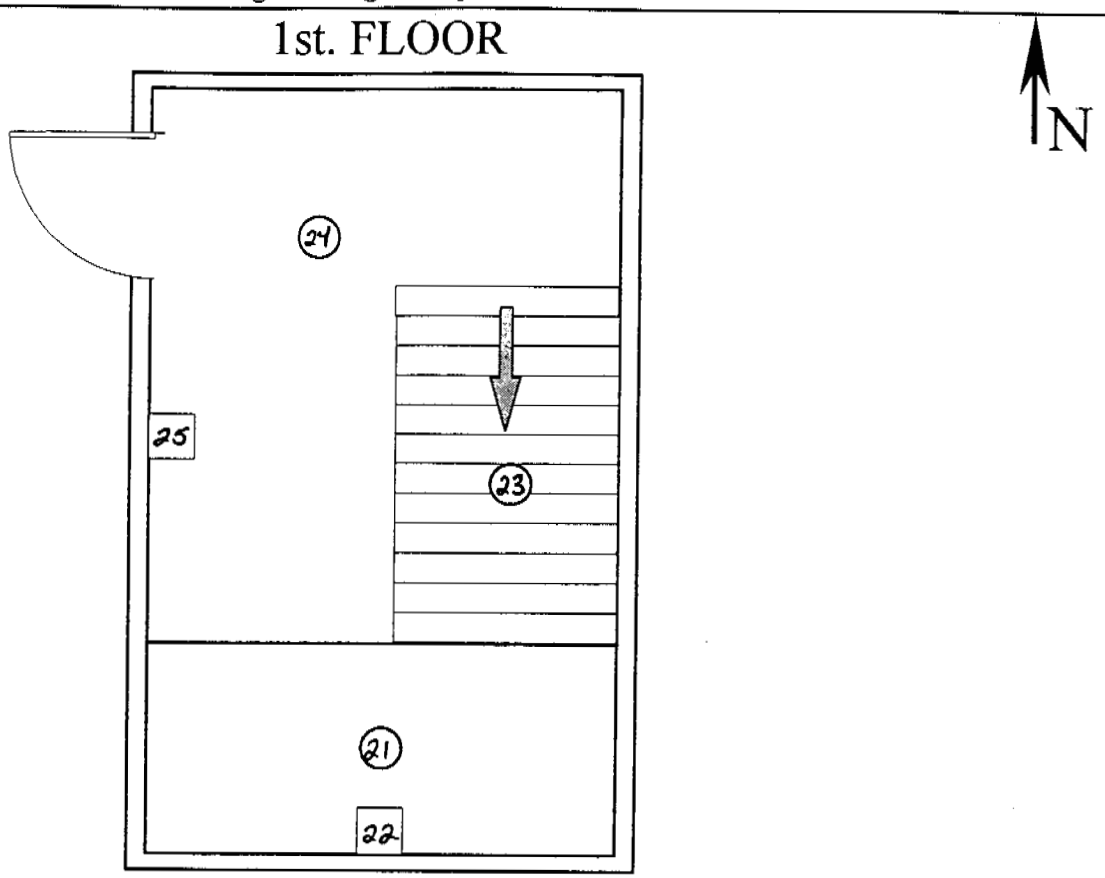
RADIOLOGICAL SAFETY

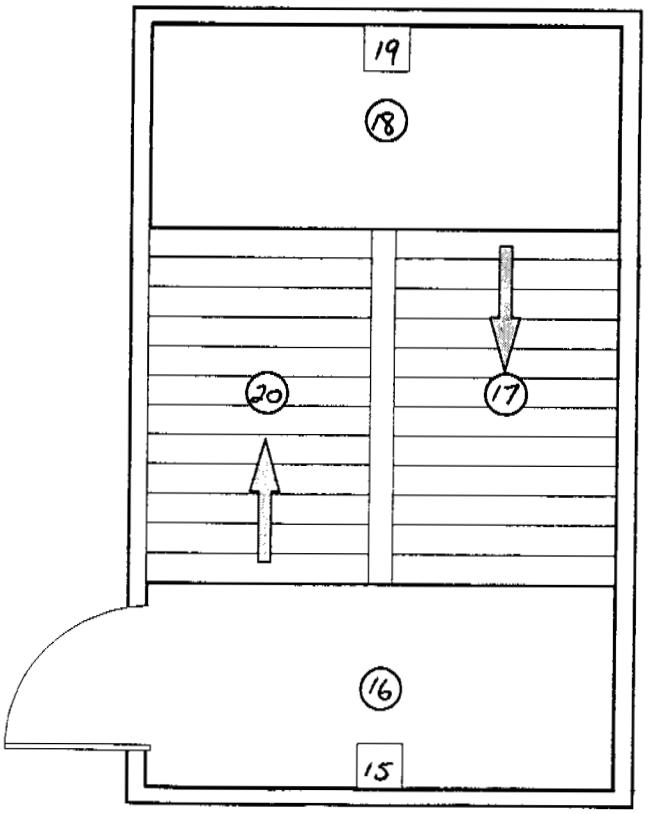
Drawing Showing Survey Points

Stairwell

NE Corner

1st. FLOOR





2nd. FLOOR

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 3120
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 4-26-00
Bkg. 0.7 cpm	Bkg. 0.3 cpm	Bkg. 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 21.09%
MDA 16.9 dpm	MDA 13.9 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg. NeTech
Model BC-4	Model BC-4	Model Electra
Serial # 872	Serial # 833	Serial # 1389
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due 6-29-00
Bkg. 48 cpm	Bkg. 51 cpm	Bkg. 10 cpm
Efficiency 25%	Efficiency 25%	Efficiency 20.71%
MDA 106.5 dpm	MDA 109.4 dpm	MDA 94 dpm

Survey Type: **Contamination**

Building: 707

Location: Corridor Survey Area ✓

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 3-1-00 Time: 1600

RCT: [redacted]

RCT: _____

Print name / Signature / Emp. #

Comments: Equipment : Biased survey points.
1 minute pats and swipes. See map for locations.
3 bkgd counts alpha electra <8cpm (1,2,3)
Equipment Corridor 10 of 30 All Below Ceiling Tile

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	E Vent	0	20	54	16.				
2.	E Vent	3	-40	86	17.				
3.	E Vent	0	-4	192	18.				
4.	Process Waste Pipe	0	48	24	19.				
5.	E Vent	0	36	90	20.				
6.	E Vent	0	-4	48	21.				
7.	E Vent	0	16	42	22.				
8.	E Vent	9	-4	384	23.				
9.	E Firephone	3	-24	12	24.	N/A			
10.	E Vent	3	-20	84	25.				
11.	END OF SURVEY				26.				
12.					27.				
13.	N/A				28.				
14.					29.				
15.					30.				

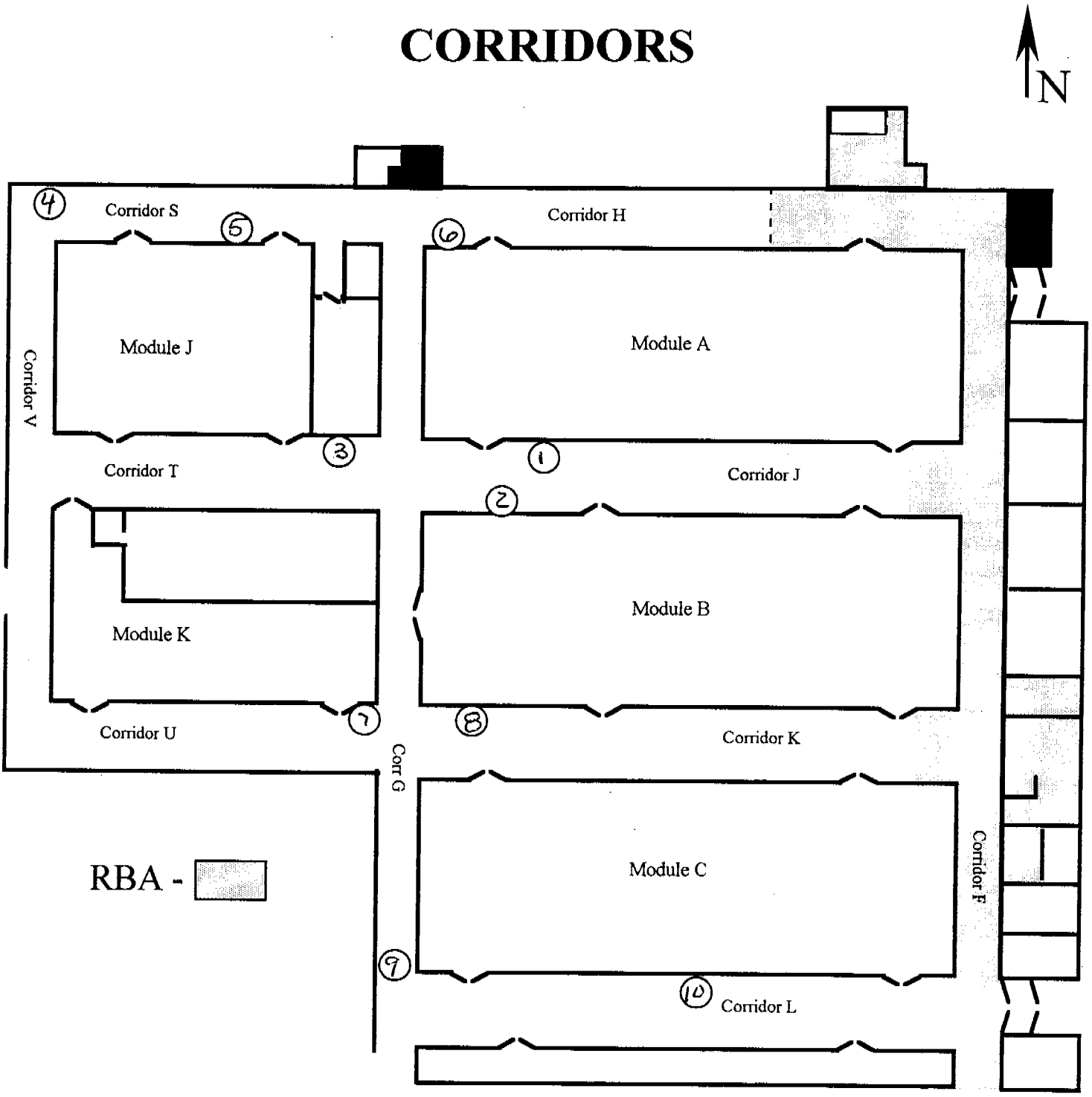
Date Reviewed: 3-21-00 **RS Supervision:** [redacted]

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



548

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 3120
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 4-26-00
Bkg. 0.1 cpm	Bkg. 0.2 cpm	Bkg. 5 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 11.5 dpm	MDA 12.9 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 833	Serial # 872	Serial #
Cal Due 7-14-00	Cal Due 4-12-00	Cal Due N/A
Bkg. 54 cpm	Bkg. 53 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 112.3 dpm	MDA 111.3 dpm	MDA

Survey Type: **Contamination**

Building: **707**

Location: North Corridors Survey Area ✓

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 3-20-00 Time: 1630

RC [redacted]
Print name / Signature / Emp. #

RCT: _____
Print name / Signature / Emp. #

Comments: Equipment : Biased survey points.
1 minute pats and swipes. See map for locations.

Continuation From Survey dated 3-1-00

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Vent	0	-40	6	16.	Vent	3	56	84
2.	Vent	0	-4	36	17.	Vent	0	-20	84
3.	Electrical panel	0	-16	-24	18.	Vent	3	20	90
4.	Box	0	-80	-6	19.	Vent	0	28	36
5.	F/O Box	0	-4	-6	20.	Vent	0	-40	72
6.	Lockers	3	-72	6	21.	End of Survey			
7.	Box	0	-4	-6	22.				
8.	Eye Wash	0	-40	60	23.				
9.	Vent	0	4	66	24.				
10.	Tray	3	-20	12	25.				
11.	Vent	3	-24	24	26.	N/A			
12.	Vent	3	-4	0	27.				
13.	Vent	0	44	96	28.				
14.	Vent	3	-8	0	29.				
15.	Vent	0	-12	102	30.				

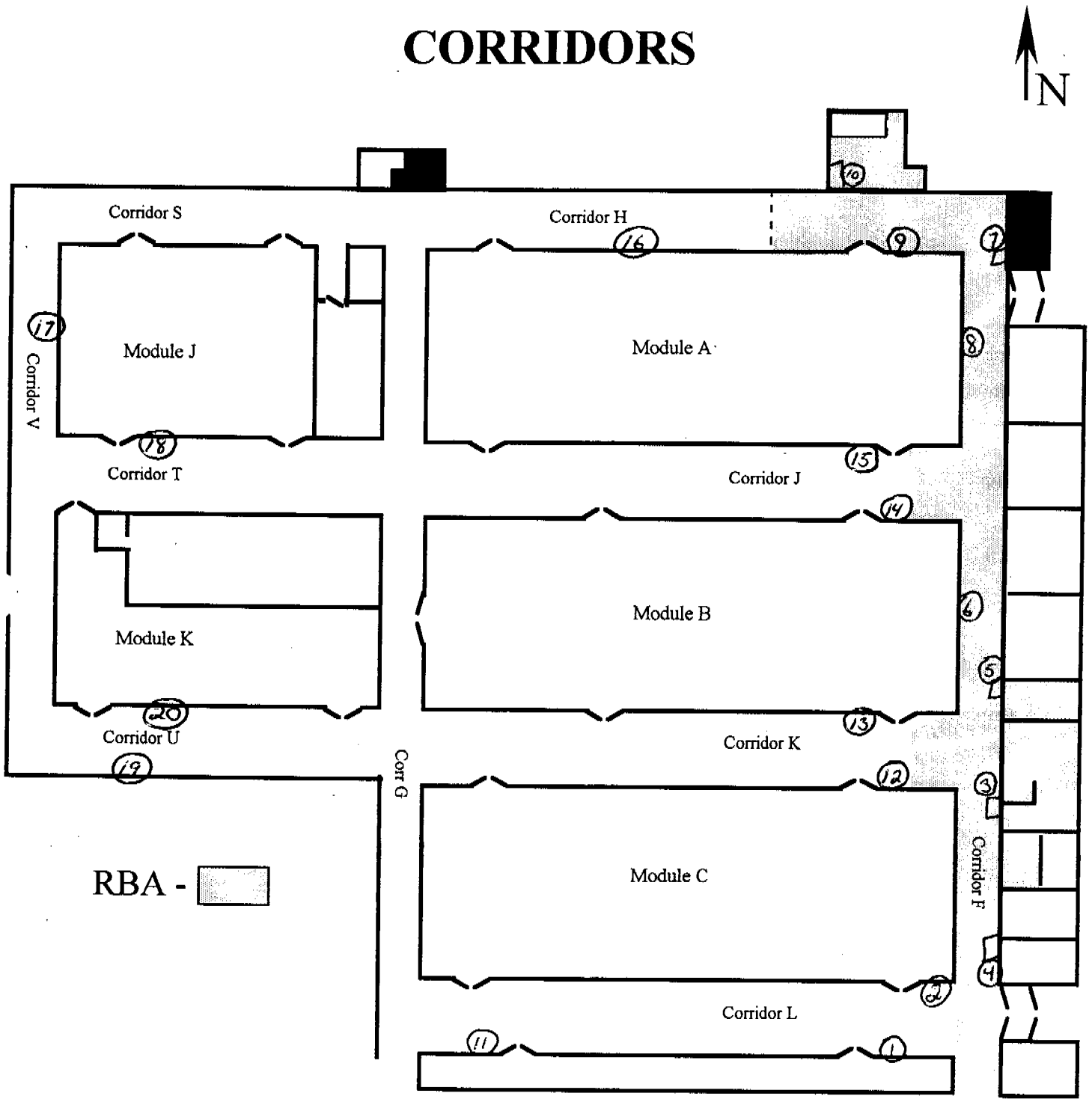
Date Reviewed: 4-26-00 RS Supervision [redacted]
Print Name Signature Emp. #

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



5 50

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1233
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 5-11-00
Bkg. 0.6 cpm	Bkg. 0.4 cpm	Bkg. 1.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 16.3 dpm	MDA 148 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 56 cpm	Bkg. 50 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 114.1 dpm	MDA 108.4 dpm	MDA

Survey Type: **Contamination**

Building: **707**

Location: North Corridors Survey Area ✓

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 3-16-00 Time: 1630

R[redacted]

Comments: Ceiling / Walls > 2 meters : Biased survey points.
1 minute pats and swipes. See map for locations.
3 bkgd alpha counts electra <8cpm (1,1,2)
continuation to survey dated 2-28-00 RBA only.

43 pts not performed due to being inaccessible above ceiling tiles + this area posted ARA for entry.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Ceiling vent	3	-8	18	16.	End of Survey			
2.	Ceiling Vent	3	28	12	17.				
3.	Ceiling Vent	0	40	6	18.				
4.	Ceiling vent	3	12	12	19.				
5.	Ceiling	0	-36	6	20.				
6.	wall	3	4	12	21.				
7.	wall	6	40	6	22.	N/A			
8.	wall	0	-4	12	23.				
9.	wall	0	-4	6	24.				
10.	wall	0	-8	6	25.				
11.	wall	3	-24	-6	26.				
12.	wall	0	16	12	27.				
13.	wall	0	-24	12	28.				
14.	wall	0	16	6	29.				
15.	wall	0	12	6	30.				

Date Reviewed: 3-21-00 **RS Supervision:** [redacted]

ASI SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 027
DUPLICATE ID: N/A
ISSUE DATE: 4/24/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-27-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK:

Comments/Problems encountered during sampling: Radscreen - 2 ~~grams~~ mm grams) 1 strip 5x20. ISO - 7 grams / 10x20 cm (2 strips) Total = 9 grams / 15x20 cm2 (3 strips). ~~Total =~~ 4/28/00 Rinsate is event # .056 — 300 cm2 GL 5.18.2000

Location Description: Bldg. 707, Module G, Corridor R, on the floor below eyewash 707-1-9

Other ID: 707P-27-00

Sample Appearance: Tan paint scraping with some brown + red paint scrapings on bottom side. Looks kind of like vinyl, kind of thick.

Sampling Device: Heat gun + chisel

Sample Date: 4/28/00 Sample Time: 09:25 Rad Screen Sample Date: 4/28/00

Was generator notified to receive excess sample? (Yes) X (No)

Sampler's Signature [redacted]

Employee N [redacted]

Date: 4/28/00 4/28/00

578

Lmc 10/08/98

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A11963#002/004	Matrix:	Waste
Site Sample ID:	029.002				
Other Sample ID:	707-P-29-00	Collection Date:	4/28/00	Date Received:	5/2/00
		Batch Number:	1931	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1931-09	0.129	0.086	0.090	0.064
ACW03	U-235	KH100-1931-09	-0.007	0.013	0.013	0.079
ACW03	U-238	KH100-1931-09	0.315	0.134	0.148	0.064
ACW03	PU-238	KH100-1931-09B	0.009	0.090	0.090	0.160
ACW03	PU-239/240	KH100-1931-09B	0.488	0.181	0.205	0.070
ACW03	AM-241	KH100-1931-09	0.090	0.091	0.093	0.061

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1931-LC1	SCAQC-1931-LD1	SCAQC-1931-PB
Pu	SCAQC-1931-LC1B	SCAQC-1931-LD1B	SCAQC-1931-PBB
Am	SCAQC-1931-LC1	SCAQC-1931-LD1	SCAQC-1931-PB

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

579

055

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A11963#002/004	Matrix:	Waste
Site Sample ID:	028.002				
Other Sample ID:	707-P-28-00	Collection Date:	4/28/00	Date Received:	5/2/00
		Batch Number:	1931	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1931-08	0.274	0.131	0.142	0.071
ACW03	U-235	KH100-1931-08	0.036	0.051	0.053	0.049
ACW03	U-238	KH100-1931-08	0.589	0.196	0.229	0.083
ACW03	PU-238	KH100-1931-08B	-0.038	0.124	0.124	0.228
ACW03	PU-239/240	KH100-1931-08B	0.195	0.119	0.125	0.090
ACW03	AM-241	KH100-1931-08	0.146	0.105	0.109	0.049

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1931-LC1	SCAQC-1931-LD1	SCAQC-1931-PB
Pu	SCAQC-1931-LC1B	SCAQC-1931-LD1B	SCAQC-1931-PBB
Am	SCAQC-1931-LC1	SCAQC-1931-LD1	SCAQC-1931-PB

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

580

054

CAS SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 028
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-28-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID:
TRIP BLANK:

Comments/Problems encountered during sampling: Radscreen - 2 grams / 5x20 cm² (1 strip) ISO - 7 grams / 10x20 cm² (2 strips). Total = 9 gram / 15x20 cm² (3 strips). 300 cm² Rinsate = event. 056. 5.18.2000

Location Description: Bldg. 707, Module H, on floor outside SE door.

Other ID: 707-P-28-00

Sample Appearance: See event. 027 TAN

Sampling Device: Heat gun + chisel

Sample Date: 4/28/00 Sample Time: 09:45 Rad Screen Date: 4/28/00

Was generator notified to receive excess sample? (YES) X (NO)

Samplers Signature: [redacted]
Employee Number:

Date: 4/28/00 4/28/00

581

CAS SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 029
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-29-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen - 2 grams/5x20 cm² (1 strip). ISO - 7 grams/5x20 cm² (1 strip). Total = 9 grams/10x20 cm² (2 strips). Rinsate - event. 056.
200 cm²

Location Description: Bldg. 707, Module E, corridor N. on floor outside doors 26 + 27.

Other ID: 707-P-29-00

Sample Appearance: See event. 027 TAN

Sampling Device: Heat gun + chisel

Sample Date: 4/28/00 Sample Time: 09:58 Rad Screen Date: 4/28/00

Was generator notified to receive excess sample? (YES) X (NO) ____

Samplers Signa[redacted]
Employee Numb[redacted]

Date: 4/28/00 4/28/00

582

A-3
RLC RADIOLOGICAL DATA
Survey Area X
1st Floor [Modules J & K]

Radiological Survey/Sample Results for Survey Area X (99-0002)

Total Surface Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	50	50
MIN	6	N/A
MAX	30800	N/A
MEAN	1000.7	N/A
STD DEV	4510.8	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	20	20
MIN	18	N/A
MAX	11400	N/A
MEAN	860.8	N/A
STD DEV	2543.4	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	30
MIN	6	N/A
MAX	102	N/A
MEAN	41.2	N/A
STD DEV	22.8	N/A
Equipment Biased	# Required	# Obtained
	45	45
MIN	66	N/A
MAX	123600	N/A
MEAN	4656.3	N/A
STD DEV	18416.6	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	50	50
MIN	0	-36
MAX	1086	64
MEAN	27.5	11.2
STD DEV	154.2	23.4
Floors/Walls < 2 m Biased	# Required	# Obtained
	20	20
MIN	0	4
MAX	4200	100
MEAN	213.8	32.6
STD DEV	938.3	25.5
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	30
MIN	0	-36
MAX	6	60
MEAN	1.8	11.7
STD DEV	2.2	25.5
Equipment Biased	# Required	# Obtained
	45	45
MIN	0	-40
MAX	384	156
MEAN	22.7	21.1
STD DEV	61.6	37.9
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
8	8

Total Uranium Results dpm/100 cm²

MIN	2
MAX	19
MEAN	5.3
STD DEV	5.7
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm²

MIN	6
MAX	1425
MEAN	398.6
STD DEV	454.4
$DCGL_W$	100

584

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 3120
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 4/26/00
Bkg. 0.4 cpm	Bkg. 0.6 cpm	Bkg. 6.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 21.09%
MDA 14.8 dpm	MDA 16.3 dpm	MDA 94 d/m

Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial # N/A
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due
Bkg. 53 cpm	Bkg. 51 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 111.3 dpm	MDA 109.4 dpm	MDA

Survey Type: **Contamination**

Building: 707

Location: MODULE J-K Survey Area X

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 3/13/00 Time: DAYS

[redacted]

RCT: _____
Print name / Signature / Emp. #

Comments: Floor / Walls < 2 meters : Unbiased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.
*Bkg. 5min 14.0cpm 3min PAT

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	FLOOR	0	-36	126.0	16.	FLOOR	3	4	36.0
2.	"	3	0	252.0	17.	"	6	48	54.0
3.	"	3	24	1878.0	18.	"	144	20	60.0
4.	"	3	16	276.0	19.	"	54	-16	2240.0
5.	"	0	-36	480.0	20.	"	0	-12	78.0
6.	"	0	-8	90.0	21.	"	3	8	30.0
7.	"	3	28	30.0	22.	"	3	-24	36.0
8.	"	0	24	72.0	23.	"	0	32	18.0
9.	"	3	8	300.0	24.	"	0	20	144.0
10.	"	3	40	144.0	25.	"	3	-28	(6.0)
11.	"	1088	-4	2454.0	26.	"	0	4	60.0
12.	"	3	12	54.0	27.	"	3	8	78.0
13.	"	0	-36	308K	28.	FLOOR *	0	16	206.0
14.	"	3	-12	2490	29.	FLOOR	3	48	12.0
15.	"	3	36	6.0	30.	"	3	-19	[illegible]

Date Reviewed: 4-3-00 **RS Supervision:** [redacted]

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	Floor	9	12	9120.0	61.				
32.	WALL	3	(8)	72.0	62.				
33.	"	3	(20)	(12.0)	63.				
34.	"	3	(4)	(12.0)	64.				
35.	"	3	64	12.0	65.				
36.	"	3	(32)	12.0	66.				
37.	"	0	(16)	(18.0)	67.				
38.	"	0	4	6.0	68.				
39.	"	0	(8)	48.0	69.				
40.	"	0	16	24.0	70.				
41.	"	3	16	54.0	71.				
42.	"	0	28	6.0	72.				
43.	"	0	(36)	42.0	73.				
44.	"	0	52	12.0	74.				
45.	"	0	(8)	12.0	75.				
46.	"	0	0	12.0	76.				
47.	"	3	8	18.0	77.	N/A			
48.	"	0	0	12.0	75.				
49.	"	6	(8)	150.0	79.				
50.	"	0	56	12.0	80.				
51.	END OF SURVEY				81.				
52.					82.				
53.					83.				
54.					84.				
55.	N/A				85.				
56.					86.				
57.					87.				
58.					88.				
59.					89.				
60.					90.				

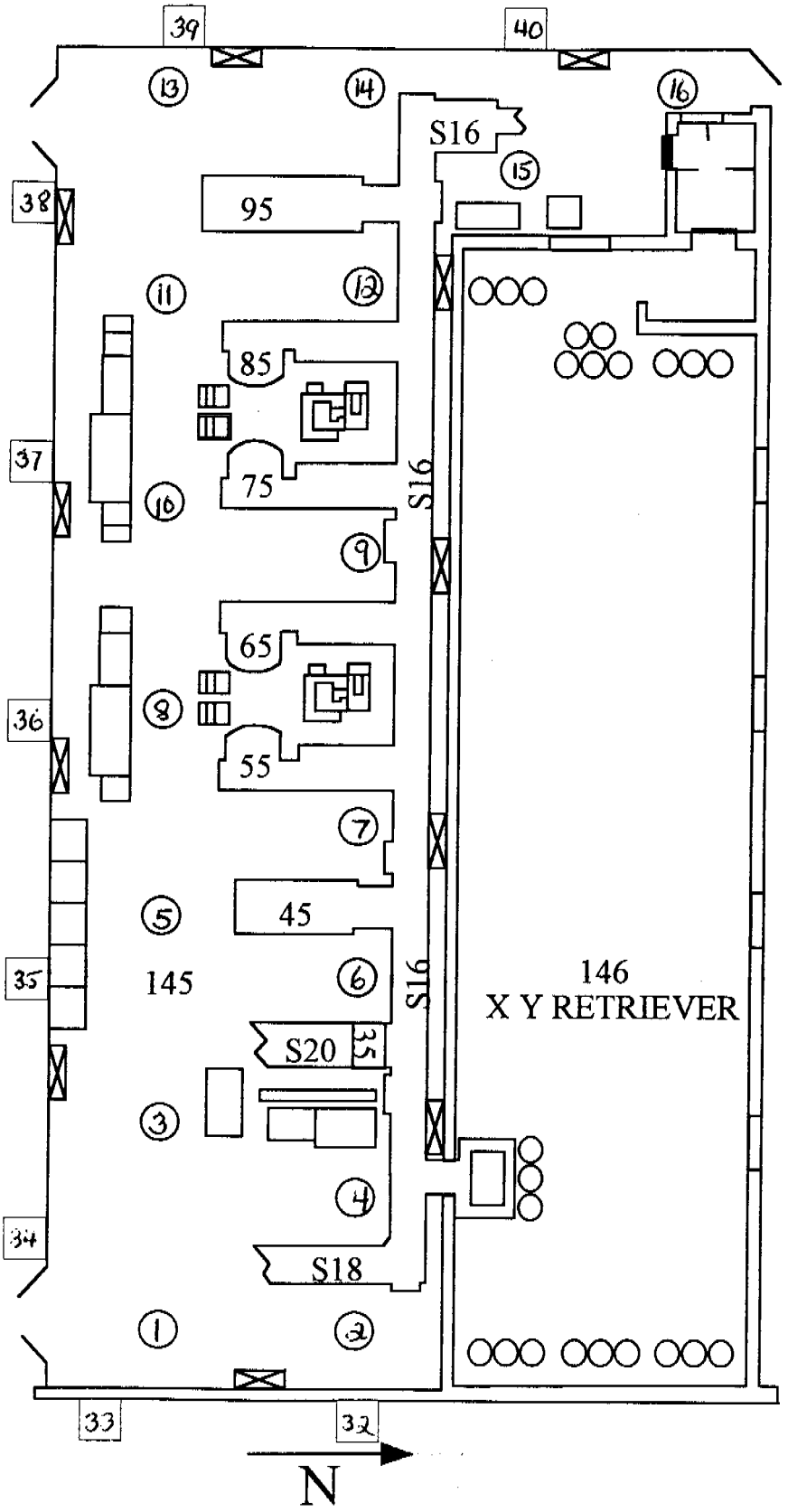
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

MODULE K



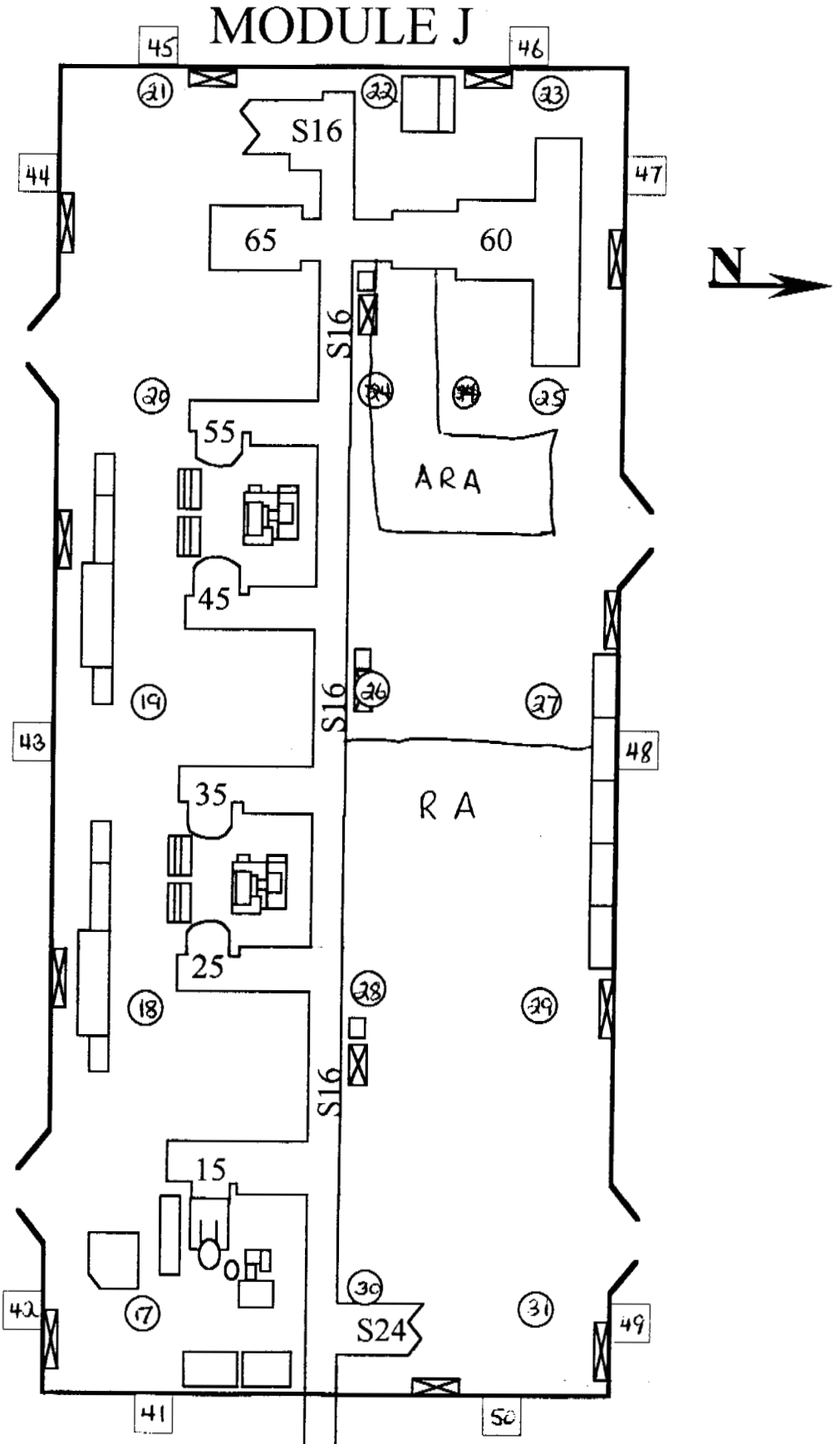
587

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



588

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 3260
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 7-17-00
Bkg. 0.6 cpm	Bkg. 0.4 cpm	Bkg. 3.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 19.99%
MDA 16.3 DPM	MDA 14.8 DPM	MDA 94 DPM
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial # N/A
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due
Bkg. 56 cpm	Bkg. 50 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 114.1 DPM	MDA 108.4 DPM	MDA

Survey Type: **Contamination**

Building: 707

Location: J-K Mod. Survey Area X

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 3-16-00 Time: 1500

[redacted]

RCT: _____
Print name / Signature / Emp. #

Comments: Floor / Walls < 2 meters : Biased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.
* ELECTRA 3 DPM Qd COUNTS ∝ ELECTRA < 8 cpm (2, 3, 4)
Location 20 Deconed < 20 DPM

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	CRIT DRAIN	6	(12)	366.0	16.	Floor	3	64	11.4K
2.	Floor	0	40	78.0	17.	Floor	3	(28)	2400.0
3.	Floor	0	4	60.0	18.	Floor	3	12	96.0
4.	CRIT DRAIN	0	(44)	18.0	19.	Floor	3	68	126.0
5.	Floor	0	(24)	78.0	20.	Floor *	4200	N/A	127.2
6.	WALL	6	(24)	42.0	21.	END OF SURVEY			
7.	CRIT DRAIN	6	20	78.0	22.				
8.	Floor	3	56	132.0	23.				
9.	Floor	3	(100)	420.0	24.				
10.	Floor	33	(28)	1234.0	25.				
11.	CRIT DRAIN	0	(44)	30.0	26.	N/A			
12.	Floor	3	(8)	270.0	27.				
13.	Floor	9	(8)	72.0	28.				
14.	Floor	0	4	18.0	29.				
5.	Floor	0	32	180.0	30				

Date Reviewed: 4-3-00 RS Supervision: [redacted]

589

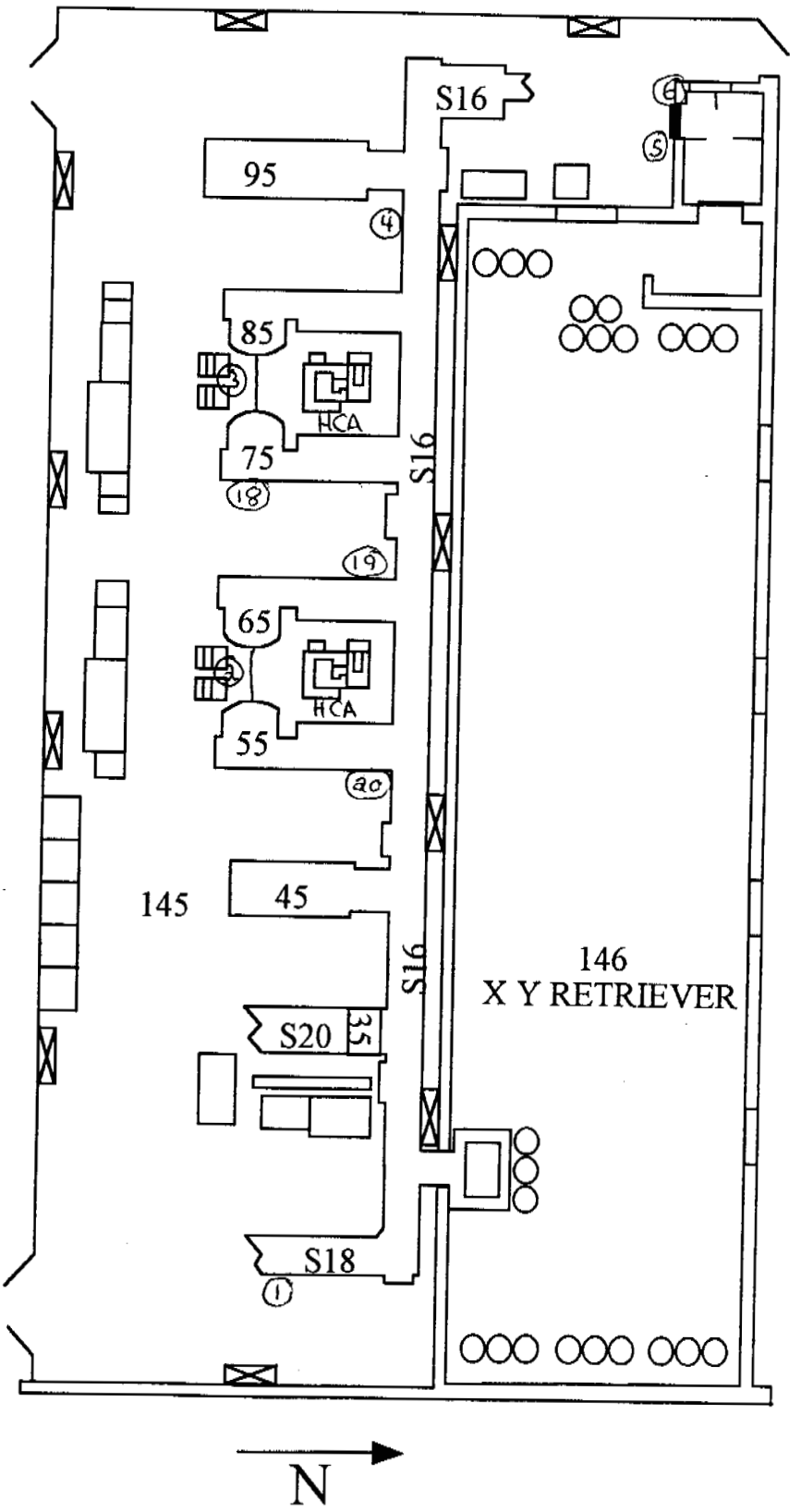
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

MODULE K



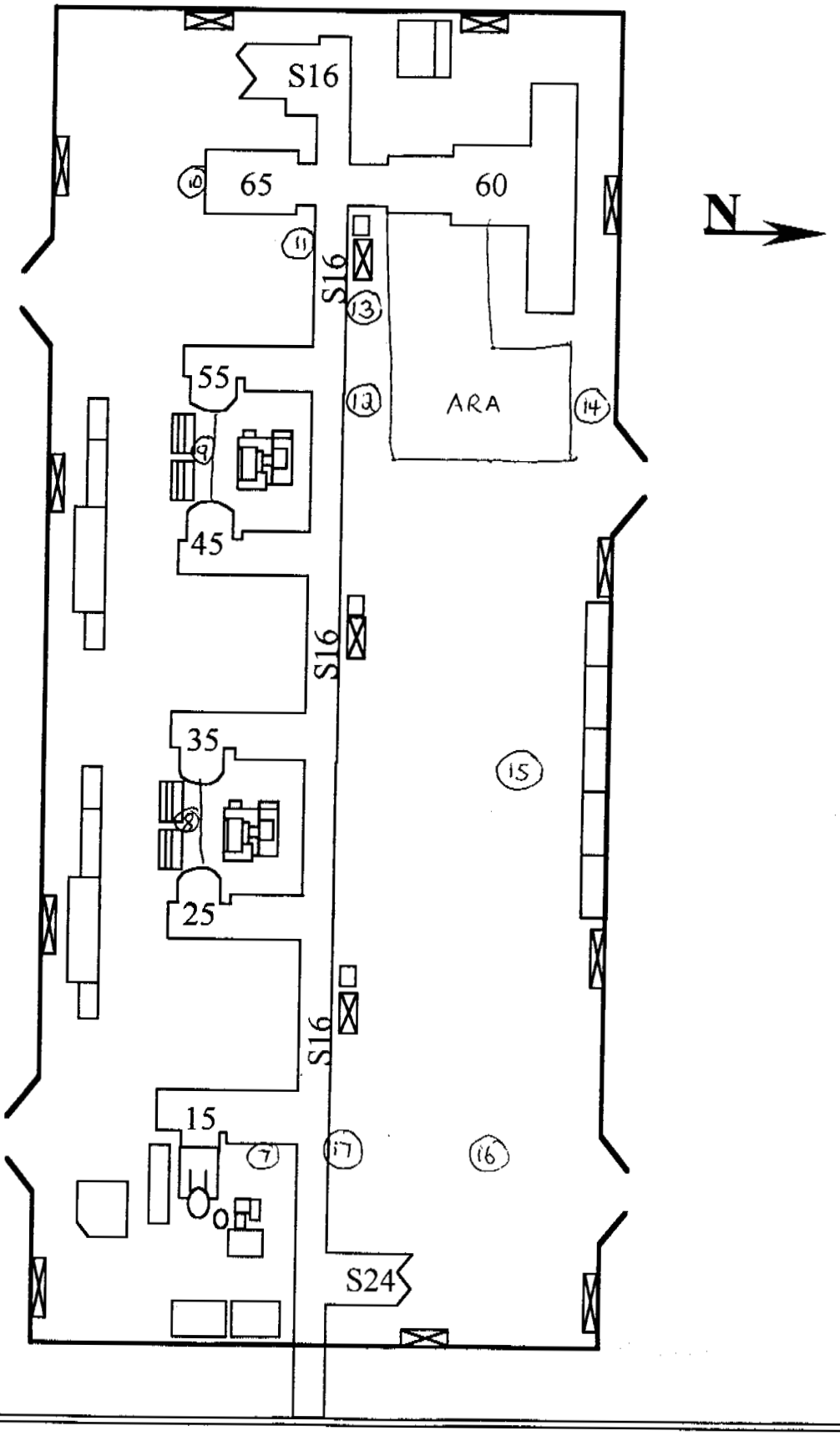
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

MODULE J



 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 812	Serial # 849	Serial # 1389
Cal Due 9-25-00	Cal Due 4-10-00	Cal Due 6-29-00
Bkg. 0.1 cpm	Bkg. 0.6 cpm	Bkg. 10 cpm
Efficiency 33%	Efficiency 33%	Efficiency .12096
MDA 11.5 dpm	MDA 16.3 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg. NETech
Model BC-4	Model BC-4	Model Electra
Serial # 872	Serial # 833	Serial # 1518
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due 6-29-00
Bkg. 52 cpm	Bkg. 54	Bkg. 20 cpm
Efficiency 25%	Efficiency 25%	Efficiency .12186
MDA 110.4 dpm	MDA 112.3 dpm	MDA 94 dpm

Survey Type: **Contamination**

Building: 707

Location: J & K module Survey Area X

Purpose: **Reconnaisance Level Characterization**

RWP # 00 707 1204

Date: 3-28-00 Time: Days

[redacted]

Comments: Equipment : Biased survey points.

1 minute pats and swipes. See map for locations.

no high counts alpha ultra <8cpm

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	Flange	30	44	4284	16.	GB J60 Crit Drain	0	52	1962
2.	S-16 CNVYR	15	4	450	17.	Air Vent # 36	0	-4	2880
3.	Air Vent # 20	12	16	648	18.	S-16 Purple Plate	0	92	11238
4.	Step Platform	57	52	1374	19.	S-16 Crit Drain	0	36	1080
5.	S-16 CNVYR	3	60	7392	20.	S-16 CNVYR	171	12	123600
6.	J45 GB Portal 001	45	36	732	21.	Air Vent # 17	42	-40	1326
7.	Air Vent	12	36	2382	22.	Monitor	0	8	810
8.	GB J45 Front Orange Part	12	4	168	23.	3 Step Rollaround Stool	9	-4	1140
9.	GB J55 Lower Raise Switch	15	-12	11016	24.	Crit Drain Tool Storage	3	84	120
10.	Air Vent # 26	3	156	780	25.	Air Vent # 15	12	-12	408
11.	GB J25 Portal 0001	0	40	590	26.	GB K85 under Portal 0003	6	40	816
12.	Air Vent # 28	21	8	2478	27.	GB K95 under Portal 0011	6	36	15600
13.	Dukane 3.5 Control	3	68	936	28.	S-16 CNVYR under Portal 0040	3	28	2100
14.	GB J60 under Portal 0045	6	44	606	29.	Platform ladder	0	-40	2676
15.	Air Vent # 34	6	-8	300	30.	Air Vent # 6	30	4	180

Date Reviewed: 4-3-00 **RS Supervision:** [redacted]

Rev. 02/00

592

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

294

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	GBK45 CNVRY 516	24	12	1344	61.				
32.	FOOT CONTROL	3	-16	192	62.				
33.	518 CRIT Drain	30	-36	162	63.				
34.	520 CRIT Drain	9	4	1584	64.				
35.	Air Vent #5	30	24	834	65.				
36.	4 Step Roundaround Ladder	3	-12	2004	66.				
37.	ALT-K55 Control Panel	384	60	396	67.				
38.	Wide 3 Step Stool	0	12	270	68.				
39.	Top Cabinet	0	-12	1002	69.				
40.	Air Vent #1	15	44	402	70.				
41.	END OF SURVEY				71.				
42.					72.				
43.					73.				
44.					74.				
45.					75.				
46.					76.				
47.					77.				
48.					78.				
49.					79.				
50.					80.				
51.					81.				
52.					82.				
53.					83.				
54.					84.				
55.					85.				
56.					86.				
57.					87.				
58.					88.				
59.					89.				
60.					90.				

N/A

N/A

43

RS FORMS 07.02-01

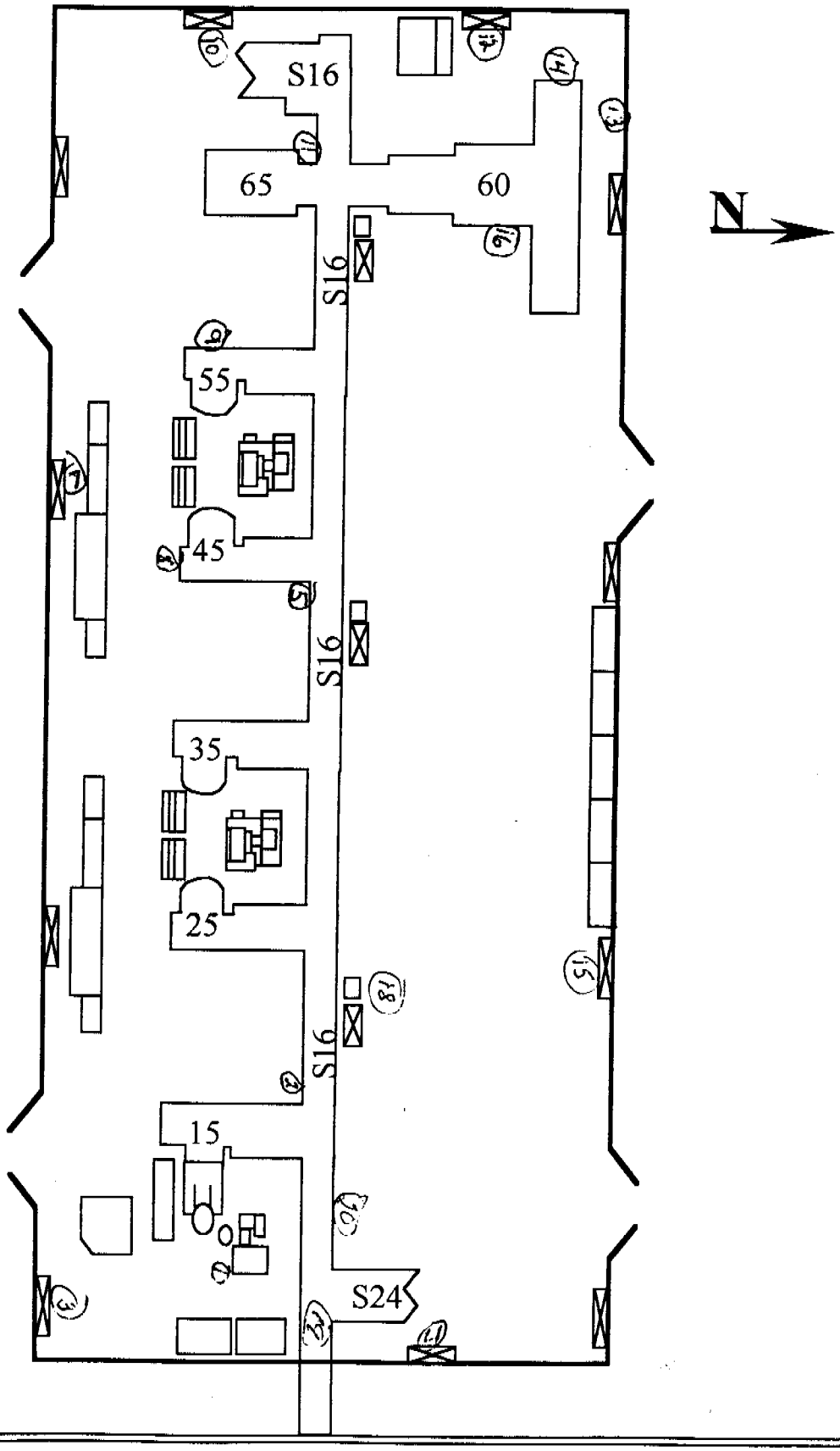
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

3 of 4

Drawing Showing Survey Points

MODULE J



RS FORMS 07.02-01

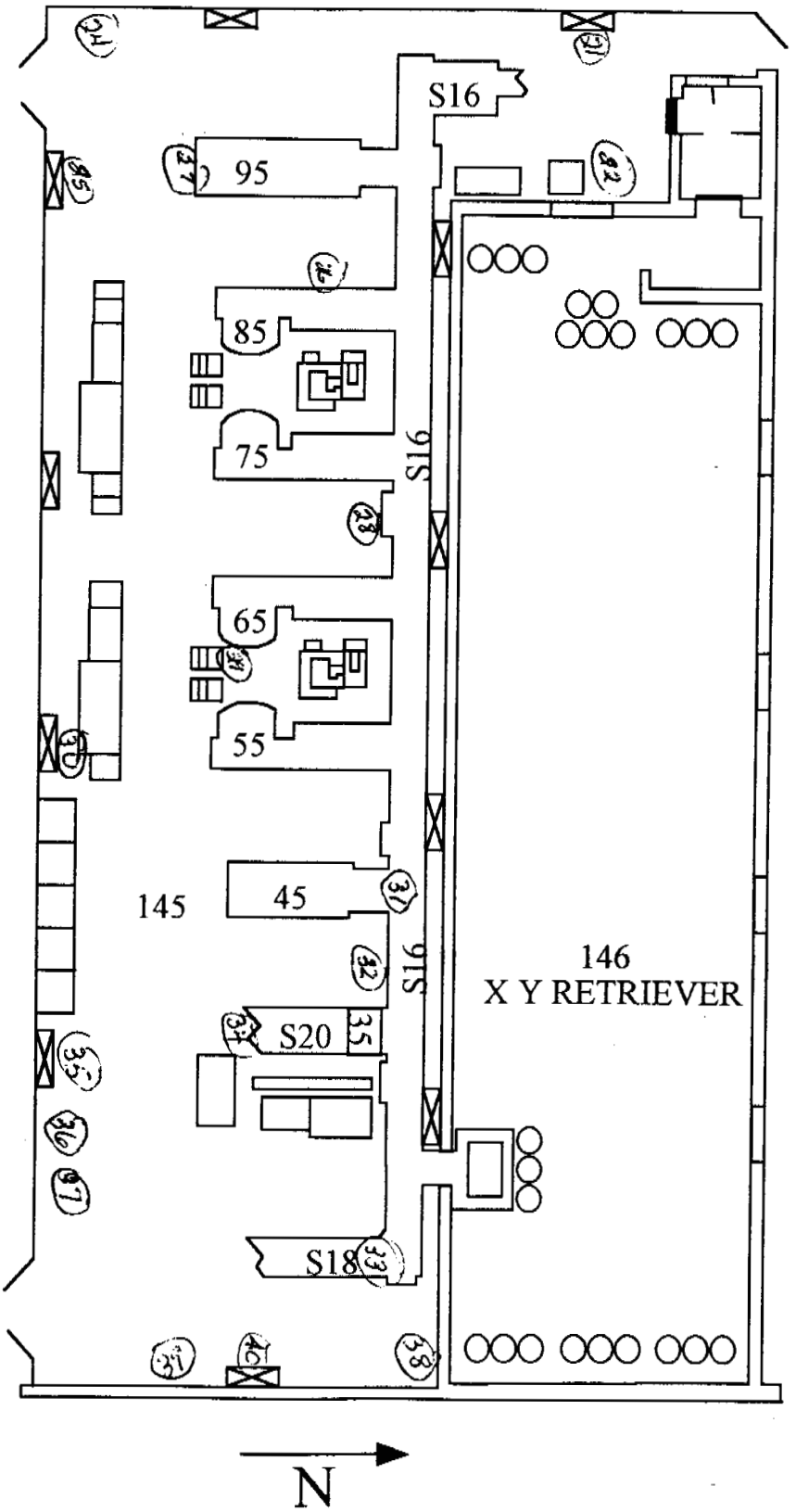
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

4 of 4

Drawing Showing Survey Points

MODULE K



 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial #	Serial # 1233
Cal Due 4-10-00	Cal Due N/A	Cal Due 5-11-00
Bkg. 0.4 cpm	Bkg.	Bkg. 1.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency .2063
MDA 14.8 dpm	MDA	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial #	Serial #
Cal Due 4-12-00	Cal Due N/A	Cal Due
Bkg. 56 cpm	Bkg.	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 114.1 dpm	MDA	MDA

Survey Type: **Contamination**

Building: 707

Location: J & K Module Survey Area X

Purpose: **Reconnaisance Level Characterization**

RWP # 00 707 1204

Date: 3-27-00 Time: Days

[redacted]

Comments: Ceiling / Walls > 2 meters : Biased survey points.
1 minute pats and swipes. See map for locations. 1 of 3
b kgd Counts alpha electra 28 cpm

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	W > 2m	6	4	24	16.	W > 2m	6	4	48
2.	" "	3	0	6	17.	" "	0	32	48
3.	" "	0	-36	12	18.	" "	0	32	48
4.	" "	0	52	54	19.	" "	3	4	30
5.	" "	0	-4	30	20.	" "	0	12	6
6.	" "	3	-12	30	21.	" "	3	8	30
7.	" "	0	-16	48	22.	" "	3	52	30
8.	" "	3	-12	18	23.	" "	0	24	42
9.	" "	0	20	12	24.	" "	3	8	54
10.	" "	0	24	18	25.	Ceiling	3	-28	54
11.	" "	0	40	42	26.	"	6	52	60
12.	" "	3	0	102	27.	"	0	8	54
13.	" "	0	-12	42	28.	"	3	60	84
14.	" "	6	40	42	29.	"	0	24	72
15.	" "	0	0	24	30.	"	0	-28	72

Date Reviewed: 4-3-00 RS Supervisio[redacted]

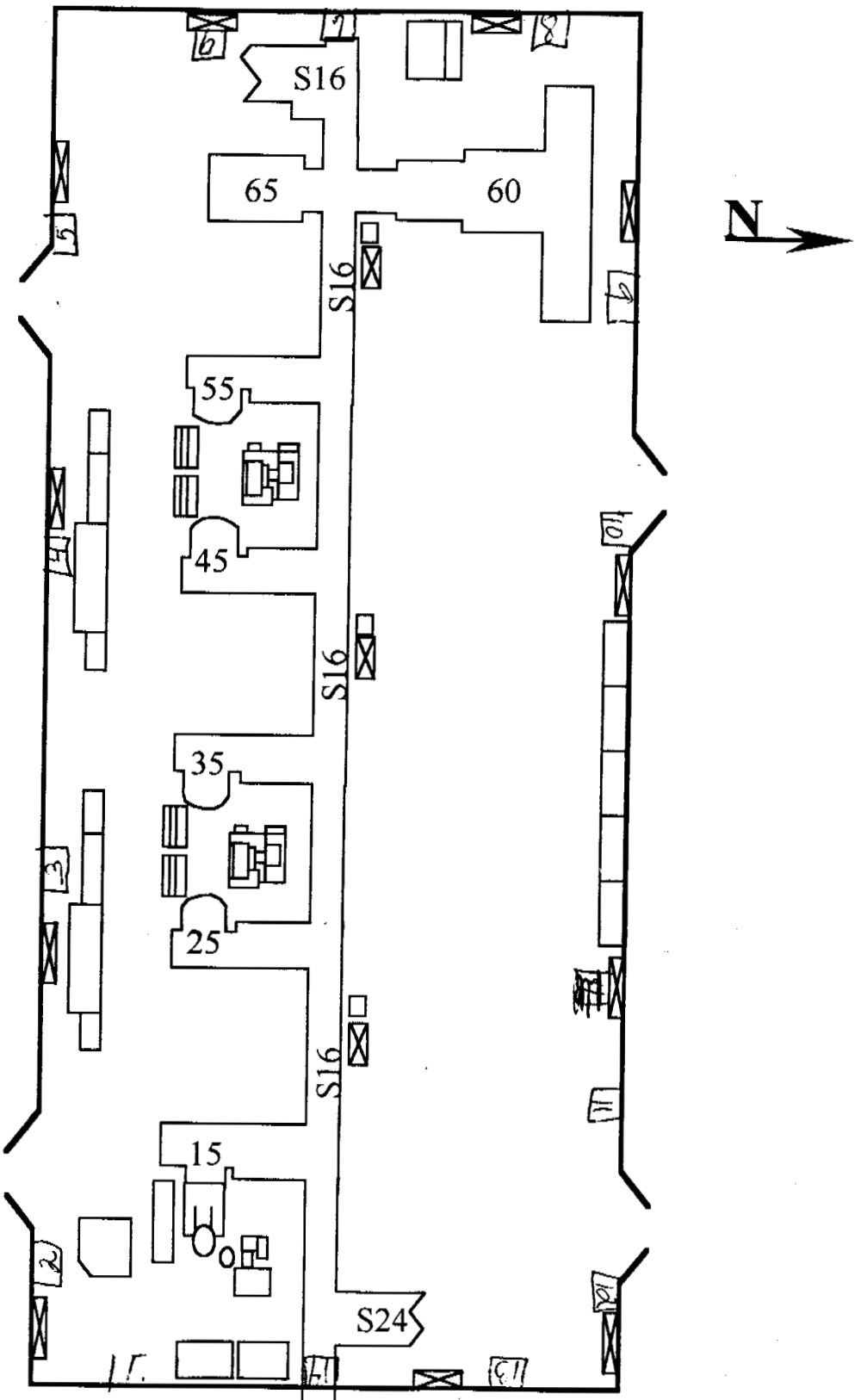
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points 2 of 3

MODULE J



RS FORMS 07.02-01

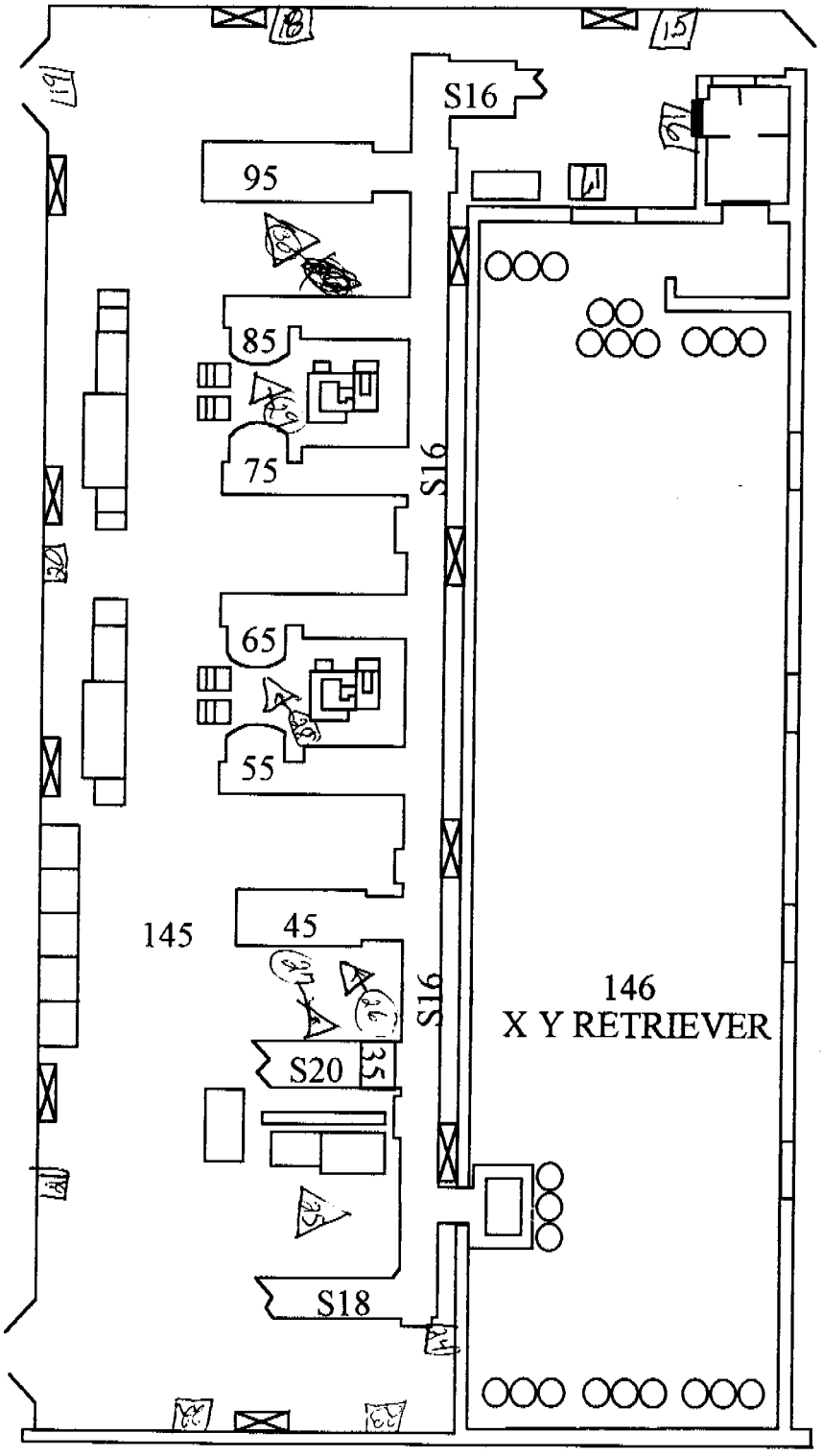
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

3 of 3

MODULE K



C98

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline NA	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial #	Serial # 3265
Cal Due 8-15-00	Cal Due	Cal Due 7-3-00
Bkg. 0.0 cpm	Bkg.	Bkg. 3.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 21.01%
MDA 8.2 DPM	MDA NA	MDA 94 DPM
Mfg. Eberline	Mfg. Eberline NA	Mfg. NA
Model BC-4	Model BC-4	Model
Serial # 959	Serial #	Serial #
Cal Due 7-19-00	Cal Due	Cal Due
Bkg. 45 cpm	Bkg.	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 103.4 DPM	MDA NA	MDA NA

Survey Type: **Contamination**

Building: 707

Location: J+K module Survey Area X

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 5-4-00 Time: pm.

[redacted]

RCT: NA →
Print name / Signature / Emp. #

Comments: Equipment : Biased survey points.
1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	SHELF	3	0	72	16.	NA			
2.	SHELF	0	-28	66	17.				
3.	ELECT. CABINET	0	48	72	18.				
4.	CONTROL CABINET	0	32	192	19.				
5.	PIPING	0	-20	168	20.				
6.	END OF SURVEY			NA	21.				
7.					22.				
8.					23.				
9.					24.				
10.					25.				
11.					26.				
12.					27.				
13.					28.				
14.					29.				
15.	NA				30.				NA

Date Reviewed: 5/5/00 RS Supervisi[redacted]

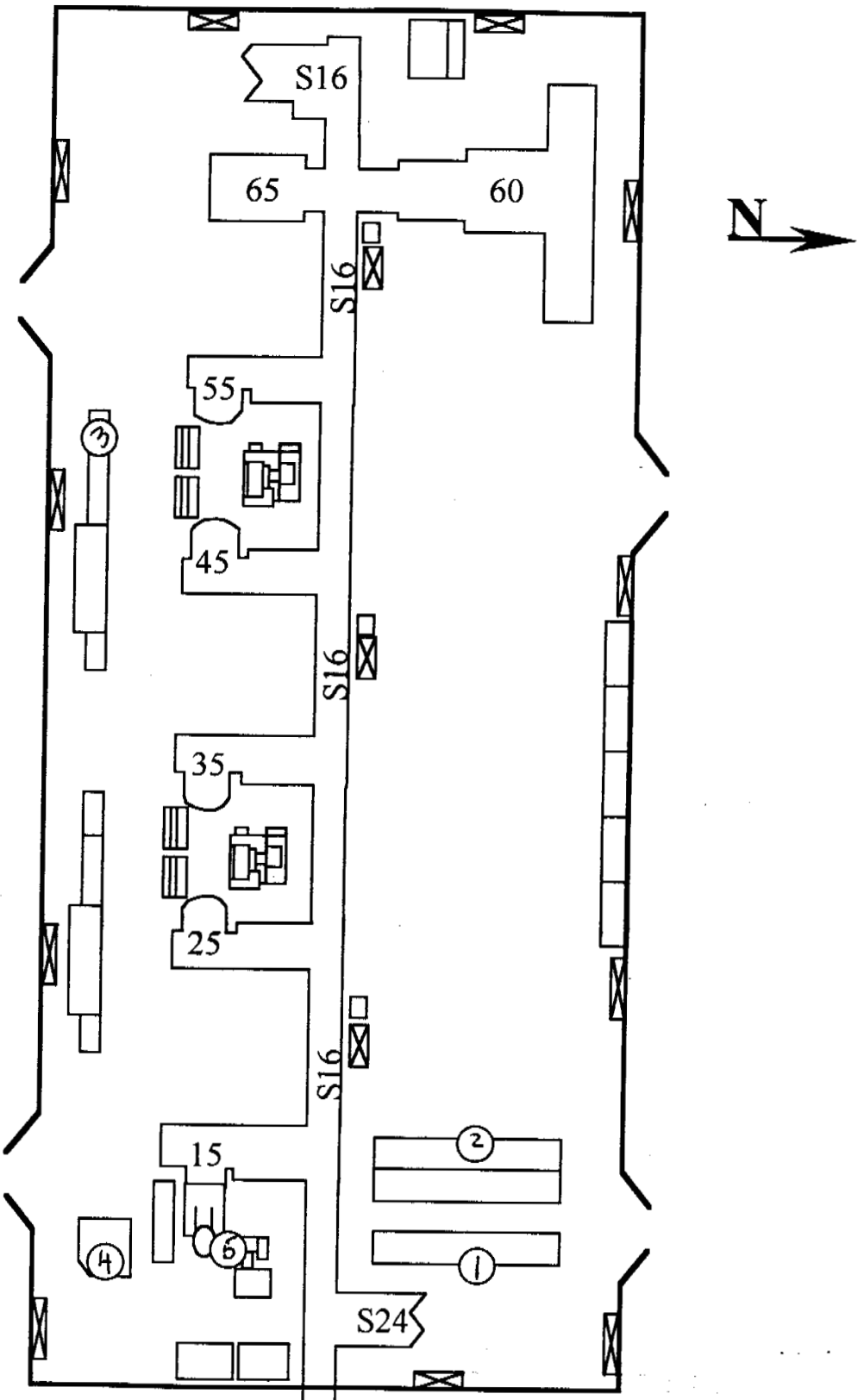
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

MODULE J



Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#004	Matrix:	Waste
Site Sample ID:	034.002				
Other Sample ID:	707-P-34-00	Collection Date:	4/29/00	Date Received:	5/2/00
		Batch Number:	1932	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1932-04	0.160	0.094	0.099	0.061
ACW03	U-235	KH100-1932-04	0.016	0.031	0.032	0.043
ACW03	U-238	KH100-1932-04	0.261	0.119	0.130	0.061
ACW03	PU-238	KH100-1932-04B	2.42	0.874	0.999	0.182
ACW03	PU-239/240	KH100-1932-04B	97.0	14.2	24.1	0.182
ACW03	AM-241	KH100-1932-04B	21.1	4.19	5.94	0.231

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1932-LC1	SCAQC-1932-LD1	SCAQC-1932-PB
Pu	SCAQC-1932-LC1	SCAQC-1932-LD1B	SCAQC-1932-PB
Am	SCAQC-1932-LC1	SCAQC-1932-LD1B	SCAQC-1932-PB

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

ASI SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 034
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-34-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK:

Comments/Problems encountered during sampling: Radscreen - 4 gram/100cm² (1 grid). ISO - 7grams/200cm² (2 grids). Total 11grams/300cm² (3 grids)

Location Description: Bldg. 707, Module K, ~~under glo~~ 4/28/00 under glovebox K-35. 7 floor just under port 0008, near crit. drain.

Other ID: 707-P-34-00

Sample Appearance: Red/maroon paint scrapings

Sampling Device: Heat gun + chisel

Sample Date: 4/29/00 Sample Time: 14:31 Rad Screen Sample Date: 4/29/00

Was generator notified to receive excess sample? (Yes) X (No)

Sampler's Signatur [redacted]

Employee [redacted]

Date: 4/29/00 4/29/00

402

Lmc 06/29/98

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#004	Matrix:	Waste
Site Sample ID:	035.002				
Other Sample ID:	707-P-35-00	Collection Date:	4/29/00	Date Received:	5/2/00
		Batch Number:	1932	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1932-05	0.160	0.097	0.102	0.039
ACW03	U-235	KH100-1932-05	0.029	0.053	0.053	0.086
ACW03	U-238	KH100-1932-05	0.341	0.146	0.161	0.069
ACW03	PU-238	KH100-1932-05	1.38	0.332	0.432	0.186
ACW03	PU-239/240	KH100-1932-05	39.4	4.97	9.32	0.062
ACW03	AM-241	KH100-1932-05	3.86	0.754	1.08	0.195

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1932-LC1	SCAQC-1932-LD1	SCAQC-1932-PB
Pu	SCAQC-1932-LC1	SCAQC-1932-LD1B	SCAQC-1932-PB
Am	SCAQC-1932-LC1	SCAQC-1932-LD1B	SCAQC-1932-PB

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

G03

061

ASI SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 035
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-35-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen - 2 grams/100cm² (1 grid). ISO - 7 grams/300cm² (3 grids). Total - 9 grams/400cm² (4 grids). Rinsate is event 056.

Location Description: Bldg. 707, Module K, just inside on the floor. Just west of the SE door in front of a vent.

Other ID: 707-P-35-00

Sample Appearance: Red maroon paint scrapings

Sampling Device: Heat gun + Chisel

Sample Date: 4/29/00 Sample Time: 14:54 Rad Screen Sample Date: 4/29/00

Was generator notified to receive excess sample? (Yes) X (No) ____

Sampler's Signa[redacted]

Employ[redacted]

Date: 4/29/00 4/29/00

604

Lmc 06/29/98

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#004	Matrix:	Waste
Site Sample ID:	036.002				
Other Sample ID:	707-P-36-00	Collection Date:	4/29/00	Date Received:	5/2/00
		Batch Number:	1932	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1932-06	0.154	0.093	0.098	0.063
ACW03	U-235	KH100-1932-06	0.033	0.046	0.047	0.044
ACW03	U-238	KH100-1932-06	0.198	0.104	0.111	0.036
ACW03	PU-238	KH100-1932-06	4.02	0.670	1.05	0.142
ACW03	PU-239/240	KH100-1932-06	140	17.1	32.7	0.073
ACW03	AM-241	KH100-1932-06	11.7	1.92	3.03	0.051

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1932-LC1	SCAQC-1932-LD1	SCAQC-1932-PB
Pu	SCAQC-1932-LC1	SCAQC-1932-LD1B	SCAQC-1932-PB
Am	SCAQC-1932-LC1	SCAQC-1932-LD1B	SCAQC-1932-PB

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

ASI SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 036
DUPLICATE ID: N/A
ISSUE DATE: 4/29/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-36-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen - 2 grams (1/2 grid) 50 cm2. ISO - 7 grams/150 cm2 (1 1/2 grid) Total - 200 cm2 (2 grids), 9 grams

Location Description: Bldg. 707, Module K, floor under flowhood K-55, directly under port 0008.

Other ID: 707-P-36-00

Sample Appearance: Red/maroon paint scraping

Sampling Device: Heat gun + ~~chipped~~ 4/2 chisel

Sample Date: 4/29/00 Sample Time: 15:05 Rad Screen Sample Date: 4/29/00

Was generator notified to receive excess sample? (Yes) X (No) ____

Sampler's Signature: [redacted]

Employee Nu[redacted]

Date: 4/29/00 4/29/00

Lmc 06/29/98

606

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#004	Matrix:	Waste
Site Sample ID:	037.002				
Other Sample ID:	707-P-37-00	Collection Date:	4/29/00	Date Received:	5/2/00
		Batch Number:	1932	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1932-07	0.126	0.080	0.084	0.034
ACW03	U-235	KH100-1932-07	0.025	0.046	0.046	0.074
ACW03	U-238	KH100-1932-07	0.238	0.111	0.121	0.034
ACW03	PU-238	KH100-1932-07	0.186	0.127	0.132	0.145
ACW03	PU-239/240	KH100-1932-07	8.13	1.16	1.99	0.060
ACW03	AM-241	KH100-1932-07	1.38	0.383	0.473	0.203

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1932-LC1	SCAQC-1932-LD1	SCAQC-1932-PB
Pu	SCAQC-1932-LC1	SCAQC-1932-LD1B	SCAQC-1932-PB
Am	SCAQC-1932-LC1	SCAQC-1932-LD1B	SCAQC-1932-PB

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

ASI SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 037
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-37-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK:

Comments/Problems encountered during sampling: Radscreen - 2 grams / 100 cm2 (1 grid). ISO - 7 grams / 300 cm2 (3 grids) Total - 9 grams / 400 cm2 (4 grid). Rinsate reuse. 056.

Location Description: Bldg. 707, Module K, on the floor under glovebox K-95, port 0007, near an HCA.

Other ID: 707-P-37-00

Sample Appearance: Red paint scrapings

Sampling Device: Heat gun + chisel

Sample Date: 4/29/00 Sample Time: 15:10 Rad Screen Sample Date: 4/29/00

Was generator notified to receive excess sample? (Yes) X (No)

Sampler's Signature: [redacted]

Employee N[redacted]

Date: 4/29/00 4/29/00

608

Lmc 06/29/98

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#004	Matrix:	Waste
Site Sample ID:	038.002				
Other Sample ID:	707-P-38-00	Collection Date:	4/29/00	Date Received:	5/2/00
		Batch Number:	1932	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1932-08	0.292	0.137	0.149	0.071
ACW03	U-235	KH100-1932-08	0.092	0.083	0.087	0.050
ACW03	U-238	KH100-1932-08	1.14	0.282	0.364	0.040
ACW03	PU-238	KH100-1932-08	0.188	0.160	0.164	0.204
ACW03	PU-239/240	KH100-1932-08	12.6	1.83	3.12	0.082
ACW03	AM-241	KH100-1932-08	1.94	0.523	0.651	0.289

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1932-LC1	SCAQC-1932-LD1	SCAQC-1932-PB
Pu	SCAQC-1932-LC1	SCAQC-1932-LD1B	SCAQC-1932-PB
Am	SCAQC-1932-LC1	SCAQC-1932-LD1B	SCAQC-1932-PB

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

609

064

ASI SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 038
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 0336
CUSTOMER SAMPLE ID: 707-P-38-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen - 2 grams/50cm² (1/2 grid). TSO - 7 gram/50 cm² (1 1/2 grids) Total - 9 gram/200 cm² (2 grids). Rinsate is event. 056

Location Description: Bldg. 707, Module J, floor just inside SE door in front of fire extinguisher 707A-66

Other ID: 707-P-38-00

Sample Appearance: Red/maroon paint scrapings

Sampling Device: Heat gun + chisel

Sample Date: 4/29/00 Sample Time: 15:39 Rad Screen Sample Date: 4/29/00

Was generator notified to receive excess sample? (Yes) X (No) ____

Sampler's Signature: [redacted]

Employee Num [redacted]

Date: 4/29/00 4/29/00

610

Lmc 06/29/98

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#004	Matrix:	Waste
Site Sample ID:	039.002				
Other Sample ID:	707-P-39-00	Collection Date:	4/29/00	Date Received:	5/2/00
		Batch Number:	1932	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1932-09	0.179	0.100	0.106	0.063
ACW03	U-235	KH100-1932-09	0.032	0.046	0.047	0.044
ACW03	U-238	KH100-1932-09	0.160	0.097	0.102	0.074
ACW03	PU-238	KH100-1932-09	0.553	0.206	0.234	0.154
ACW03	PU-239/240	KH100-1932-09	14.0	1.97	3.43	0.067
ACW03	AM-241	KH100-1932-09	2.73	0.726	0.908	0.294

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1932-LC1	SCAQC-1932-LD1	SCAQC-1932-PB
Pu	SCAQC-1932-LC1	SCAQC-1932-LD1B	SCAQC-1932-PB
Am	SCAQC-1932-LC1	SCAQC-1932-LD1B	SCAQC-1932-PB

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

6 of 1

ASI SAMPLE REQUEST WORKSHEET

RIN: 00A 1196
EVENT: 039
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-39-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen - 2 grams/50cm² (1/2 grid). TSO - 7 grams/150 cm² (1 1/2 grids). Total - 9 grams/200 cm² (2 grids)

Location Description: Bldg. 707, Module J, under glovebox J-35, ports 0004 + 0005

Other ID: 707-P-39-00

Sample Appearance: Red/maroon paint scrapings

Sampling Device: Heat gun + chisel

Sample Date: 4/29/00 Sample Time: 15:42 Rad Screen Sample Date: 4/29/00

Was generator notified to receive excess sample? (Yes) X (No) ____

Sampler's Signatur[redacted]

Employee [redacted]

Date: 4/29/00 4/29/00

612

Lmc 06/29/98

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#004	Matrix:	Waste
Site Sample ID:	040.002				
Other Sample ID:	707-P-40-00	Collection Date:	4/29/00	Date Received:	5/2/00
		Batch Number:	1932	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1932-10	0.179	0.120	0.126	0.089
ACW03	U-235	KH100-1932-10	0.014	0.050	0.050	0.110
ACW03	U-238	KH100-1932-10	0.327	0.162	0.175	0.089
ACW03	PU-238	KH100-1932-10	0.366	0.176	0.191	0.164
ACW03	PU-239/240	KH100-1932-10	10.6	1.55	2.63	0.068
ACW03	AM-241	KH100-1932-10	1.05	0.349	0.407	0.226

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1932-LC1	SCAQC-1932-LD1	SCAQC-1932-PB
Pu	SCAQC-1932-LC1	SCAQC-1932-LD1B	SCAQC-1932-PB
Am	SCAQC-1932-LC1	SCAQC-1932-LD1B	SCAQC-1932-PB

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

613

066

ASI SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 040
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-40-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen - 2 grams/50 cm² (1/2 grid). ISO - 7 grams/150 cm² (1 1/2 grid). Total = 9 grams/208 cm² (2 grids). Rinsate is event. 040

Location Description: Bldg. 707, Module J, Hallway J-15, under port 0003, near crit. drain.

Other ID: 707-P-40-00

Sample Appearance: Red paint scrapings

Sampling Device: Heat gun + Chisel

Sample Date: 4/29/00 Sample Time: 15:50 Rad Screen Sample Date: 4/29/00

Was generator notified to receive excess sample? (Yes) X (No) ____

Sampler's Signature: [redacted]

Employee Nu [redacted]

Date: 4/29/00 4/29/00

614

Lmc 06/29/98

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#015	Matrix:	Waste
Site Sample ID:	041.002				
Other Sample ID:	707-P-41-00	Collection Date:	4/29/00	Date Received:	5/2/00
		Batch Number:	1933	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1933-01	0.156	0.099	0.103	0.078
ACW03	U-235	KH100-1933-01	0.082	0.088	0.091	0.108
ACW03	U-238	KH100-1933-01	0.232	0.121	0.129	0.087
ACW03	PU-238	KH100-1933-01	1.31	0.346	0.434	0.213
ACW03	PU-239/240	KH100-1933-01	55.7	7.35	13.3	0.039
ACW03	AM-241	KH100-1933-01	8.62	2.08	2.70	0.158

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1933-LC1	SCAQC-1933-LD1	SCAQC-1933-PB
Pu	SCAQC-1933-LC1	SCAQC-1933-LD1	SCAQC-1933-PB
Am	SCAQC-1933-LC1	SCAQC-1933-LD1	SCAQC-1933-PB

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

ASI SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 041
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-41-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK:

Comments/Problems encountered during sampling: Radscreen - 2 grams/50 cm² (1/2 grid). ISO - 7 grams/150 cm² (1 1/2 grids) Total - 9 grams/200 cm² (2 grids). Rinsate event #057

Location Description: Bldg. 707, Module J, on the floor near an HCA, that's next to furnace #210-044, #7J019

Other ID: 707-P-41-00

Sample Appearance: Red/maroon paint scrapings

Sampling Device: Heat gun & chisel

Sample Date: 4/29/00 Sample Time: 16:05 Rad Screen Sample Date: 4/29/00

Was generator notified to receive excess sample? (Yes) X (No)

Sampler's Signature: [redacted]

Employee Numbe [redacted]

Date: 4/29/00 4/29/00

6/16

Lmc 06/29/98

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1197

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1197#003	Matrix:	Waste
Site Sample ID:	012.003				
Other Sample ID:	BLDG 707 Module J	Collection Date:	5/2/00	Date Received:	5/4/00
		Batch Number:	1937	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1937-02	1.18	0.270	0.358	0.062
ACW03	U-235	KH100-1937-02	0.080	0.072	0.076	0.043
ACW03	U-238	KH100-1937-02	0.913	0.233	0.296	0.062
ACW03	PU-238	KH100-1937-02	-0.069	0.105	0.106	0.209
ACW03	PU-239/240	KH100-1937-02	0.052	0.059	0.060	0.069
ACW03	AM-241	KH100-1937-02	0.029	0.054	0.054	0.087

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1937-LC1	SCAQC-1937-LD1	SCAQC-1937-PB
Pu	SCAQC-1937-LC1	SCAQC-1937-LD1	SCAQC-1937-PB
Am	SCAQC-1937-LC1	SCAQC-1937-LD1	SCAQC-1937-PB

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

028

617

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1197

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1197#003	Matrix:	Waste
Site Sample ID:	013.003				
Other Sample ID:	BLDG 707 Module J	Collection Date:	5/2/00	Date Received:	5/4/00
		Batch Number:	1937	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1937-03	1.18	0.269	0.358	0.035
ACW03	U-235	KH100-1937-03	0.058	0.066	0.068	0.077
ACW03	U-238	KH100-1937-03	0.951	0.238	0.305	0.062
ACW03	PU-238	KH100-1937-03	0.056	0.111	0.112	0.172
ACW03	PU-239/240	KH100-1937-03	0.034	0.057	0.058	0.088
ACW03	AM-241	KH100-1937-03	0.017	0.034	0.034	0.045

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1937-LC1	SCAQC-1937-LD1	SCAQC-1937-PB
Pu	SCAQC-1937-LC1	SCAQC-1937-LD1	SCAQC-1937-PB
Am	SCAQC-1937-LC1	SCAQC-1937-LD1	SCAQC-1937-PB

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

618

029

A-3
RLC RADIOLOGICAL DATA
Survey Area X
Concrete Core

619

A-3

RLC RADIOLOGICAL DATA

Survey Area Y

1st Floors [Non-Rad, Rooms 150, 150A, 150A, 151A,B,C, 153A,B,C,D,E, 155, 155A, 157, 159, 159A,B,C, 161, 163, 165A,B,C,D,E, 172, 172A, 174, 176, 162, 164, 160, 160A, 149, 152, 154, 156, 158]

Radiological Survey/Sample Results for Survey Area Y (99-0002)

Total Surface Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	129	129
MIN	-30	N/A
MAX	48	N/A
MEAN	11.1	N/A
STD DEV	13.6	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	15	15
MIN	-12	N/A
MAX	12	N/A
MEAN	1.6	N/A
STD DEV	8.0	N/A
Equipment Biased	# Required	# Obtained
	30	30
MIN	-18	N/A
MAX	42	N/A
MEAN	-1.6	N/A
STD DEV	12.6	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	129	129
MIN	0	-68
MAX	6	64
MEAN	0.4	5.3
STD DEV	1.3	28.3
Floors/Walls < 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	15	15
MIN	0	-56
MAX	3	48
MEAN	0.2	-6.9
STD DEV	0.8	35
Equipment Biased	# Required	# Obtained
	30	30
MIN	0	-52
MAX	6	68
MEAN	1.1	4.9
STD DEV	2.0	29.1
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
N/A	N/A

Total Uranium Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	100

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1270	Serial # 1518
Cal Due 8-15-00	Cal Due 4-12-00	Cal Due 6-29-00
Bkg. 0.1 cpm	Bkg. 0.2 cpm	Bkg. 1.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 11.5 dpm	MDA 12.9 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 38 cpm	Bkg. 41 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 95.9 dpm	MDA 99.2 dpm	MDA

Survey Type: **Contamination**
Building: 707
Location: Offices Main Hall Survey Area Y
Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 4-5-00 Time: 1630

[redacted]

Comments: Floor / Walls < 2 meters : Unbiased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	F	0	-60	-12	16.	F	0	16	0
2.	F	0	-4	36	17.	F	0	44	18
3.	W	0	48	42	18.	W	0	-16	12
4.	F	0	36	12	19.	F	0	60	0
5.	F	0	48	42	20.	F	0	24	36
6.	W	0	4	0	21.	W	0	-32	18
7.	F	0	-8	-6	22.	F	0	20	18
8.	F	0	-12	-6	23.	F	0	12	30
9.	W	6	-12	-6	24.	W	0	-28	18
10.	F	0	20	42	25.	F	0	28	0
11.	F	0	16	48	26.	F	0	-24	6
12.	W	6	-4	30	27.	W	3	-12	6
13.	F	0	0	18	28.	F	0	-12	24
14.	F	0	0	18	29.	F	0	-16	6
15.	W	0	36	6	30.	W	0	56	-6

Date Reviewed: 5-2-00 RS Supervision: [redacted]

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	F	0	-4	24	61.	F	0	24	12
32.	F	0	44	12	62.	F	0	4	6
33.	W	0	64	18	63.	W	0	32	24
34.	F	0	-8	24	64.	F	0	16	6
35.	F	0	-8	6	65.	W	0	4	6
36.	W	0	28	30	66.	F	0	-48	12
37.	F	0	32	-24	67.	F	0	44	0
38.	F	3	0	-18	68.	F	0	-28	12
39.	W	0	-8	-30	69.	W	0	4	18
40.	F	0	-16	-6	70.	F	0	40	0
41.	F	0	-12	18	71.	F	0	4	18
42.	W	0	-20	6	72.	W	0	12	6
43.	F	0	16	6	73.	F	0	20	18
44.	F	0	0	0	74.	F	0	28	36
45.	W	0	-12	12	75.	W	0	32	6
46.	F	0	-44	12	76.	F	0	44	42
47.	F	0	-28	12	77.	F	3	28	18
48.	W	0	-12	12	78.	~~F~~ 88-4501 W	0	-36	24
49.	F	0	-28	18	79.	F	0	-20	30
50.	F	0	-24	24	80.	F	0	44	12
51.	W	3	16	12	81.	W	0	60	6
52.	F	0	4	6	82.	F	0	-64	18
53.	F	3	0	18	83.	F	0	16	0
54.	W	0	-16	0	84.	W	0	-12	0
55.	W	3	16	0	85.	F	0	36	18
56.	F	0	-32	24	86.	F	3	12	6
57.	F	0	20	18	87.	W	0	4	6
58.	F	0	20	24	88.	F	0	-20	6
59.	F	0	44	-6	89.	F	0	52	12
60.	W	0	36	6	90.	W	0	12	0

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

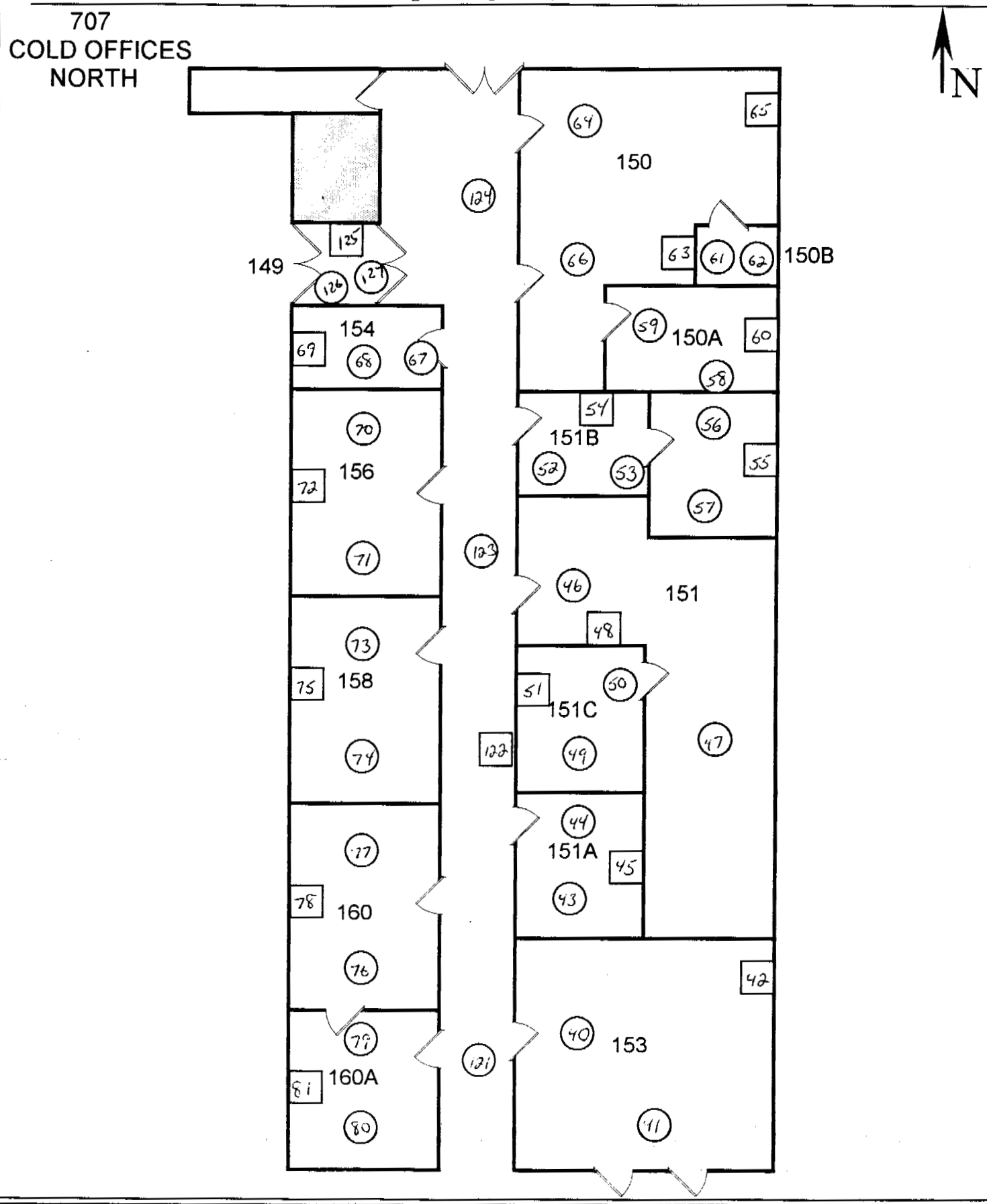
Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
91.	F	0	12	0	121.	F	0	36	6
92.	F	0	-12	0	122.	W	0	40	18
93.	W	0	8	12	123.	F	0	12	6
94.	F	0	0	0	124.	F	0	16	6
95.	F	0	4	0	125.	W	0	-68	6
96.	W	6	20	6	126.	F	0	-40	0
97.	F	0	-20	12	127.	F	0	-56	6
98.	F	0	-48	0	128.	F	0	-36	-6
99.	W	0	-8	6	129.	W	0	12	18
100.	F	0	40	36	130.	END OF SURVEY			NA
101.	F	0	20	12	131.				
102.	W	0	36	24	132.				
103.	F	0	16	0	133.				
104.	F	0	20	0	134.				
105.	W	0	0	36	135.				
106.	F	0	-20	6	136.				
107.	F	0	16	0	137.				
108.	F	0	40	30	138.				
109.	F	0	-28	6	139.				
110.	W	0	-12	6	140.				
111.	W	3	-24	0	141.				
112.	F	0	-40	12	142.				
113.	F	0	4	12	143.				
114.	W	0	4	6	144.				
115.	F	0	56	0	145.				
116.	F	0	0	18	146.				
117.	W	3	28	0	147.				
118.	F	3	20	0	148.				
119.	F	0	0	0	149.				
120.	W	6	0	18	150.	NA			

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



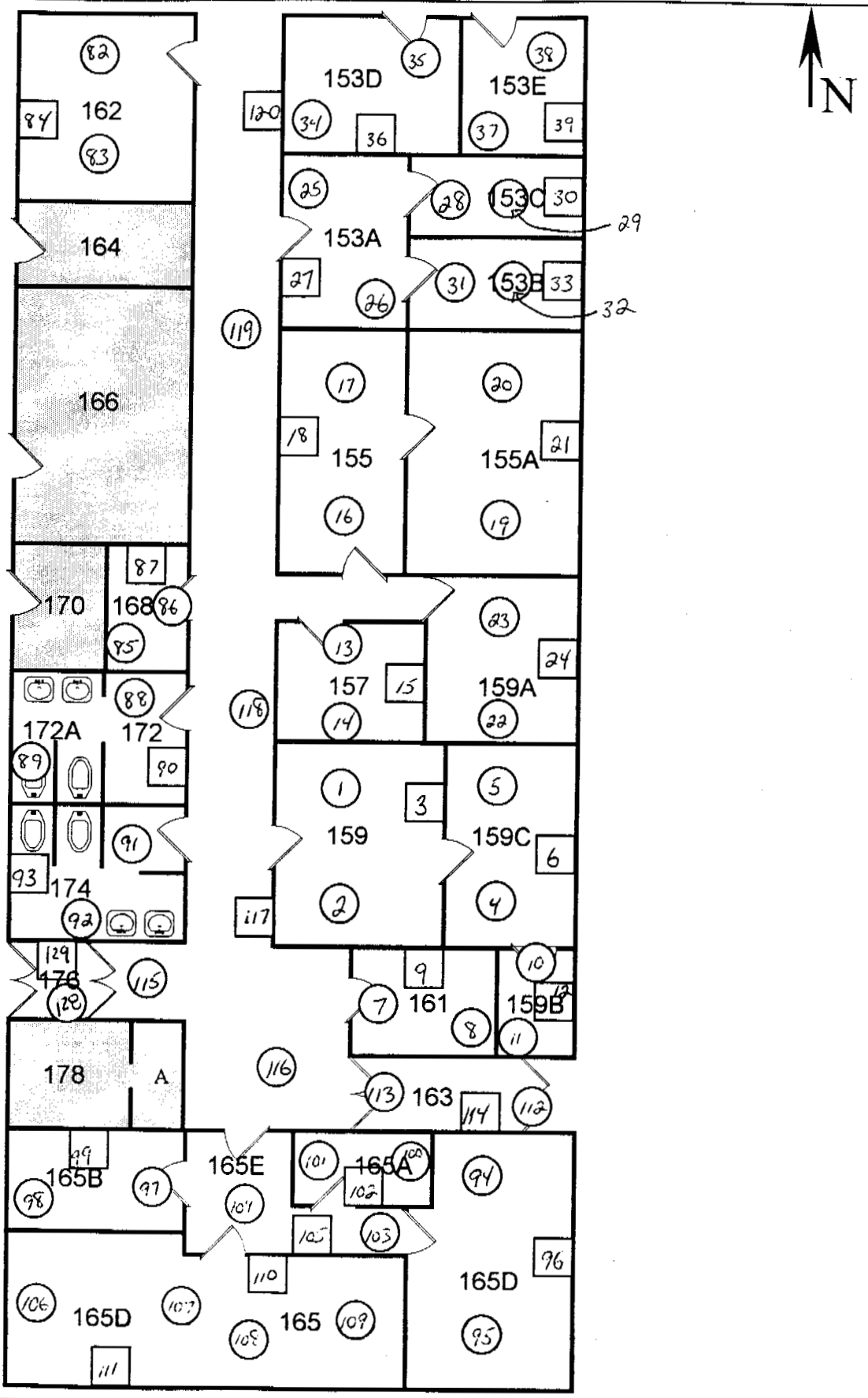
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

707
COLD OFFICES
SOUTH



625

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 1245
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due 7-3-00
Bkg. 0.0 cpm	Bkg. 0.6 cpm	Bkg. 3.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 22.57%
MDA 8.2 DPM	MDA 16.3 DPM	MDA 94 DPM
Mfg. Eberline	Mfg. Eberline	Mfg. NA
Model BC-4	Model BC-4	Model
Serial # 959	Serial # 833	Serial #
Cal Due 7-19-00	Cal Due 7-14-00	Cal Due
Bkg. 39 cpm	Bkg. 38 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 97. DPM	MDA 95.9	MDA NA

Survey Type: **Contamination**

Building: 707

Location: COLD OFFICES Survey Area Y

Purpose: **Reconnaisance Level Characterization**

RWP # N/A

Date: 4-26-00 Time: 1500

R[redacted]

Print name / Signature / Emp. #

RCT: NA

Print name / Signature / Emp. #

Comments: Equipment : Biased survey points.
1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	overhead pipes Door 444	0	4	-18	16.	PIPING	0	44	12
2.	vent - C	0	12	0	17.	vent	3	24	-6
3.	vent - C	3	-20	0	18.	vent	0	-12	0
4.	piping door 333	0	-24	-6	19.	vent	0	-48	0
5.	piping	0	-12	0	20.	PIPING	3	-52	0
6.	vent	0	-8	-12	21.	PIPING	6	20	-6
7.	vent	0	48	42	22.	vent	0	-24	-12
8.	EQUIPMENT	0	24	-12	23.	vent	0	-12	-6
9.	vent	0	40	12	24.	EQUIP	0	28	18
10.	SINK	0	0	-18	25.	vent	6	68	-18
11.	vent	0	-32	0	26.	EQUIP	0	12	-12
12.	vent	6	-16	-6	27.	vent	0	16	12
13.	EQUIP - piping - C	3	-12	-12	28.	vent	0	-12	-12
14.	vent	0	40	0	29.	vent	0	8	12
15.	vent	0	4	0	30.	vent	3	40	0

Date Reviewed: 5-2-00 **RS Supervision:** [redacted]

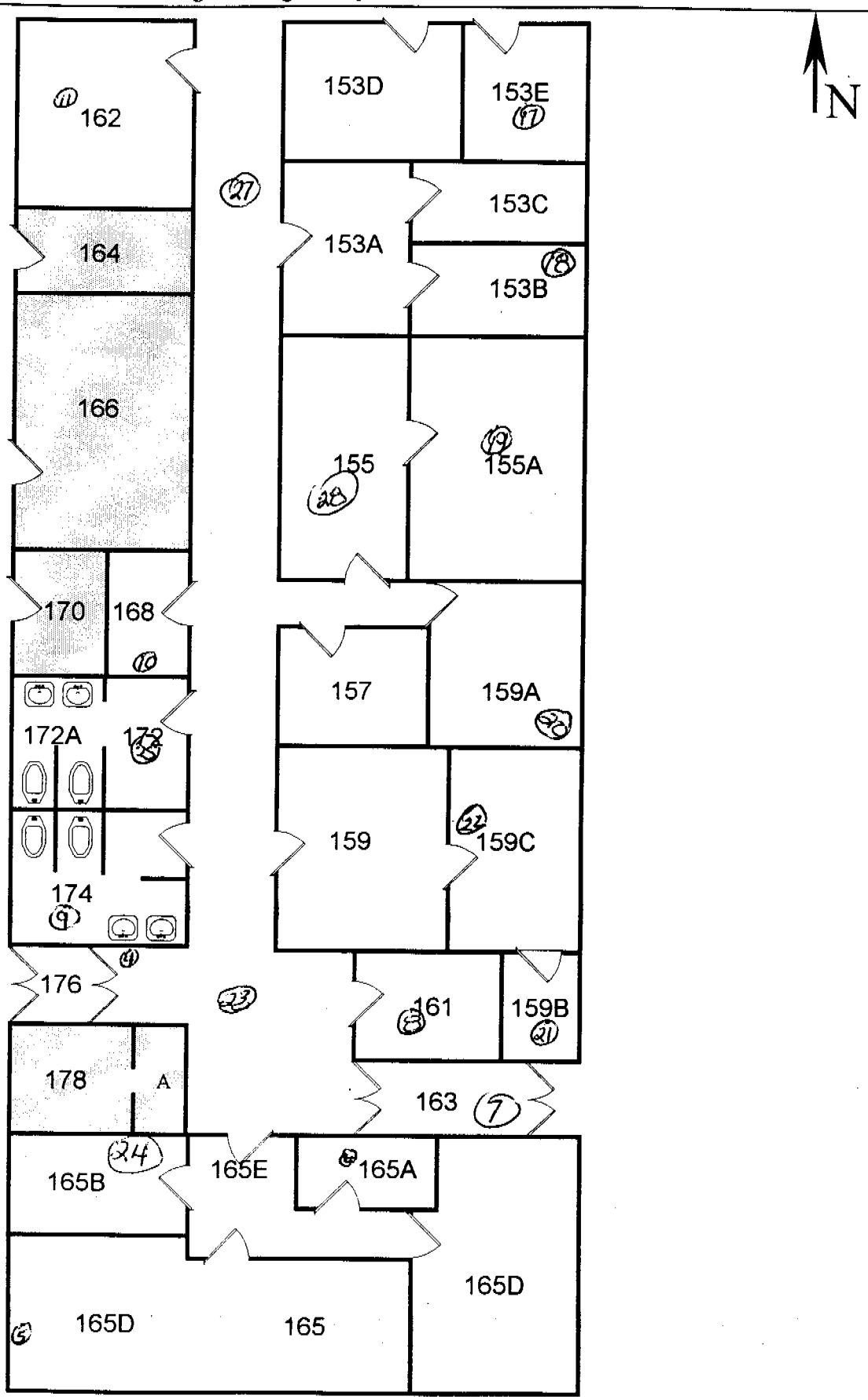
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

707
COLD OFFICES
SOUTH

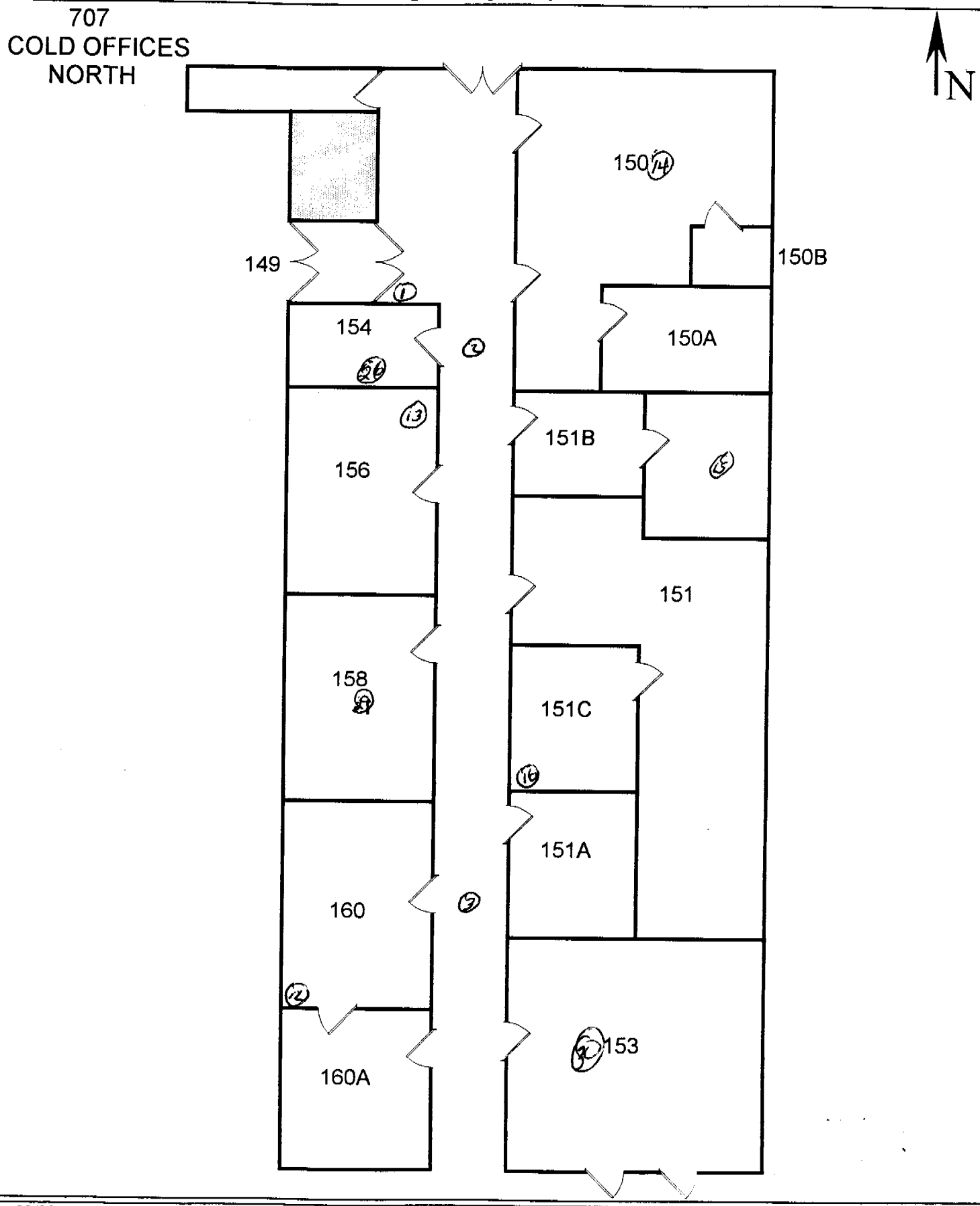


RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



128

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. N/A Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 876	Serial #	Serial # 1233
Cal Due 8-15-00	Cal Due	Cal Due 5-11-00
Bkg. 0.2 cpm	Bkg.	Bkg. 2. cpm
Efficiency 33%	Efficiency 33%	Efficiency 17 %
MDA 20 dpm 7-19-00	MDA 129 N/A	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 833	Serial #	Serial #
Cal Due 7-14-00	Cal Due	Cal Due N/A
Bkg. 46.0 cpm	Bkg.	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 107.5 dpm	MDA NA	MDA

Survey Type: Contamination

Building: 707

Location: 707 Main Hall Survey Area Y

Purpose: Reconnaisance Level Characterization

RWP # 00-707-1204

Date: 4-19-00 Time: 1630

R [redacted]

Comments: Ceiling / Walls > 2 meters : Biased survey points.
1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	See Map	0	-12	0	16.				
2.	See Map	0	-24	0	17.				
3.	See Map	0	-8	12	18.				
4.	See Map	0	48	0	19.				
5.	See Map	0	44	0	20.				
6.	See Map	3	-36	0	21.	N/A			
7.	See Map	0	~~-44~~ -40	0	22.				
8.	See Map	0	-40	12	23.				
9.	See Map	0	0	12	24.				
10.	See Map	0	4	12	25.				
11.	See Map	0	12	6	26.				
12.	See Map	0	-56	0	27.				
13.	See Map	0	36	-12	28.				
14.	See Map	0	-56	-12	29.				
5.	See Map	0	24	-6	30				

Date Reviewed: 5-2-00 **RS Supervision:** [redacted]

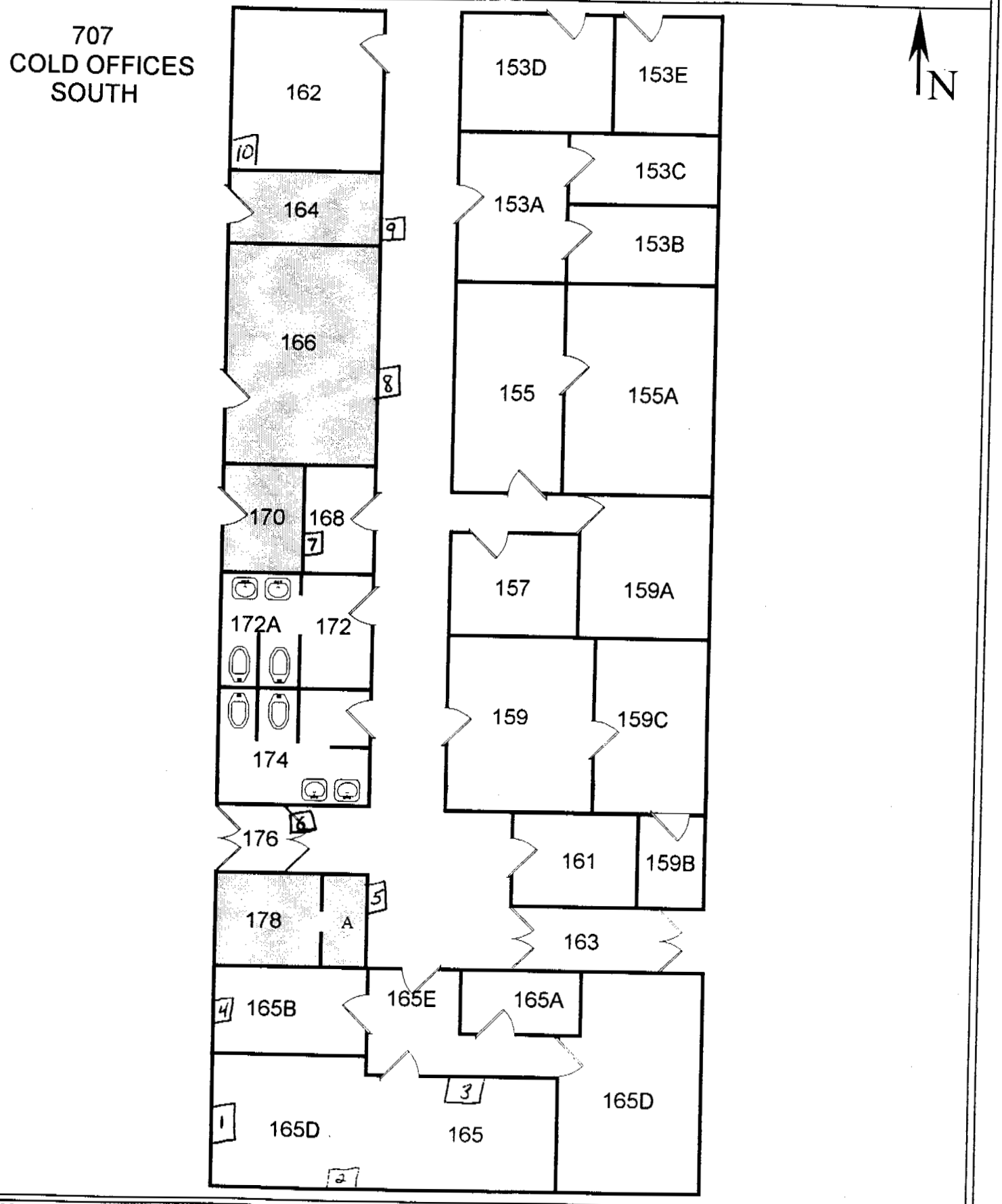
629

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

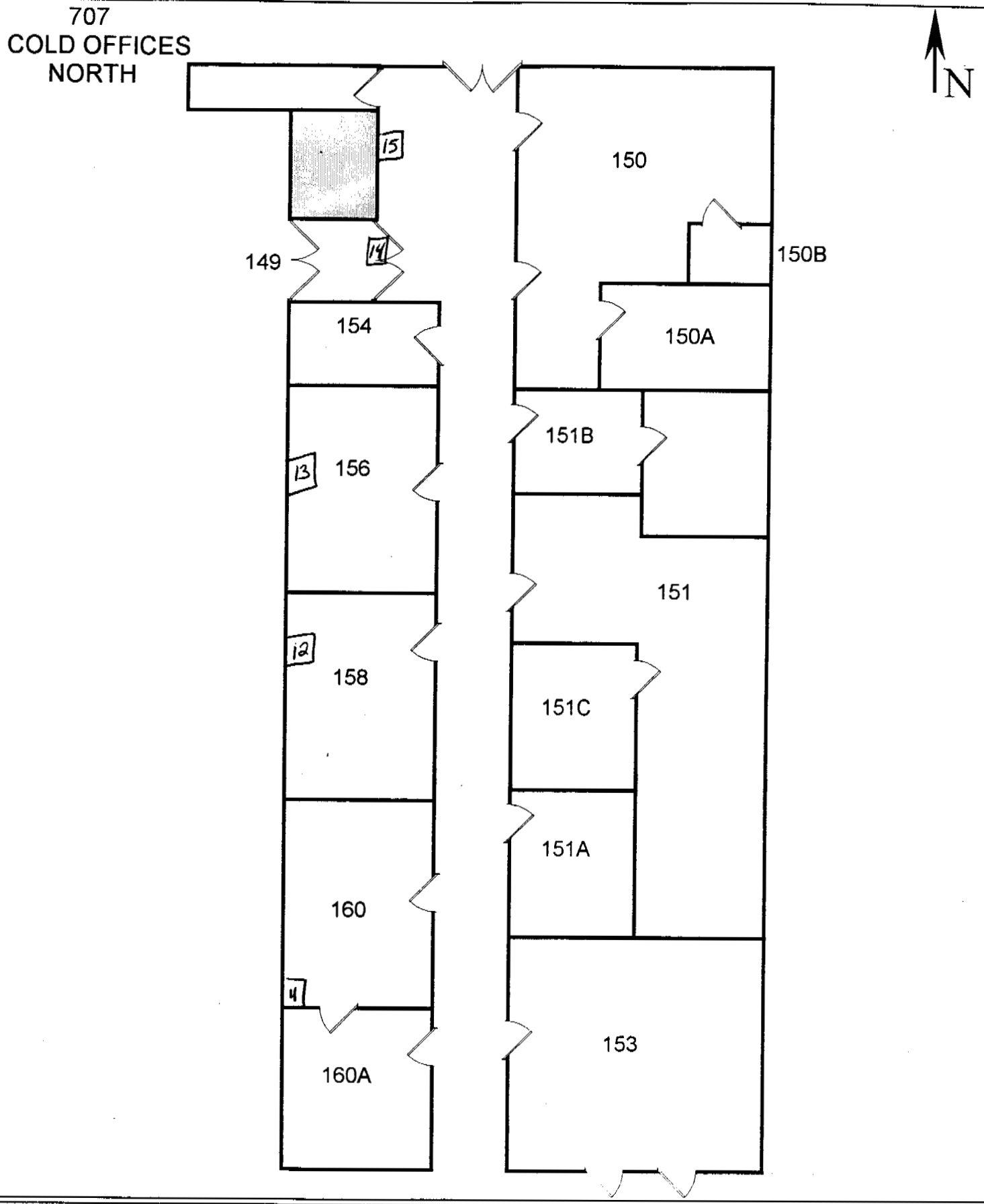


RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



A-3

RLC RADIOLOGICAL DATA

Survey Area Z

Manufacturing Building; External Surfaces/Roof Bldg 707

632

Radiological Survey/Sample Results for Survey Area Z (99-0002)

Total Surface Activity Measurements dpm/100 cm^2

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	37	37
MIN	18	N/A
MAX	96	N/A
MEAN	48.0	N/A
STD DEV	20.2	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	26	26
MIN	18	N/A
MAX	162	N/A
MEAN	66.2	N/A
STD DEV	35.6	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Equipment Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm^2

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	37	37
MIN	0	-48
MAX	9	32
MEAN	0.9	-13.1
STD DEV	2.0	20.5
Floors/Walls < 2 m Biased	# Required	# Obtained
	26	26
MIN	0	-64
MAX	9	56
MEAN	1.2	-3.1
STD DEV	2.1	27.7
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	-56
MAX	N/A	48
MEAN	N/A	-6.9
STD DEV	N/A	35
Equipment Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	-52
MAX	N/A	68
MEAN	N/A	4.9
STD DEV	N/A	29.1
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
2	2

Total Uranium Results dpm/100 cm^2

MIN	2
MAX	7
MEAN	4.5
STD DEV	3.5
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm^2

MIN	1
MAX	3
MEAN	2.0
STD DEV	1.4
$DCGL_W$	100

633

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 3260
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due 7-17-00
Bkg. 0.2 cpm	Bkg. 0.4 cpm	Bkg. 2 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 12.9 dpm	MDA 14.8 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg. NeTech
Model BC-4	Model BC-4	Model Electra
Serial # 959	Serial # 833	Serial # 1518
Cal Due 7-19-00	Cal Due 7-14-00	Cal Due 6-29-00
Bkg. 40 cpm	Bkg. 45 cpm	Bkg. 1 cpm
Efficiency 25%	Efficiency 25%	Efficiency 17%
MDA 98.1 dpm	MDA 102.5 dpm	MDA 94 dpm

Survey Type: Contamination
Building: 707
Location: Roof Exterior Survey Area 7
Purpose: Reconnaisance Level Characterization

RWP # 00-707-1204
Date: 5-3-00 Time: 1630

RC [redacted]

RC [redacted]

Comments: Roof / Exterior Walls < 2 meters : Unbiased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.
1-25 roof
26-37 wall <2 meters

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	See Map	0	8	48	16.	See Map	3	-36	24
2.	See Map	0	4	54	17.	See Map	0	12	36
3.	See Map	0	-32	36	18.	See Map	3	-28	54
4.	See Map	3	-28	36	19.	See Map	0	-16	30
5.	See Map	0	8	42	20.	See Map	3	-12	24
6.	See Map	0	-16	30	21.	See Map	0	-20	36
7.	See Map	0	-36	24	22.	See Map	0	20	18
8.	See Map	3	-16	96	23.	See Map	0	-32	42
9.	See Map	0	-40	60	24.	See Map	0	-20	36
10.	See Map	0	20	18	25.	See Map	0	-20	66
11.	See Map	0	-32	36	26.	See Map	9	-20	54
12.	See Map	0	-8	54	27.	See Map	0	-12	18
13.	See Map	0	-20	24	28.	See Map	0	-48	48
14.	See Map	0	-28	42	29.	See Map	0	-12	78
5.	See Map	0	24	72	30.	See Map	0	-20	66

Date Reviewed: 5-8-00 **RS Supervision:** [redacted]

Rev. 02/00

34

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

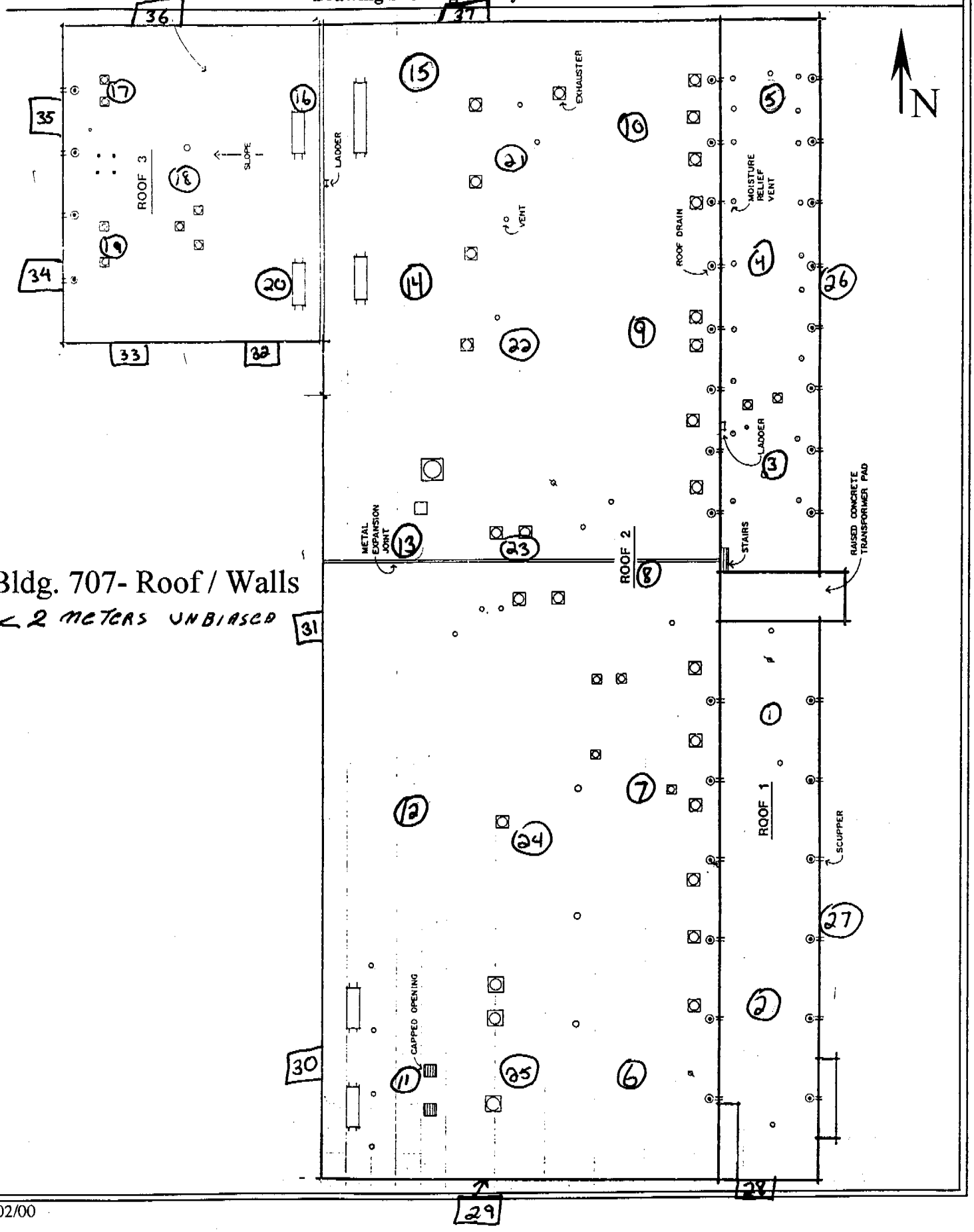
Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	See Map	0	-28	78	61.	NA			
32.	See Map	3	4	66	62.				
33.	See Map	0	32	54	63.				
34.	See Map	0	-32	72	64.				
35.	See Map	0	28	78	65.				
36.	See Map	6	-16	72	66.				
37.	See Map	0	-16	54	67.				
38.	End of Survey			NA	68.				
39.					69.				
40.					70.				
41.					71.				
42.					72.				
43.					73.				
44.					74.				
45.					75.				
46.					76.				
47.					77.				
48.					78.				
49.					79.				
50.					80.				
51.					81.				
52.					82.				
53.					83.				
54.					84.				
55.					85.				
56.					86.				
57.					87.				
58.					88.				
59.					89.				
60.	NA				90.				NA

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 3260
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due 7-17-00
Bkg. 0.2 cpm	Bkg. 0.4 cpm	Bkg. 2 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 12.9 dpm	MDA 14.8 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg. NeTech
Model BC-4	Model BC-4	Model Electra
Serial # 959	Serial # 833	Serial # 1518
Cal Due 7-19-00	Cal Due 7-14-00	Cal Due 6-29-00
Bkg. 40 cpm	Bkg. 45 cpm	Bkg. 1 cpm
Efficiency 25%	Efficiency 25%	Efficiency 17%
MDA 98.1 dpm	MDA 107.5 dpm	MDA 94 dpm

Survey Type: **Contamination**

Building: 707

Location: Roof / Exterior Survey Area Z

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 5-3-00 Time: 1630

[redacted]

Comments: Roof / Exterior Walls : Biased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	See Map	0	16	162	16.	See Map	3	-24	36
2.	See Map	0	40	90	17.	See Map	0	36	30
3.	See Map	3	-4	90	18.	See Map	0	-32	60
4.	See Map	3	-24	90	19.	See Map	0	-4	102
5.	See Map	0	56	54	20.	See Map	0	-28	36
6.	See Map	9	-64	36	21.	See Map	0	36	124
7.	See Map	0	-8	36	22.	See Map	0	4	102
8.	See Map	3	-8	42	23.	See Map	0	-32	60
9.	See Map	3	32	24	24.	See Map	3	0	72
10.	See Map	0	-36	54	25.	See Map	0	-4	18
11.	See Map	0	-8	66	26.	See Map	3	12	36
12.	See Map	0	-24	48	27.	End of Survey			NA
13.	See Map	0	-16	120	28.				
14.	See Map	0	-8	18	29.				
15.	See Map	0	12	84	30.	NA			

Date Reviewed: 5-8-00 RS Supervision: [redacted]

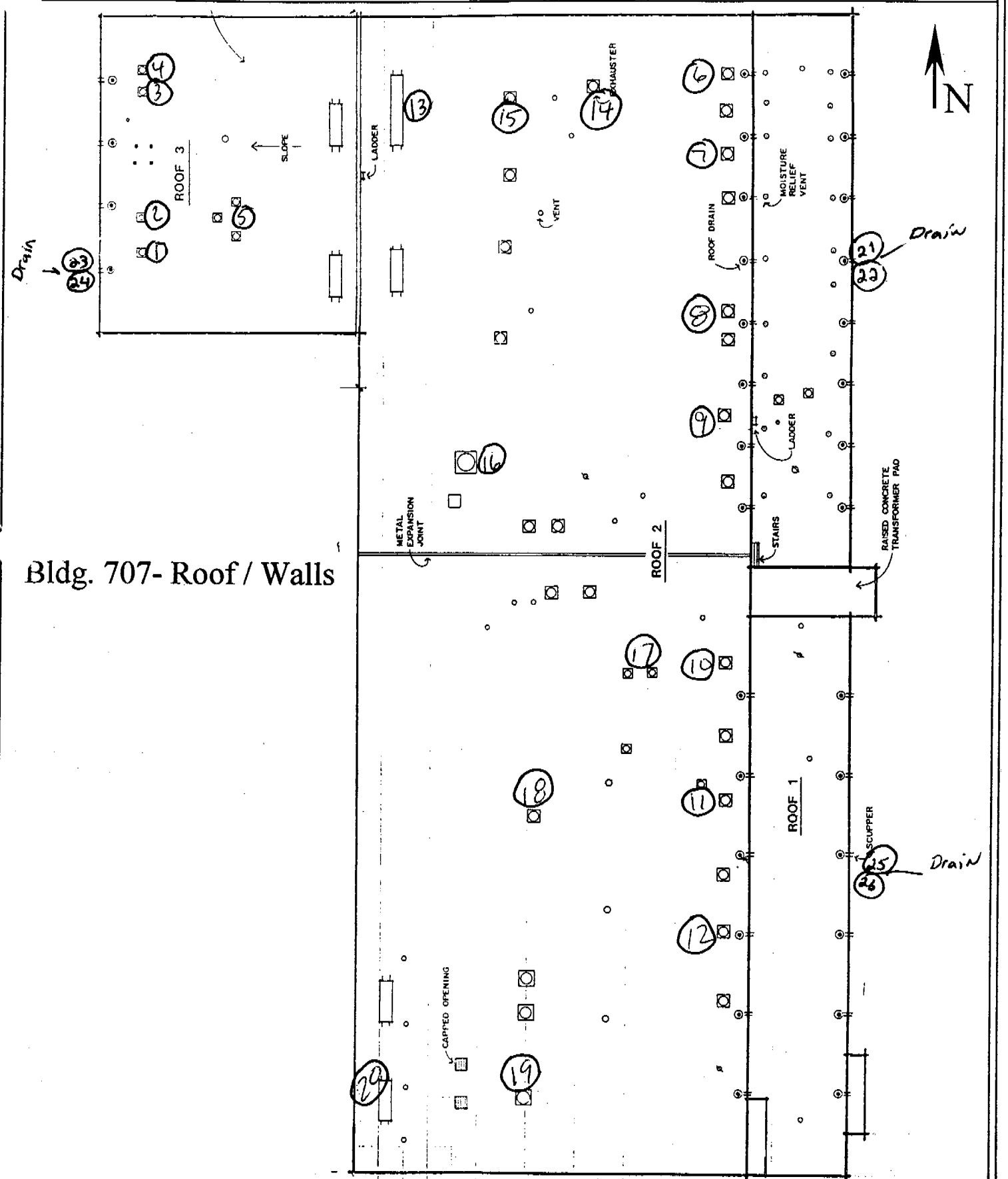
Rev. 02/00

37

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



Bldg. 707- Roof / Walls

638

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#016	Matrix:	Waste
Site Sample ID:	045.002				
Other Sample ID:	Bldg 707 Roof	Collection Date:	5/3/00	Date Received:	5/5/00
		Batch Number:	1940	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1940-04	0.214	0.121	0.128	0.045
ACW03	U-235	KH100-1940-04	0.041	0.058	0.059	0.055
ACW03	U-238	KH100-1940-04	0.164	0.105	0.110	0.044
ACW03	PU-238	KH100-1940-04	0.064	0.146	0.146	0.225
ACW03	PU-239/240	KH100-1940-04	0.099	0.087	0.090	0.090
ACW03	AM-241	KH100-1940-04	0.079	0.080	0.082	0.054

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

ASI SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 045
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-45-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: /
TRIP BLANK: ✓

Comments/Problems encountered during sampling: Radscreen - 2 grams/25 cm² (1/4 grid). T.S.O - 7 grams/75 cm² (3/4 grid). Total - 100 cm² (1 grid).

Location Description: Bldg. 707, ~~roof~~ 5/3/00 mu N.W. Corner of ~~of roof~~.

Other ID: 707-P-45-00

Sample Appearance: Thick gray paint, + black tar

Sampling Device: Chisel

Sample Date: 5/3/00 Sample Time: 13:15 Rad Screen Sample Date: 5/3/00

Was generator notified to receive excess sample? (Yes) X (No) ____

Sampler's Signatu[redacted]

Employee [redacted]

Date: 5/3/00 5/3/00

640

Lmc 06/29/98

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#016	Matrix:	Waste
Site Sample ID:	046.002				
Other Sample ID:	Bldg 707 Roof	Collection Date:	5/3/00	Date Received:	5/5/00
		Batch Number:	1940	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1940-05	0.059	0.060	0.061	0.040
ACW03	U-235	KH100-1940-05	0.011	0.039	0.040	0.088
ACW03	U-238	KH100-1940-05	0.068	0.067	0.069	0.071
ACW03	PU-238	KH100-1940-05	-0.027	0.099	0.099	0.190
ACW03	PU-239/240	KH100-1940-05	0.101	0.083	0.085	0.073
ACW03	AM-241	KH100-1940-05	0.021	0.043	0.043	0.058

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

CAS SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 046
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 3316
CUSTOMER SAMPLE ID: 707-P-46-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen - 2 grams/50cm² (1/2 grid). ISO - 7 grams/150cm² (1 1/2 grids). Total - 9 grams/200cm² (2 grids). Rinsate is event .063

Location Description: Bldg. 707, on roof near the 5th exhaust vent north of ladder.

Other ID: 707-P-47-00

Sample Appearance: Very thick gray paint with some tar like material

Sampling Device: Chisel

Sample Date: 5/3/00 Sample Time: 13:24 Rad Screen Date: 5/3/00

Was generator notified to receive excess sample? (YES) X (NO) ____

Samplers Signatur[redacted]
Employee Number:

Date: 05/3/00 5/3/00

642

ID No.: 778,732

Date: 04/26/00

D&D Facility Characterization Interview Checklist

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) Buildings 778,732 Laundry/Locker Room/Maintenance Shops Type 2

Personnel Interviewed (Name & Title/Function) Dean Burton/Senior Engineer/Closure Planing

	Y/ N
Does a current WSRIC exist for the facility?	Y
If so, are there exceptions to the WSRIC as written?	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?	Y
Are historical rad surveys available that indicate historical status, or evolution, of the facility?	Y

COMMENTS Historical surveys will be in storage at the Federal Center.

Is an HRR available for the facility?	Y
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?	Y
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

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

Interviewed by: D. A. Burton / [signature] / 04/26/00

Print Name / Signature / Interview Date

Interview Checklist

Date: 04/26/00

What timeframe did the interviewee work in the facility? 1975 to 1992

Has the building configuration changed since you worked in the building? If so, in what way?
Yes. The locker/shower room was expanded to accommodate the addition of a women's locker/shower Room and the building of an exhaust filter plenum for the laundry.

What types of equipment were in the building during the interviewee's time there?
Equipment used in the building is for machining, sheetmetal, pipe, electrical, and paint maintenance operations for buildings 776/777, 707,708 and 559. Offices have chairs, tables, computers, printers, copiers and file cabinets.

Where was the equipment located? (specific rooms/areas) In the shops and offices.

Were any radioactive materials or metals handled in the building? If so, what types? No

Which equipment handled radioactive material? None

Were any chemicals handled in the building? If so, what types? Yes. Cutting oils for machining and pipe threading and solvents to degrease machining and threading operations.

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?

Where did these spills/releases occur?

Interviewed by: D. A. Burton / [signature] / 04/26/00

Print Name | Signature | Interview Date

644

BUIL .G 778
SURFACE SAMPLE (SMEAR) RESULTS

SAMPLE NUMBER	BLDG	RM	SAMPLE COORDINATE NUMBER	LOCATION/DESCRIPTION	L = LESS THAN DETECTABLE LIMIT	MASS ON FILTER (µg)	CONCENTRATION (µg/100cm²)
778-06231999-35-001	778	100	Selective	Fire phone F-361 SE wall	L	0.1	0.1
778-06231999-35-002	778	100	Selective	Cabinet top (8, 6)	L	0.1	0.1
778-06231999-35-003	778	100	Selective	Shelf top (13, 2)	L	0.1	0.1
778-06231999-35-004	778	100	Selective	Back side of respirator washer (20, 7)	L	0.1	0.1
778-06231999-35-005	778	100	Selective	Floor (20, 7)	L	0.1	0.1
778-06231999-35-006	778	100	Selective	Computer table top (32, 8)	L	0.1	0.1
778-06231999-35-007	778	100	Selective	Computer table shelf (32, 8)	L	0.1	0.1
778-06231999-35-008	778	100	Selective	Shelf top (40, 2)	L	0.1	0.1
778-06231999-35-009	778	100	Selective	PD1-ASW SWGR 776-3/3B (50, 5)	L	0.1	0.1
778-06231999-35-010	778	100	Selective	Floor (14, 10)	L	0.1	0.1
778-06231999-35-011	778	100	Selective	Floor (4, 22)	L	0.1	0.1
778-06231999-35-012	778	100	Selective	Refrigerator top (2, 15)	L	0.1	0.1
778-06231999-35-013	778	100	Selective	Table top (11, 17)	L	0.1	0.1
778-06231999-35-014	778	100	Selective	Floor (33, 14)	L	0.1	0.1
778-06231999-35-015	778	100	Selective	Control panel CKT 9 E-L-2-D-15 (50, 18)	L	0.1	0.1
778-06231999-35-016	778	100	Selective	L59 RF 96 top (42, 26)	L	0.1	0.1
778-06231999-35-017	778	100	Selective	Floor (42, 26)	L	0.1	0.1
778-06231999-35-018	778	100	Selective	L59 RF 53 top (25, 27)	L	0.1	0.1
778-06231999-35-019	778	100	Selective	Floor (25, 27)	L	0.1	0.1
778-06231999-35-020	778	100	Selective	Floor (27, 32)	L	0.1	0.1
778-06231999-35-021	778	100	Selective	Floor (40,37)	L	0.1	0.1
778-06231999-35-022	778	100	Selective	Step ladder 4th step (33, 44)	L	0.1	0.1
778-06231999-35-023	778	100	Selective	L59 RF 71 (53, 38)	L	0.1	0.1
778-06231999-35-024	778	100	Selective	Floor (53, 38)	L	0.1	0.1
778-06231999-35-025	778	100	Selective	L59 RF137 (15, 40)	L	0.1	0.1
778-06231999-35-026	778	100	Selective	Floor (15, 40)	L	0.1	0.1
778-06231999-35-027	778	100	Selective	Hot water line (1, 47)	L	0.1	0.1
778-06231999-35-028	778	100	Selective	HDPE Belts (1, 47)	L	0.1	0.1
778-06231999-35-029	778	100	Selective	L59 RF 62	L	0.1	0.1
778-06231999-35-030	778	Blank			L	0.1	0.1
778-06231999-35-031	778	Blank			L	0.1	0.1
778-06231999-35-032	778	Blank			L	0.1	0.1

BUILDING 778
HISTORICAL BERYLLIUM LOCATIONS

BUILDING	ROOM	ACTIVITY	POSTING REQUIREMENTS
778	100	Laundry operations	None
778	104 A	Laundry plenum	None

646

B-1
HISTORICAL CHEMICAL DATA
Beryllium

147

B-2

RLC CHEMCIAL DATA

Asbestos Sampling Data Sheet

648

B-3
RLC RADIOLOGICAL DATA
Survey Area A
Bldg 778, Interior East

Lot9

Radiological Survey/Sample Results for Survey Area A (00-0002)

Total Surface Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	45	45
MIN	0	N/A
MAX	108	N/A
MEAN	30.6	N/A
STD DEV	21.4	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	10	10
MIN	0	N/A
MAX	18	N/A
MEAN	10.8	N/A
STD DEV	8.4	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	11	11
MIN	0	N/A
MAX	30	N/A
MEAN	15.8	N/A
STD DEV	9.8	N/A
Equipment Biased	# Required	# Obtained
	30	30
MIN	12	N/A
MAX	174	N/A
MEAN	40.2	N/A
STD DEV	35.5	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	45	45
MIN	0	-48
MAX	3	56
MEAN	0.5	-3.8
STD DEV	1.1	27.9
Floors/Walls < 2 m Biased	# Required	# Obtained
	10	10
MIN	0	-44
MAX	6	44
MEAN	0.6	0.8
STD DEV	1.9	34.2
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	11	11
MIN	0	-44
MAX	0	36
MEAN	0.0	-3.3
STD DEV	0.0	23.7
Equipment Biased	# Required	# Obtained
	30	30
MIN	0	-48
MAX	3	64
MEAN	0.3	2.1
STD DEV	0.9	23
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
N/A	N/A

Total Uranium Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	100

6-50

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

g. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1270	Serial # 1518
Cal Due 8-15-00	Cal Due 4-17-00	Cal Due 6-29-00
Bkg. 0.2 cpm	Bkg. 0.0 cpm	Bkg. 0.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency .2186
MDA 12.9 dpm	MDA 8.2 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg. NE Tech
Model BC-4	Model BC-4	Model Electra
Serial # 872	Serial # 833	Serial # 3120
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due 4-26-00
Bkg. 41 cpm	Bkg. 45 cpm	Bkg. 3.0 cpm
Efficiency 25%	Efficiency 25%	Efficiency .2109
MDA 99.2 dpm	MDA 103.4 dpm	MDA 94 dpm

Survey Type: **Contamination**

Building: ~~707~~ 778

Location: 778 Interior East Survey Area A

Purpose: **Reconnaisance Level Characterization**

RWP # 00707 1204

Date: 4-5-00 Time: Days

[redacted]

Comments: Floor / Walls < 2 meters : Biased survey points. 1 of 4

1 m² scans, 1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	F	0	-12	24	16.	Wall < 2m	3	-20	90
2.	F	0	-20	18	17.	F	0	-8	48
3.	F	0	-4	12	18.	F	0	-40	12
4.	F	0	-40	18	19.	F	0	16	0
5.	F	0	36	12	20.	F	0	4	12
6.	F	3	-48	48	21.	F	0	8	18
7.	RL ~~F~~ Wall < 2 m	0	0	60	22.	F	0	-8	36
8.	RL ~~F~~ Wall < 2m	0	-4	18	23.	F	0	4	12
9.	Wall < 2m	0	36	18	24.	F	0	4	36
10.	F	3	0	24	25.	F	3	-20	18
11.	F	0	12	16	26.	F	0	0	12
12.	F	0	51	24	27.	F	0	28	54
13.	F	3	-20	66	28.	F	0	-4	42
14.	F	0	32	18	29.	F	0	-44	18
15.	Wall < 2m	0	32	24	30.	F	0	32	24

Date Reviewed: 4-17-00 **RS Supervision:** [redacted]

Print Name Signature Emp. #

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

2 of 6

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	F	0	8	18	61.				
32.	F	0	-28	30	62.				
33.	F	0	32	42	63.	N/A			
34.	F	0	-48	18	64.				
35.	F	0	-48	30	65.				
36.	Wall < 2m	0	56	66	66.				
37.	Wall < 2m	0	4	30	67.				
38.	Wall < 2m	0	8	18	68.				
39.	Wall < 2m	3	-4	48	69.				
40.	Wall < 2m	0	-44	24	70.				
41.	Wall < 2m	0	-48	18	71.				
42.	Wall < 2m	3	-4	42	72.				
43.	Wall < 2m	0	-40	108	73.				
44.	Wall < 2m	0	4	30	74.				
45.	Wall < 2m	0	-20	24	75.				
46.	END OF SURVEY				76.				
47.	N/A				77.				
48.					78.				
49.					79.				
50.					80.				
51.					81.				
52.					82.				
53.					83.				
54.					84.				
55.					85.				
56.					86.				
57.					87.				
58.					88.				
59.					89.				
60.					90.				

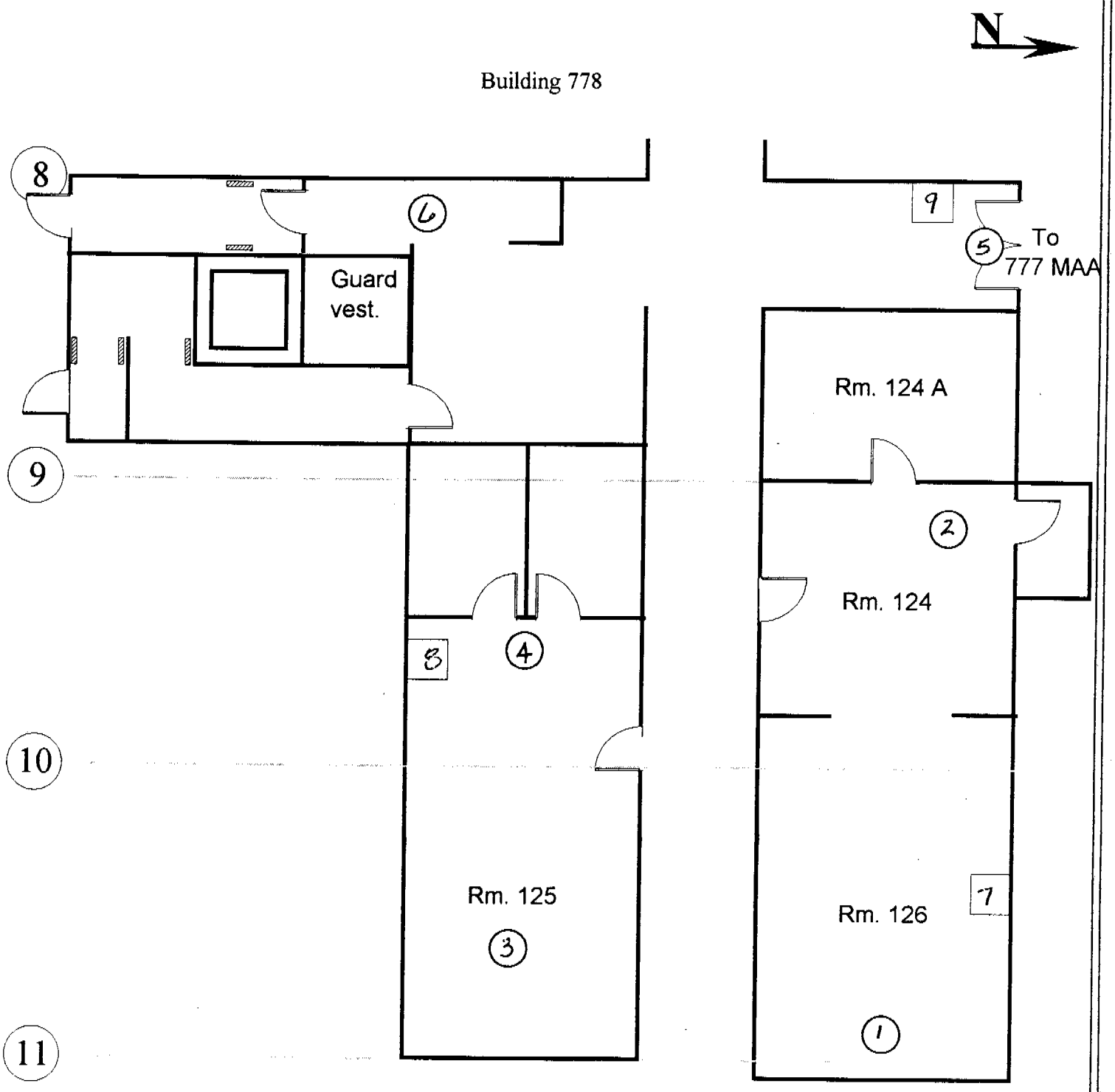
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

3056

Drawing Showing Survey Points



053

RS FORMS 07.02-01

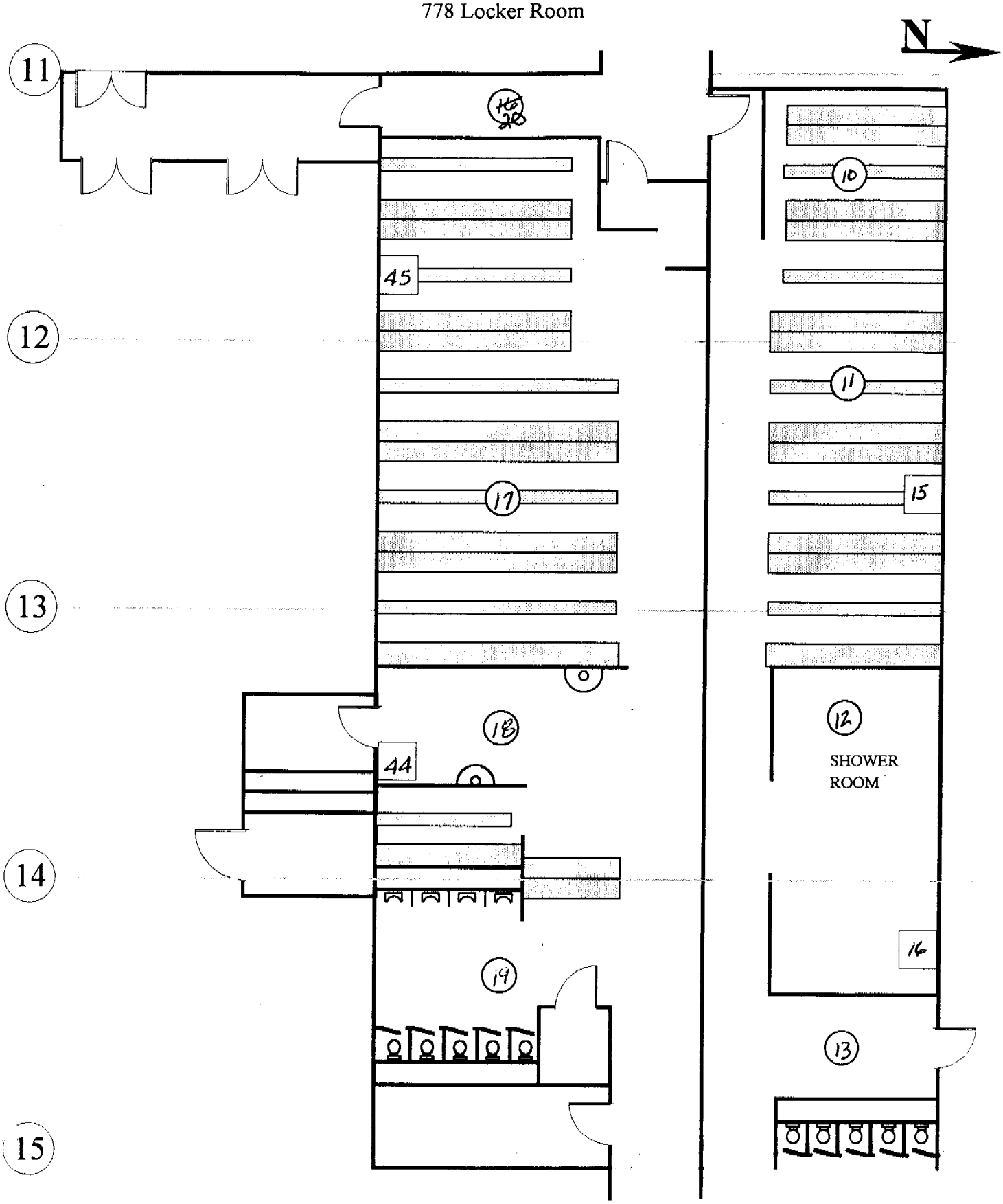
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

4696

Drawing Showing Survey Points

778 Locker Room



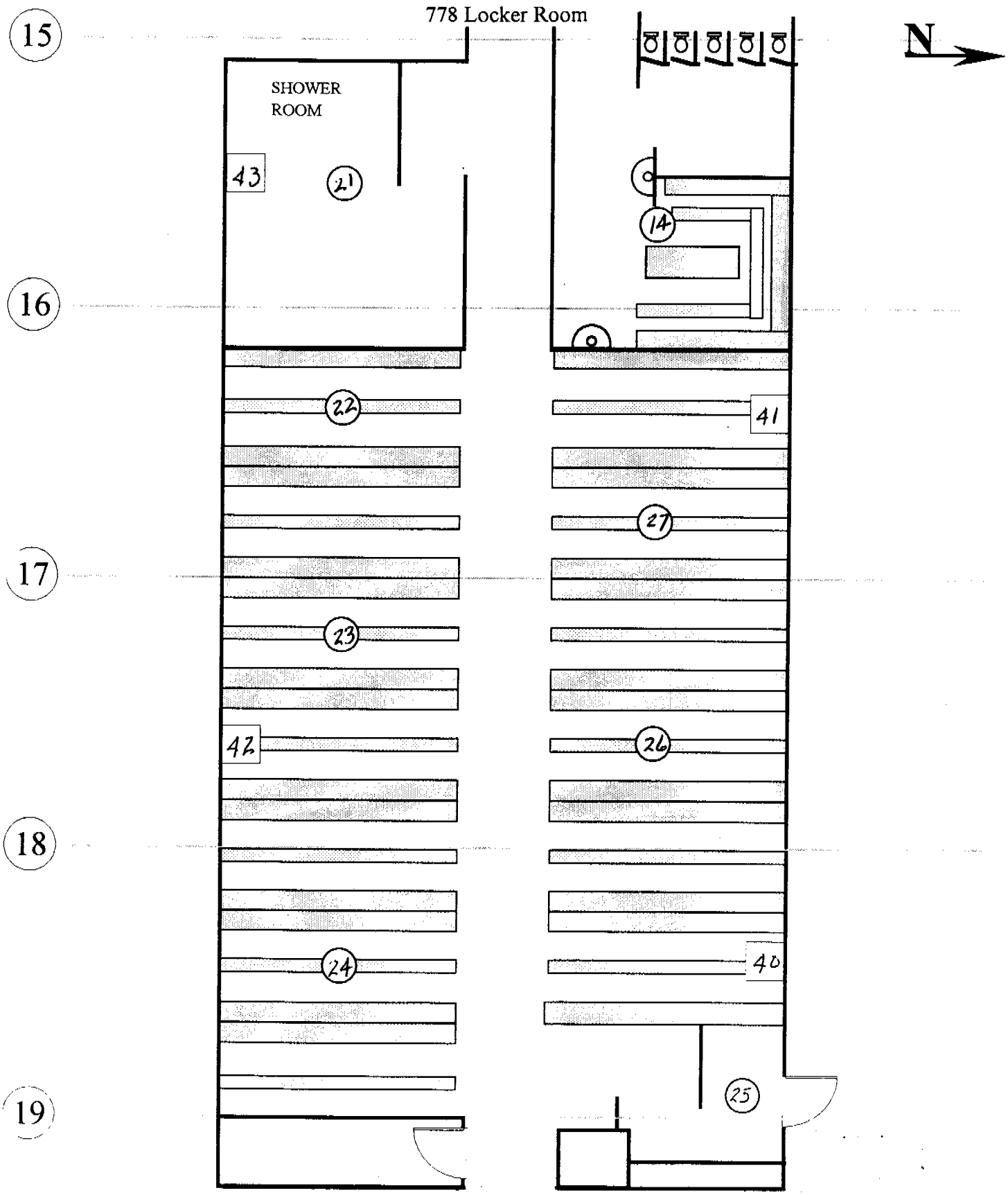
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

5096

Drawing Showing Survey Points



55

RS FORMS 07.02-01

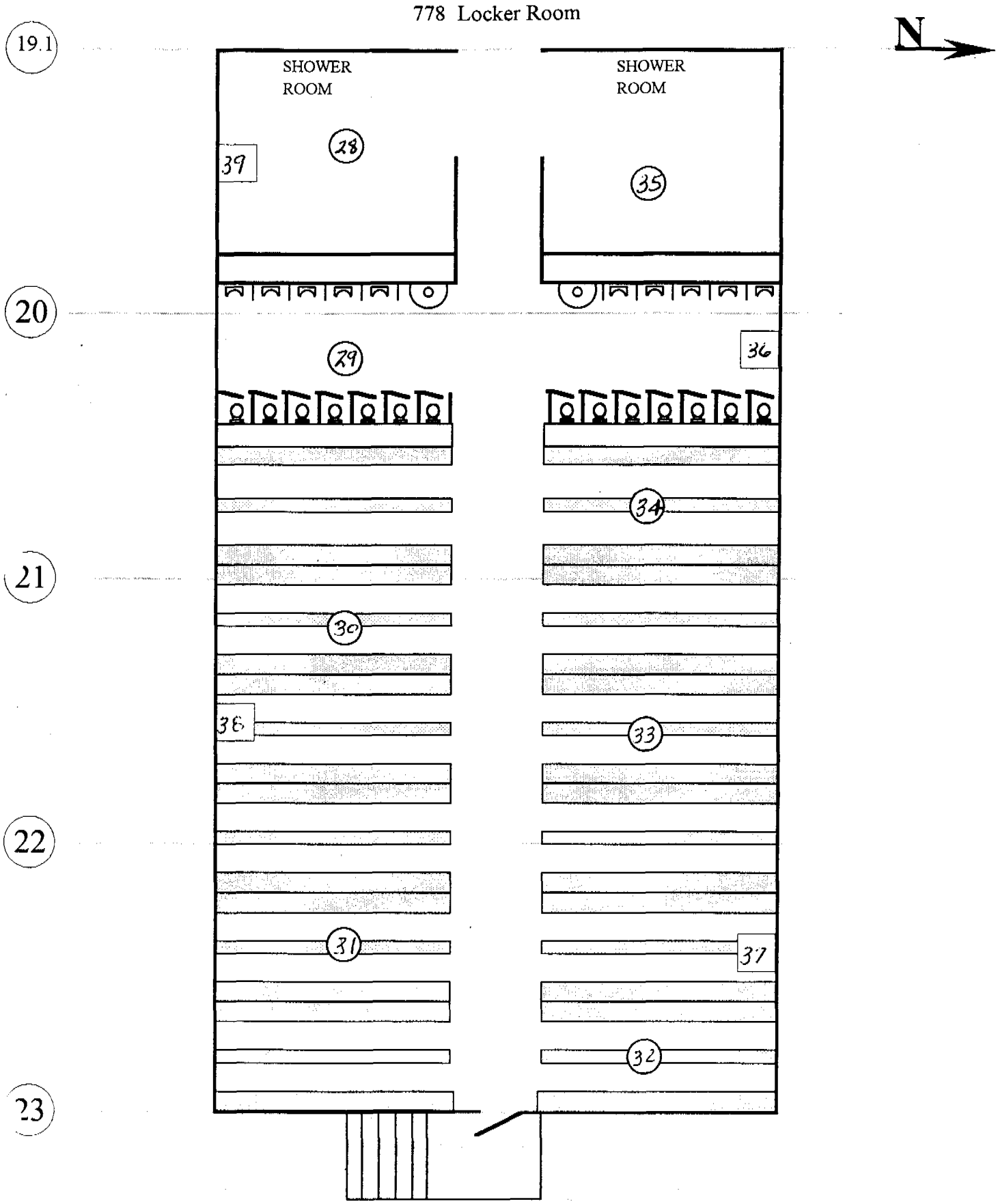
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

6 of 6

Drawing Showing Survey Points

778 Locker Room



 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1270	Serial # 1233
Cal Due 8-15-00	Cal Due 4-12-00	Cal Due 5-11-00
Bkg. 0.0 cpm	Bkg. 0.2 cpm	Bkg. 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency .2063
MDA 8.2 dpm	MDA 12.9 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial # N/A
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due
Bkg. 38 cpm	Bkg. 43 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 95.9 dpm	MDA 101.3 dpm	MDA

Survey Type: **Contamination**

Building: ~~708~~ 778

Location: Interior East Survey Area A

Purpose: **Reconnaisance Level Characterization**

RWP # 00707 1204

Date: 4-7-00 Time: Days

[redacted]

Comments: Floor / Walls < 2 meters : Biased survey points. 1 of 5

1 m² scans, 1 minute pats and swipes. See map for locations.

SURVEY RESULTS

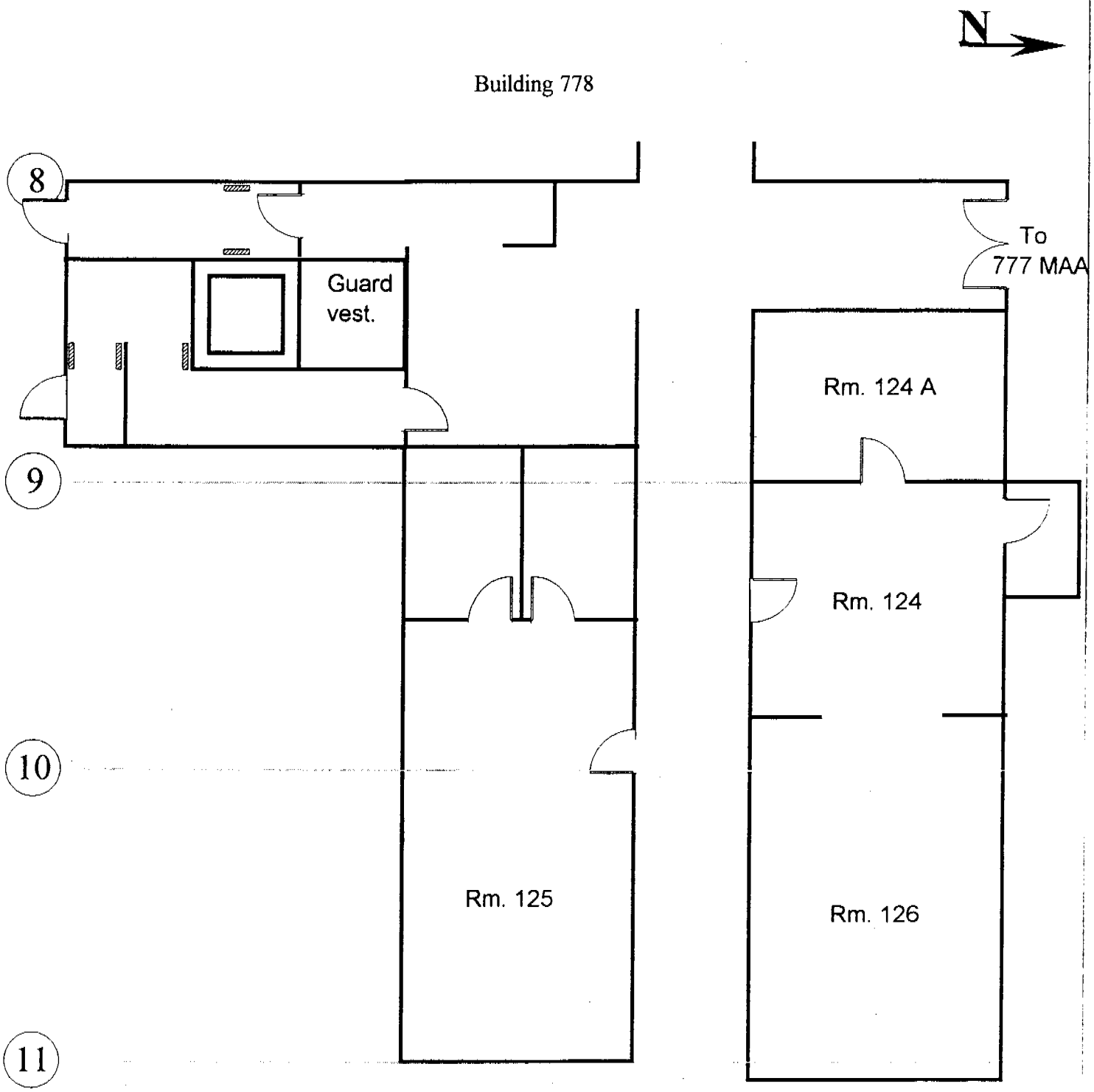
Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Total Beta	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Total Beta
1.	F Drain	0	36	18	NA	16.					
2.	" "	6	-24	18	NA	17.					
3.	" "	0	40	12	NA	18.					
4.	" "	0	-44	0	NA	19.					
5.	" "	0	32	0	NA	20.					
6.	" "	0	-24	0	NA	21.					
7.	" "	0	44	6	NA	22.					
8.	" "	0	-28	18	NA	23.					
9.	" "	0	4	18	NA	24.					
10.	" "	0	-28	18	NA	25.					
11.	End of Survey					26.					
12.						27.					
13.						28.					
14.						29.					
15.						30.					

Date Reviewed: 4-17-00 RS Supervision: [redacted]

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY 2 of 5

Drawing Showing Survey Points



RS FORMS 07.02-01

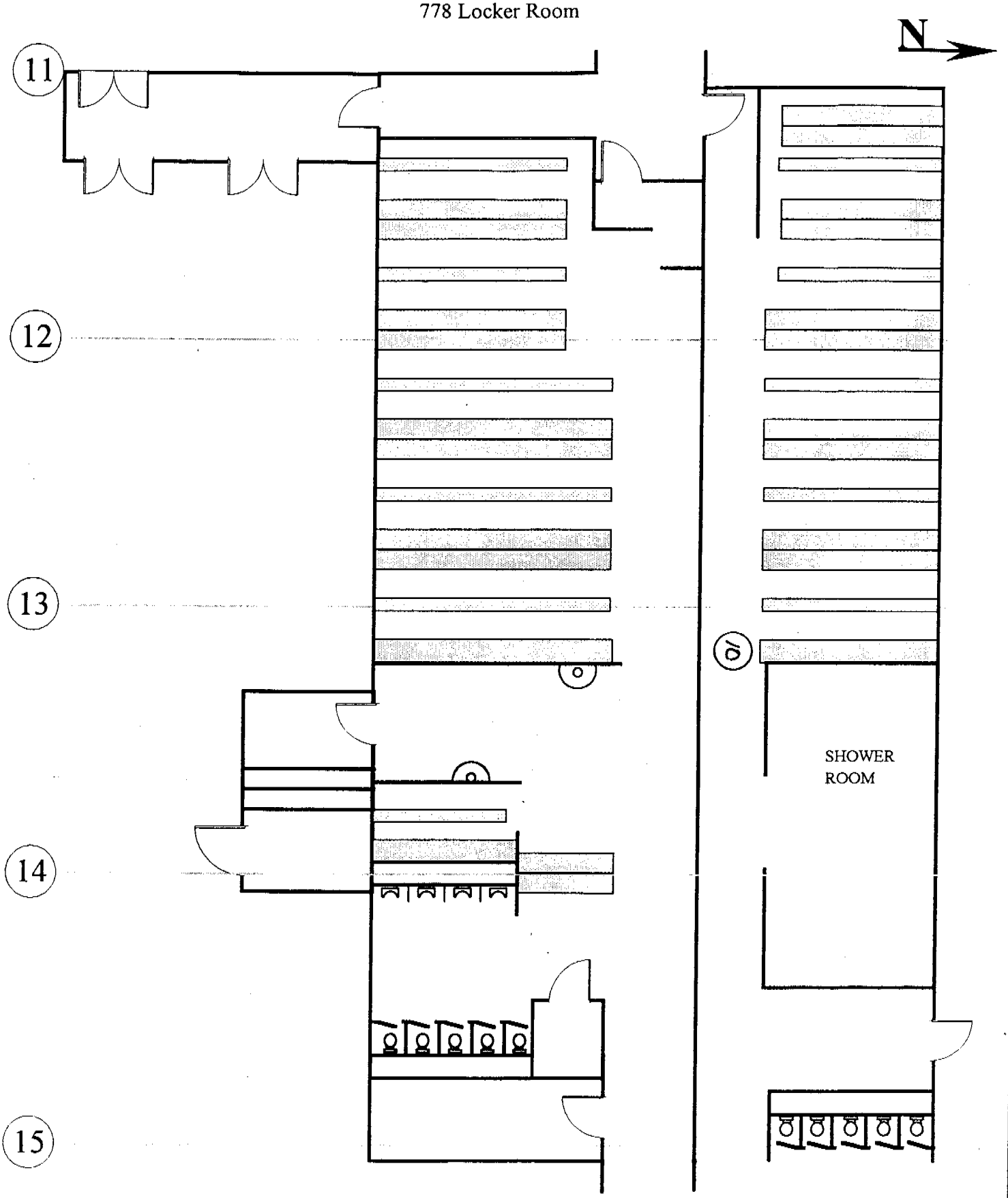
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

3 of 5

Drawing Showing Survey Points

778 Locker Room



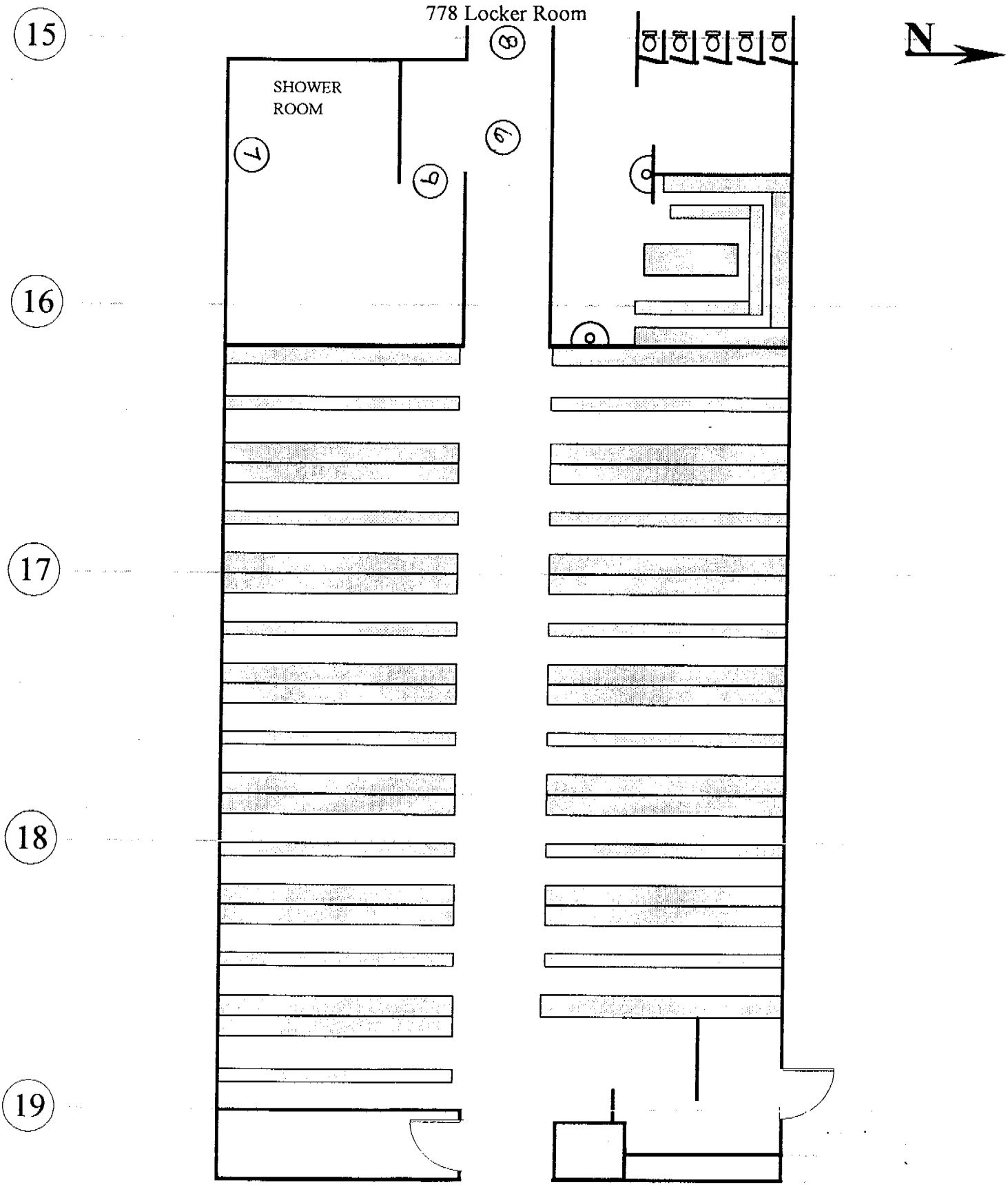
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

4 of 5

Drawing Showing Survey Points



RS FORMS 07.02-01

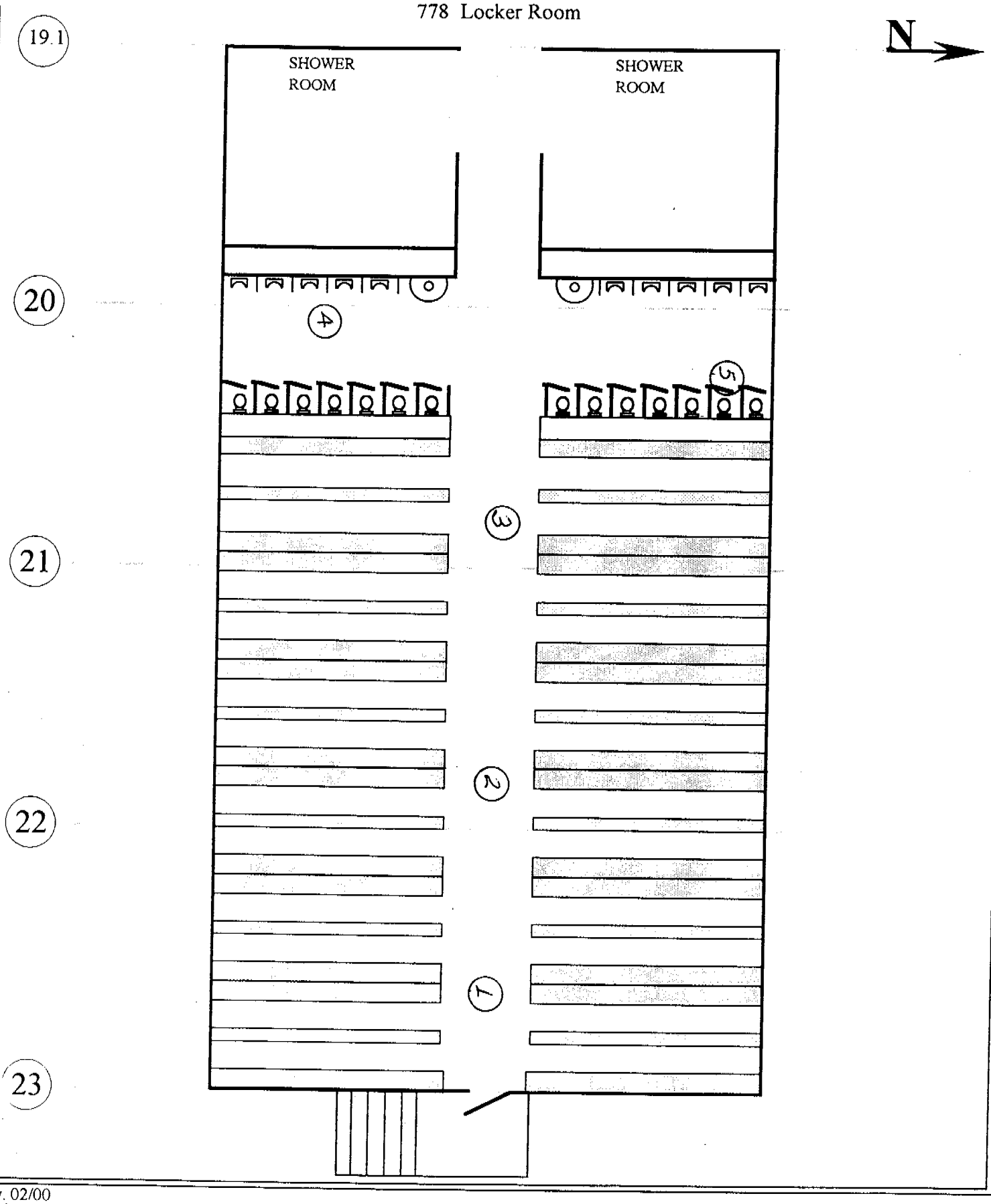
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

585

Drawing Showing Survey Points

778 Locker Room



6(p)

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1270	Serial # 1233
Cal Due 8-15-00	Cal Due 4-12-00	Cal Due 5-11-00
Bkg. 0.0 cpm	Bkg. 0.2 cpm	Bkg. 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency .2063
MDA 8.2 dpm	MDA 12.9 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial # N/A
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due
Bkg. 38 cpm	Bkg. 43 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 95.9 dpm	MDA 101.3 dpm	MDA

Survey Type: **Contamination**

Building: ~~RL 707~~ 778

Location: Interior East Survey Area A

Purpose: **Reconnaisance Level Characterization**

RWP # 00 707 1204

Date: 4-7-00 Time: Days

R [redacted]

R

Comments: Ceiling / Walls > 2 meters : Biased survey points. 1 minute pats and swipes. See map for locations.

185

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	Wall > 2m	0	-8	18	16.				
2.	" "	0	4	12	17.	NA			
3.	" "	0	36	12	18.				
4.	" "	0	-44	30	19.				
5.	" "	0	-24	24	20.				
6.	" "	0	20	12	21.				
7.	" "	0	-8	18	22.				
8.	" "	0	-12	0	23.				
9.	Ceiling	0	-28	24	24.				
10.	Ceiling	0	8	0	25.				
11.	Ceiling	0	20	24	26.				
12.	NA End of Survey				27.				
13.					28.				
14.					29.				
15.					30.				

Date Reviewed: 4-17-00 **RS Supervision:** [redacted]

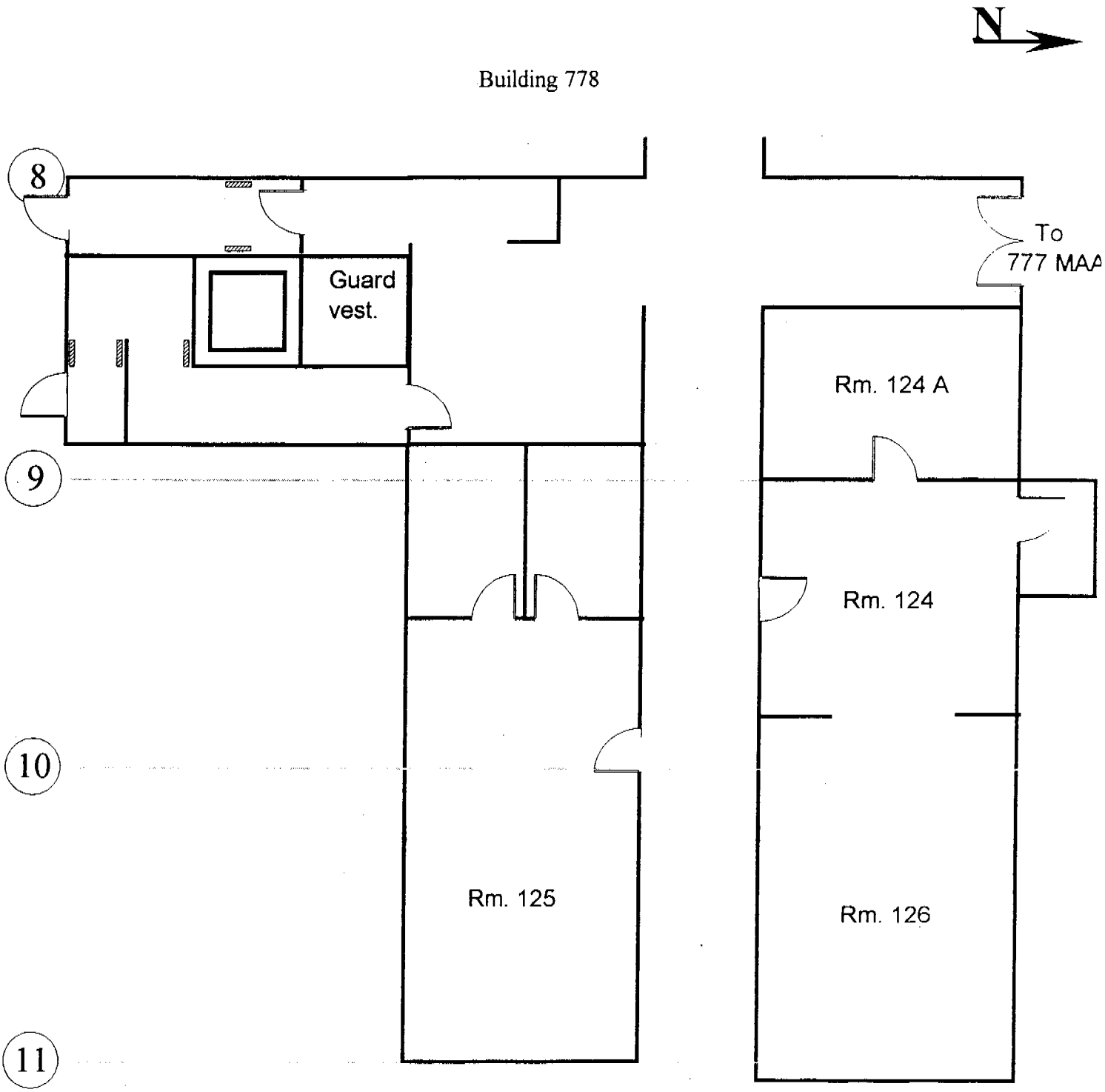
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

2 of 5

Drawing Showing Survey Points



RS FORMS 07.02-01

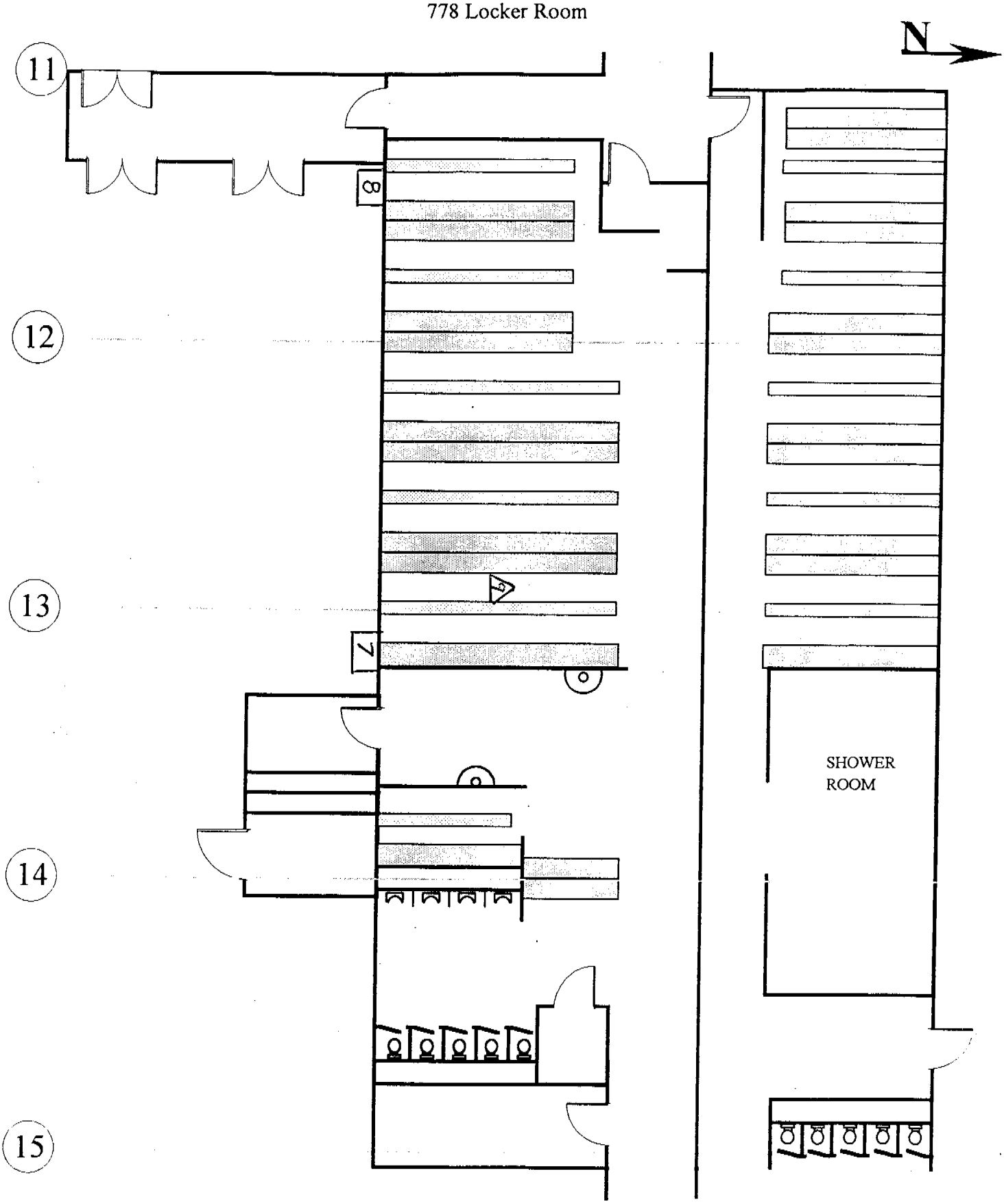
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

3 of 5

Drawing Showing Survey Points

778 Locker Room



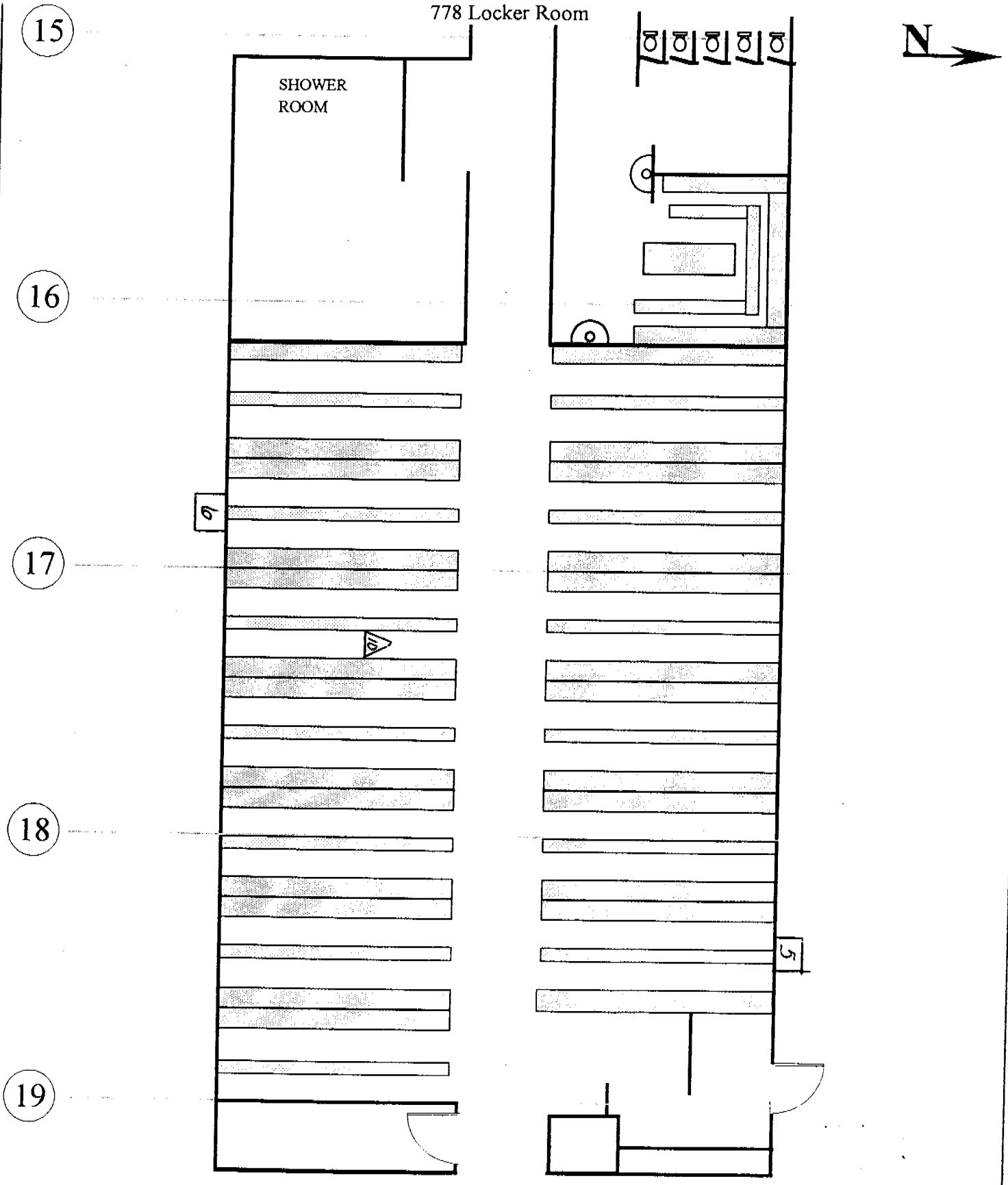
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

4 of 5

Drawing Showing Survey Points



RS FORMS 07.02-01

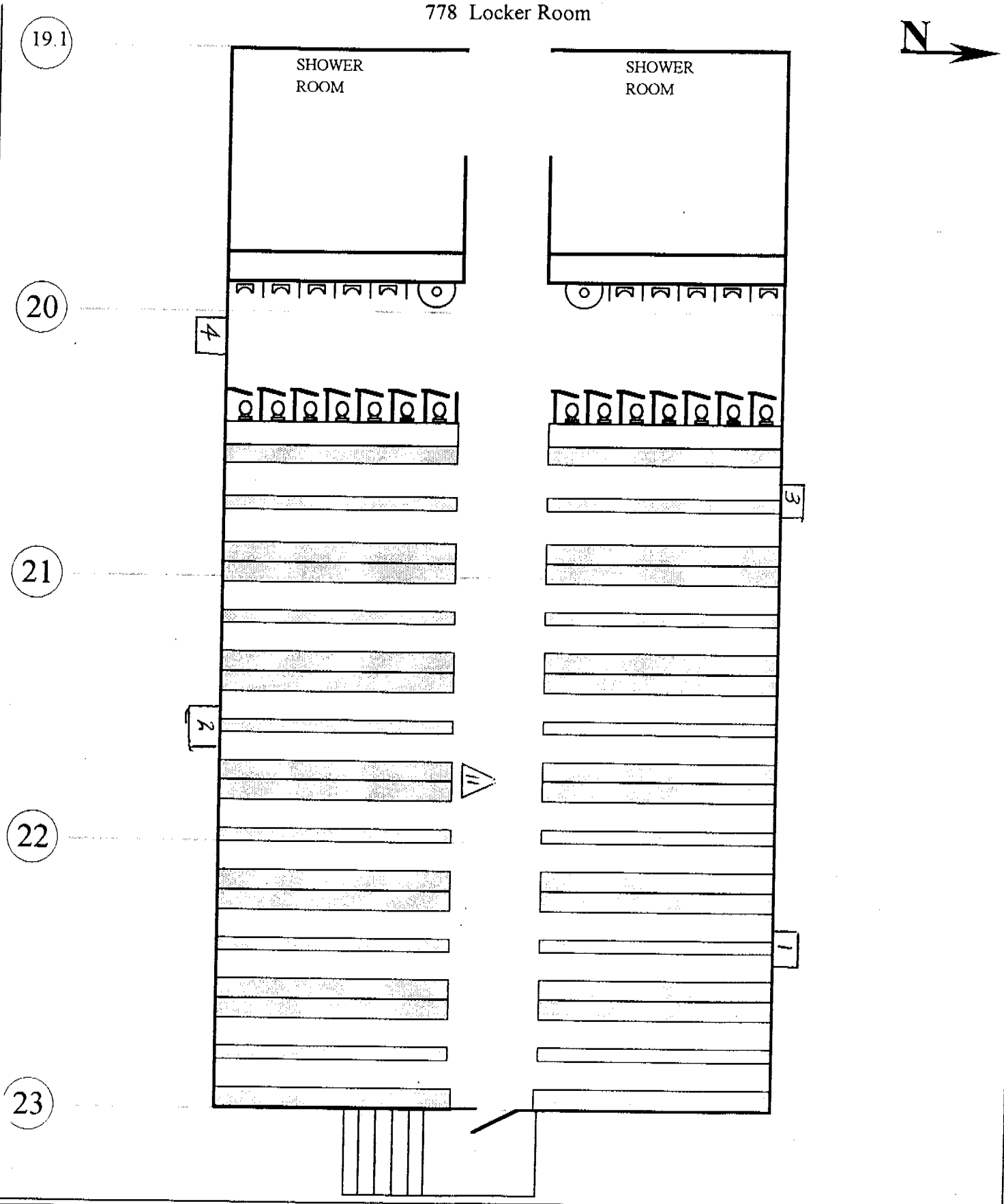
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

RL ~~GJ~~ 5 of 5

Drawing Showing Survey Points

778 Locker Room



ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1270	Serial # 1233
Cal Due 8.15.00	Cal Due 4.12.00	Cal Due 5-11-00
Bkg. 0.2 cpm	Bkg. 0.0 cpm	Bkg. 0.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency .2063
MDA 12.9 dpm	MDA 8.2 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg. NE
Model BC-4	Model BC-4	Model Electra
Serial # 872	Serial # 833	Serial # 3265
Cal Due 4.12.00	Cal Due 7.14.00	Cal Due 7.3.00
Bkg. 44 cpm	Bkg. 36 cpm	Bkg. 1.0 cpm
Efficiency 25%	Efficiency 25%	Efficiency .2101
MDA 102.4 dpm	MDA 93.65 dpm	MDA 94 dpm

Survey Type: **Contamination**

Building: 778

Location: East Interior Survey Area A

Purpose: **Reconnaisance Level Characterization**

RWP # 00 707 1204

Date: 4-11-00 Time: Days

R[redacted]

Comments: Equipment : Biased survey points.
1 minute pats and swipes. See map for locations. 185

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Ceiling Vent	0	-4	12	16.	Heater Wall Mount	0	0	18
2.	Ceiling Vent	0	4	84	17.	Vent Ceiling	3	-28	60
3.	Wall Vent	0	-40	30	18.	Sink	0	12	30
4.	Electrical Box	0	32	12	19.	Heater	0	28	48
5.	Steel Beam	0	-8	18	20.	Pump	0	-4	30
6.	Steel Beam	0	12	24	21.	Flange on Steam Tank	0	-20	12
7.	Ceiling Vent	3	-8	114	22.	Cold Water Piping	0	-16	18
8.	Ceiling Vent	0	0	18	23.	Heater Wall Mount	3	4	36
9.	Ceiling Vent	0	-48	18	24.	JIB-19 Electrical Box	0	-4	18
10.	Ceiling Vent	0	64	174	25.	Vent Ceiling Shower	0	28	42
11.	Vent Wall by Locker #353	0	28	12	26.	Vent Ceiling	0	-8	48
12.	Bottom of Locker #313	0	24	24	27.	Wall Electrical Panel	0	0	42
13.	Vent by Side door	0	-12	90	28.	Pull down Stair Steps	0	12	36
14.	Sink	0	8	36	29.	Ceiling Vent	0	24	30
15.	Locker # 941	0	-24	12	30.	Ceiling Vent	0	8	60

Date Reviewed: 4-17-00 **RS Supervision:** [redacted]

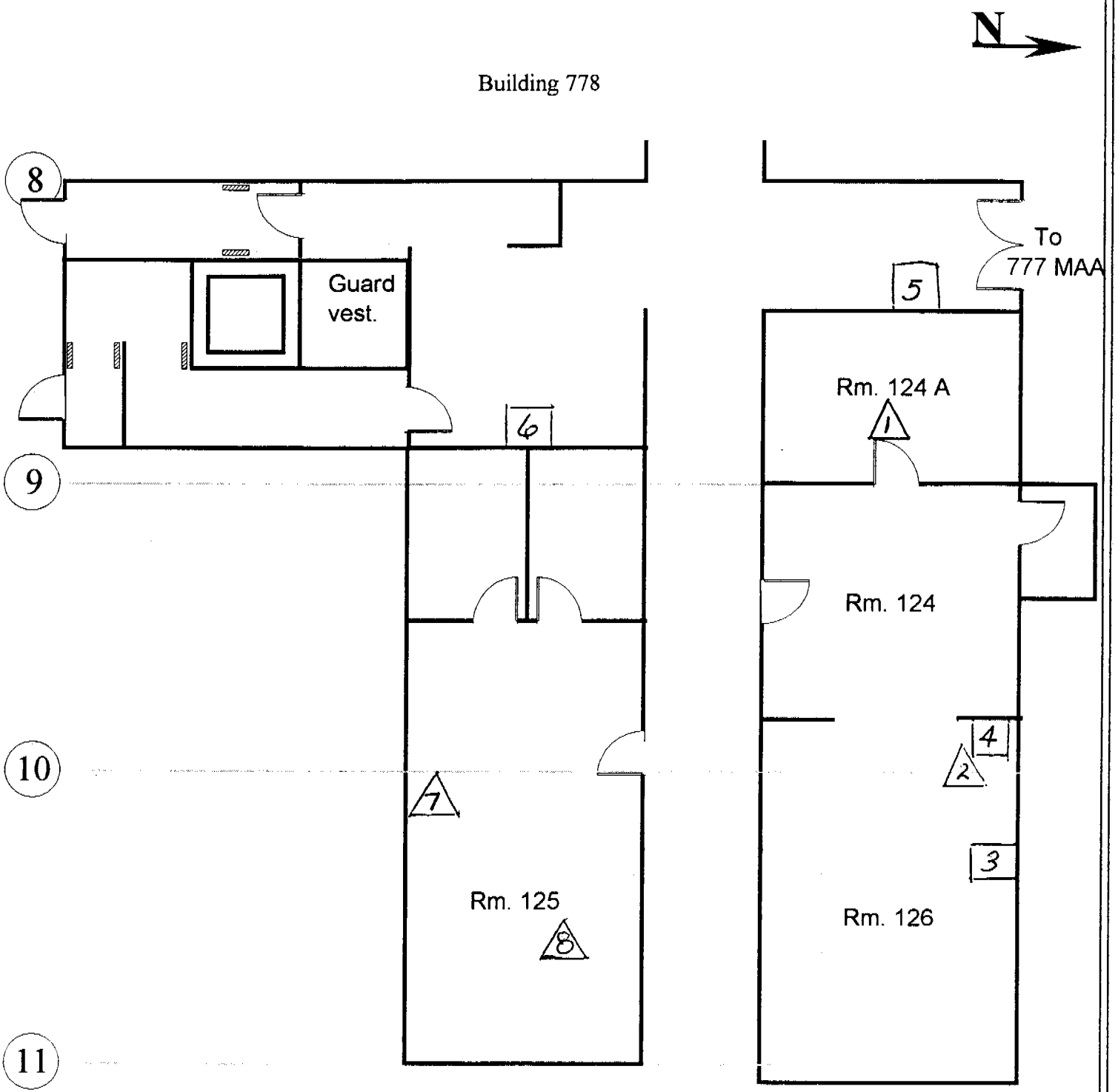
Print Name Signature Emp. #

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points 2 of 5



RS FORMS 07.02-01

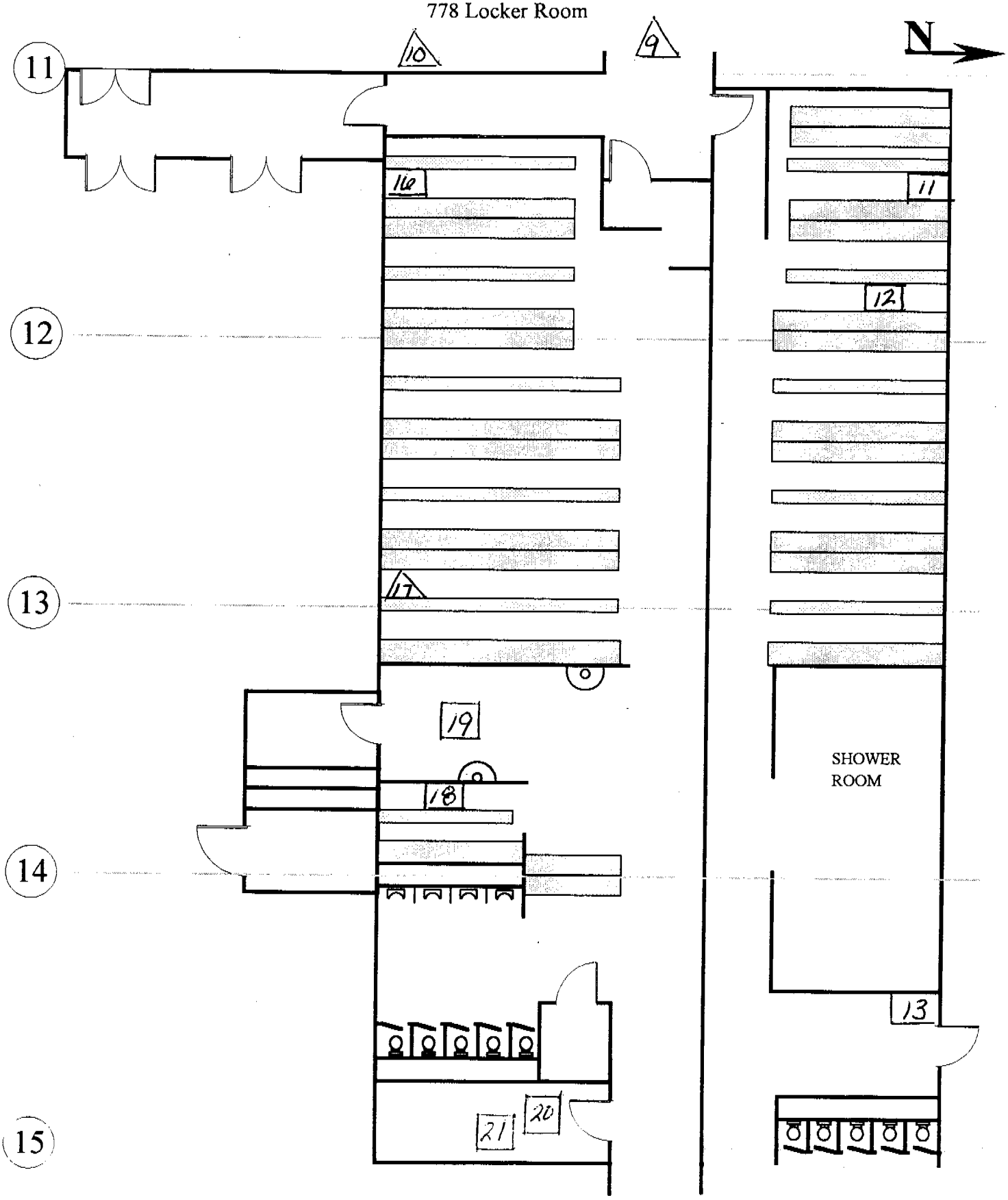
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

385

Drawing Showing Survey Points

778 Locker Room



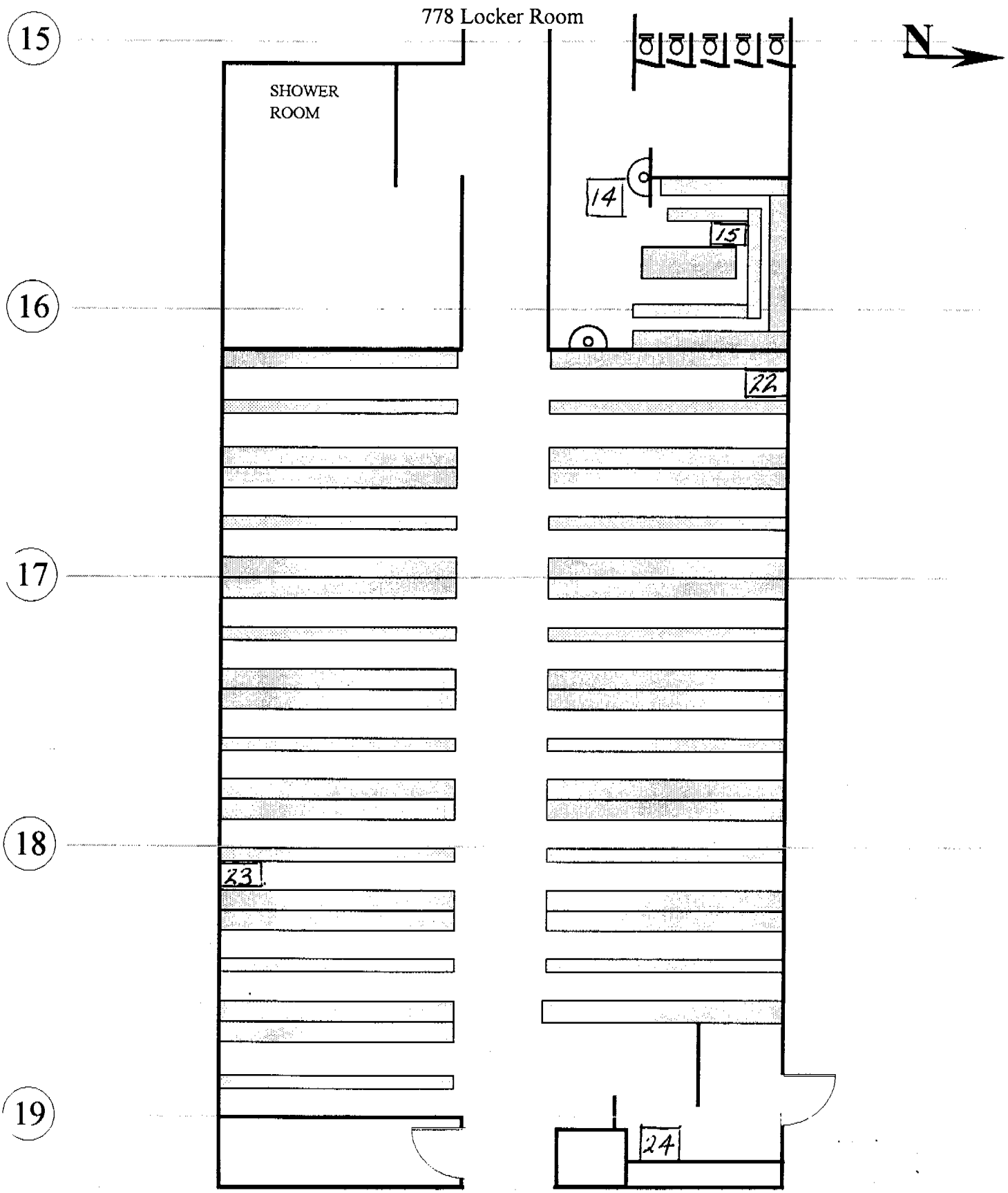
069

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points 4 of 5



170

RS FORMS 07.02-01

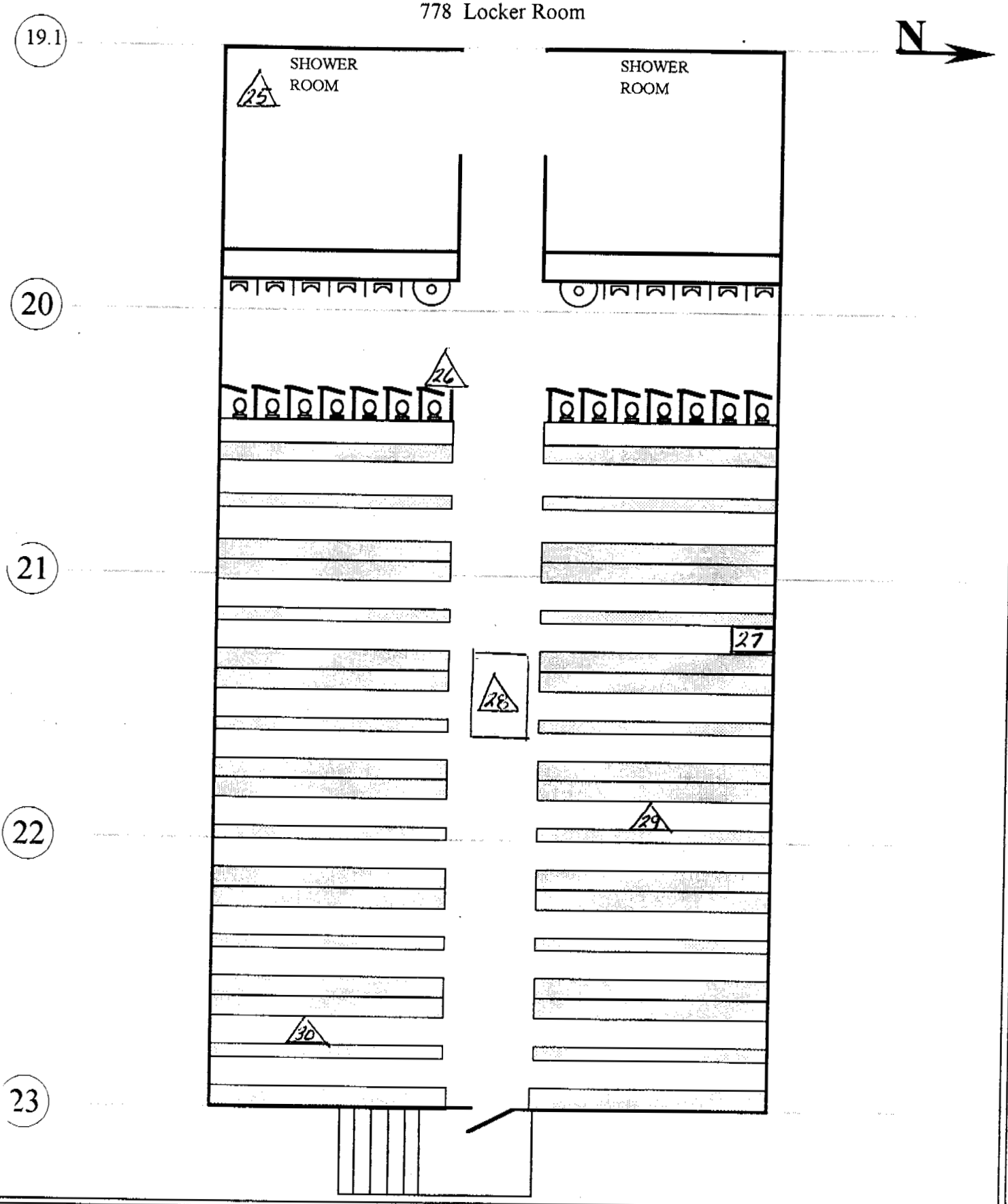
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

585

778 Locker Room



B-3
RLC RADIOLOGICAL DATA
Survey Area B
Bldg 778, Interior West

672

Radiological Survey/Sample Results for Survey Area B (00-0002)

Total Surface Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	56	56
MIN	0	N/A
MAX	66	N/A
MEAN	26.3	N/A
STD DEV	16.0	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	10	10
MIN	12	N/A
MAX	78	N/A
MEAN	29	N/A
STD DEV	21.9	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	21	23
MIN	6	N/A
MAX	66	N/A
MEAN	24.5	N/A
STD DEV	14.2	N/A
Equipment Biased	# Required	# Obtained
	30	30
MIN	0	N/A
MAX	156	N/A
MEAN	28.6	N/A
STD DEV	32.5	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	56	56
MIN	0	-44
MAX	3	52
MEAN	0.4	-4.9
STD DEV	1.0	20.4
Floors/Walls < 2 m Biased	# Required	# Obtained
	10	10
MIN	0	-60
MAX	6	12
MEAN	1.2	-21.6
STD DEV	2.1	23.3
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	21	23
MIN	0	-36
MAX	9	24
MEAN	0.9	-12.3
STD DEV	2.1	13.3
Equipment Biased	# Required	# Obtained
	30	30
MIN	0	-64
MAX	6	36
MEAN	0.9	-18.7
STD DEV	1.8	23.0
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
N/A	N/A

Total Uranium Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	100

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 3265
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due 7-3-00
Bkg. 0.2 cpm	Bkg. 0.5 cpm	Bkg. 0.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency .2101
MDA 12.9 dpm	MDA 15.6 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg. NETech
Model BC-4	Model BC-4	Model Electra
Serial # 833	Serial #	Serial # 2307
Cal Due 7-14-00	Cal Due	Cal Due 7-12-00
Bkg. 46 cpm	Bkg.	Bkg. 2.0 cpm
Efficiency 25%	Efficiency 25%	Efficiency .1940
MDA 104.5 dpm	MDA	MDA 94 dpm

Survey Type: **Contamination**

Building: 778

Location: West Area Survey Area B

Purpose: **Reconnaisance Level Characterization**

RWP # 00707 1204

Date: 4-17 4-19-00 Time: Days

RCT: [redacted]

RCT: [redacted]

Comments: Floor / Walls < 2 meters : Unbiased survey points. 185

1 m² scans, 1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Wall < 2m	0	-28	24	16.	F	0	40	48
2.	F	0	-4	6	17.	F	0	-16	30
3.	F	3	-4	18	18.	Wall < 2m	0	52	18
4.	Wall < 2m	0	-32	24	19.	F	0	-16	0
5.	" "	0	0	24	20.	Wall < 2m	0	20	30
6.	" "	0	4	48	21.	" "	0	36	36
7.	F	0	-16	30	22.	F	0	-16	18
8.	F	0	0	12	23.	F	0	24	30
9.	Wall < 2m	0	-16	12	24.	Wall < 2m	3	28	30
10.	" "	0	-40	36	25.	F	0	-28	30
11.	" "	0	-12	30	26.	Wall < 2m	0	-4	24
12.	F	0	-4	30	27.	" "	0	-4	24
13.	F	0	-8	18	28.	F	0	20	18
14.	Wall < 2m	0	8	24	29.	F	0	-4	6
15.	" "	0	0	18	30.	Wall < 2m	0	12	0

Date Reviewed: 5-2-00 **RS Supervisio** [redacted]

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

295

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	Wall < 2m	0	-32	36	61.				
32.	" "	0	4	6	62.	NA			
33.	" "	0	-20	18	63.				
34.	F	0	28	0	64.				
35.	F	0	-16	18	65.				
36.	F	0	-16	0	66.				
37.	F	0	20	24	67.				
38.	Wall < 2m	3	8	18	68.				
39.	" "	0	-28	24	69.				
40.	F	0	-20	30	70.				
41.	F	0	-12	66	71.				
42.	Wall < 2m	0	4	30	72.				
43.	" "	3	-24	42	73.				
44.	" "	0	8	66	74.				
45.	F	0	-8	54	75.				
46.	F	0	-36	66	76.				
47.	F	0	-4	18	77.				
48.	F	0	-24	24	78.				
49.	F	0	-16	12	79.				
50.	Wall < 2m	3	-20	24	80.				
51.	" "	3	12	30	81.				
52.	F	3	-8	24	82.				
53.	F	0	4	60	83.				
54.	F	0	-24	12	84.				
55.	Wall < 2m	0	-44	36	85.				
56.	" "	0	0	36	86.				
57.	NA				87.				
58.					88.				
59.					89.				
60.					90.				

Rev. 02/00

(15)

 RS FORMS 07.02-01

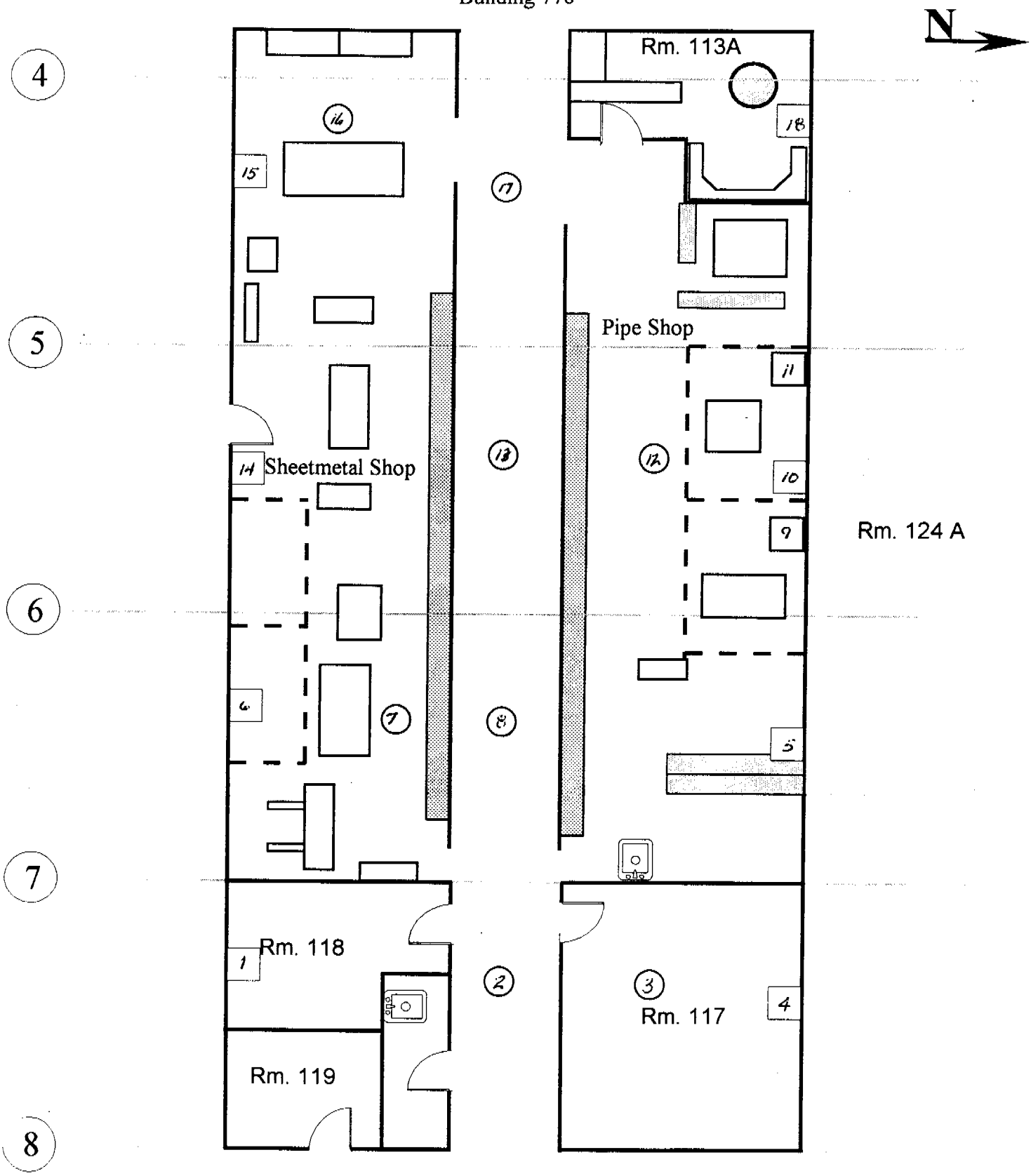
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

3 of 5

Drawing Showing Survey Points

Building 778



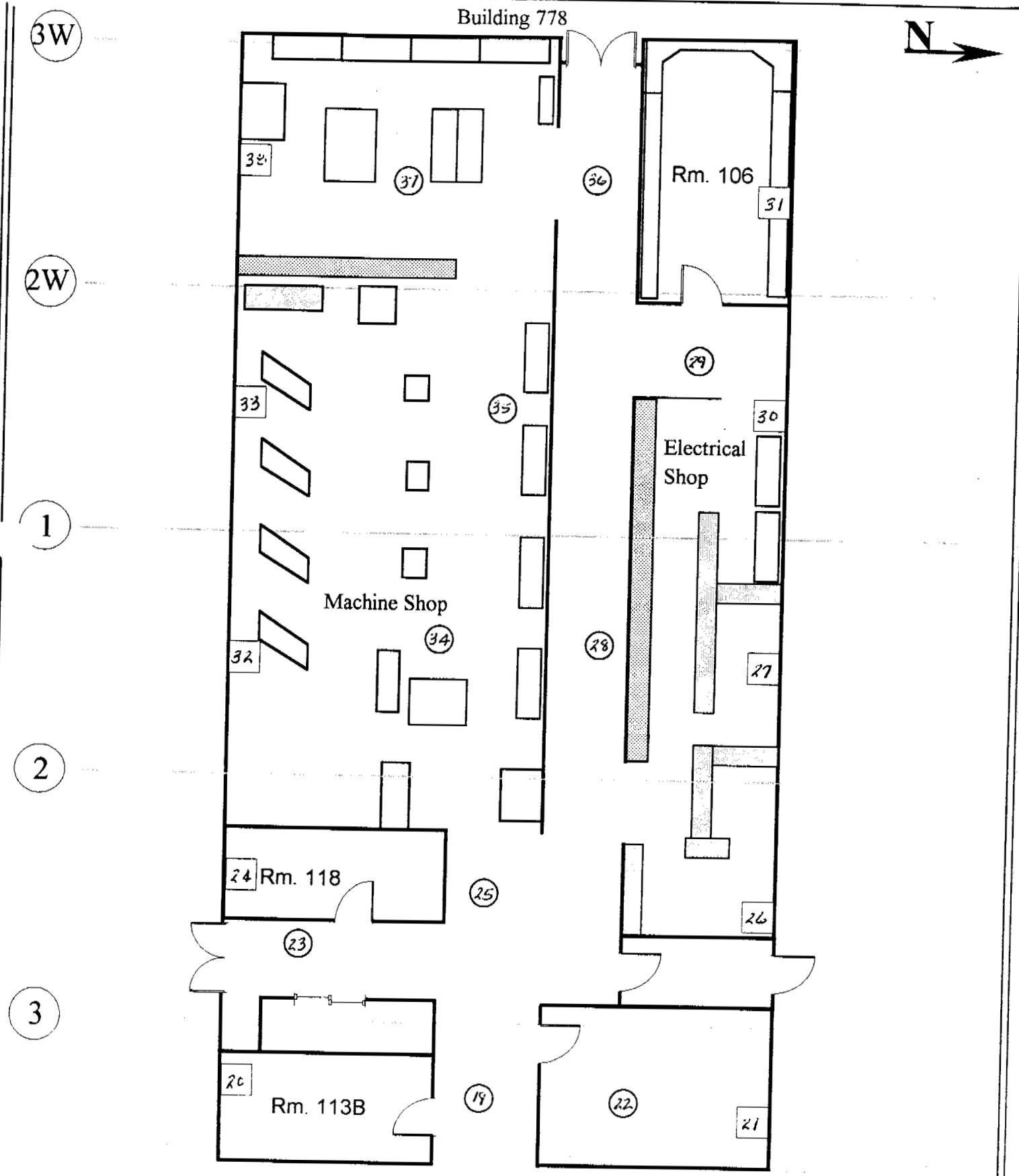
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

485

Drawing Showing Survey Points



477

RS FORMS 07.02-01

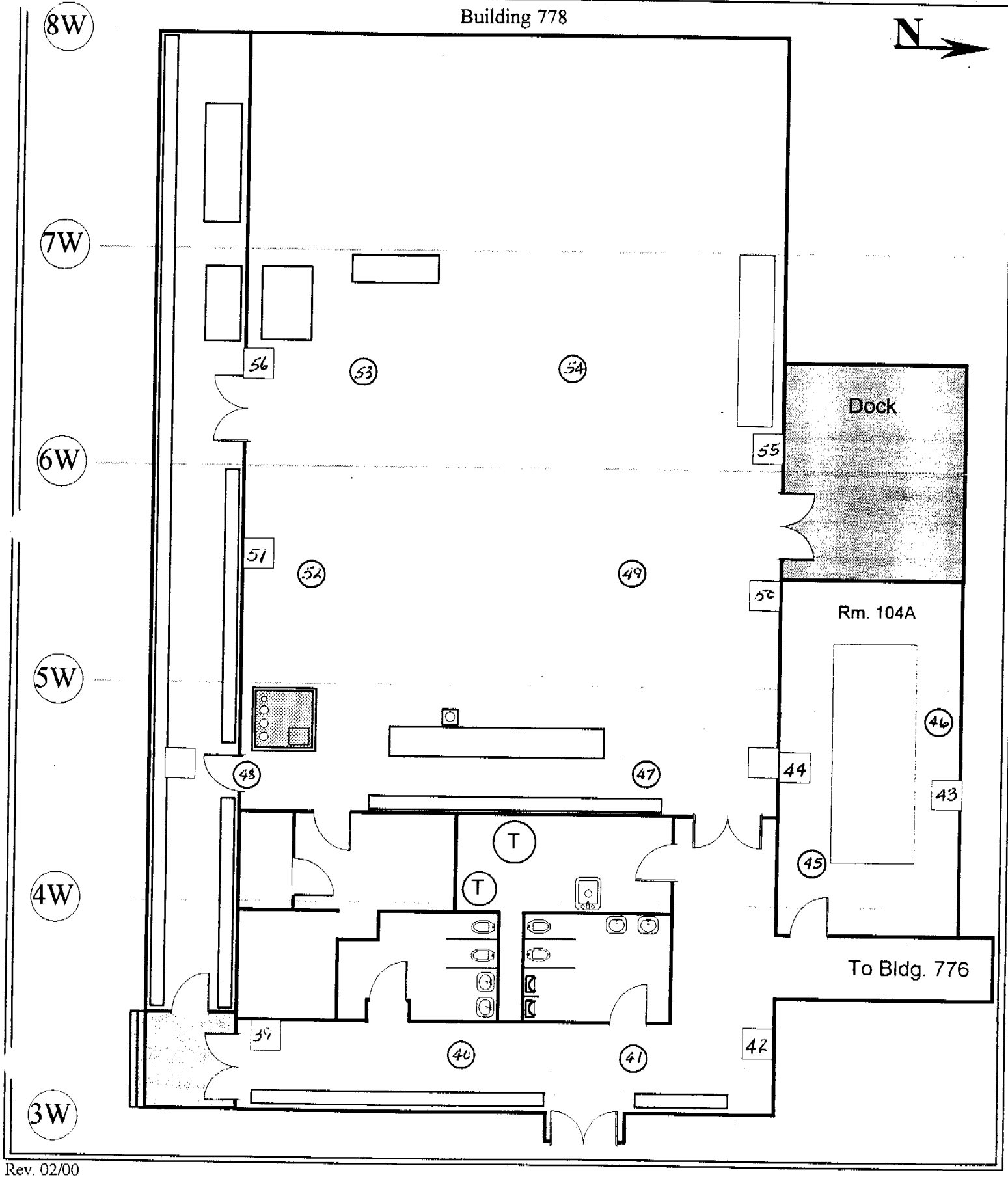
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

545

Drawing Showing Survey Points

Building 778



c78

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 2166
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due 9-22-00
Bkg. 0.0 cpm	Bkg. 0.4 cpm	Bkg. 0.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 1700
MDA 8.2 dpm	MDA 14.8 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model N/A
Serial # 959	Serial # 833	Serial #
Cal Due 7-19-00	Cal Due 7-14-00	Cal Due
Bkg. 43 cpm	Bkg. 45 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 101.3 dpm	MDA 103.4 dpm	MDA

Survey Type: **Contamination**
Building: 778
Location: West interior Survey Area B
Purpose: **Reconnaisance Level Characterization**

RWP # 00707 1204

Date: 4-24 4-25-00 Time: Days

[redacted]

Comments: Floor / Walls < 2 meters : Biased survey points. 1 of 4
1 m² scans, 1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Rm 119 Floor Drain	0	-60	54	16.	N/A			
2.	Rm 117 Floor Drain	3	-52	18	17.				
3.	Rm 104A Floor in front of Plenum Door	0	-8	78	18.				
4.	Rm 104A Floor Drain	0	-20	32	19.				
5.	Front of Sheetmetal Shop Floor Drain Walkway	0	12	18	20.				
6.	Rm 108 Door Floor Drain	0	-12	36	21.				
7.	At Doorway #100	0	-44	12	22.				
8.	Sheetmetal Shop Chipped Concrete	6	-12	12	23.				
9.	Door 119 Walkway Floor Drain	0	-20	12	24.				
10.	At Doorway #222	3	0	18	25.				
11.	N/A				26.				
12.					27.				
13.					28.				
14.					29.				
5.					30.				

Date Reviewed: 5-2-00 RS Supervision: [redacted]

Print Name Signature Emp. #

RS FORMS 07.02-01

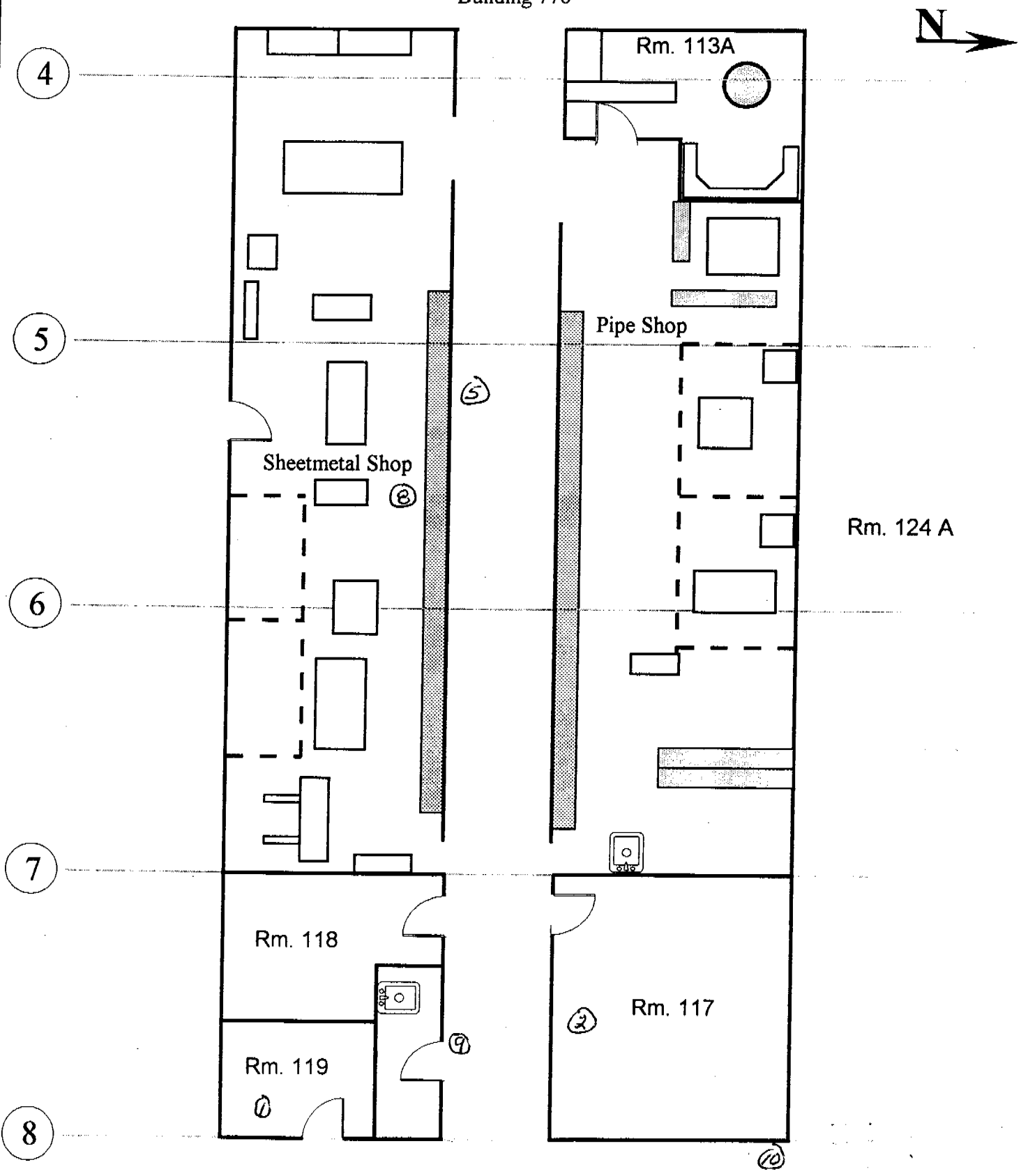
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

2 of 4

Drawing Showing Survey Points

Building 778



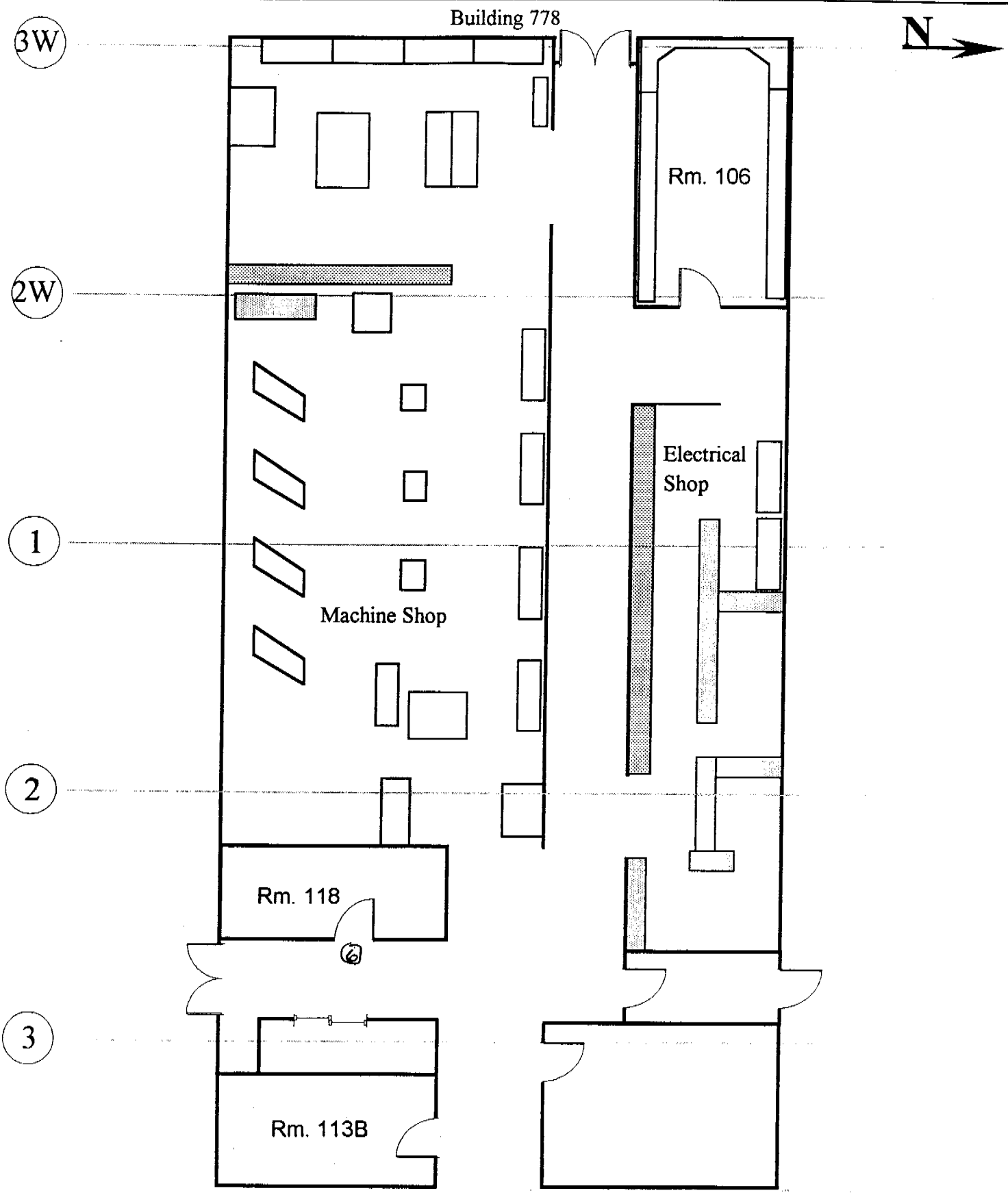
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

3 of 4

Drawing Showing Survey Points



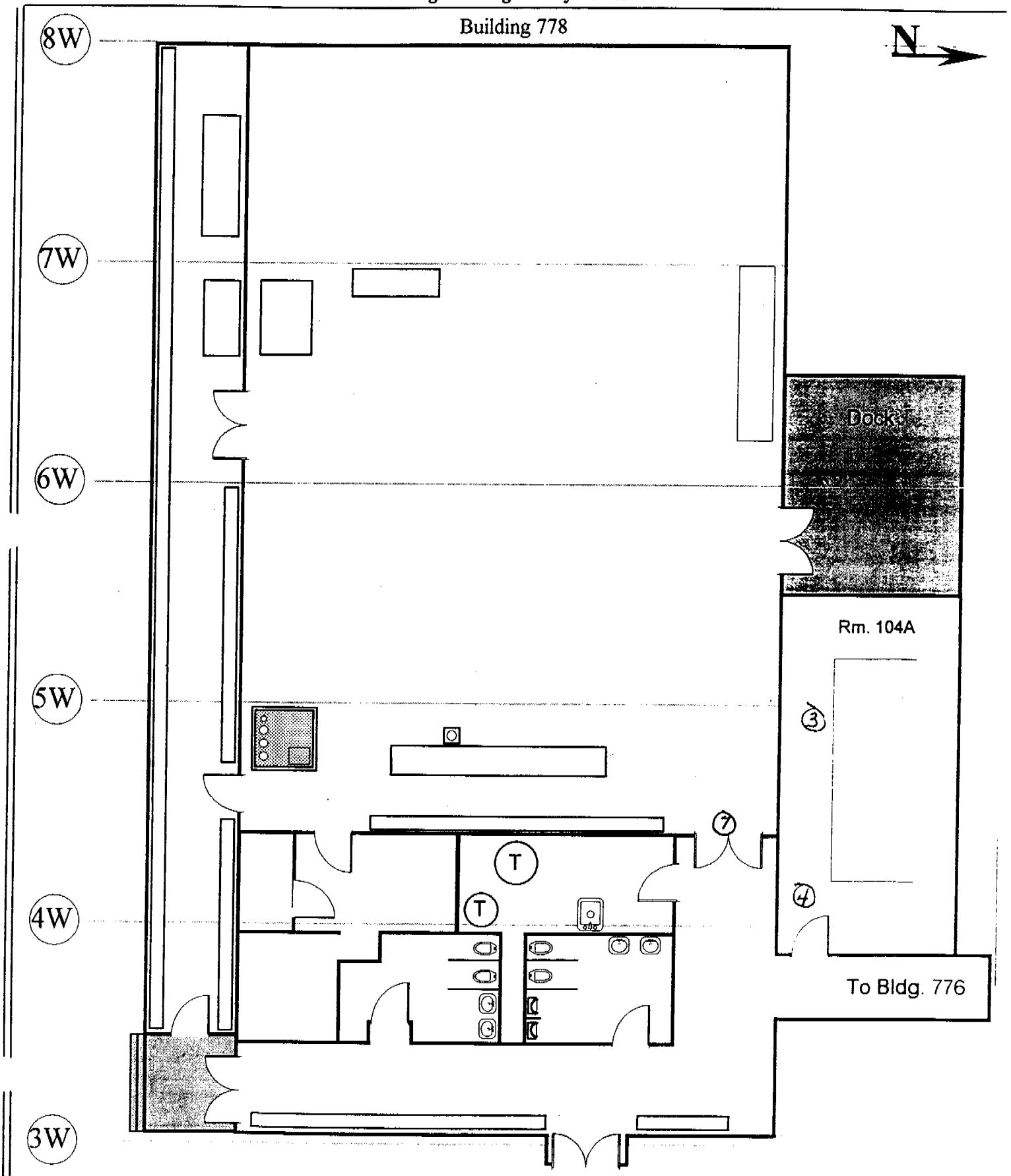
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

4 of 4

Drawing Showing Survey Points



ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 2166
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due 9-22-00
Bkg. 0.0 cpm	Bkg. 0.4 cpm	Bkg. 2.0 RL 0.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency .1700
MDA 8.2 dpm	MDA 14.8 dpm	MDA 94 Dpm
Mfg. Eberline	Mfg. Eberline	Mfg. NeTech
Model BC-4	Model BC-4	Model Electra
Serial # 959	Serial # 833	Serial # 3120
Cal Due 7-19-00	Cal Due 7-14-00	Cal Due 4-26-00
Bkg. 43 cpm	Bkg. 45 cpm	Bkg. 2.0
Efficiency 25%	Efficiency 25%	Efficiency .2109
MDA 101.3 dpm	MDA 103.4 dpm	MDA 94 dpm

Survey Type: **Contamination**

Building: 778

Location: West Interior Survey Area B

Purpose: **Reconnaisance Level Characterization**

RWP # 00 707 1204

Date: 4-19 4-20 4-25-00 Time: Days

RC[redacted]

RC[redacted]

Comments: Equipment : Biased survey points. 1 of 4

1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	Rm 119 Sink	0	-12	60	16.	Sheetmetal Shop Drill Press	0	-8	24
2.	Rm 117 Tank Flange	0	-24	24	17.	Rm 108 Hallway Cabinets	0	-12	18
3.	Pipe Shop Ceiling Hood	0	0	12	18.	Machine Shop Band Saw	0	4	12
4.	Rm 104A Pump Housing	3	-12	54	19.	Machine Shop Engine Lathe	0	-48	18
5.	Rm 104A Vacum Filter	6	-40	6	20.	Machine Shop Bridge Port Lathe	0	-20	12
6.	Rm 104A Pleum Door	0	-8	18	21.	Paint Shop Cabinets	0	-32	12
7.	Rm 104A Pleum Door	0	24	36	22.	Electrical Shop Steel Countertop	3	-28	6
8.	Rm 104A Top of Pleum	6	-24	156	23.	Electrical Shop Wall vent	0	-40	12
9.	Rm 104A Pipe Top of Pleum	0	-8	36	24.	Electrical Shop Cabinets	0	-4	6
10.	Rm 104A Top of Pleum	3	-12	90	25.	Hallway Electrical Panel	0	-32	0
11.	Rm 104A Pleum Squirrel cage	0	-24	24	26.	Door 119 Radiometric scanner	0	4	30
12.	Rm 104A Top Electrical Box	0	36	54	27.	Rm 117 Piping	3	-52	18
13.	Rm 104A Pleum Door	0	-28	24	28.	Walkway By 113A Electrical Box	0	-44	0
14.	Sheetmetal Shop Foot Pedal Sheer Press	0	-56	6	29.	Paint Shop Hood	0	0	12
15.	Sheetmetal Shop Steel Table	0	4	6	30.	Laundry Rm Respirator Washer	3	-64	72

Date Reviewed: 5 2 00 RS Supervision [redacted]

Rev. 02/00

RS FORMS 07.02-01

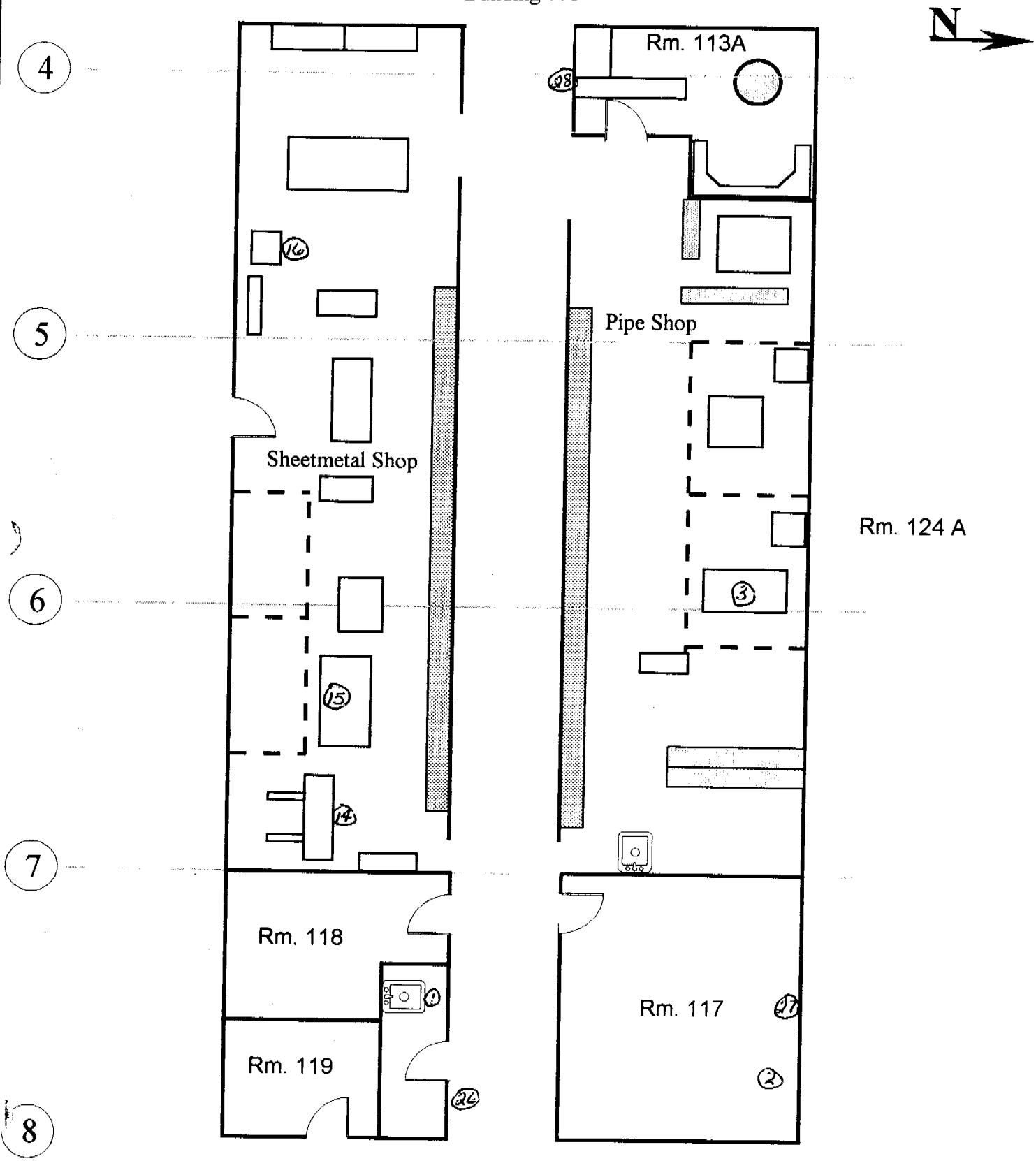
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

2 of 4

Drawing Showing Survey Points

Building 778



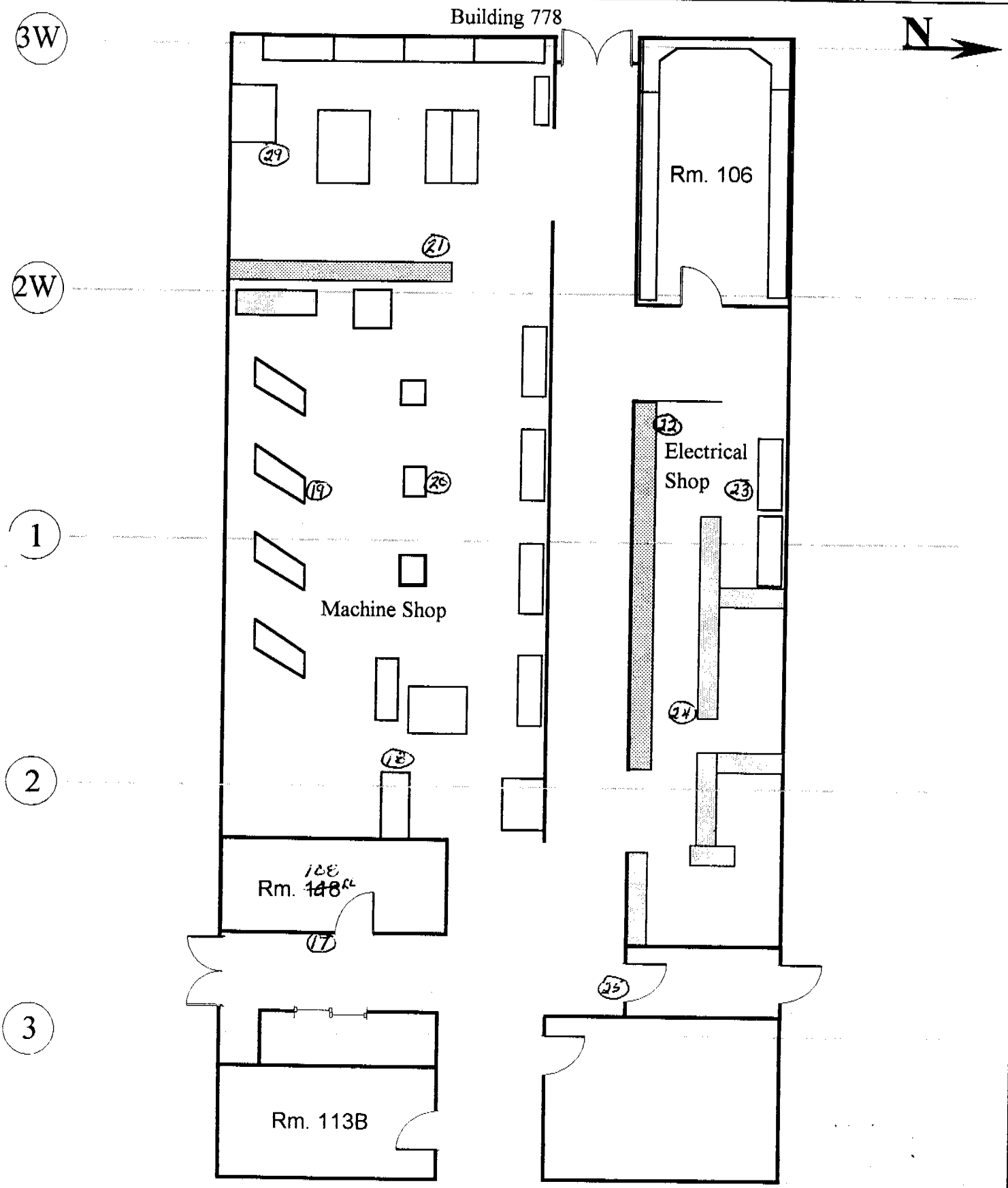
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

3 of 4

Drawing Showing Survey Points



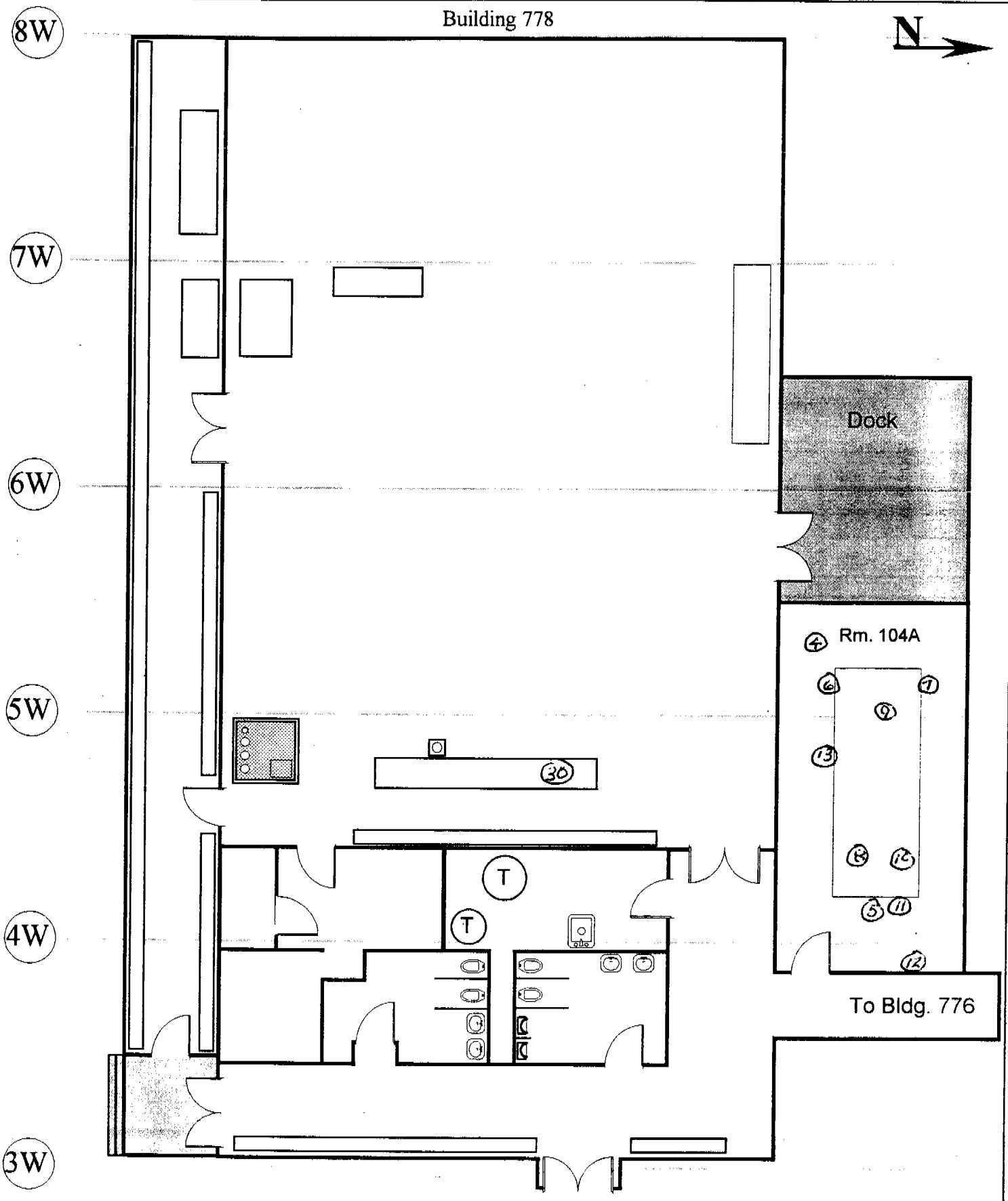
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

484

Drawing Showing Survey Points



0810

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 1233
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due 5-11-00
Bkg. 0.0 cpm	Bkg. 0.3 cpm	Bkg. 4.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency .2063
MDA 8.2 dpm	MDA 13.9 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 959	Serial # 833	Serial #
Cal Due 7-19-00	Cal Due 7-14-00	Cal Due
Bkg. 43 cpm	Bkg. 43 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 101.3 dpm	MDA 101.3 dpm	MDA

N/A

Survey Type: **Contamination**

Building: 778

Location: West Interior Survey Area B

Purpose: **Reconnaisance Level Characterization**

RWP # 00707.1204

Date: 4-26 4-27-00 Time: Days

[redacted]

Comments: Ceiling / Walls > 2 meters : Biased survey points.
1 minute pats and swipes. See map for locations. 1 of 4

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	Wall > 2m	3	-28	6	16.	Wall > 2m	0	-12	18
2.	" "	0	4	18	17.	Wall > 2m	0	-8	12
3.	" "	0	-24	6	18.	Ceiling	0	-36	36
4.	" "	0	-20	18	19.	Ceiling	0	8	30
5.	" "	0	-16	24	20.	Wall > 2m	0	0	24
6.	" "	0	-12	12	21.	Wall > 2m	0	-12	42
7.	" "	0	-8	36	22.	Wall > 2m	9	-12	66
8.	" "	3	-8	42	23.	Wall > 2m	0	24	24
9.	" "	0	-28	12	24.				
10.	" "	3	-4	6	25.				
11.	" "	0	-12	24	26.				
12.	" "	0	-20	36	27.				
13.	" "	0	-20	18	28.				
14.	" "	3	-12	24	29.				
15.	" "	0	-28	30	30.				

Date Reviewed: 5-2-00 **RS Supervision:** [redacted]

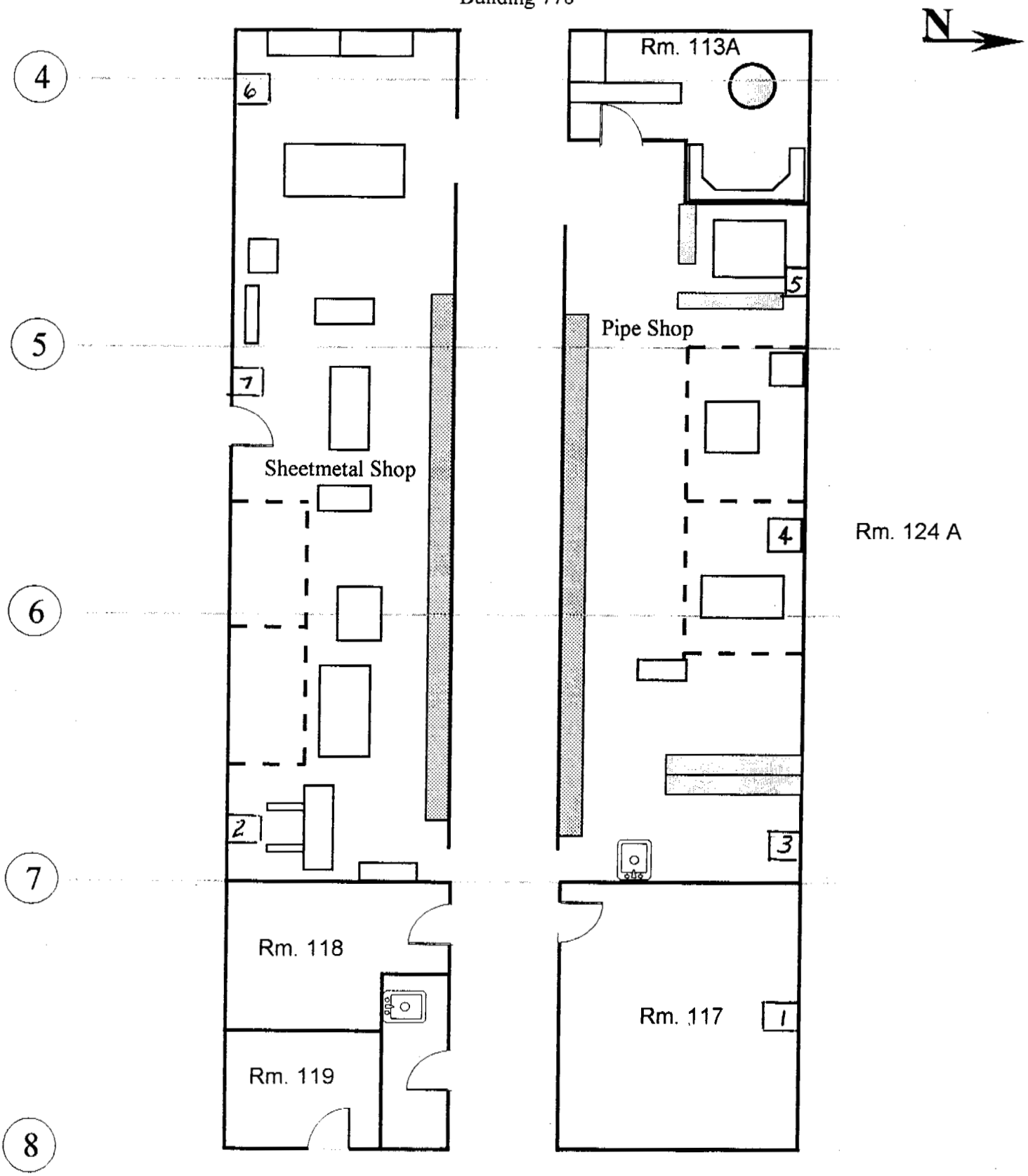
 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points 284

Building 778

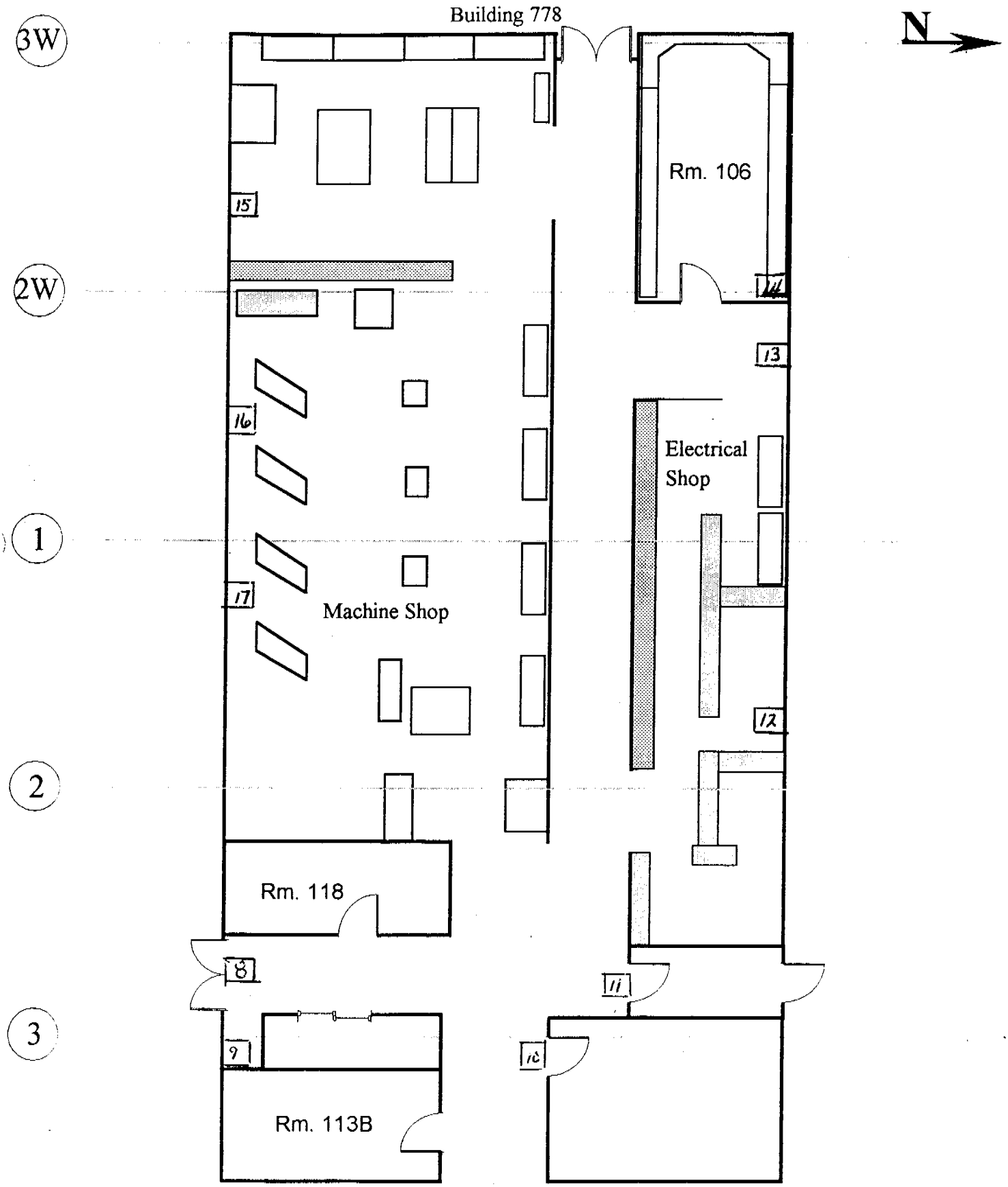


 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points 3 of 4

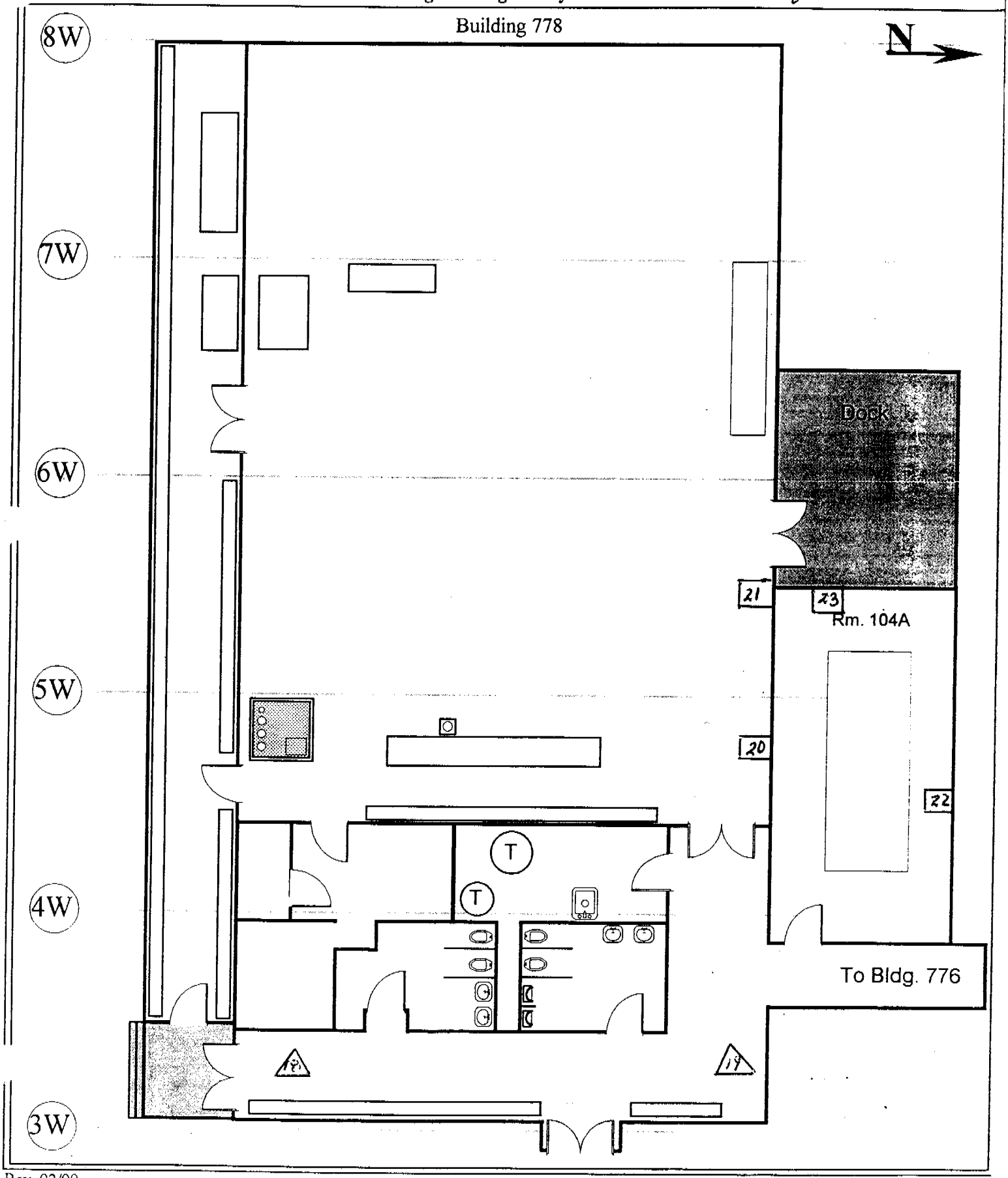


RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points 4 of 4



B-3
RLC RADIOLOGICAL DATA
Survey Area C
Bldg 778, West, CA

Radiological Survey/Sample Results for Survey Area C (00-0002)

Total Surface Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	-12	N/A
MAX	84	N/A
MEAN	20.5	N/A
STD DEV	26.8	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	10	10
MIN	12	N/A
MAX	132	N/A
MEAN	55	N/A
STD DEV	36.7	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	10	10
MIN	-12	N/A
MAX	12	N/A
MEAN	-3.6	N/A
STD DEV	8.1	N/A
Equipment Biased	# Required	# Obtained
	30	30
MIN	-12	N/A
MAX	474	N/A
MEAN	42.9	N/A
STD DEV	85.3	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	0	-48
MAX	6	36
MEAN	1.1	-3.9
STD DEV	1.9	22.9
Floors/Walls < 2 m Biased	# Required	# Obtained
	10	10
MIN	0	-44
MAX	6	92
MEAN	2.4	-5.6
STD DEV	2.4	43.3
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	10	10
MIN	0	-48
MAX	6	72
MEAN	2.4	0.2
STD DEV	2.8	43.8
Equipment Biased	# Required	# Obtained
	30	30
MIN	0	-36
MAX	9	40
MEAN	1.7	7.5
STD DEV	2.5	21.4
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
N/A	N/A

Total Uranium Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	100

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 1518
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due 6-29-00
Bkg. 0.0 cpm	Bkg. 0.6 cpm	Bkg. 1.0 CPM
Efficiency 33%	Efficiency 33%	Efficiency 21.86%
MDA 8.2 dpm	MDA 16.3 dpm	MDA 94 DPM
Mfg. Eberline	Mfg. Eberline N/A	Mfg. NETech
Model BC-4	Model BC-4	Model Electra
Serial # 959	Serial #	Serial # 3265
Cal Due 7-19-00	Cal Due	Cal Due 7-3-00
Bkg. ~~42~~ 45 cpm RL 54.00	Bkg.	Bkg. 3.0 CPM
Efficiency 25%	Efficiency 25%	Efficiency 21.01%
MDA ~~16.3~~ 103.4 dpm RL 54.00	MDA NA	MDA 94 DPM

Survey Type: Contamination

Building: 778

Location: West - CA Survey Area C

Purpose: Reconnaisance Level Characterization

RWP # 00-707-1204

Date: 5-~~8~~ 4-00 (5-4-00) Time: Days

RCT [redacted]

RCT [redacted]

Comments: Floor / Walls < 2 meters : Unbiased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Wall	0	-8	-6	16.	Wall	0	4	-6
2.	|	0	16	-6	17.	Floor	0	20	30
3.	|	0	-4	-6	18.	Floor	3	-48	36
4.	|	0	-12	0	19.	Wall	0	-28	6
5.	Wall	0	24	0	20.	Wall	0	-20	6
6.	Floor	0	-44	~~168~~ 66 RL 54.00	21.	Floor	0	-8	84
7.	|	0	-32	18	22.	Wall	0	36	6
8.	|	6	12	84	23.	Floor	3	24	24
9.	|	0	0	54	24.	Floor	0	4	~~8~~ 6 RL 54.00
10.	Floor	6	20	6	25.	Wall	3	-8	30
11.	Wall	0	8	-12	26.	Wall	3	-24	24
12.	|	3	-12	0	27.	Floor	3	-36	54
13.	Wall	0	32	12	28.	|	3	4	48
14.	Floor	0	16	6	29.	Floor	0	-16	12
15.	Floor	0	-32	18	30.	Wall			

Date Reviewed: 5-8-00 **RS Supervision** [redacted]

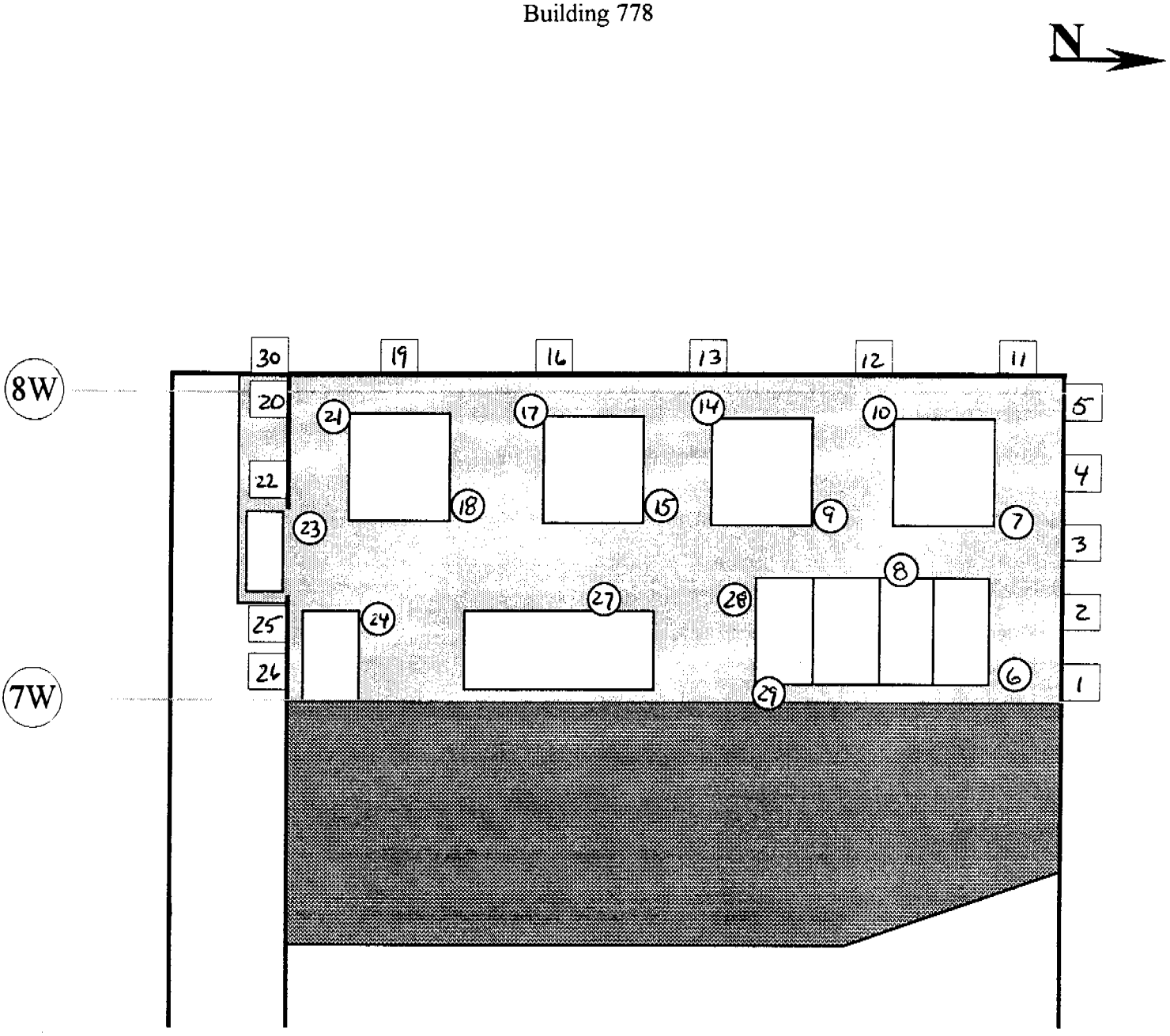
 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Building 778



-R.M.A.

-C.A.

94

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 1518
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due 6-29-00
Bkg. 0.6 cpm	Bkg. 0.6 cpm	Bkg. 1.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 21.86%
MDA 8.2 dpm	MDA 16.3 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline N/A	Mfg. NA
Model BC-4	Model BC-4	Model
Serial # 959	Serial #	Serial #
Cal Due 7-19-00	Cal Due	Cal Due
Bkg. 45 cpm	Bkg.	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 103.4 dpm	MDA NA	MDA NA

Survey Type: Contamination

Building: 778

Location: West- CA Survey Area C

Purpose: Reconnaisance Level Characterization

RWP # 007671264

Date: 5-4-00 Time: p.m.

[redacted]

Print name / Signature / Emp. #

Comments: Floor / Walls < 2 meters : Biased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	under washer	3	36	72	16.	NA			
2.	under deck plate	0	92	30	17.				
3.	Drain	0	4	78	18.				
4.	under washer	3	-36	12	19.				
5.	Drain	3	-36	132	20.				
6.	under washer	6	-12	36	21.				
7.	Lint trap	0	-36	28	22.				
8.	Lint trap	6	12	54	23.				
9.	under washer	0	-36	24	24.				
10.	under washer	3	-44	84	25.				
11.	END OF SURVEY			NA	26.				
12.					27.				
13.					28.				
14.					29.				
15.	NA				30.				NA

Date Reviewed: 5-8-00 **RS Supervision** [redacted]

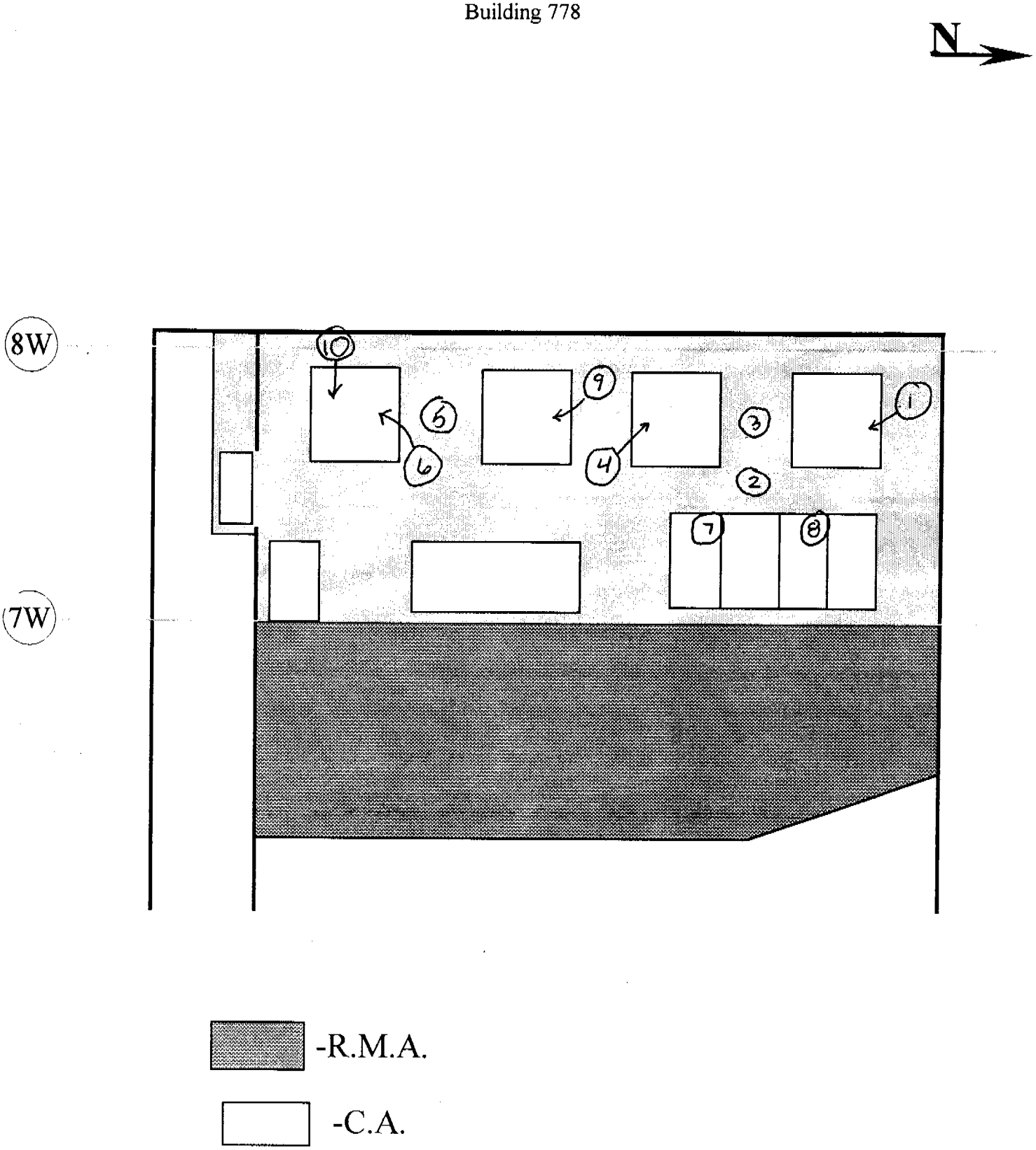
 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Building 778



 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 1233
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due 5-11-00
Bkg. 0.0 cpm	Bkg. 6.6 cpm	Bkg. 3.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 20.63%
MDA 8.2 dpm	MDA 16.3 dpm	MDA 94 DPM
Mfg. Eberline	Mfg. Eberline NA	Mfg. NA
Model BC-4	Model BC-4	Model
Serial # 959	Serial #	Serial #
Cal Due 7-19-00	Cal Due	Cal Due
Bkg. 45cpm	Bkg.	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 103.4 dpm	MDA NA	MDA NA

Survey Type: **Contamination**

Building: 778

Location: West - CA Survey Area C

Purpose: **Reconnaisance Level Characterization**

RWP # 007071204

Date: 5-4-00 Time: pm

R[redacted]

R[redacted]

Print name / Signature / Emp. #

Comments: Ceiling / Walls > 2 meters : Biased survey points.
1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	Wall >2m	0	-48	0	16.	NA			
2.		0	72	-6	17.				
3.		6	4	6	18.				
4.		3	0	-6	19.				
5.		0	-40	-12	20.				
6.	Wall >2m	6	12	12	21.				
7.	Ceiling	0	72	-12	22.				
8.		0	-48	-6	23.				
9.		6	-32	0	24.				
10.	Ceiling	3	4	-12	25.				
11.	END OF SURVEY			NA	26.				
12.					27.				
13.					28.				
14.					29.				
15.	NA				30.				NA

Date Reviewed: 5-8-00 **RS Supervision:** [redacted]

Rev. 02/00

1 of 7

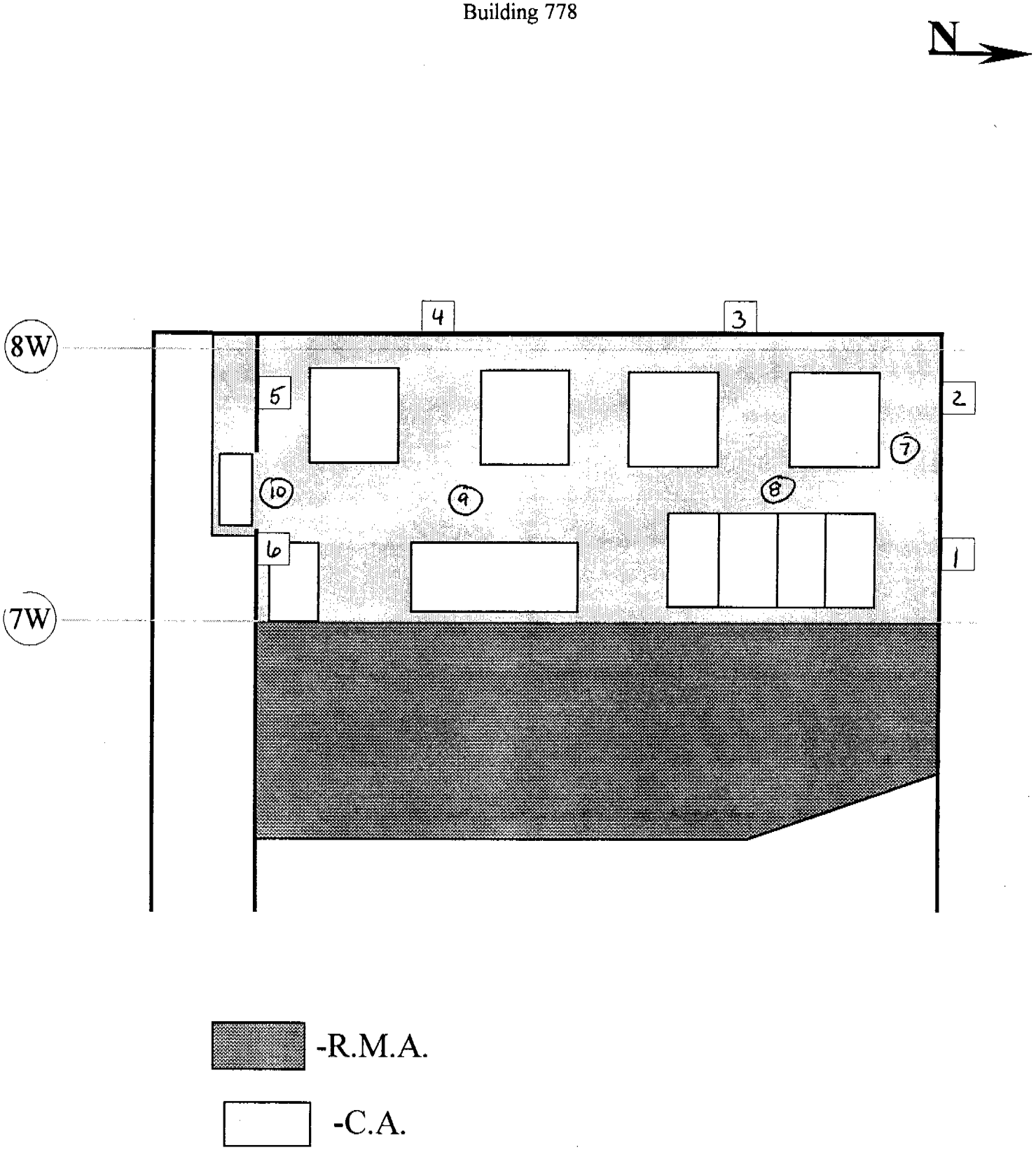
 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Building 778



 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 1518
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due 6-29-00
Bkg. 0.0 cpm	Bkg. 0.6 cpm	Bkg. 1.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 2186%
MDA 8.2 cpm	MDA 16.3	MDA 94 DPM
Mfg. Eberline	Mfg. Eberline/NA	Mfg. NA
Model BC-4	Model BC-4	Model
Serial # 959	Serial #	Serial #
Cal Due 7-19-00	Cal Due	Cal Due
Bkg. 45cpm	Bkg.	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 103.4	MDA NA	MDA NA

Survey Type: Contamination
Building: 778
Location: West - CA Survey Area C
Purpose: **Reconnaisance Level Characterization**

RWP # 00707 1204

Date: 5-4-00 Time: Days

[redacted]

Comments: Equipment : Biased survey points.
1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	Washer	0	40	18	16.	Inside Dryer	0	16	54
2.	|	6	0	48	17.	|	3	-8	24
3.	|	3	20	84	18.	Inside Dryer	0	32	30
4.	|	0	-20	30	19.	~~SPC 5-4-00~~ Dryer	0	28	24
5.	|	0	24	66	20.	Dryer	3	12	-12
6.	|	9	16	42	21.	Duct	0	36	18
7.	WASHER	3	32	6	22.	Piping	0	-4	-6
8.	Dryer	0	-16	48	23.	Duct	0	-4	12
9.	|	0	28	66	24.	Light	0	-20	-6
10.	|	6	-8	48	25.	Duct	0	-24	-6
11.	Dryer	3	-4	474	26.	Top Dryer	0	-12	-12
12.	Table	3	8	30	27.	Vent pipe	0	-12	24
13.	Dryer	3	12	24	28.	Steam pipe	6	4	30
14.	Inside Dryer	0	-36	66	29.	Piping	0	40	6
15.	Dryer	3	4	52	30.	Piping	0	40	6

Date Reviewed: 5-8-00 **RS Supervision:** [redacted]

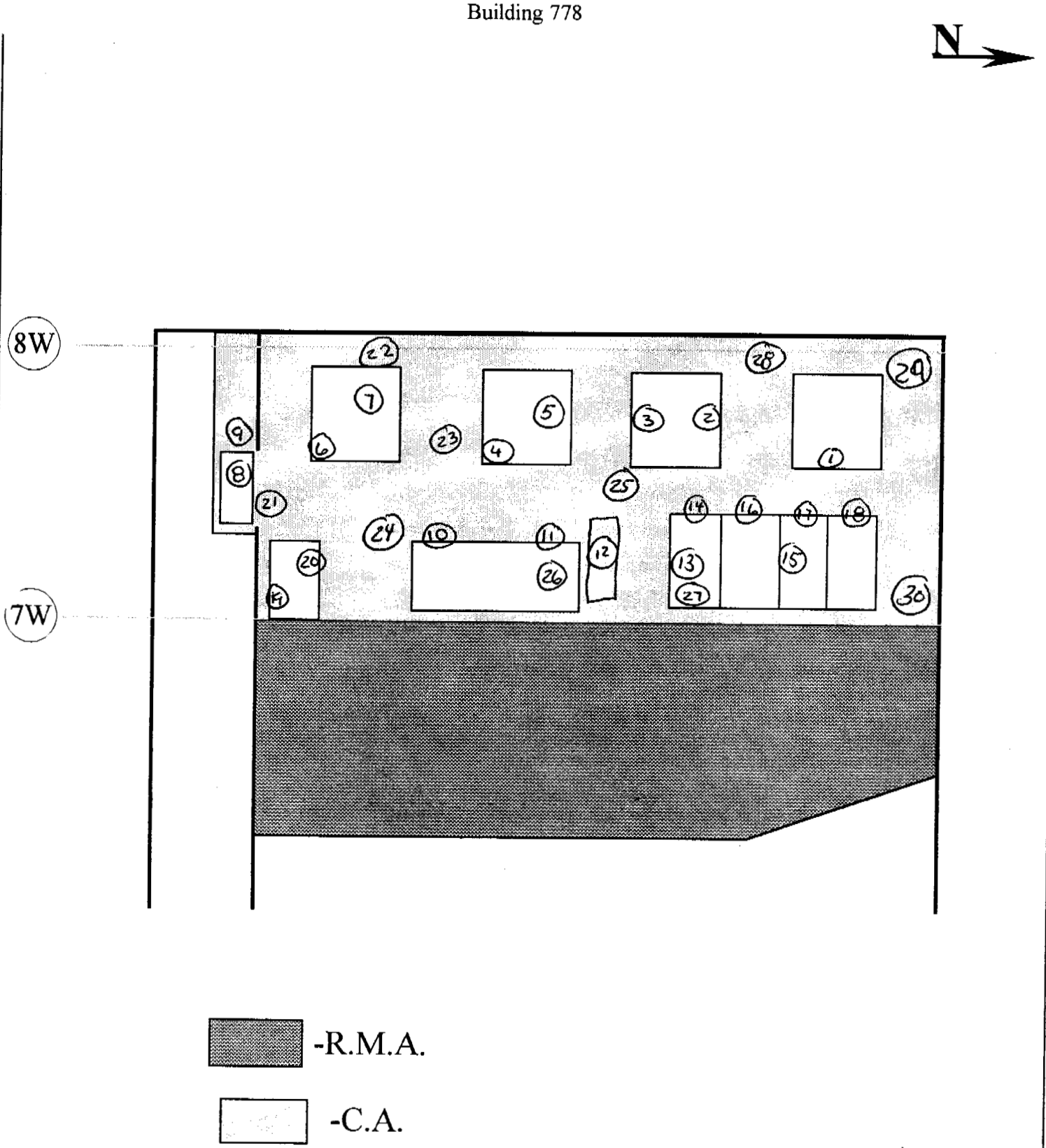
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Building 778



B-3
RLC RADIOLOGICAL DATA
Survey Area D
Bldg 778, Exterior Roof

C-1
RLC CHEMICAL DATA

702

Radiological Survey/Sample Results for Survey Area D (00-0002)

Total Surface Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	24	N/A
MAX	222	N/A
MEAN	82.7	N/A
STD DEV	51	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	10	10
MIN	42	N/A
MAX	468	N/A
MEAN	168.6	N/A
STD DEV	135.9	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Equipment Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	0	-32
MAX	6	48
MEAN	1.5	10
STD DEV	2	22.4
Floors/Walls < 2 m Biased	# Required	# Obtained
	10	10
MIN	0	-32
MAX	6	60
MEAN	1.2	7.6
STD DEV	2.5	28
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Equipment Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
N/A	N/A

Total Uranium Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	100

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 1518
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due 6-29-00
Bkg. 0.2 cpm	Bkg. 0.3 cpm	Bkg. 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency .2186
MDA 12.9 dpm	MDA 13.9 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg. NETech
Model BC-4	Model BC-4	Model Electra
Serial # 959	Serial # 833	Serial # 1233
Cal Due 7-19-00	Cal Due 7-14-00	Cal Due 5-11-00
Bkg. 40 cpm	Bkg. 36 cpm	Bkg. 0.0 cpm
Efficiency 25%	Efficiency 25%	Efficiency .2063
MDA 98.1 dpm	MDA 93.7 dpm	MDA 94 dpm

Survey Type: Contamination
Building: 778
Location: Exterior Roof Survey Area A
Purpose: Reconnaisance Level Characterization

RWP # 00707 1204

Date: 4-27 5-1-00 Time: Days

[redacted]

Comments: Roof / Exterior Walls < 2 meters : Unbiased survey points. 142
1 m² scans, 1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Wall < 2m	0	12	24	16.	Wall < 2m	6	-4	132
2.	" "	0	32	42	17.	" "	3	-32	78
3.	" "	0	36	60	18.	" "	3	40	60
4.	" "	0	4	60	19.	Roof	3	12	66
5.	" "	0	28	52	20.	"	0	20	72
6.	" "	0	-16	102	21.	"	3	32	102
7.	" "	0	12	42	22.	"	3	40	156
8.	" "	0	40	42	23.	"	3	-12	156
9.	" "	0	-4	24	24.	"	0	16	150
10.	" "	3	-28	60	25.	"	0	-4	24
11.	" "	3	16	30	26.	"	0	20	156
12.	" "	0	-28	24	27.	"	0	8	222
13.	" "	6	-12	84	28.	"	0	-12	144
14.	" "	0	28	54	29.	"	0	-8	114
15.	" "	0	48	102	30.	"	6	16	48

Date Reviewed: 5-2-00 **RS Supervisio**[redacted]

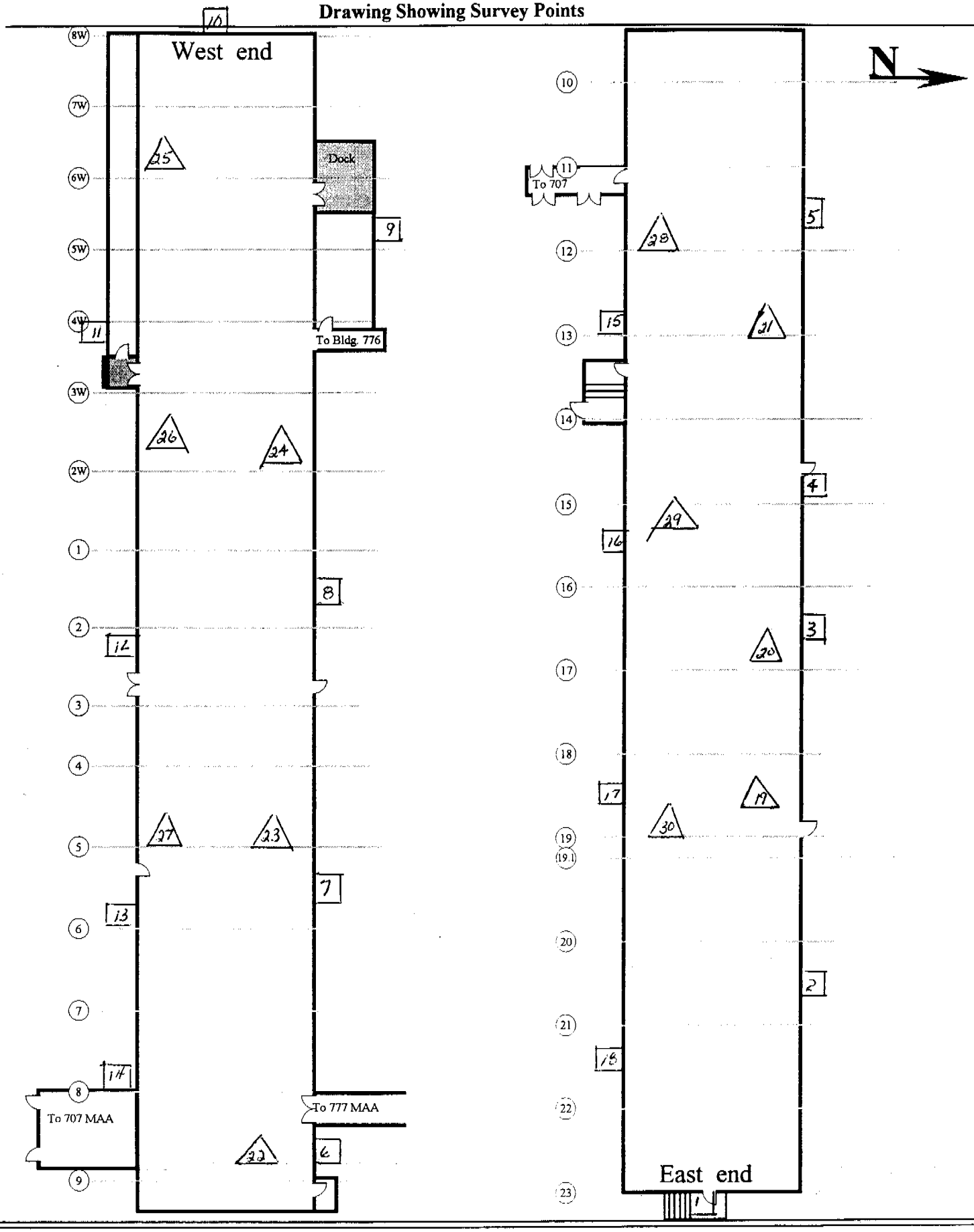
 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

242

Drawing Showing Survey Points



7015

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial #
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due N/A
Bkg. 0.1 cpm	Bkg. 0.2 cpm	Bkg.
Efficiency 33%	Efficiency 33%	Efficiency
MDA 11.5 dpm	MDA 12.9 dpm	MDA
Mfg. Eberline	Mfg. Eberline	Mfg. NE Tech
Model BC-4	Model BC-4	Model Electra
Serial # 959	Serial # 833	Serial # 1233
Cal Due 7-19-00	Cal Due 7-14-00	Cal Due 5-11-00
Bkg. 35 cpm	Bkg. 43 cpm	Bkg. 0.0 cpm
Efficiency 25%	Efficiency 25%	Efficiency 12063
MDA 92.5 dpm	MDA 101.3 dpm	MDA 94 dpm

Survey Type: Contamination
Building: 778
Location: Exterior Survey Area D
Purpose: Reconnaisance Level Characterization

RWP # 007071204

Date: 5-1 5-2 -00 Time: Days

[redacted]

Comments: Roof / Exterior Walls : Biased survey points. 1 of 2
1 m² scans, 1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Down Spout	0	8	168	16.				
2.	Drain	6	-32	48	17.				
3.	Drain	0	32	60	18.				
4.	Downspout	0	20	126	19.				
5.	Downspout	0	20	42	20.				
6.	Grate Over Drain	0	-24	468	21.				
7.	Downspout	0	-12	264	22.				
8.	Downspout	0	20	120	23.				
9.	Downspout	6	-12	294	24.				
10.	Roof Above Door	0	16	96	25.				
11.	N/A				26.				
12.					27.				
13.					28.				
14.					29.				
15.					30				

Date Reviewed: 5-2-00 **RS Supervision:** [redacted]

Rev. 02/00

706

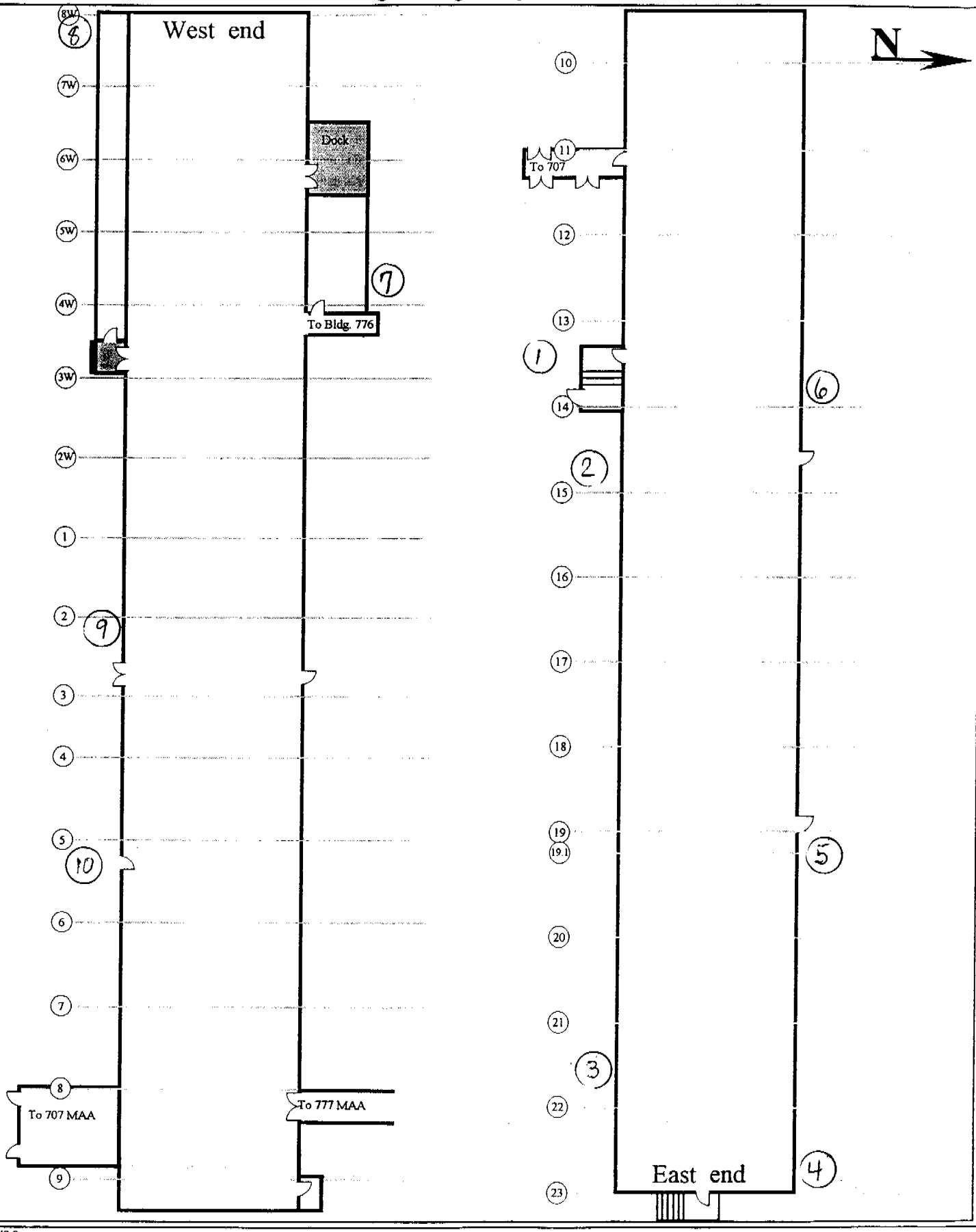
 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

2 of 2

Drawing Showing Survey Points



Building 707S

ASBESTOS INSPECTOR'S REPORT

Building 707S is a storage shed with a wood floor and metal exterior walls. Fiberglass insulation was identified inside the walls – not sampled. The only suspect material was the drywall and tape joint compound. Analytical results indicate no asbestos containing material in the drywall and tape joint compound.

Sample Number	Sample Location & Description	% Asbestos
707S-05032000-05-001	Drywall and tape joint compound - ceiling	None Detected
707S-05032000-05-002	Drywall and tape joint compound – ceiling	None Detected
707S-05032000-05-003	Drywall and tape joint compound - wall	None Detected

708

C-2
RLC RADIOLOGICAL DATA
Survey Area G
T707S, Interior

Radiological Survey/Sample Results for Survey Area G (2000-0002)

Total Surface Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	27
MIN	0	N/A
MAX	42	N/A
MEAN	12.9	N/A
STD DEV	11.6	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	10	10
MIN	-12	N/A
MAX	24	N/A
MEAN	7.2	N/A
STD DEV	11.6	N/A
Equipment Biased	# Required	# Obtained
	30	19
MIN	-6	N/A
MAX	24	N/A
MEAN	3.8	N/A
STD DEV	8.8	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	27
MIN	0	-44
MAX	3	72
MEAN	1.1	-0.6
STD DEV	1.5	26.1
Floors/Walls < 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	10	10
MIN	0	-32
MAX	6	40
MEAN	0.9	-8
STD DEV	2	23.6
Equipment Biased	# Required	# Obtained
	30	19
MIN	0	-68
MAX	6	28
MEAN	0.9	-13.9
STD DEV	1.7	22.3
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
N/A	N/A

Total Uranium Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	100

710

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 3265
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due 7-3-00
Bkg. 0.0	Bkg. 0.4	Bkg. ~~0.3~~ 3.0 dpm RAB 4-20-00
Efficiency 33%	Efficiency 33%	Efficiency 21.0%
MDA ~~20 dpm~~ 8.22 dpm RAB 4-20-00	MDA ~~30 dpm~~ 14.8 dpm RAB 4-20-00	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg. NA
Model BC-4	Model BC-4	Model
Serial # BC 833	Serial # BC 959	Serial #
Cal Due 7-14-00	Cal Due 7-19-00	Cal Due
Bkg. 46.0 cpm	Bkg. 38.0 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 104.5 dpm	MDA 95.9 dpm	MDA NA

Survey Type: Contamination

Building: T707-S

Location: Inside Survey Area G

Purpose: Reconnaisance Level Characterization

RWP # N/A

Date: 4-20-00 Time: 1430

[redacted]

RCT: N/A / N/A / N/A
Print name / Signature / Emp. #

Comments: Floor / Walls < 2 meters : Unbiased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.
28-30 unaccessible

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Floor	0	-36	0	16.	Wall	3	-20	24
2.	Floor	0	8	18	17.	Wall	3	-12	0
3.	Floor	0	32	0	18.	Wall	0	-24	0
4.	Floor	3	8	12	19.	Wall	3	72	12
5.	Floor	3	-24	18	20.	Wall	0	4	0
6.	Floor	3	-44	18	21.	Wall	3	8	0
7.	Floor	0	28	24	22.	Wall	0	-12	42
8.	Floor	0	0	18	23.	Wall	0	-12	30
9.	Floor	0	0	12	24.	Wall	3	-12	30
10.	Floor	0	-16	0	25.	Wall	0	-36	0
11.	Wall	0	-12	18	26.	Wall	3	12	18
12.	Wall	0	48	12	27.	Wall	0	-12	6
13.	Wall	0	4	24	28.	See comment			
14.	Wall	3	4	12	29.				
5.	Wall	0	28	0	30.	See comment			

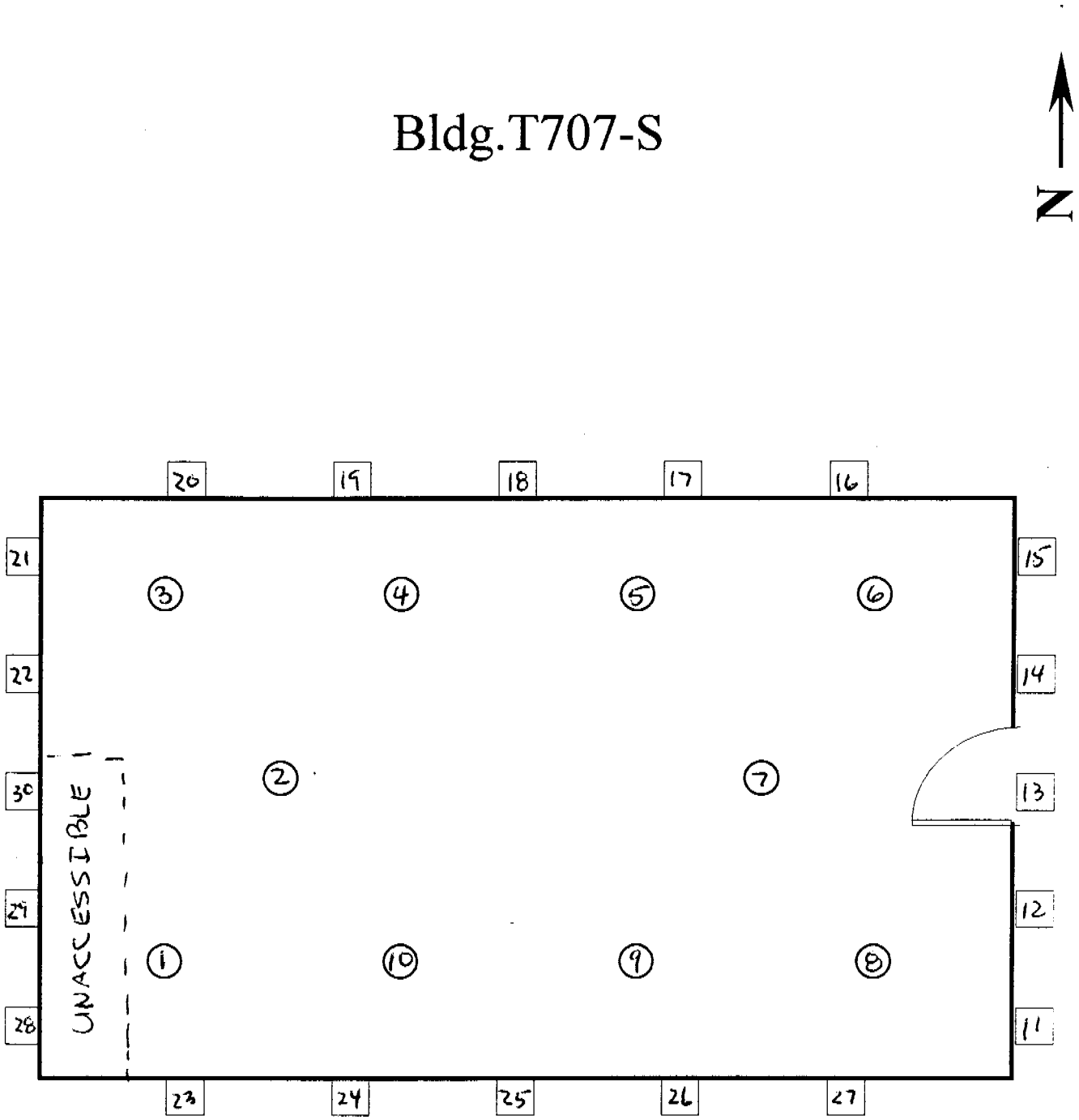
Date Reviewed: 5-2-00 **RS Supervision:** [redacted]
Print Name Signature Emp. #

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 1233
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due 5-11-00
Bkg. 0.0 cpm	Bkg. 0.3 cpm	Bkg. 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 20.63%
MDA 8.2 DPM	MDA 13.9 DPM	MDA 94 DPM
Mfg. Eberline	Mfg. Eberline	Mfg. NA
Model BC-4	Model BC-4	Model
Serial # 959	Serial # 833	Serial #
Cal Due 7-19-00	Cal Due 7-14-00	Cal Due
Bkg. 43 cpm	Bkg. 43 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 101.3 DPM	MDA 101.3 DPM	MDA NA

Survey Type: Contamination
Building: T707-S
Location: Inside Survey Area G
Purpose: Reconnaisance Level Characterization

RWP # NA

Date: 4-27-00 Time: 1400

RCT [redacted]

RCT: NA →
Print name / Signature / Emp. #

Comments: Equipment : Biased survey points.
1 minute pats and swipes. See map for locations.
20-30 not enough equipment to survey.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Elect Box	0	-16	6	16.	window sil	0	4	-6
2.	Elect Box	0	28	0	17.	window sil	0	-24	0
3.	conduit	0	-16	12	18.	conduit	3	8	12
4.	conduit J Box	0	-40	-6	19.	conduit	3	4	-6
5.	SPC 4-27-00 ~~conduit~~ bench	0	-20	24	20.	END of SURVEY			NA
6.	bench	0	0	-6	21.				
7.	conduit	0	-8	6	22.				
8.	cabinet	6	-12	12	23.				
9.	Shelf	0	-16	-6	24.				
10.	Shelf	0	8	12	25.				
11.	Shelf	0	-68	6	26.				
12.	Heater	0	-8	12	27.				
13.	J-Box	3	-52	-6	28.				
14.	Light	3	-12	6	29.				
15.	Light	0	-24	0	30.	NA			

Date Reviewed: 5-2-00 **RS Supervision:** [redacted]
Print Name Signature Emp. #

Rev. 02/00

713

RS FORMS 07.02-01

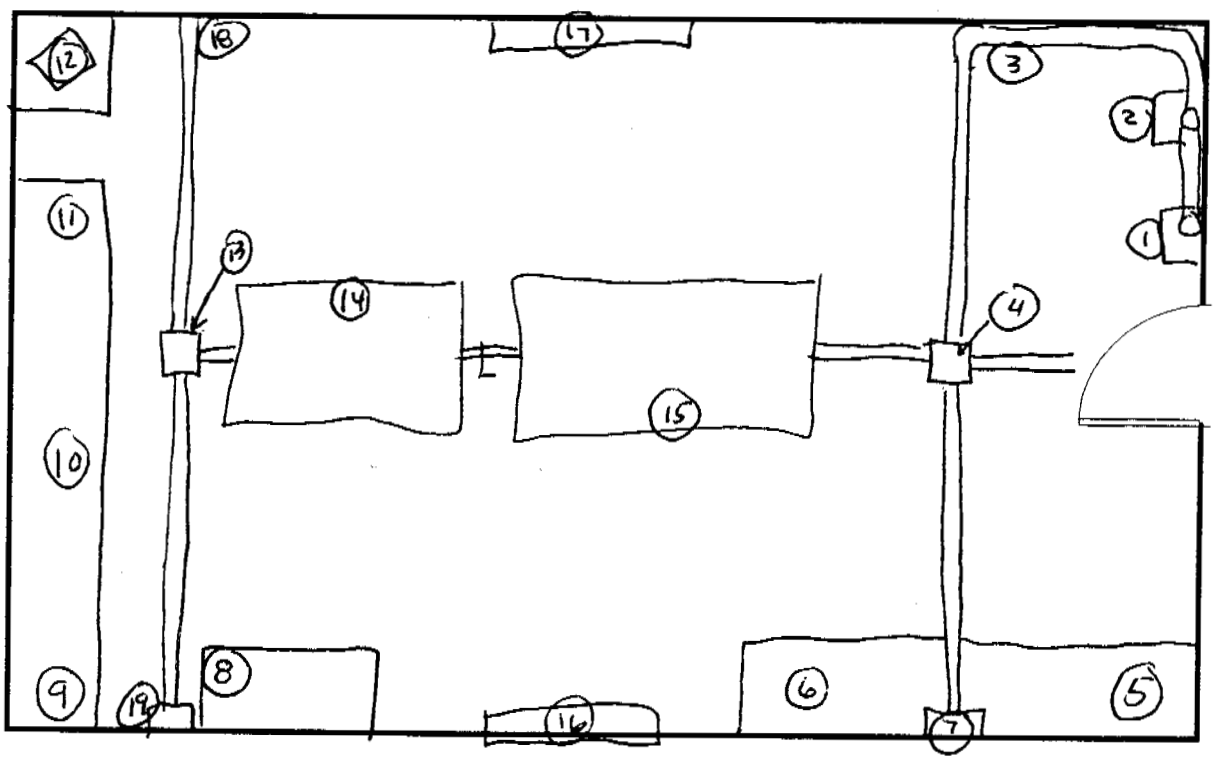
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Bldg.T707-S

N



7/V

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 1233
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due 5-11-00
Bkg. 0.0 cpm	Bkg. 0.3 cpm	Bkg. 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 20.63%
MDA 8.2 DPM	MDA 13.9 DPM	MDA 94 DPM
Mfg. Eberline	Mfg. Eberline	Mfg. NA
Model BC-4	Model BC-4	Model
Serial # 959	Serial # 833	Serial #
Cal Due 7-19-00	Cal Due 7-14-00	Cal Due
Bkg. 43 cpm	Bkg. 43 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 101.3 DPM	MDA 101.3 DPM	MDA NA

Survey Type: Contamination
Building: T707-S
Location: Inside Survey Area G
Purpose: Reconnaisance Level Characterization

RWP # NA

Date: 4-27-00 Time: 1500

RCT: [redacted]

RCT: NA
Print name / Signature / Emp. #

Comments: Ceiling / Walls > 2 meters : Biased survey points.
1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	Wall	3	-28	12	16.	NA			
2.		0	40	0	17.				
3.		0	-8	18	18.				
4.		0	8	18	19.				
5.		0	-20	6	20.				
6.		6	-28	0	21.				
7.		0	-32	12	22.				
8.	Wall	0	8	-6	23.				
9.	Ceiling	0	-28	24	24.				
10.	Ceiling	0	8	-12	25.				
11.	END OF SURVEY			NA	26.				
12.					27.				
13.					28.				
14.					29.				
5.	NA				30.				NA

Date Reviewed: 5-2-00 **RS Supervision:** [redacted]
Print Name Signature Emp. #

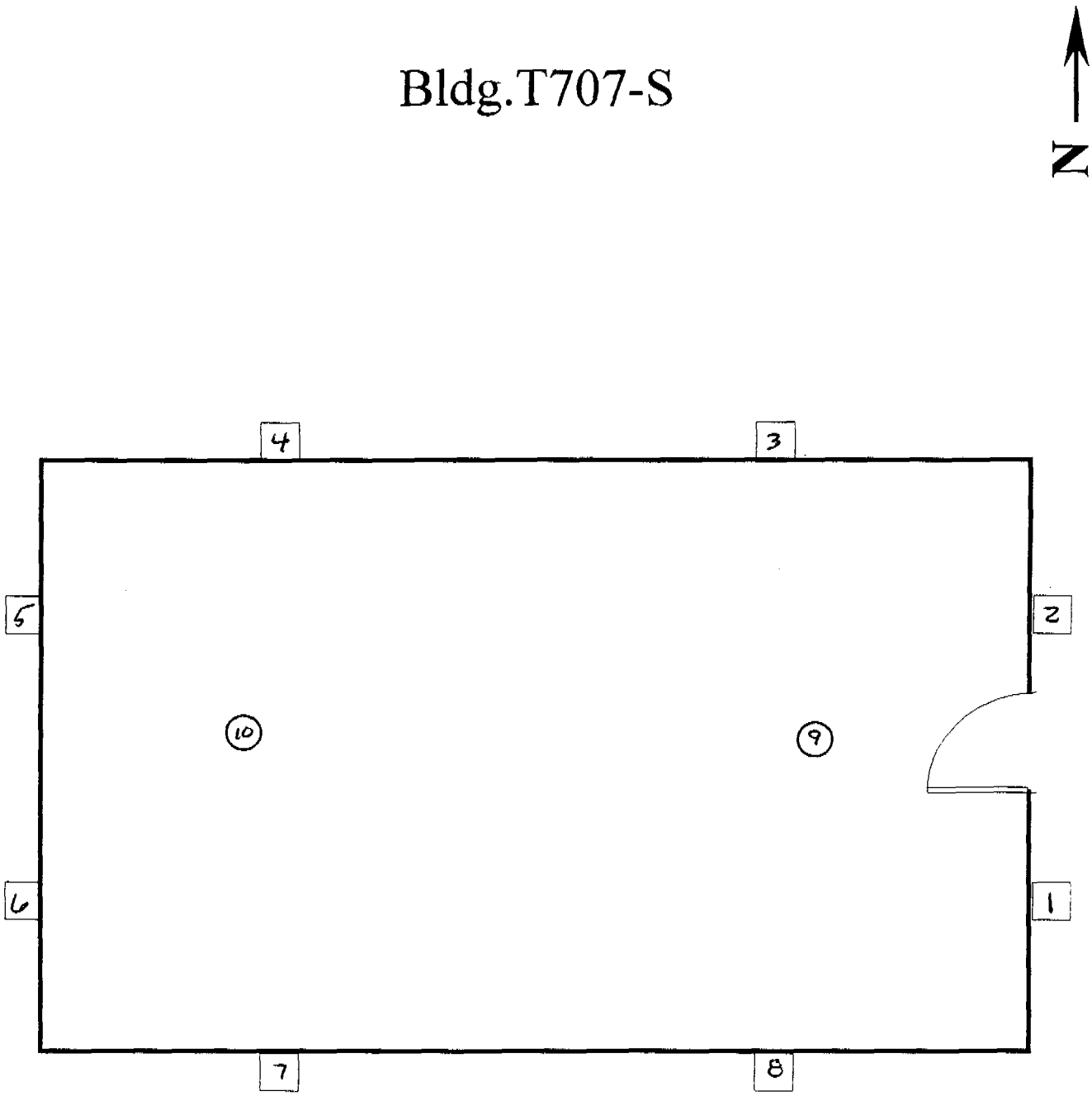
Rev. 02/00
71C7

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



C-2
RLC RADIOLOGICAL DATA
Survey Area H
T707S, Exterior

717

Radiological Survey/Sample Results for Survey Area H (2000-0002)

Total Surface Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	0	N/A
MAX	78	N/A
MEAN	27.8	N/A
STD DEV	18.5	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Equipment Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	0	-28
MAX	15	40
MEAN	1.7	1.9
STD DEV	3.8	18.8
Floors/Walls < 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Equipment Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
N/A	N/A

Total Uranium Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	100

718

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # C 1270	Serial # 1233
Cal Due 8-15-00	Cal Due 4-12-00	Cal Due 5-11-00
Bkg. 0.1 cpm	Bkg. 0.2 cpm	Bkg. 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 20.63%
MDA 11.5 DPM	MDA 12.9 DPM	MDA 94 DPM
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 40 cpm	Bkg. 41 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 98.1 DPM	MDA 99.2 DPM	MDA

Survey Type: **Contamination**

Building: **T707-S**

Location: Roof - Wall Survey Area H

Purpose: **Reconnaisance Level Characterization**

RWP #

Date: 4-5-00 Time: 1500

RCT: [redacted]

RCT:

Print name / Signature / Emp. #

Comments: Roof / Exterior Walls ~~≤2~~ >2 meters : Unbiased survey points. 1 m² scans, 1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Wall	0	20	30	16.	Wall	0	-12	0
2.	Wall	0	-28	36	17.	Wall	3	-8	12
3.	Wall	0	12	18	18.	Wall	3	-20	24
4.	Wall	0	0	12	19.	Wall	0	8	0
5.	Wall	3	-24	24	20.	Wall	3	-8	36
6.	Wall	0	-24	0	21.	Roof	0	8	30
7.	Wall	0	28	12	22.	Roof	0	4	60
8.	Wall	0	-24	30	23.	Roof	0	12	60
9.	Wall	3	16	36	24.	Roof	3	32	48
10.	Wall	0	-8	30	25.	Roof	0	-16	36
11.	Wall	0	40	24	26.	Roof	3	24	54
12.	Wall	0	24	24	27.	Roof	0	-4	6
13.	Wall	0	-8	30	28.	Roof	0	-8	12
14.	Wall	15	-12	24	29.	Roof	0	8	24
15.	Wall	0	28	24	30.	Roof	15.	-4	78

Date Reviewed: 4-17 00 **RS Supervision:** [redacted]

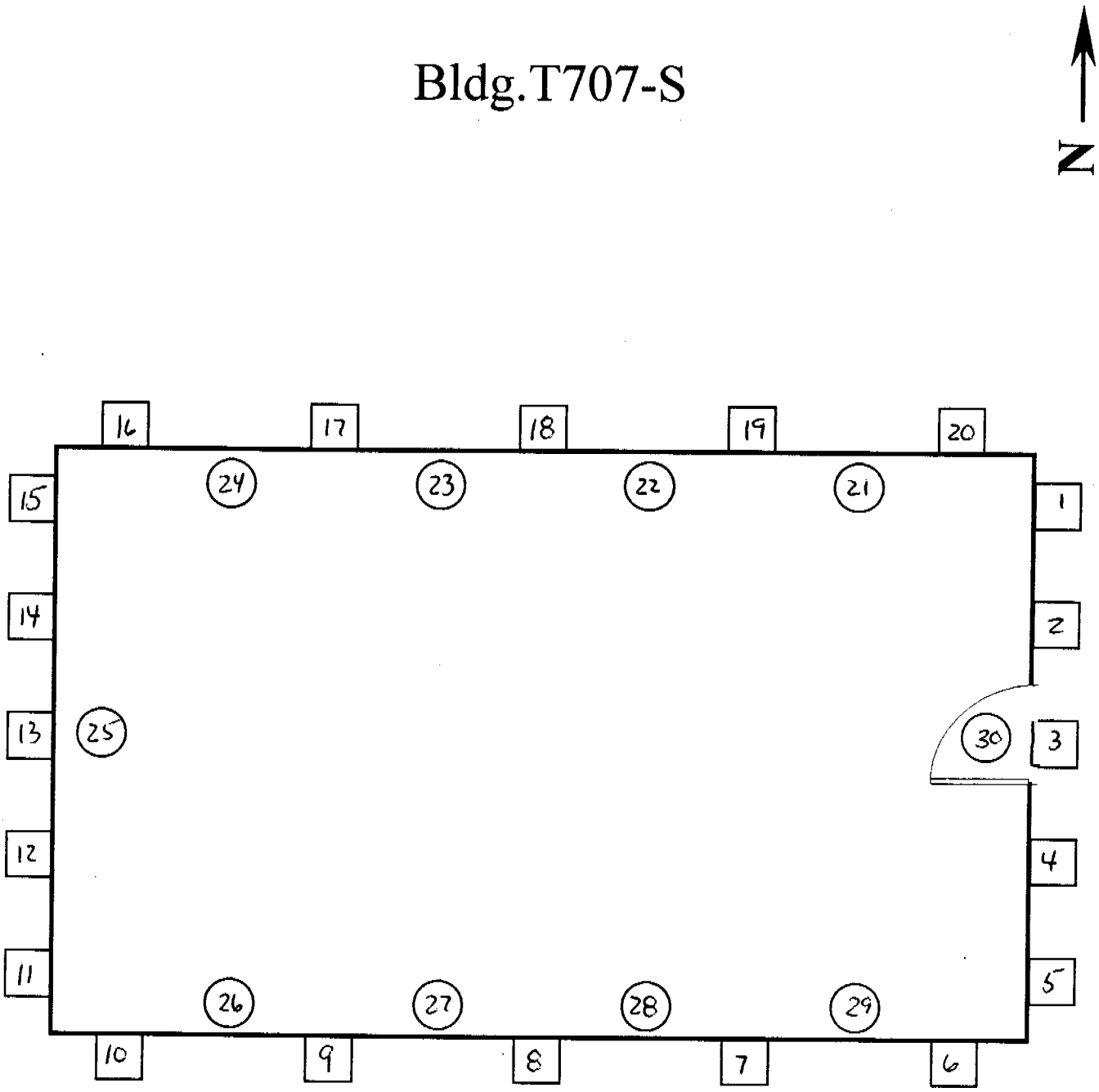
Print Name Signature Emp. #

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



D-1
HISTORICAL CHEMICAL DATA

D-2
RLC CHEMICAL DATA

722

ID No.: 708, 711
718
Date: 04/26/00

D&D Facility Characterization Interview Checklist

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) Buildings 708, 711, 718 Support Utilities Type 1
Personnel Interviewed (Name & Title/Function) Jim Flora Configuration Control Authority/Lead

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

COMMENTS Historical surveys will be in storage at the Federal Center

Is an HRR available for the facility?	Y
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?	Y
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

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

Interviewed by: D. A. Burton / [signature] / 04/26/00
Print Name / Signature / Interview Date

723

D&D Facility Characterization Interview Checklist

What timeframe did the interviewee work in the facility? !980 to present

Has the building configuration changed since you worked in the building? If so, in what way?
Yes. A chiller has been removed from service and is being used as spare parts for the remaining chillers.

What types of equipment were in the building during the interviewee's time there?
Equipment contained in the building 708 are air compressors chillers and diesel powered emergency generators.
Building 711 has draft fans and recalculating pumps one of, which is diesel powered for emergencies.
Building 718 has lead storage batteries and charger for starting the Building 711 diesel.

Where was the equipment located? (specific rooms/areas) In the buildings or on pads outside them.

Were any radioactive materials or metals handled in the building? If so, what types? No

Which equipment handled radioactive material?

Were any chemicals handled in the building? If so, what types? Yes Ethylene glycol and Freon®.

Did any spills or uncontrolled releases of radioactive materials or chemicals occur while you were working in the facility? Yes.

Were these spills/releases cleaned-up? How were they cleaned-up? Yes. Using the methods and to the standards of the time when the spill or occurred.

Where did these spills/releases occur? In Building 708 at the chillers.

Interviewed by: D. A. Burton / [signature] / 04/26/00

Print Name | Signature | Interview Date

Building 708

ASBESTOS INSPECTOR'S REPORT

Building 708 has a concrete foundation and roof with concrete exterior walls. Interior walls are drywall with tape joint compound. The following materials were sampled for asbestos content:

Sample Number	Sample Location & Description	% Asbestos
708-05032000-05-001	TSI elbow – cooling water tower system	10%
708-05032000-05-002	Brine supply valve	10%
708-05032000-05-003	Brine tank insulation – long section	65%
708-05032000-05-004	Brine tank insulation – short end	50%
708-05032000-05-005	TSI elbow – brine return line	65%
708-05032000-05-006	Drywall & tape joint compound – between electrical panels on south end	3% Point count - < 1%
708-05032000-05-007	Drywall & tape joint compound – fire panel on south end	Trace Point count - < 1%
708-05032000-05-008	Drywall only	None Detected
708-05032000-05-009	12" x 12" white floor tile with brown mastic – office	None Detected
708-05032000-05-010	12" x 12" white floor tile with brown mastic – office	None Detected
708-05032000-05-011	1' x 1' white ceiling tile – office	None Detected in ceiling tile. 1.5% detected in joint compound stuck to ceiling tile
708-05032000-05-012	1' x 1' white ceiling tile –office	None Detected
708-05032000-05-013	Cove base mastic – office	Point count – < 1%
708-05032000-05-014	Spray applied beam insulation – around garage door	None Detected
708-05032000-05-015	Spray applied beam insulation – around garage door	None Detected
708-05032000-05-016	Spray applied beam insulation – around garage door	None Detected

D-3

RLC RADIOLOGICAL DATA

Survey Area AA

Bldg 708 & 708C

Radiological Survey/Sample Results for Survey Area AA (99-0002)

Total Surface Activity Measurements dpm/100 cm^2

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	0	N/A
MAX	66	N/A
MEAN	24.4	N/A
STD DEV	16.8	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	4	4
MIN	0	N/A
MAX	12	N/A
MEAN	6	N/A
STD DEV	4.9	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	30
MIN	0	N/A
MAX	42	N/A
MEAN	22	N/A
STD DEV	11	N/A
Equipment Biased	# Required	# Obtained
	35	30
MIN	0	N/A
MAX	96	N/A
MEAN	17.6	N/A
STD DEV	17.9	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm^2

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	0	-48
MAX	6	68
MEAN	0.6	5.2
STD DEV	1.5	28.7
Floors/Walls < 2 m Biased	# Required	# Obtained
	4	4
MIN	0	-20
MAX	0	76
MEAN	0.0	15
STD DEV	0.0	42.8
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	30
MIN	0	-64
MAX	3	52
MEAN	0.7	5.3
STD DEV	1.3	25.8
Equipment Biased	# Required	# Obtained
	35	30
MIN	0	-36
MAX	12	64
MEAN	1.1	18.5
STD DEV	2.8	24.8
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
2	2

Total Uranium Results dpm/100 cm^2

MIN	1
MAX	2
MEAN	1.5
STD DEV	0.7
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm^2

MIN	0
MAX	1
MEAN	0.5
STD DEV	0.7
$DCGL_W$	100

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1270	Serial # 3260
Cal Due 8-15-00	Cal Due 4-12-00	Cal Due 7-17-00
Bkg. 0.1	Bkg. 0.0	Bkg. 3.0
Efficiency 33%	Efficiency 33%	Efficiency .20
MDA 11.5	MDA 8.2	MDA 94
Mfg. Eberline	Mfg. Eberline	Mfg. NE
Model BC-4	Model BC-4	Model Electra
Serial # 872	Serial # 833	Serial # 2307
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due 7-12-00
Bkg. 43	Bkg. 40	Bkg. 2.0
Efficiency 25%	Efficiency 25%	Efficiency .194
MDA 101.3	MDA 98.1	MDA 94

Survey Type: **Contamination**

Building: ~~707~~ 708

Location: Survey Area AA

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 3-29, 3-30-00 Time: Days

[redacted]

Comments: Floor / Walls < 2 meters : Unbiased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Floor	0	12	12	16.	Floor	0	28	24
2.	Floor	0	16	36	17.	Floor	0	-48	0
3.	Floor	0	-16	30	18.	Floor	0	68	12
4.	Floor	3	40	12	19.	Floor	0	-20	36
5.	Floor	6	4	0	20.	Floor	3	24	30
6.	Floor	0	28	12	21.	Floor	0	-12	66
7.	Floor	0	-20	36	22.	Floor	0	-24	24
8.	Floor	0	4	12	23.	Wall < 2m	0	-8	24
9.	Floor	0	-12	18	24.	Wall < 2m	0	24	18
10.	Floor	0	-24	18	25.	Wall < 2m	3	-44	48
11.	Floor	0	8	0	26.	Wall < 2m	0	48	42
12.	Floor	3	4	12	27.	Wall < 2m	0	-28	36
13.	Floor	0	24	24	28.	Wall < 2m	0	20	36
14.	Floor	0	12	12	29.	Wall < 2m	0	36	24
15.	Floor	0	-32	12	30.	Wall < 2m	0	44	66

Date Reviewed: 4-7-00 **RS Supervisi**[redacted]

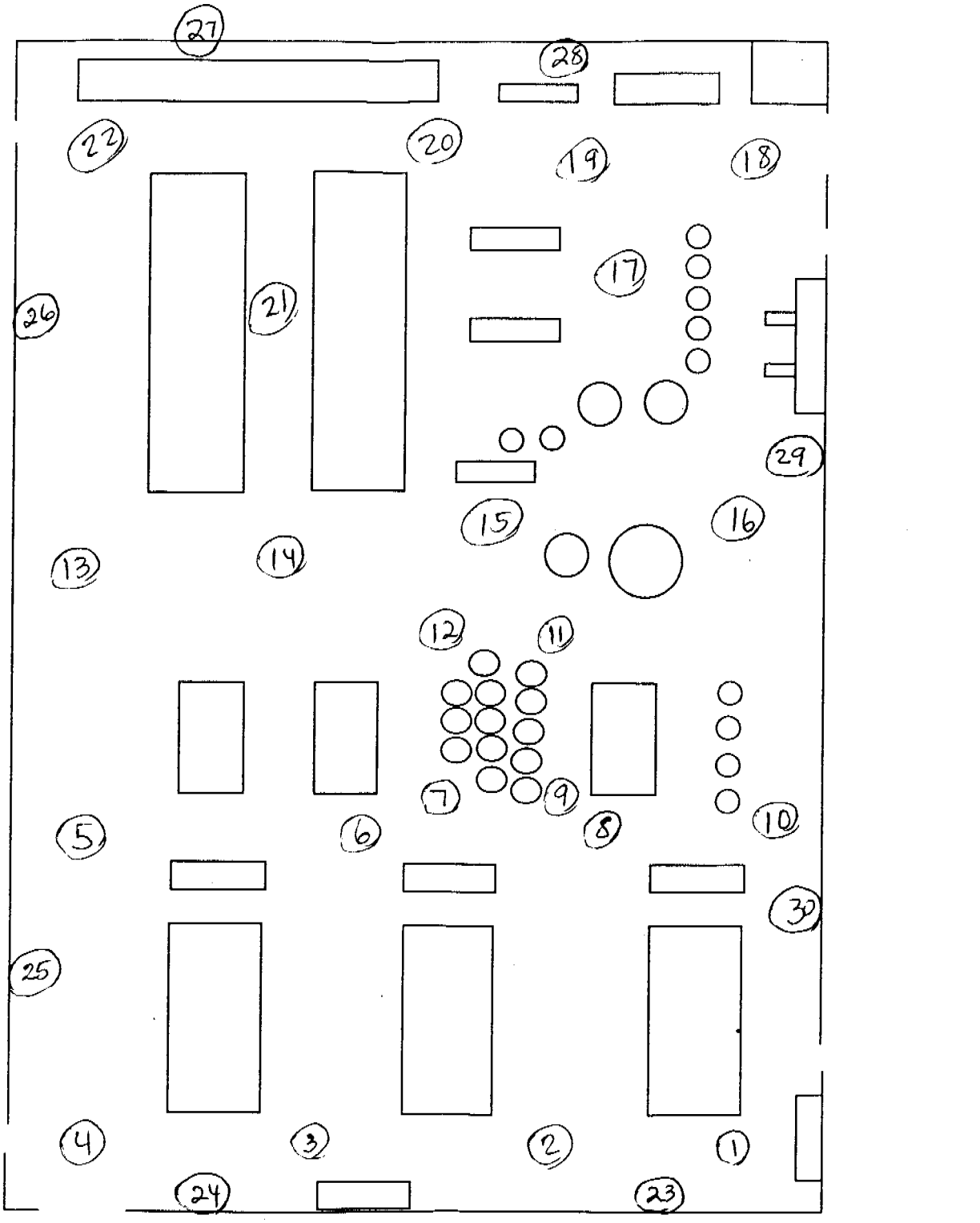
Print Name / Signature / Emp. #

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

BUILDING 708



 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1270	Serial # 1233
Cal Due 8-15-00	Cal Due 4-12-00	Cal Due 5-11-00
Bkg. 0.1 cpm	Bkg. 0.0 cpm	Bkg. 0.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency .2063
MDA 11.5 dpm	MDA 8.2 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due
Bkg. 41 cpm	Bkg. 38 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 99.2 dpm	MDA 95.9 dpm	MDA

4-4-00

Survey Type: **Contamination**

Building: **708**

Location: Survey Area AA

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 4-4-00 Time: DAYS

RC [redacted]

RC [redacted]

Comments: Floor / Walls < 2 meters : Biased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Total Beta	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Total Beta
1.	FLOOR	0	-20	6	N/A	16.					
2.	FLOOR	0	12	12	N/A	17.					
3.	FLOOR	0	-8	0	N/A	18.					
4.	FLOOR	0	76	6	N/A	19.					
5.						20.					
6.						21.					
7.						22.					
8.						23.					
9.						24.					
10.						25.					
11.						26.					
12.						27.					
13.						28.					
14.						29.					
15.											

4-4-00

Date Reviewed: 4-6-00 **RS Supervision:** [redacted]

Rev. 02/00

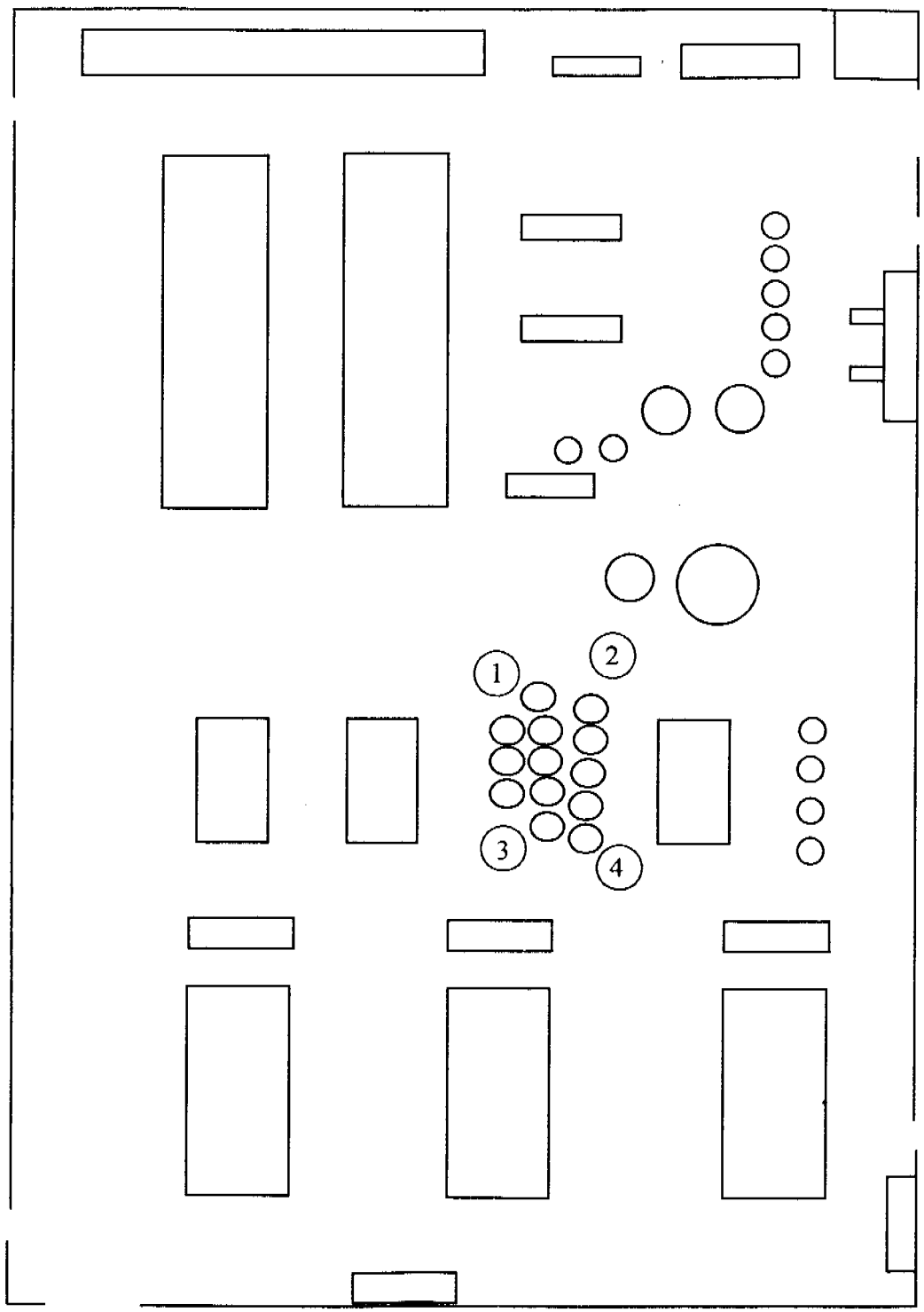
730

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

BUILDING 708



ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1270	Serial # 1233
Cal Due 8-15-00	Cal Due 4-12-00	Cal Due 5-11-00
Bkg. 0.1 cpm	Bkg. 0.0 cpm	Bkg. 0.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 12063
MDA 11.5 dpm	MDA 8.2 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial # N/A
Cal Due 4-12-00	Cal Due 7-14-00	Cal Duc
Bkg. 41 cpm	Bkg. 38 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 99.2 dpm	MDA 95.9 dpm	MDA

Survey Type: Contamination
Building: 708
Location: Survey Area AA
Purpose: Reconnaisance Level Characterization

RWP # 00707 1204

Date: 4-4-00 Time: Days

[redacted]

Comments: Ceiling / Walls > 2 meters : Biased survey points.
1 minute pats and swipes. See map for locations. 182

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	SJ. 4-4-00 ~~Ceiling~~ WALLS >2M	0	4	18	16.	WALLS >2M ~~Ceiling~~ SJ. 4-4-00	0	32	24
2.		0	0	30	17.		0	20	34
3.		0	-16	18	18.		0	-64	0
4.		0	44	30	19.		0	52	12
5.		3	-12	36	20.		0	4	24
6.		0	-16	12	21.		0	44	36
7.		0	12	6	22.		3	4	42
8.		0	16	42	23.		0	24	18
9.		3	36	18	24.		3	24	12
10.		3	-8	6	25.		0	-40	18
11.		0	12	24	26.	Ceiling	0	-8	12
12.		0	-4	18	27.	"	0	-20	18
13.		0	-16	12	28.	"	3	0	24
14.		0	20	30	29.	"	3	-8	30
15.		0	36	24	30.	"	0	-12	42

Date Reviewed: 4-6-00 **RS Supervision:** [redacted]

Rev. 02/00

732

RS FORMS 07.02-01

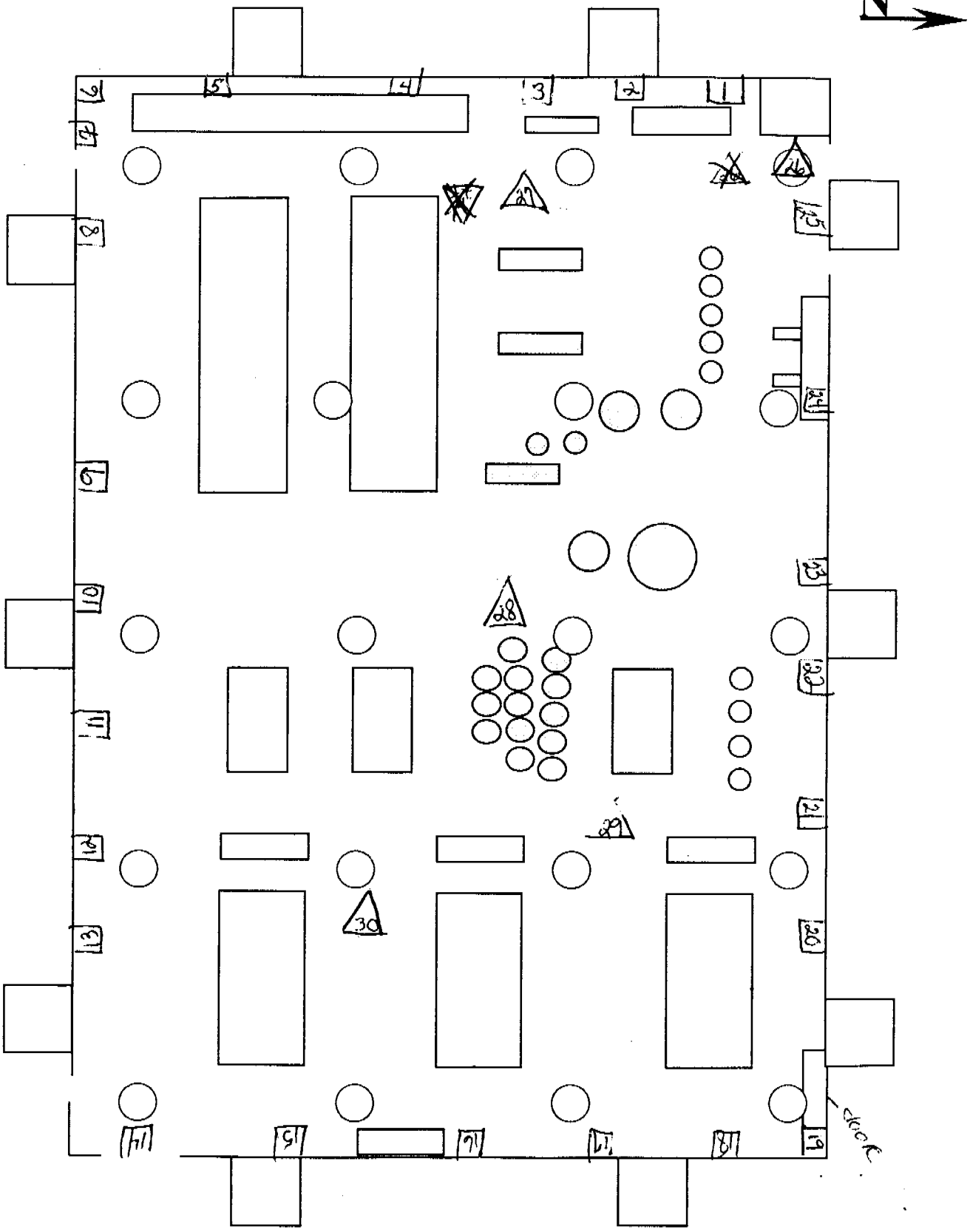
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

232

Drawing Showing Survey Points

BUILDING 708



ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1270	Serial # 1518
Cal Due 8-15-00	Cal Due 4-12-00	Cal Due 6-24-00
Bkg. 0.0 cpm	Bkg. 0.0 cpm	Bkg. 1.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency .2186
MDA 8.2 dpm	MDA 8.2 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg. NE
Model BC-4	Model BC-4	Model ELECTRA
Serial # 872	Serial # 833	Serial # 2307
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due 7-12-00
Bkg. 37 cpm	Bkg. 39 cpm	Bkg. 20 cpm
Efficiency 25%	Efficiency 25%	Efficiency .197
MDA 94.8 dpm	MDA 97.0 dpm	MDA 94 dpm

Survey Type: **Contamination**

Building: **708**

Location: Survey Area AA

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 4-3-00 Time: DAYS

[redacted]

Comments: Equipment : Biased survey points.
1 minute pats and swipes. See map for locations.
10 pts Biased B708S not performed. equipment has been removed from Site.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	PUMP P-74B	0	20	12	16.	TANK #0650	0	32	6
2.	TANK 455-756	0	24	0	17.	MOTOR 330-236	0	40	12
3.	Compressor 39411-820	0	20	18	18.	MOTOR 330-237	0	-20	12
4.	Electrical Panel	0	24	0	19.	TANK # 0667	0	36	18
5.	Electrical Box	0	36	18	20.	TANK # 0665	12	0	36
6.	TANK # 0637	3	-36	96	21.	TANK #0663	0	48	18
7.	Generator Panel	0	44	6	22.	TABLE	3	-12	12
8.	TANK # 0638	0	-12	36	23.	Supply Valve	0	64	6
9.	Generator	0	20	18	24.	TANK	0	36	18
10.	PA-AC-3 #321307	0	32	18	25.	TANK	0	40	18
11.	Air Flow	0	24	6	26.	Valve 708-PA-V-4	9	-20	12
12.	Air Compressor 321261	0	-28	0	27.	TANK Fuel filter	0	24	18
13.	TANK #0656	0	4	12	28.	Support	0	0	12
14.	TANK #0642	3	48	18	29.	Sanitary drain	0	16	42
15.	TANK #0635	3	32	6	30.	Motor Housing	0	20	24

Date Reviewed: 4-6-00 **RS Supervision:** [redacted]

Rev. 02/00

734

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

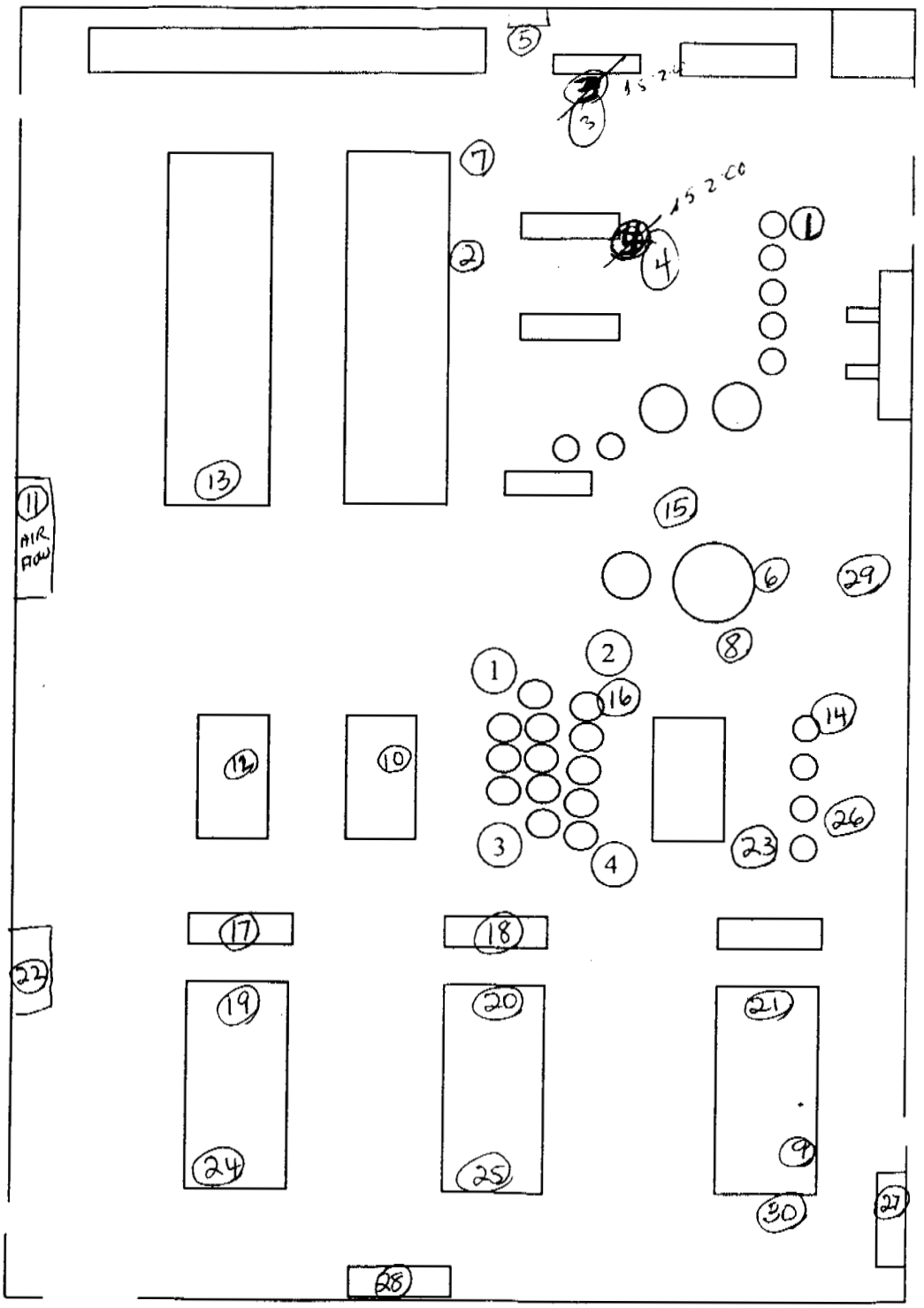
RADIOLOGICAL SAFETY

Drawing Showing Survey Points

BUILDING 708

(EQUIPMENT)

N



735

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#016	Matrix:	Waste
Site Sample ID:	043.002				
Other Sample ID:	Bldg 708 Floor	Collection Date:	5/3/00	Date Received:	5/5/00
		Batch Number:	1940	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1940-02	0.306	0.133	0.146	0.065
ACW03	U-235	KH100-1940-02	0.017	0.033	0.034	0.045
ACW03	U-238	KH100-1940-02	0.272	0.127	0.138	0.076
ACW03	PU-238	KH100-1940-02	0.057	0.125	0.125	0.194
ACW03	PU-239/240	KH100-1940-02	0.191	0.113	0.119	0.043
ACW03	AM-241	KH100-1940-02	0.176	0.146	0.150	0.128

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

736

070

CAS SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 043
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-43-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK:

Comments/Problems encountered during sampling: Radscreen - 2 grams / 150 cm2 (1 1/2 grids). ISO - 7 grams, 450 cm2 (4 1/2 grids). Total - 9 grams / 600 cm2 (6 grids)

Location Description: Bldg. 708, floor in between some drums roped off (radioactive material) + an air discharger marked 708-PA-MS-3.

Other ID: 707-P-43-00

Sample Appearance: Gray paint scrapings, very thin paint

Sampling Device: Heat gun + chisel

Sample Date: 5/3/00 Sample Time: 10:49 Rad Screen Date: 5/3/00

Was generator notified to receive excess sample? (YES) X (NO) ____

Samplers Signatu[redacted]
Employee Numbe[redacted]

Date 5/3/00 5/3/00

737

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name: Kaiser-Hill
Chain-of-Custody Number: 00A1196#016
Matrix: Waste
Site Sample ID: 044.002
Other Sample ID: Bldg 708 Floor
Collection Date: 5/3/00
Date Received: 5/5/00
Batch Number: 1940
Laboratory Code: SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1940-03	0.009	0.031	0.031	0.069
ACW03	U-235	KH100-1940-03	0.046	0.063	0.065	0.085
ACW03	U-238	KH100-1940-03	0.095	0.077	0.080	0.069
ACW03	PU-238	KH100-1940-03	0.009	0.034	0.034	0.075
ACW03	PU-239/240	KH100-1940-03	0.000	0.000	0.000	0.043
ACW03	AM-241	KH100-1940-03	0.011	0.039	0.039	0.087

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

CAS SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 044
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-44-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID:
TRIP BLANK:

Comments/Problems encountered during sampling: Radscreen - 2 grams/200 cm2 (2 grids). ISO - 7 grams/650 cm2 (6 1/2 grids). Total - 9 grams/850 cm2 (8 1/2 grids). Rinsate is event .003

Location Description: Bldg. 708, just inside the S.W. door. About 3 feet North of control panel marked - Brine Pump P-61. IDF5

Other ID: 707-P-44-00

Sample Appearance: Gray paint scrapings, paint is very thin.

Sampling Device: Heat gun + chisel

Sample Date: 5/3/00 Sample Time: 11:15 Rad Screen Date: 5/3/00

Was generator notified to receive excess sample? (YES) X (NO)

Samplers Signature: [redacted]
Employee Number

Date 5/3/00

739

D-3

RLC RADIOLOGICAL DATA

Survey Area BB

Bldg 708 External Surfaces/Roof

Radiological Survey/Sample Results for Survey Area BB (99-0002)

Total Surface Activity Measurements dpm/100 cm²

	Alpha	Beta
Roof/Ext. Walls < 2 m Unbiased	# Required	# Obtained
	30	29
MIN	18	N/A
MAX	108	N/A
MEAN	54.6	N/A
STD DEV	20.4	N/A
Roof/Ext. Walls < 2 m Biased	# Required	# Obtained
	24	24
MIN	24	N/A
MAX	222	N/A
MEAN	74	N/A
STD DEV	56.1	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Equipment Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm²

	Alpha	Beta
Roof/Ext. Walls < 2 m Unbiased	# Required	# Obtained
	30	29
MIN	0	-72
MAX	3	32
MEAN	0.7	-14.3
STD DEV	1.3	27.6
Roof/Ext. Walls < 2 m Biased	# Required	# Obtained
	24	24
MIN	0	-48
MAX	15	48
MEAN	1.9	-7.3
STD DEV	3.5	23.1
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Equipment Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
1	1

Total Uranium Results dpm/100 cm²

MIN	4
MAX	4
MEAN	4.0
STD DEV	0.0
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm²

MIN	0
MAX	0
MEAN	0.0
STD DEV	0.0
$DCGL_W$	100

Radiological Survey/Sample Results for Survey Area CC (99-0002)

Total Surface Activity Measurements dpm/100 cm^2

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	12	N/A
MAX	30600	N/A
MEAN	1222.0	N/A
STD DEV	5581.1	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	12	12
MIN	24	N/A
MAX	114	N/A
MEAN	69	N/A
STD DEV	33.7	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	10	10
MIN	12	N/A
MAX	90	N/A
MEAN	35.4	N/A
STD DEV	25.1	N/A
Equipment Biased	# Required	# Obtained
	30	30
MIN	18	N/A
MAX	3162	N/A
MEAN	200.0	N/A
STD DEV	566.1	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm^2

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	0	-40
MAX	216	48
MEAN	15.9	12.8
STD DEV	53.0	25.6
Floors/Walls < 2 m Biased	# Required	# Obtained
	12	12
MIN	0	-20
MAX	9	24
MEAN	2.3	-2.7
STD DEV	4.1	13.5
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	10	10
MIN	0	-24
MAX	6	20
MEAN	2.1	-7.6
STD DEV	2.5	15.1
Equipment Biased	# Required	# Obtained
	30	30
MIN	0	-56
MAX	174	88
MEAN	9.2	3.9
STD DEV	32.6	32.5
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
1	1

Total Uranium Results dpm/100 cm^2

MIN	5
MAX	5
MEAN	5.0
STD DEV	0.0
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm^2

MIN	478
MAX	478
MEAN	478.0
STD DEV	0.0
$DCGL_W$	100

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 3260
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due 7-17-00
Bkg. 0.0 cpm	Bkg. 0.4 cpm	Bkg. 5 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 8.2 dpm	MDA 14.8 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg. NeTech
Model BC-4	Model BC-4	Model Electra
Serial # 959	Serial # 833	Serial # 2307
Cal Due 7-19-00	Cal Due 7-14-00	Cal Due 7-12-00
Bkg. 38 cpm	Bkg. 46.0 cpm	Bkg. 2.0 cpm
Efficiency 25%	Efficiency 25%	Efficiency 17%
MDA 95.9 dpm	MDA 104.5 dpm	MDA 94 dpm

Survey Type: **Contamination**
Building: **708**
Location: Exterior / Roof Survey Area BB
Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 4-20-00 Time: 1630

R [redacted]

R [redacted]

Comments: Roof / Exterior Walls < 2 meters : Unbiased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.
30 - inside High Voltage area could not get

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Roof	0	16	60	16.	Roof	0	0	54
2.	Roof	0	-16	72	17.	Roof	0	16	42
3.	Roof	0	20	66	18.	Roof	3	24	54
4.	Roof	0	4	54	19.	Wall	0	-40	42
5.	Roof	3	16	48	20.	Wall	3	-36	84
6.	Roof	0	-24	78	21.	Wall	0	32	54
7.	Roof	0	4	42	22.	Wall	3	-36	24
8.	Roof	3	-36	60	23.	Wall	0	-40	24
9.	Roof	0	-12	60	24.	Wall	0	-36	30 ~~[illegible]~~
10.	Roof	0	16	72	25.	Wall	3	-40	30
11.	Roof	0	0	108	26.	Wall	0	-72	66
12.	Roof	3	-56	78	27.	Wall	0	4	36
13.	Roof	0	-40	54	28.	Wall	0	-52	18
14.	Roof	0	-20	48	29.	Wall	0	4	78
15.	Roof	0	-16	48	30.	see note			

Date Reviewed: 4-26-00 **RS Supervision:** [redacted]

Rev. 02/00

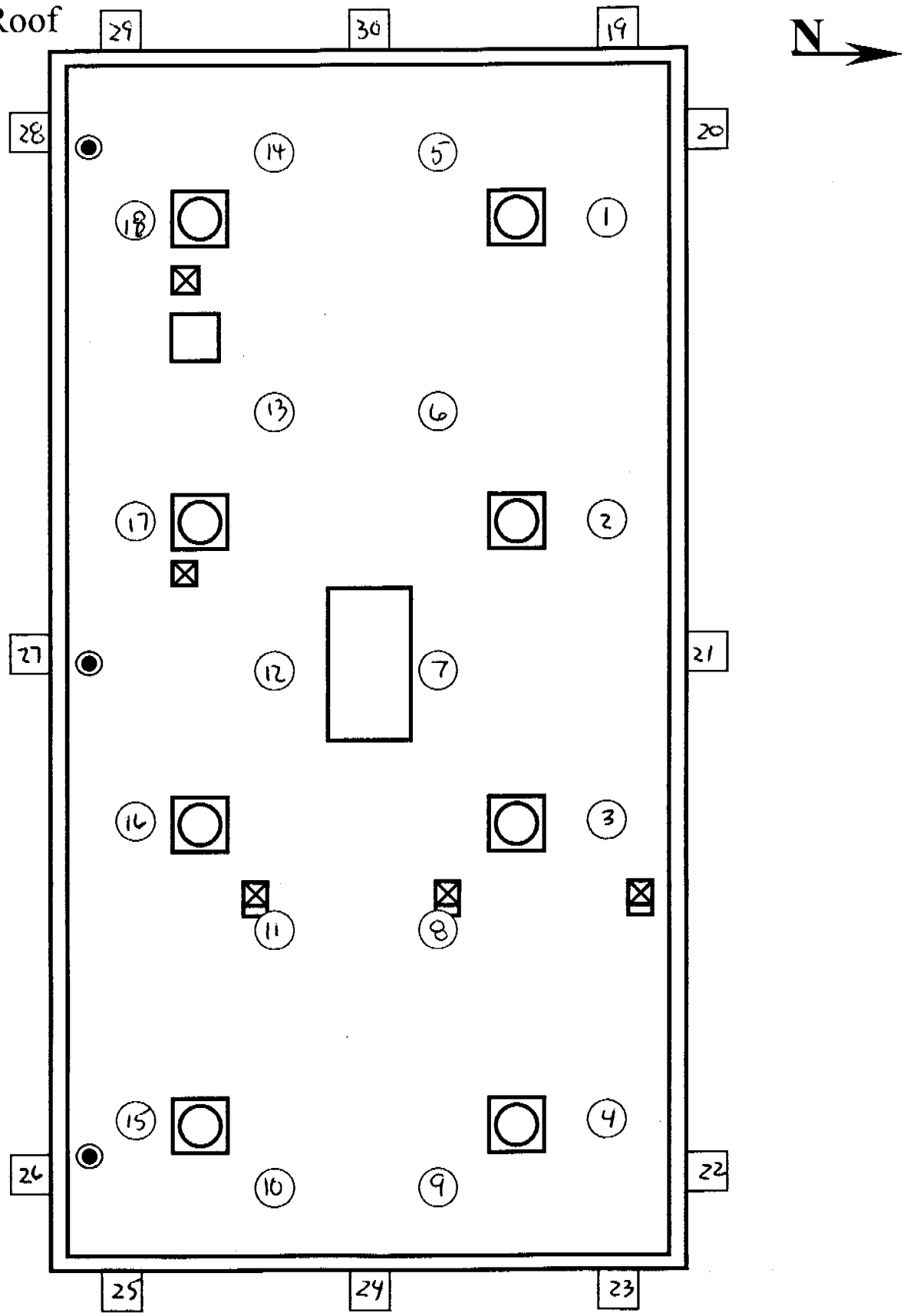
743

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

BLDG 708 Roof



ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 3260
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due 7-17-00
Bkg. 0.0 cpm	Bkg. 0.4 cpm	Bkg. 5 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 8.2 cpm	MDA 148 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg. NeTech
Model BC-4	Model BC-4	Model Electra
Serial # 959	Serial # 833	Serial # 2307
Cal Due 7-19-00	Cal Due 7-14-00	Cal Due 7-12-00
Bkg. 38 cpm	Bkg. 46 cpm	Bkg. 2.0 cpm
Efficiency 25%	Efficiency 25%	Efficiency 17%
MDA 95.9 dpm	MDA 104.5 dpm	MDA 94 dpm

Survey Type: **Contamination**

Building: **708**

Location: External Surfaces Survey Area BB

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 4-20-00 Time: 1630

[redacted]

Comments: Roof / Exterior Walls : Biased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.		0	-4	72	16.		0	-12	54
2.		6	-28	30	17.		6	20	168
3.		0	-20	30	18.		0	48	24
4.		3	0	60	19.		0	4	180
5.		3	-48	24	20.		0	-24	48
6.		3	-8	24	21.		0	8	102
7.		0	-40	48	22.		0	-24	60
8.		15	-32	48	23.		0	-8	108
9.		0	8	48	24.		0	-4	54
10.		0	20	48	25.	END OF SURVEY			
11.		0	-12	48	26.				
12.		1	-44	~~232~~ 174	27.				
13.		6	8	72	28.				
14.		0	24	30	29.				
15.		3	-8	222	30.				

N/A

Date Reviewed: 4-26-00 **RS Supervision:** [redacted]

Rev. 02/00

745

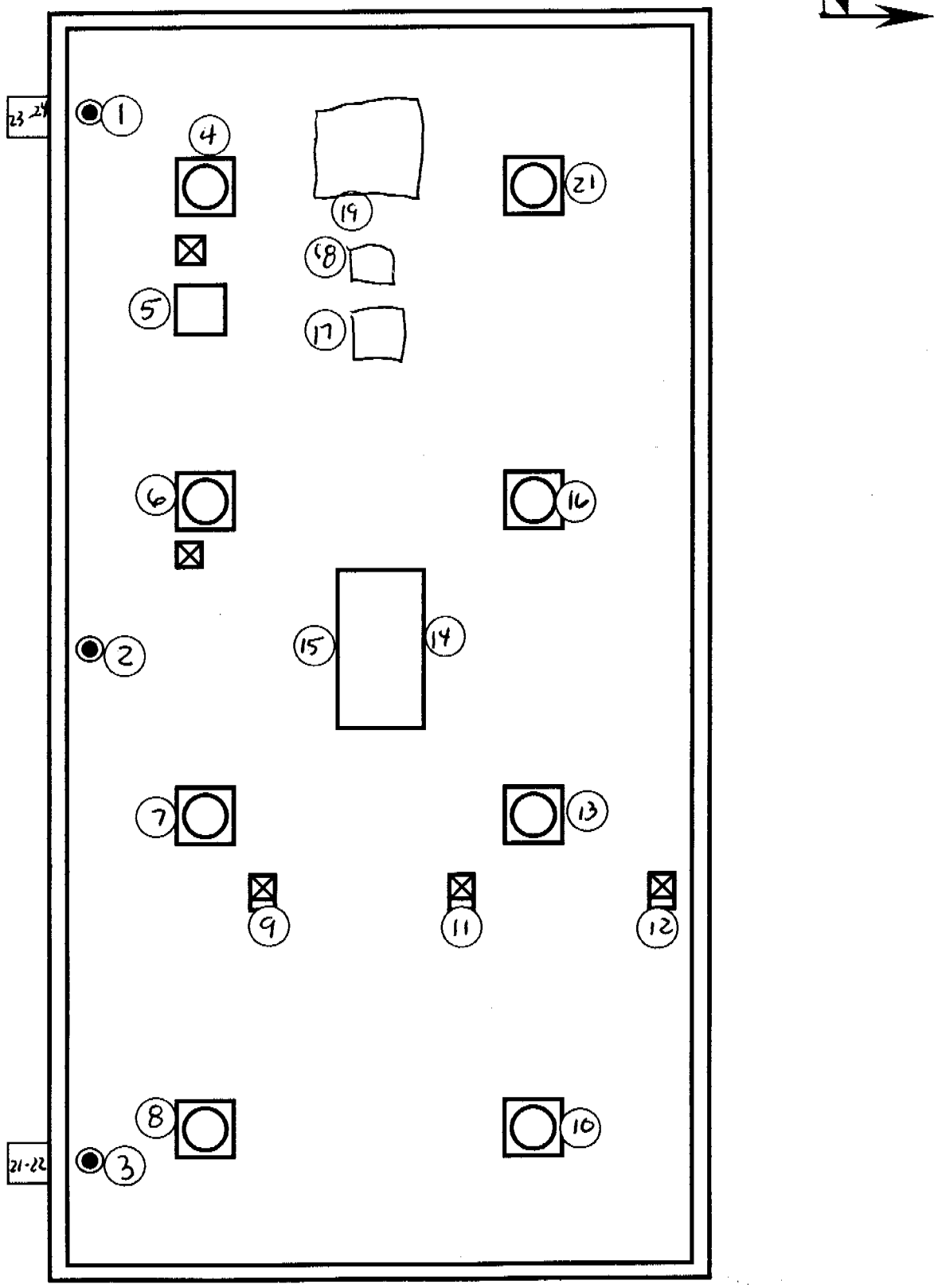
 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

BLDG 708 Roof



Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#016	Matrix:	Waste
Site Sample ID:	047.002				
Other Sample ID:	Bldg 708 Roof	Collection Date:	5/3/00	Date Received:	5/5/00
		Batch Number:	1940	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1940-06	0.211	0.128	0.135	0.098
ACW03	U-235	KH100-1940-06	0.038	0.080	0.081	0.135
ACW03	U-238	KH100-1940-06	0.169	0.118	0.123	0.109
ACW03	PU-238	KH100-1940-06	-0.004	0.156	0.156	0.267
ACW03	PU-239/240	KH100-1940-06	0.029	0.054	0.054	0.087
ACW03	AM-241	KH100-1940-06	-0.018	0.025	0.025	0.125

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

CAS SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 047
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-47-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen - 2 grams/50cm² (1/2 grid). TSO - 7 grams/150cm² (1 1/2 grids). Total - 9 grams/200cm² (2 grids)

Location Description: Bldg. 708, on the roof, the first support beam for pipes. Beam is S.W. of ladder on South side of beam

Other ID: 707-P-47-00

Sample Appearance: Metalic silver paint, with black + tan fibers.

Sampling Device: Chisel

Sample Date: 5/3/00 Sample Time: 13:47 Rad Screen Date: 5/3/00

Was generator notified to receive excess sample? (YES) X (NO) _____

Samplers Signatur[redacted]
Employee Number[redacted]

Date: 5/3/00 5/3/00

748

Building 711

ASBESTOS INSPECTOR'S REPORT

Building 711 is a water-cooling structure constructed of wood. Suspect asbestos containing materials were not observed on the structure itself, but fuel oil lines associated with the structure contained insulation beneath metal protective sleeves. The insulation was sampled.

Sample Number	Sample Location & Description	% Asbestos
711-05032000-05-001	Fuel oil return line	None Detected
711-05032000-05-002	Fuel oil supply line	None Detected

E-1
RLC CHEMICAL DATA

750

E-2
RLC RADIOLOGICAL DATA
Survey Area EE
Bldg 711, 711A & 718

751

Radiological Survey/Sample Results for Survey Area EE (99-0002)

Total Surface Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	40	15
MIN	-12	N/A
MAX	96	N/A
MEAN	38.3	N/A
STD DEV	30.4	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	10
MIN	0	N/A
MAX	42	N/A
MEAN	22.8	N/A
STD DEV	13.2	N/A
Equipment Biased	# Required	# Obtained
	30	20
MIN	6	N/A
MAX	72	N/A
MEAN	37.5	N/A
STD DEV	18.5	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	40	15
MIN	0	-44
MAX	6	64
MEAN	0.8	8.5
STD DEV	1.8	30.5
Floors/Walls < 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	10
MIN	0	-16
MAX	6	40
MEAN	1.2	2.8
STD DEV	2.5	19.3
Equipment Biased	# Required	# Obtained
	30	20
MIN	0	-24
MAX	9	60
MEAN	3.3	6
STD DEV	3.1	25.1
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
N/A	N/A

Total Uranium Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	100

752

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 1518
Cal Due 8-16-00	Cal Due 7-27-00	Cal Due 6-29-00
Bkg. 0.1 cpm	Bkg. 0.2 cpm	Bkg. 0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 11.5 dpm	MDA 12.9 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 959	Serial # 833	Serial #
Cal Due 7-19-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 35 cpm	Bkg. 43 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 92.5 dpm	MDA 101.3 dpm	MDA

Survey Type: Contamination
Building: 711, 711A, 718
Location: 711A + 718 Survey Area EE
Purpose: Reconnaisance Level Characterization

RWP # 00-707-1204
Date: 5-2-00 Time: 1630

RC [redacted]

RC [redacted]
Print name / Signature / Emp. #

Comments: Floor / Walls < 2 meters : Unbiased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.

Building 711 (inside not accessible)

SURVEY RESULTS

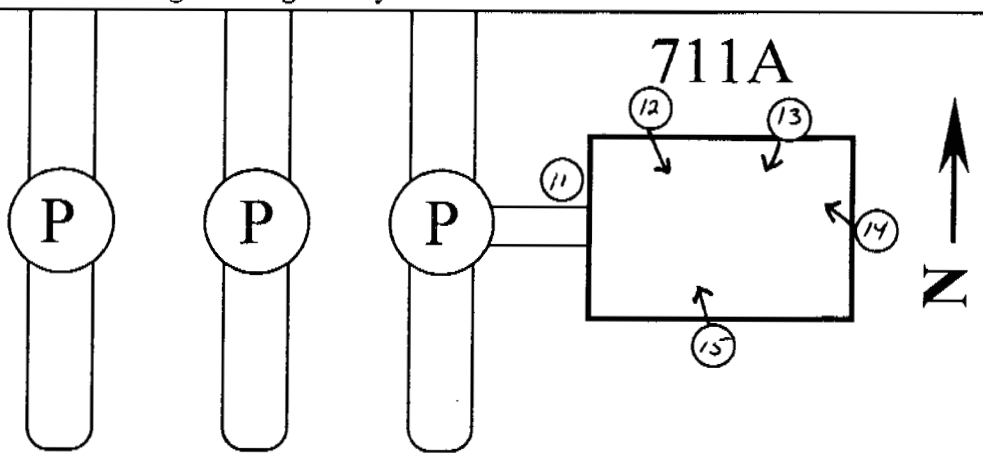
Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	See Map	0	24	24	16.				
2.	See Map	0	-20	18	17.				
3.	See Map	3	4	30	18.				
4.	See Map	0	-36	24	19.				
5.	See Map	0	0	24	20.				
6.	See Map	0	8	-12	21.				
7.	See Map	3	40	36	22.	N/A			
8.	See Map	6	48	42	23.				
9.	See Map	0	32	36	24.				
10.	See Map	0	-20	18	25.				
11.	See Map	0	64	78	26.				
12.	See Map	0	0	96	27.				
13.	See Map	0	16	84	28.				
14.	See Map	0	-44	198	29.				
15.	See Map	0	12	180	30				

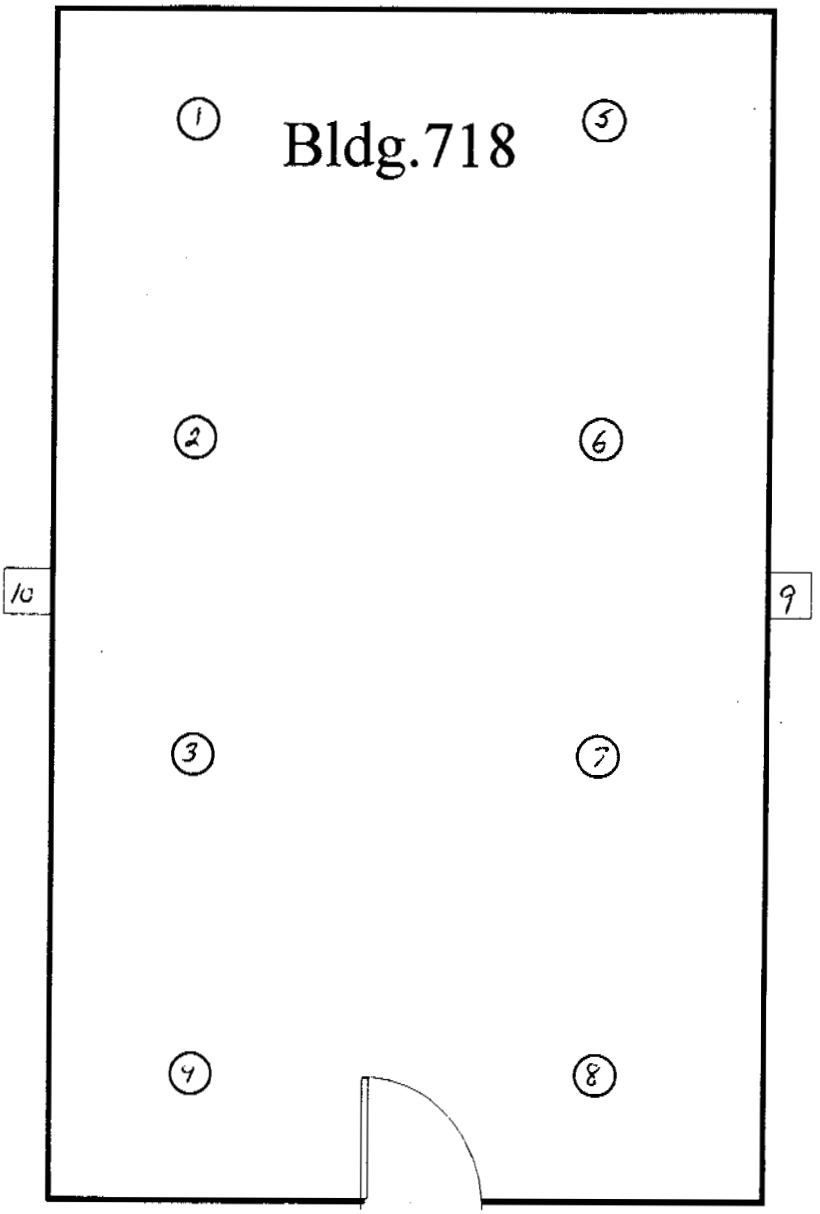
Date Reviewed: 5-2-00 **RS Supervision:** [redacted]

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points





754

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 1518
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due 6-29-00
Bkg. 0.1 cpm	Bkg. 0.2 cpm	Bkg. 0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 11.5 dpm	MDA 12.9 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 959	Serial # 833	Serial #
Cal Due 7-19-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 35 cpm	Bkg. 43 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 925 dpm	MDA 101.3 dpm	MDA

Survey Type: **Contamination**

Building: **711, 711A, 718**

Location: 718 Survey Area EE

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 5-2-00 Time: 1630

RC [redacted]

RC [redacted]

Comments: Ceiling / Walls > 2 meters : Biased survey points.
1 minute pats and swipes. See map for locations.

Building 711 (inside not accessible

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	See Map	0	24	24	16.	NA			
2.	See Map	6	-4	24	17.				
3.	See Map	0	-4	18	18.				
4.	See Map	0	-16	36	19.				
5.	See Map	0	24	42	20.				
6.	See Map	0	-8	0	21.				
7.	See Map	0	-4	24	22.				
8.	See Map	6	-16	36	23.				
9.	See Map	0	40	18	24.				
10.	See Map	0	-8	6	25.				
11.	End of Survey			NA	26.				
12.					27.				
13.					28.				
14.					29.				
15.	NA				30.				NA

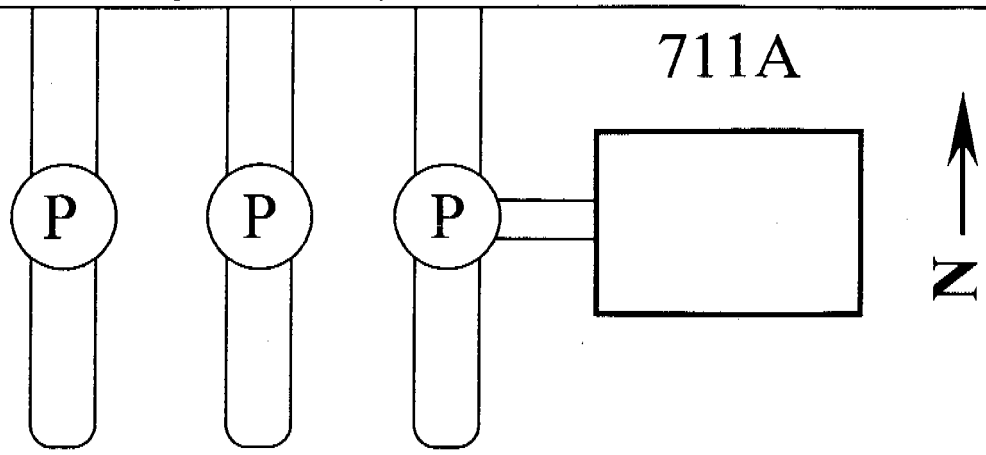
Date Reviewed: 5-2-00 **RS Supervisio** [redacted]

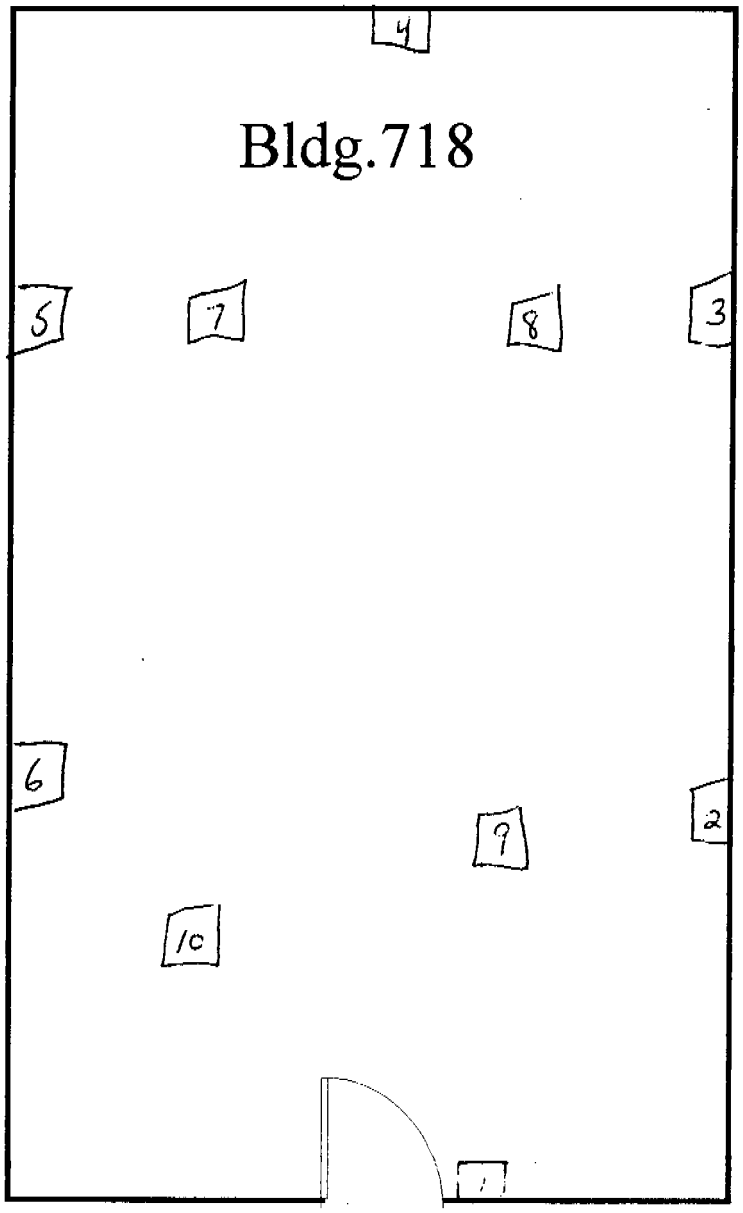
 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points





7516

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 3265
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due 7-3-00
Bkg. 0.1 cpm	Bkg. 0.2 cpm	Bkg. 4 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 11.5 dpm	MDA 12.9 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 959	Serial # 833	Serial #
Cal Due 7-19-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 35 cpm	Bkg. 43 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 92.5 dpm	MDA 101.3 dpm	MDA

Survey Type: **Contamination**
Building: **711, 711A, 718**
Location: 711A + 718 Survey Area EE
Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 5-2-00 Time: 1630

R [redacted]

R [redacted]

Comments: Equipment : Biased survey points.
1 minute pats and swipes. See map for locations.

Building 711 (inside not accessible)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	See Map	0	12	24	16.	See Map	3	48	48
2.	See Map	3	-12	18	17.	See Map	0	12	12
3.	See Map	0	24	6	18.	See Map	0	-24	72
4.	See Map	6	-12	24	19.	See Map	0	60	60
5.	See Map	6	-16	36	20.	See Map	3	36	66
6.	See Map	3	-24	48	21.	End of Survey			NA
7.	See Map	6	28	18	22.				
8.	See Map	0	-24	42	23.				
9.	See Map	9	28	30	24.				
10.	See Map	6	-8	30	25.				
11.	See Map	9	16	42	26.				
12.	See Map	6	0	24	27.				
13.	See Map	0	4	42	28.				
14.	See Map	3	-20	48	29.				
15.	See Map	3	-8	60	30.	NA			

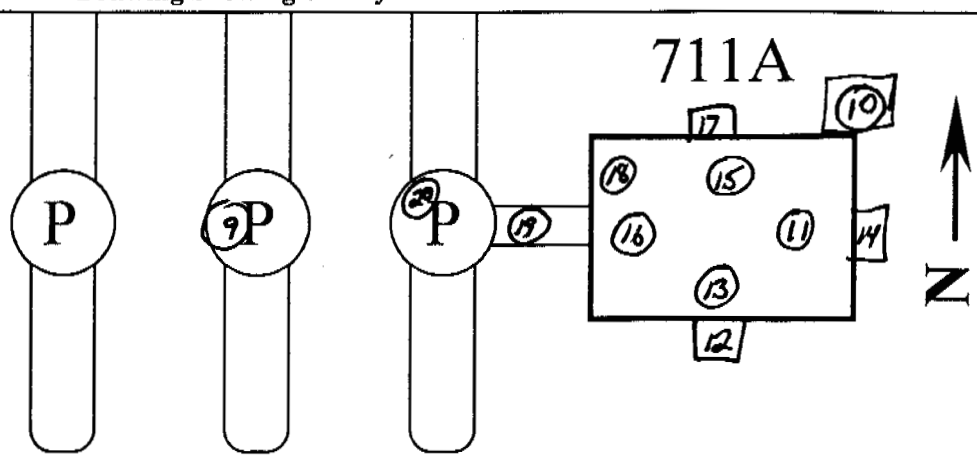
Date Reviewed: 5-2-00 **RS Supervision:** [redacted]

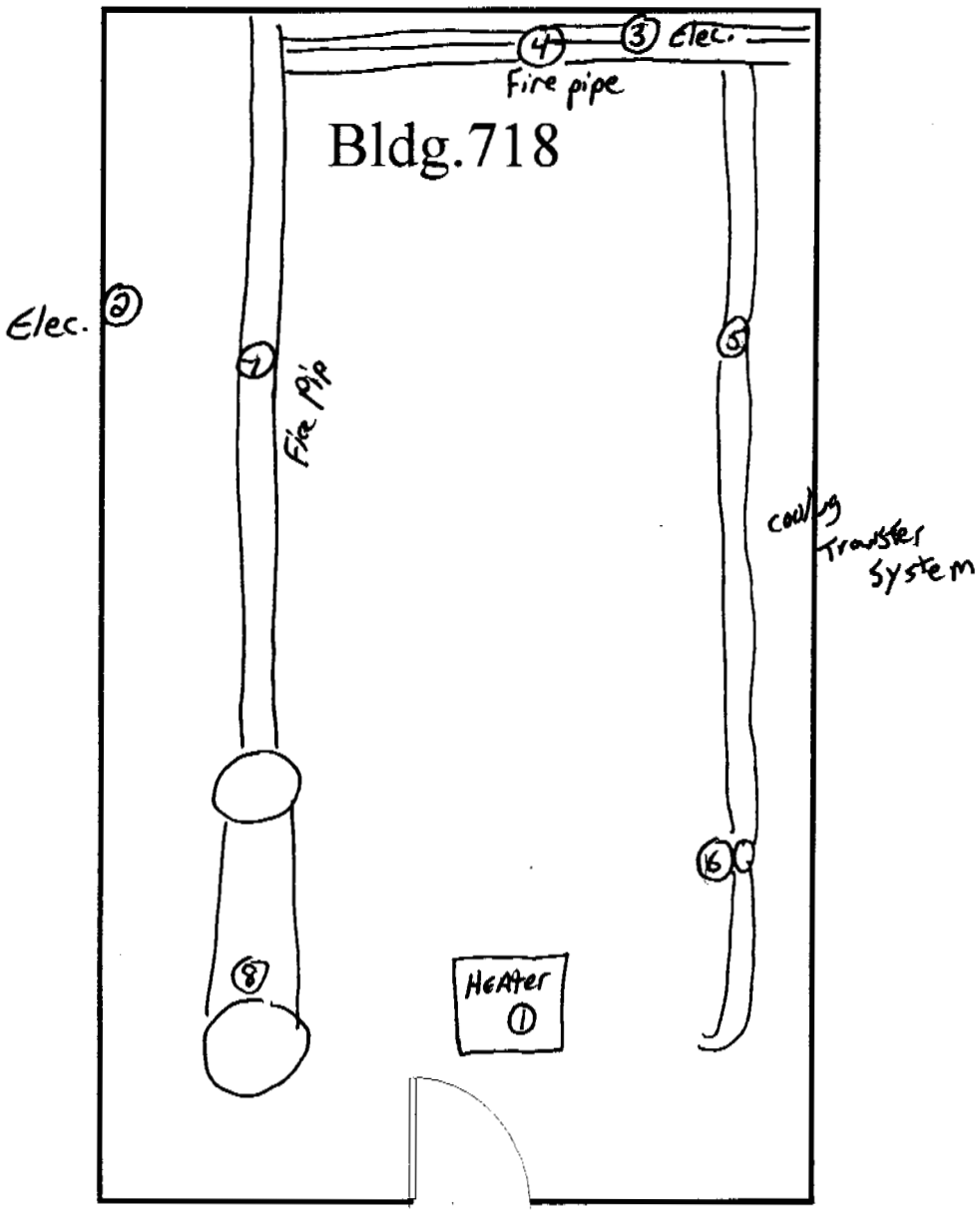
Print Name Signature Emp. #

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points





E-2
RLC RADIOLOGICAL DATA
Survey Area FF
Bldg 711 Roof

759

F-1
RLC CHEMICAL DATA

760

F-2
RLC RADIOLOGICAL DATA

G-1
RLC CHEMICAL DATA

762

Radiological Survey/Sample Results for Survey Area FF (99-0002)

Total Surface Activity Measurements dpm/100 cm²

	Alpha	Beta
Roof/Ext. Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	-12	N/A
MAX	66	N/A
MEAN	20.0	N/A
STD DEV	20.9	N/A
Roof/Ext. Walls < 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Equipment Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm²

	Alpha	Beta
Roof/Ext. Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	0	-52
MAX	6	60
MEAN	1.0	0.5
STD DEV	1.8	28.8
Roof/Ext. Walls < 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Equipment Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
N/A	N/A

Total Uranium Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	100

763

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 2307
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due ~~3-4-00~~ 7-12-00
Bkg. 0.2 cpm	Bkg. 0.3 cpm	Bkg. 2 cpm
Efficiency 33%	Efficiency 33%	Efficiency 19.4%
MDA 12.9 DPM	MDA 13.9 cpm	MDA 94 DPM
Mfg. Eberline	Mfg. Eberline	Mfg. NA
Model BC-4	Model BC-4	Model
Serial # 959	Serial # 833	Serial #
Cal Due 7-19-00	Cal Due 7-14-00	Cal Due
Bkg. 40 cpm	Bkg. 36 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 98.1 DPM	MDA 93.7 DPM	MDA NA

Survey Type: Contamination
Building: 711
Location: 711 Roof Survey Area FF
Purpose: Reconnaisance Level Characterization

RWP # NA

Date: 5-1-00 Time: 1400

RCT [redacted]

RCT: NA
Print name / Signature / Emp. #

Comments: Roof / Exterior Walls < 2 meters : Unbiased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Roof	0	36	18	16.	Roof	3	24	18
2.		6	48	36	17.		0	-4	30
3.		0	-12	36	18.		3	60	36
4.		3	40	36	19.		0	16	-12
5.		0	0	18	20.	Roof	0	32	18
6.		0	-24	18	21.	Wall	0	-20	-12
7.		0	-40	12	22.		3	-28	-12
8.		0	12	54	23.		0	-52	6
9.		0	0	0	24.		6	12	12
10.		0	24	30	25.		0	-32	0
11.		0	36	42	26.		0	0	18
12.		3	-24	66	27.		0	-8	48
13.		0	4	30	28.		0	4	-6
14.		0	-40	36	29.		0	4	0
15.	Roof	3	-40	36	30.	Wall	0	-12	-12

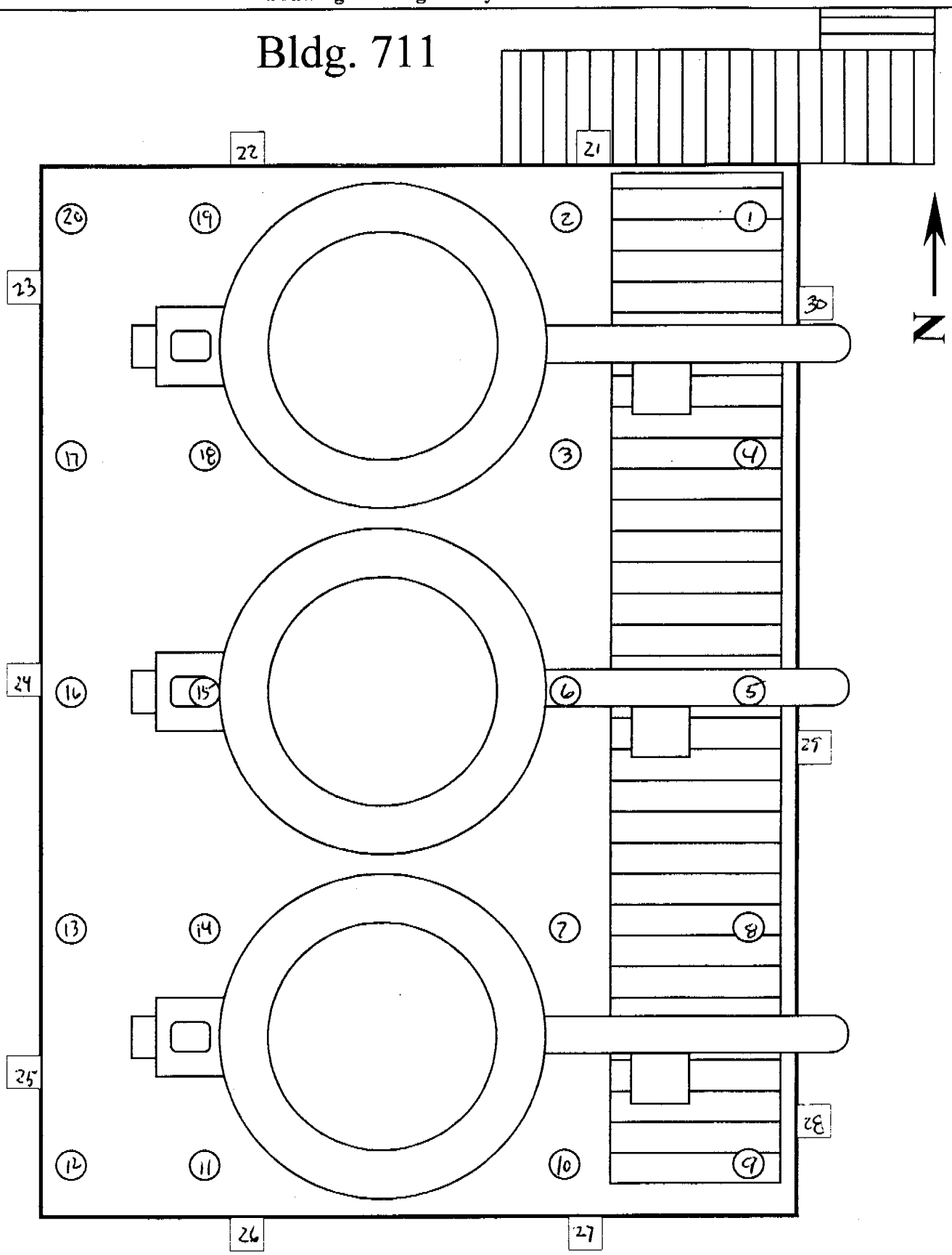
Date Reviewed: 5 2 00 **RS Supervision:** [redacted]

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



Building 711A

ASBESTOS INSPECTOR'S REPORT

Structure 711A is a generator with approximately 15 linear feet of pipe insulation and 40 square feet of tank insulation. Analytical results indicate no asbestos present.

Sample Number	Sample Location & Description	% Asbestos
711A-05032000-05-001	Fuel oil supply line	None Detected
711A-05032000-05-002	Dry tank insulation	None Detected

7660

Building 718

ASBESTOS INSPECTOR'S REPORT

Building 718 has a concrete foundation. The structure frame, walls and roof are made of metal. All pipelines did not contain insulation. No other suspect materials were observed.

G-2

RLC RADIOLOGICAL DATA

Survey Area GG

Bldg 718, Roof/Exterior

768

Radiological Survey/Sample Results for Survey Area GG (99-0002)

Total Surface Activity Measurements dpm/100 cm²

	Alpha	Beta
Roof/Ext. Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	6	N/A
MAX	186	N/A
MEAN	100.8	N/A
STD DEV	56.0	N/A
Roof/Ext. Walls < 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Equipment Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm²

	Alpha	Beta
Roof/Ext. Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	0	-40
MAX	9	60
MEAN	1.7	-6.1
STD DEV	2.3	23.3
Roof/Ext. Walls < 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Equipment Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
N/A	N/A

Total Uranium Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	100

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial #	Serial # 1233
Cal Due 8-15-00	Cal Due N/A	Cal Due 5-11-00
Bkg. 0.5 cpm	Bkg.	Bkg. 3.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency .2063
MDA 15.6 dpm	MDA	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 959	Serial # N/A	Serial # N/A
Cal Due 7-19-00	Cal Due N/A	Cal Due N/A
Bkg. 42 cpm	Bkg.	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 100.3 dpm	MDA	MDA

Survey Type: **Contamination**

Building: **718**

Location: Roof/Exterior Survey Area GG

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 5-4-00 Time: DAYS

RCT [redacted]

RCT [redacted]

Comments: Roof / Exterior Walls < 2 meters : Unbiased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Exterior Walls < 2m	0	8	36	16.	Roof	0	-24	96
2.		3	28	6	17.		3	-20	120
3.		0	-16	48	18.		0	-36	138
4.		3	60	36	19.		0	-12	132
5.		0	40	24	20.		3	-20	150
6.		3	12	30	21.		3	-16	150
7.		3	-4	42	22.		9	-4	126
8.		0	-20	12	23.		0	12	180
9.		3	-28	48	24.		0	-8	120
10.		0	-8	42	25.		0	36	138
11.	Roof	6	-24	144	26.		6	-40	108
12.		3	-20	126	27.		0	-28	186
13.		0	-24	186	28.		0	-12	96
14.		0	0	174	29.		0	-20	84
15.		0	[redacted]	[redacted]	[redacted]		[redacted]	[redacted]	[redacted]

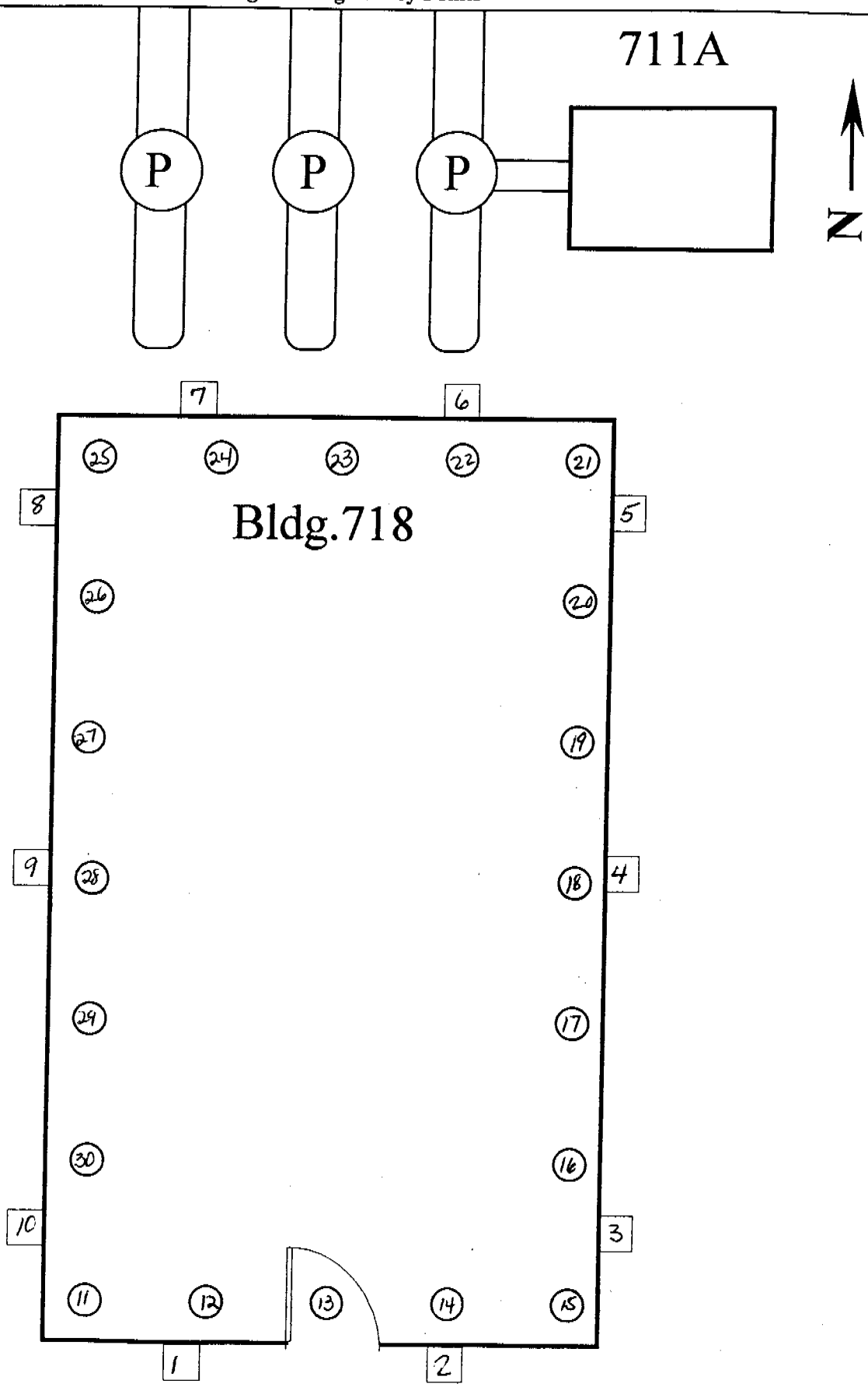
Date Reviewed: 5-8-00 RS Supervision [redacted]

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



Building 731

ASBESTOS INSPECTOR'S REPORT

No suspect asbestos containing materials. The building has a concrete foundation and walls with un-insulated pipelines.

H-1
RLC CHEMICAL DATA

H-2
RLC RADIOLOGICAL DATA
Survey Area CC
Bldg 731, Interior

774

Radiological Survey/Sample Results for Survey Area CC (99-0002)

Total Surface Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	12	N/A
MAX	30600	N/A
MEAN	1222.0	N/A
STD DEV	5581.1	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	12	12
MIN	24	N/A
MAX	114	N/A
MEAN	69	N/A
STD DEV	33.7	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	10	10
MIN	12	N/A
MAX	90	N/A
MEAN	35.4	N/A
STD DEV	25.1	N/A
Equipment Biased	# Required	# Obtained
	30	30
MIN	18	N/A
MAX	3162	N/A
MEAN	200.0	N/A
STD DEV	566.1	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	0	-40
MAX	216	48
MEAN	15.9	12.8
STD DEV	53.0	25.6
Floors/Walls < 2 m Biased	# Required	# Obtained
	12	12
MIN	0	-20
MAX	9	24
MEAN	2.3	-2.7
STD DEV	4.1	13.5
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	10	10
MIN	0	-24
MAX	6	20
MEAN	2.1	-7.6
STD DEV	2.5	15.1
Equipment Biased	# Required	# Obtained
	30	30
MIN	0	-56
MAX	174	88
MEAN	9.2	3.9
STD DEV	32.6	32.5
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
N/A	N/A

Total Uranium Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	100

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1270	Serial # 2307
Cal Due 8-15-00	Cal Due 4-12-00	Cal Due 7-12-00
Bkg. 0.2 cpm	Bkg. 0.1 cpm	Bkg. 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 19.40%
MDA 12.9 DPM	MDA 11.5 DPM	MDA 94 DPM
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 833	Serial # 872	Serial #
Cal Due 7-14-00	Cal Due 4-12-00	Cal Due N/A
Bkg. 42 cpm	Bkg. 42 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 100.3 DPM	MDA 100.3 DPM	MDA

Survey Type: **Contamination**

Building: 731

Location: Pit Survey Area CC

Purpose: **Reconnaisance Level Characterization**

RWP #

Date: 4-12-00 Time: 1500

[redacted]

RCT: NA

Print name / Signature / Emp. #

Comments: Floor / Walls < 2 meters : Unbiased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.

28 - wiped down and contained.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	F	0	-12	12	16.	W	0	40	30
2.	F	3	32	60	17.	W	0	-8	30
3.	F	0	20	60	18.	W	3	-36	24
4.	F	0	32	84	19.	W	0	-28	30
5.	F	9	0	30	20.	W	0	44	36
6.	F	9	-36	48	21.	W	0	24	48
7.	F	0	-8	48	22.	W	216	12	3000
8.	F	0	24	162	23.	W	3	-40	60
9.	F	0	24	24	24.	W	0	48	36
10.	F	0	12	60	25.	W	0	40	30
11.	F	0	0	48	26.	W	0	24	24
12.	F	27	0	1620	27.	W	0	-8	48
13.	F	0	32	54	28.	W	204	48	30600
14.	F	0	24	54	29.	W	0	20	30
15.	F	0	24	240	30.	W	3	36	30

Date Reviewed: 5-8-00 **RS Supervision:** [redacted]

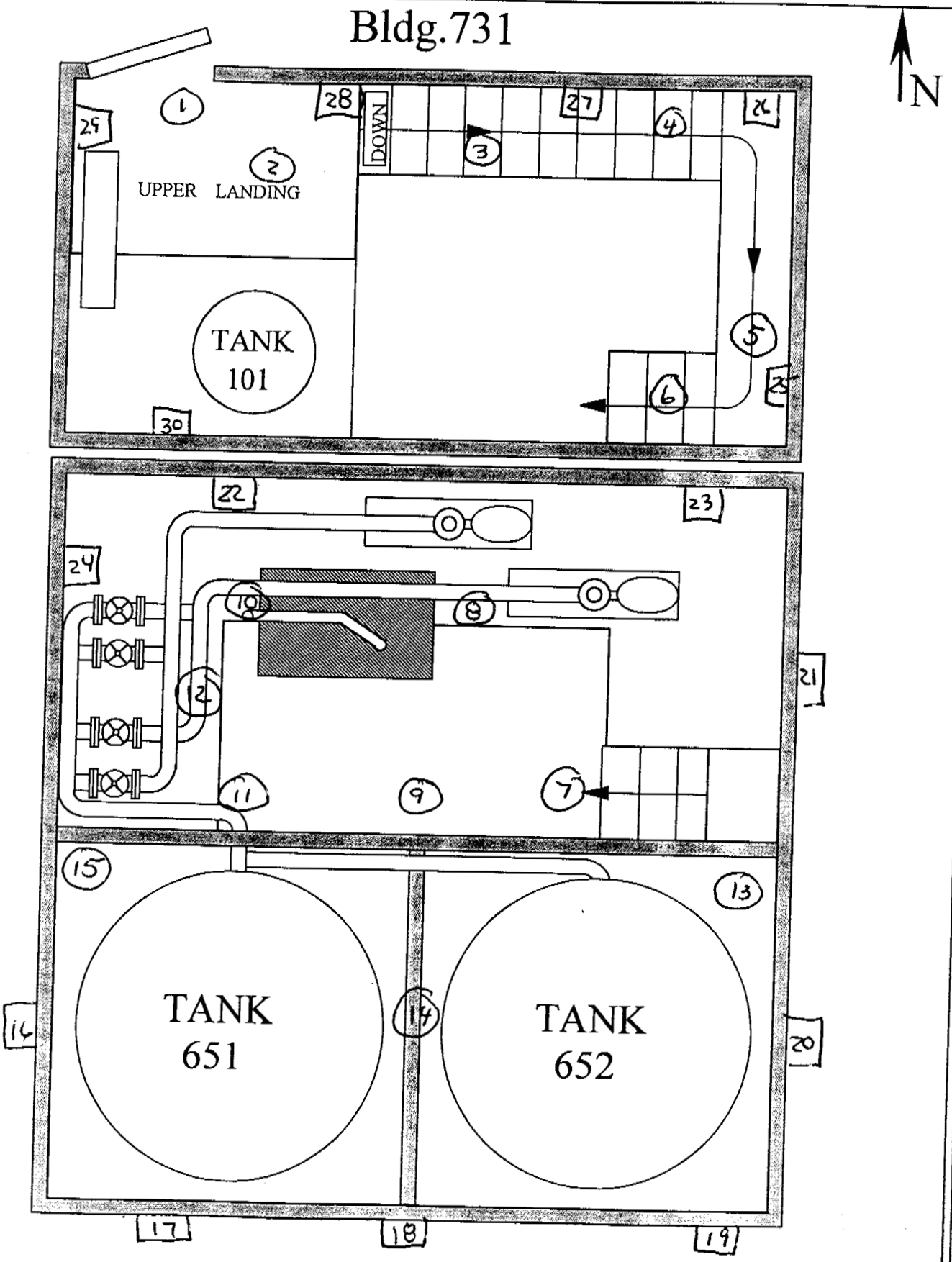
Print Name Signature Emp. #

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



777

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1270	Serial # 2307
Cal Due 8-15-00	Cal Due 4-12-00	Cal Due 7-12-00
Bkg. 0.2 cpm	Bkg. 0.1 cpm	Bkg. 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 19.40%
MDA 12.9 DPM	MDA 11.5 DPM	MDA 94 DPM
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 833	Serial # 872	Serial #
Cal Due 7-14-00	Cal Due 4-12-00	Cal Due NA
Bkg. 42 cpm	Bkg. 42 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 100.3 DPM	MDA 100.3 DPM	MDA

Survey Type: **Contamination**

Building: 731

Location: Pit Survey Area CC

Purpose: **Reconnaisance Level Characterization**

RWP #

Date: 4-12-00 Time: 1600

R [redacted]

RCT: NA

Print name / Signature / Emp. #

Comments: Floor / Walls < 2 meters : Biased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	F - tank 101	0	-4	108	16.				
2.	F - tank 101	0	-8	90	17.				
3.	F - ~~pipts~~ spc pipes	0	-4	24	18.				
4.	F - tank 651	0	-4	30	19.				
5.	F - tank 651	0	4	60	20.				
6.	F - tank 652	9	24	30	21.				
7.	F - tank 652	0	-16	54	22.				
8.	F - valve	0	-20	36	23.	NA			
9.	F - valve	0	-8	84	24.				
10.	F - valve	0	-16	114	25.				
11.	F - pipes	9	0	96	26.				
12.	F - pipes	9	20	102	27.				
13.	END OF SURVEY				28.				
14.					29.				
15.					30.				

Date Reviewed: 5-8-00 **RS Supervision:** [redacted]

Rev. 02/00

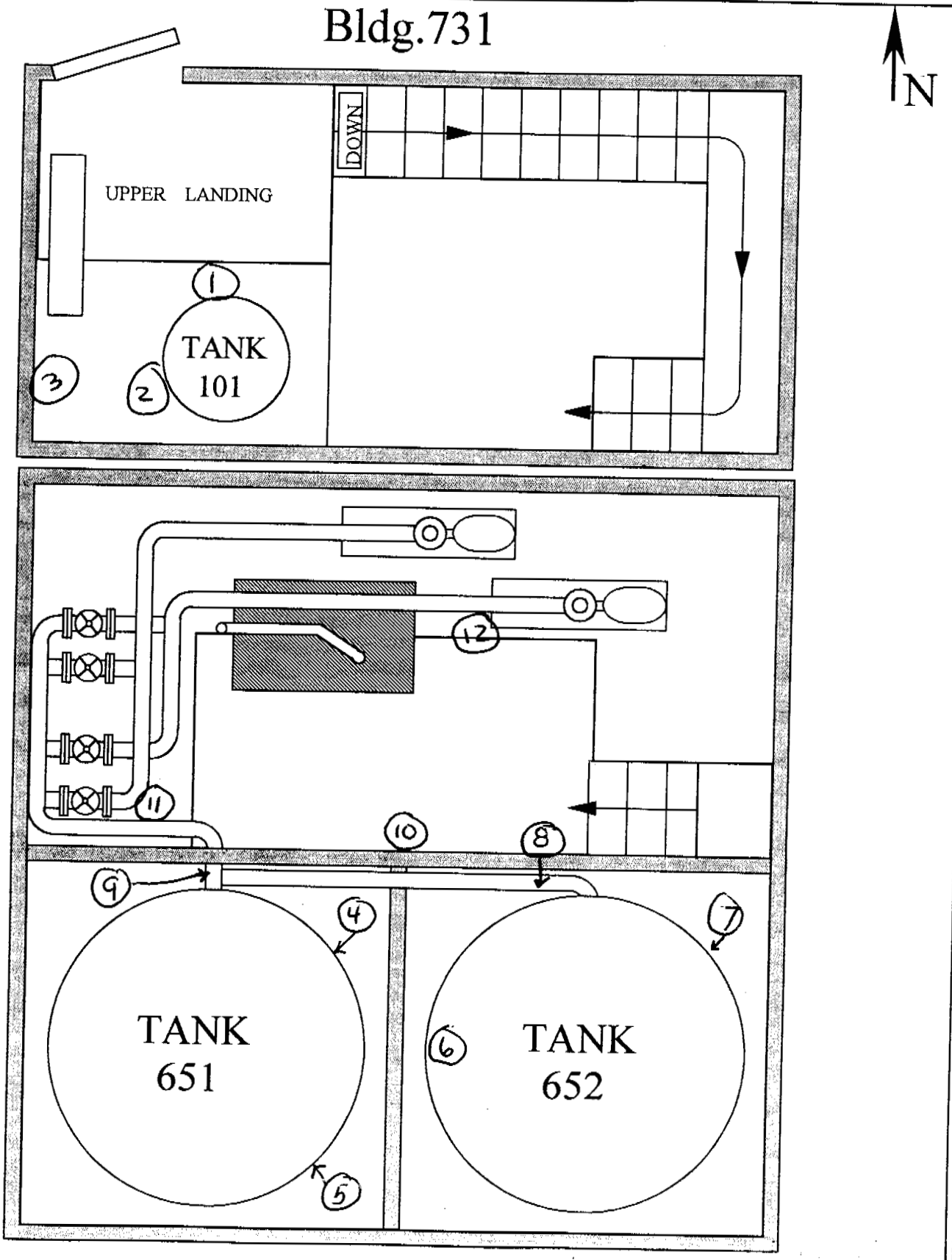
178

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 1233
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due 5-11-00
Bkg. 0.2 cpm	Bkg. 0.4 cpm	Bkg. 1.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 12.9 dpm	MDA 14.8 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg. NeTech
Model BC-4	Model BC-4	Model Electra
Serial # 959	Serial # 833	Serial # 3265
Cal Due 7-19-00	Cal Due 7-14-00	Cal Due 7-3-00
Bkg. 40 cpm	Bkg. 45 cpm	Bkg. 1 cpm
Efficiency 25%	Efficiency 25%	Efficiency 17%
MDA 98.1 dpm	MDA 103.5 dpm	MDA 94 dpm

Survey Type: **Contamination**

Building: 731

Location: Ceiling/walls >2m Survey Area CC

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 5-3-00 Time: 2200

R [redacted]

Comments: Ceiling / Walls > 2 meters : Biased survey points.
1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	See Map	0	-4	24	16.	NA			
2.	See Map	3	-4	18	17.				
3.	See Map	0	-24	60	18.				
4.	See Map	6	-24	18	19.				
5.	See Map	0	-8	90	20.				
6.	See Map	3	12	24	21.				
7.	See Map	0	-16	18	22.				
8.	See Map	3	20	12	23.				
9.	See Map	0	-4	36	24.				
10.	See Map	6	-24	54	25.				
11.	End of Survey			NA	26.				
12.					27.				
13.					28.				
14.					29.				
15.	NA				30.				NA

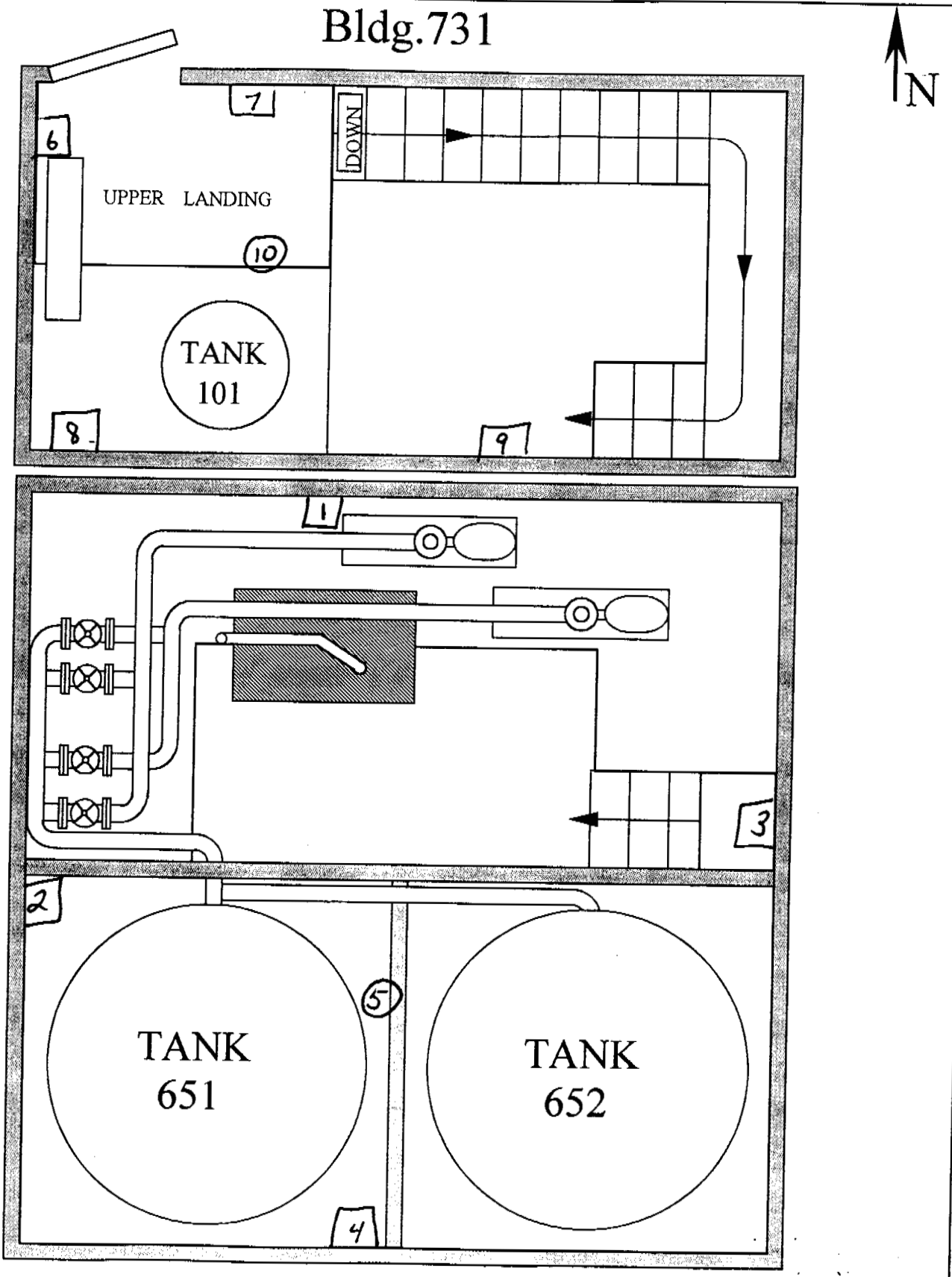
Date Reviewed: 5-8-00 **RS Supervision:** [redacted]

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 1233
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due 5-11-00
Bkg. 0.2 cpm	Bkg. 0.4 cpm	Bkg. 1.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 12.9 dpm	MDA 14.8 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg. NeTech
Model BC-4	Model BC-4	Model Electra
Serial # 959	Serial # 833	Serial # 3265
Cal Due 7-19-00	Cal Due 7-14-00	Cal Due 7-3-00
Bkg. 40 cpm	Bkg. 45 cpm	Bkg. 1 cpm
Efficiency 25%	Efficiency 25%	Efficiency 17%
MDA 98.1 dpm	MDA 103.5 dpm	MDA 94 dpm

Survey Type: **Contamination**

Building: 731

Location: 731 Equipment Survey Area CC

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 5-3-00 Time: 2200

[redacted]

Comments: Equipment : Biased survey points.
1 minute pats and swipes. See map for locations.
Area has alot of Fixed contamination Posted with labels

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	See Map	0	-12	42	16.	See Map	0	32	42
2.	See Map	3	0	60	17.	See Map	0	24	24
3.	See Map	0	24	192	18.	See Map	3	8	60
4.	See Map	6	76	90	19.	See Map	0	-56	42
5.	See Map	0	-28	48	20.	See Map	9	12	300
6.	See Map	6	-4	180	21.	See Map	0	20	216
7.	See Map	0	-24	30	22.	See Map	3	-20	180
8.	See Map	0	-40	66	23.	See Map	0	-8	42
9.	See Map	3	20	144	24.	See Map	6	-40	192
10.	See Map	3	-28	60	25.	See Map	0	36	30
11.	See Map	18	-24	3162	26.	See Map	3	-12	60
12.	See Map	15	-4	342	27.	See Map	3	20	42
13.	See Map	0	48	180	28.	See Map	174	88	24
14.	See Map	3	0	18	29.	See Map	0	20	24
15.	See Map	0	-8	90	30	See Map	0	-4	18

Date Reviewed: 5-8-00 **RS Supervisio** [redacted]

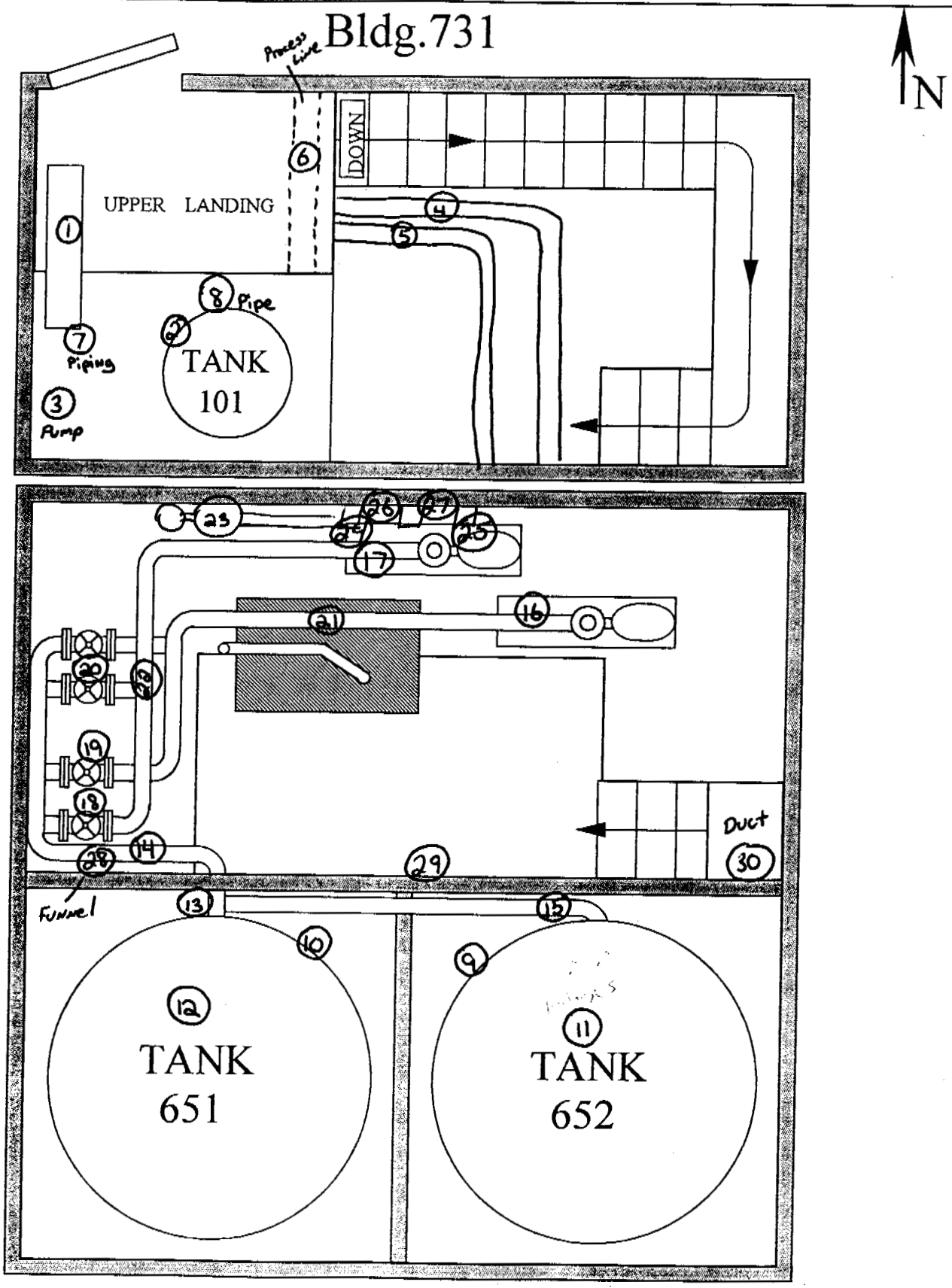
Print Name Signature Emp. #

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



783

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#016	Matrix:	Waste
Site Sample ID:	042.002				
Other Sample ID:	Bldg 731 Basement	Collection Date:	5/3/00	Date Received:	5/5/00
		Batch Number:	1940	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1940-01	0.138	0.098	0.102	0.077
ACW03	U-235	KH100-1940-01	0.036	0.074	0.074	0.125
ACW03	U-238	KH100-1940-01	0.487	0.184	0.208	0.076
ACW03	PU-238	KH100-1940-01	1.09	0.297	0.369	0.087
ACW03	PU-239/240	KH100-1940-01	53.6	7.19	12.9	0.106
ACW03	AM-241	KH100-1940-01	8.41	1.46	2.23	0.052

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

784

069

CAS SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 042
DUPLICATE ID: N/A
ISSUE DATE: ~~5/3/00~~ MM 5/3/00
4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-42-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen - 2 grams / 25 cm² (1/4 grid). ISO - 7 grams / 150 cm² (1 1/2 grids) Total - 9 grams / ~~200~~ 175 cm² (1 3/4 grids). Kinetic is event 063

Location Description: Bldg. 731, lowest level, just outside of CAS near a process drain.

Other ID: 707-P-42-00

Sample Appearance: Gray paint scrapings, with a pink tint on bottom side

Sampling Device: Heat gun + Chisel

Sample Date: 5/3/00 Sample Time: 10:15 Rad Screen Date: 5/3/00

Was generator notified to receive excess sample? (YES) X (NO) ____

Samplers Signatur [redacted]
Employee Number [redacted]

Date 5/3/00 5/3/00

785

H-2
RLC RADIOLOGICAL DATA
Survey Area JJ
Bldg 731, Roof/Exterior

786

Radiological Survey/Sample Results for Survey Area JJ (99-0002)

Total Surface Activity Measurements dpm/100 cm²

	Alpha	Beta
Roof/Ext. Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	18	N/A
MAX	216	N/A
MEAN	91.8	N/A
STD DEV	45.2	N/A
Roof/Ext. Walls < 2 m Biased	# Required	# Obtained
	5	5
MIN	24	N/A
MAX	60	N/A
MEAN	42.0	N/A
STD DEV	17.0	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Equipment Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm²

	Alpha	Beta
Roof/Ext. Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	0	-44
MAX	9	64
MEAN	0.9	12.8
STD DEV	2.1	28.5
Roof/Ext. Walls < 2 m Biased	# Required	# Obtained
	5	5
MIN	0	-20
MAX	6	20
MEAN	1.8	-4
STD DEV	2.7	18.8
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Equipment Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
N/A	N/A

Total Uranium Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	100

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1270	Serial # 1233
Cal Due 8-15-00	Cal Due 4-12-00	Cal Due 5-11-00
Bkg. 6.0 cpm	Bkg. 0.2 cpm	Bkg. 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 20.63%
MDA 8.2 dpm	MDA 12.9 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial # N/A
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due
Bkg. 38 cpm	Bkg. 43 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 95.9 dpm	MDA 101.3 dpm	MDA

Survey Type: **Contamination**

Building: **731**

Location: Roof - Wall Survey Area JJ

Purpose: **Reconnaisance Level Characterization**

RWP #

Date: 4-7-00 Time: 1200

[redacted]

RCT:

Print name / Signature / Emp. #

Comments: Roof / Exterior Walls < 2 meters : Unbiased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.

2 - backgrounds #1 (1cpm) #2 (4 cpm)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Roof	3	44	120	16.	Wall	0	4	138
2.	Roof	0	-40	108	17.	Wall	3	16	42
3.	Roof	3	64	66	18.	Wall	0	-28	66
4.	Roof	0	36	42	19.	Wall	0	40	84
5.	Roof	0	44	102	20.	Wall	0	-12	78
6.	Roof	9	-28	66	21.	Wall	0	0	42
7.	Roof	0	-12	90	22.	Roof	0	-16	180
8.	Roof	0	24	120	23.	Roof	0	-44	216
9.	Roof	0	0	78	24.	Roof	3	12	138
10.	Roof	0	56	132	25.	Roof	0	16	48
11.	Roof	6	40	48	26.	Roof	0	0	144
12.	Wall	0	12	72	27.	Roof	0	-16	132
13.	Wall	0	40	42	28.	Roof	0	40	96
14.	Wall	0	28	66	29.	Roof	0	32	114
15.	Wall	0	20	18	30.	Roof	0	12	66

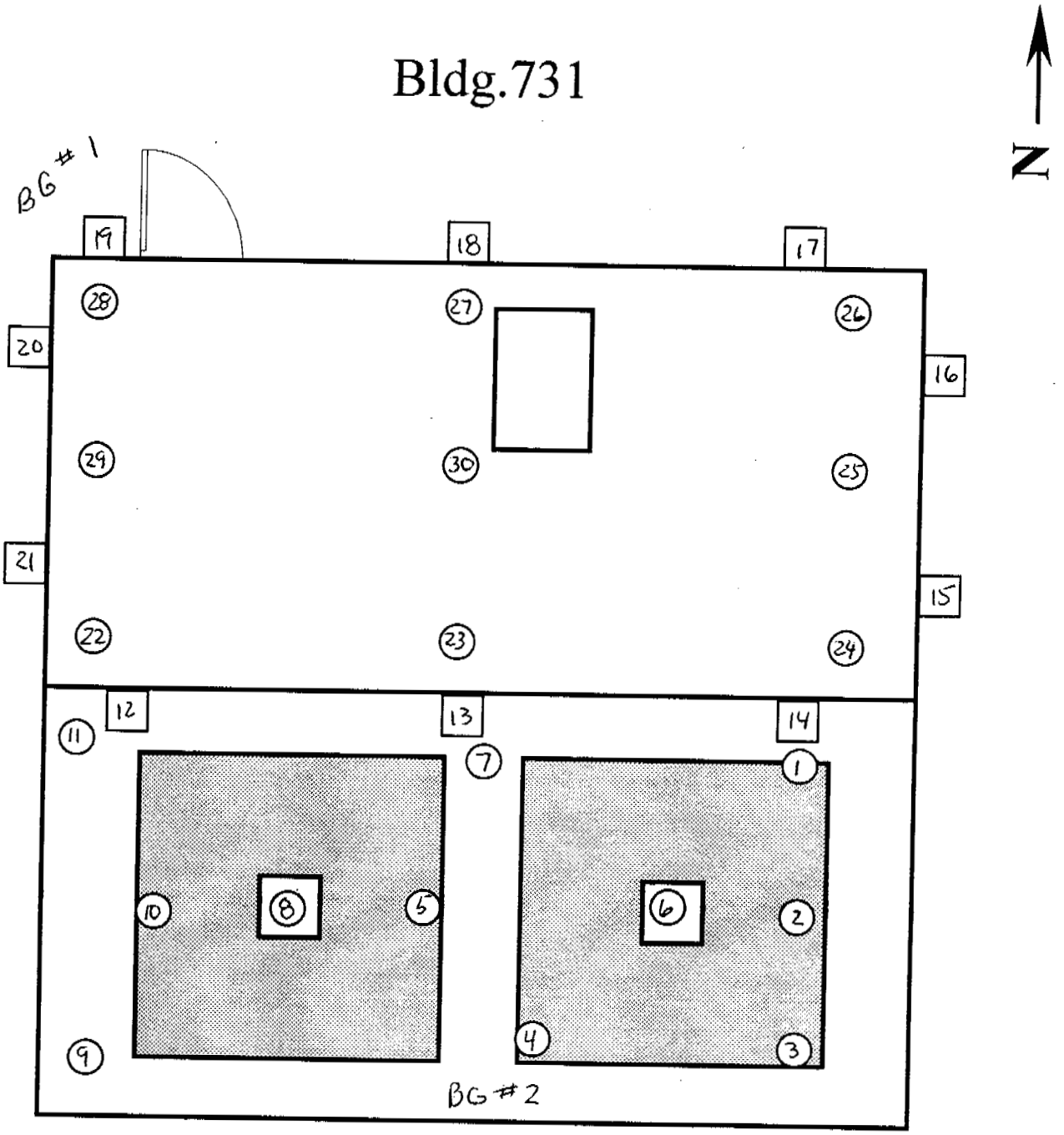
Date Reviewed: 4/17/00 **RS Supervision:** [redacted]

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



Note: This half is at ground level.

789

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1270	Serial # 1233
Cal Due 8-15-00	Cal Due 4-12-00	Cal Due 5-11-00
Bkg. 0.0 cpm	Bkg. 0.2 cpm	Bkg. 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 20.63%
MDA 8.2 DPM	MDA 12.9 DPM	MDA 94 DPM
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 38 cpm	Bkg. ~~7-15~~ 4-7-00 43cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 95.9 DPM	MDA 101.3 DPM	MDA

Survey Type: Contamination
Building: 731
Location: Roof / Wall Survey Area JJ
Purpose: **Reconnaisance Level Characterization**

RWP #
Date: 4-7-00 Time: 1500
RC [redacted]
RCT:
Print name / Signature / Emp. #

Comments: Roof / Exterior Walls : Biased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	under duct	0	-20	24	16.				
2.	Elect. conduit	0	-12	60	17.				
3.	duct	6	20	60	18.				
4.	vent	0	-20	36	19.				
5.	Elect. conduit	3	12	30	20.				
6.	END OF SURVEY				21.				
7.					22.				
8.					23.	N/A			
9.					24.				
10.	N/A				25.				
11.					26.				
12.					27.				
13.					28.				
14.					29.				
15.					30.				

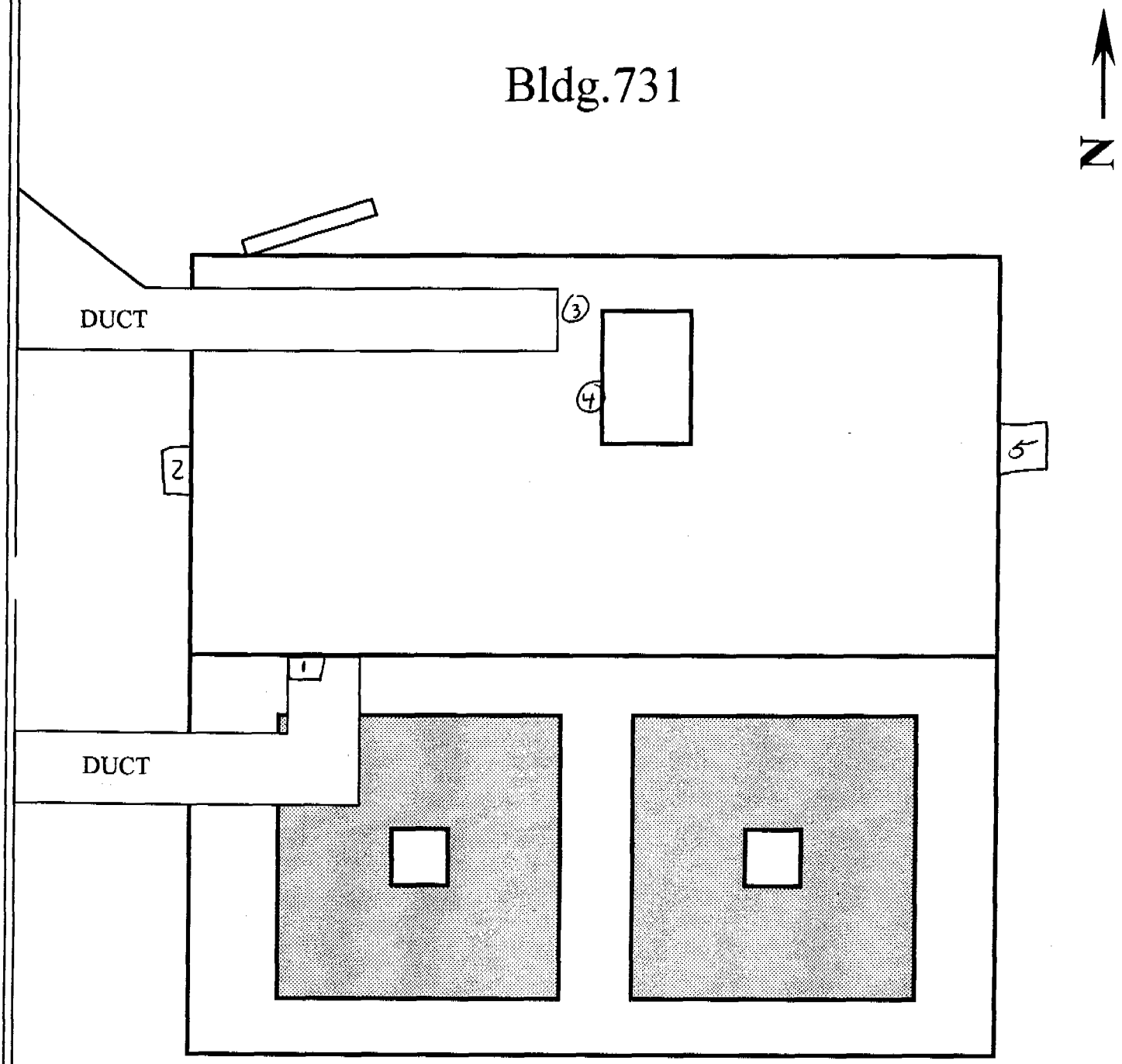
Date Reviewed: 4-17-00 **RS Supervisio** [redacted]

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



Note: This half is at ground level.

Building 732

ASBESTOS INSPECTOR'S REPORT

Building 732 could not be inspected because it is a high airborne radioactive area.

I-1
RLC CHEMICAL DATA

I-2
RLC RADIOLOGICAL DATA
Survey Area E
Bldg 732, Pit Interior

I-2

RLC RADIOLOGICAL DATA

Survey Area F

Bldg 732, Pit Exterior/Roof

795

Radiological Survey/Sample Results for Survey Area F (2000-0002)

Total Surface Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	18	N/A
MAX	174	N/A
MEAN	88.6	N/A
STD DEV	41.1	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Equipment Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	0	-40
MAX	6	52
MEAN	0.5	-4.8
STD DEV	1.4	20.3
Floors/Walls < 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Equipment Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
N/A	N/A

Total Uranium Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	100

196

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 32260
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due 7-17-00
Bkg. 0.2 cpm	Bkg. 0.3 cpm	Bkg. 1.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency .20
MDA 12.9 dpm	MDA 13.9 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 959	Serial # 833	Serial #
Cal Due 7-19-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 40 cpm	Bkg. 43 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 98.1 dpm	MDA 101.3 dpm	MDA

Survey Type: **Contamination**

Building: **732**

Location: 732 PIT Exterior/Roof Survey Area F

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 5-3-00 Time: DAYS

R[redacted]

RCT: N/A

Print name / Signature / Emp. #

Comments: Roof / Exterior Walls < 2 meters : Unbiased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)		Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)		Removable Alpha	Removable Beta	Total Alpha
1.	Roof/Exterior Walls<2m		0	-8	42	16.	Roof/Exterior Wall <2m		0	-24	60
2.			0	52	36	17.			0	4	42
3.			0	-24	72	18.			0	0	18
4.			6	-36	30	19.			0	16	114
5.			0	-8	54	20.			0	16	156
6.			3	12	54	21.			0	-20	174
7.			0	-12	78	22.			0	-28	102
8.			3	-28	102	23.			0	-16	144
9.			0	0	60	24.			0	20	120
10.			0	-8	96	25.			0	-28	90
11.			0	-20	84	26.			0	4	108
12.			3	0	84	27.			0	8	84
13.			0	24	90	28.			0	8	156
14.			0	0	54	29.			0	8	150
15.	see map		0	-16	72	30.	see map		0	-40	132

Date Reviewed: 5-3-00 **RS Supervisio**[redacted]

Rev. 02/00

197

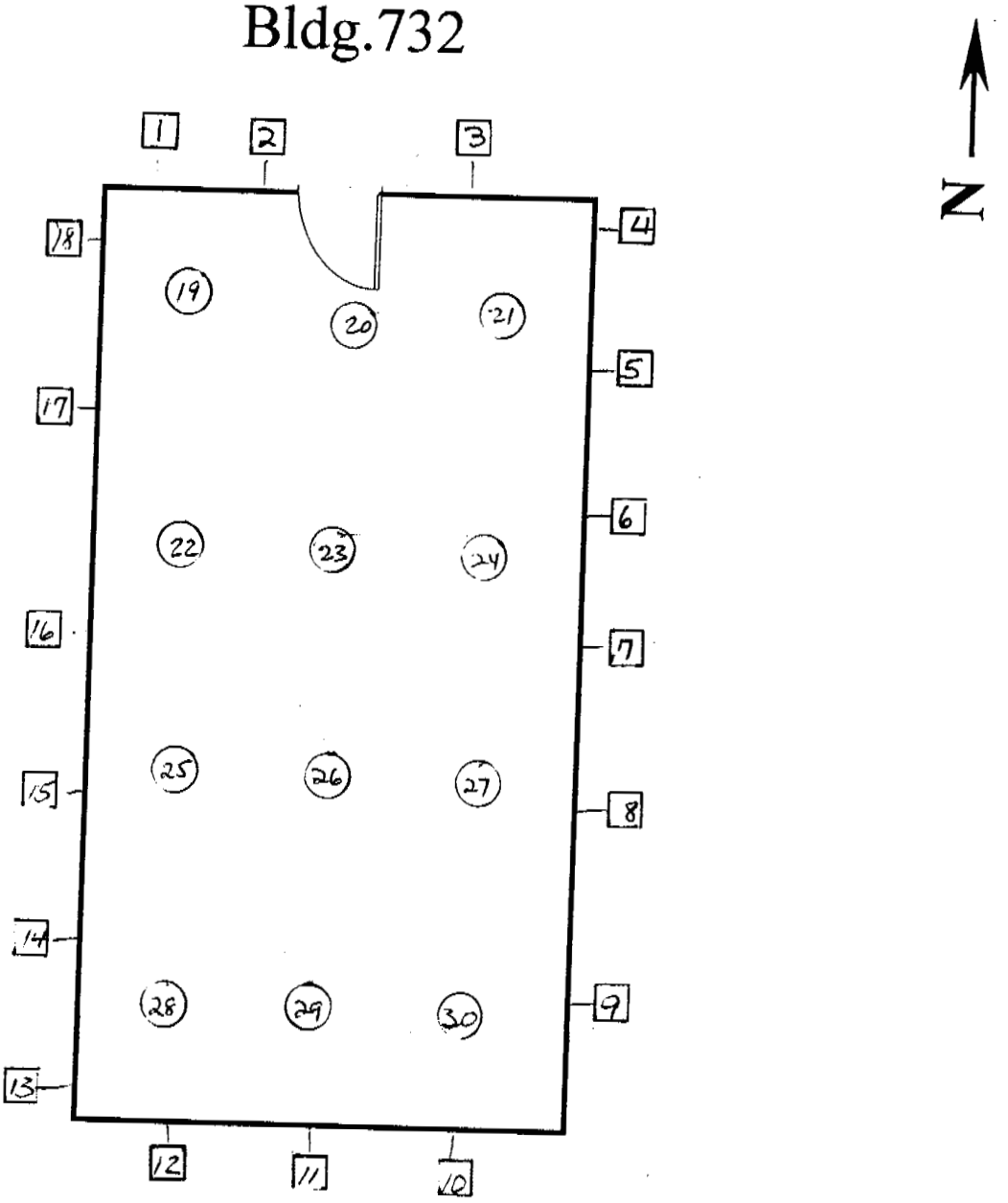
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Bldg.732



J-1
RLC CHEMICAL DATA

J-2

RLC RADIOLOGICAL DATA

Survey Area DD

Tanks T-206, T-208, T-209-221, T-223, T-290, T-324, T325

300

Radiological Survey/Sample Results for Survey Area DD (99-0002)

Total Surface Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Equipment Biased	# Required	# Obtained
	44	38
MIN	18	N/A
MAX	90	N/A
MEAN	44.4	N/A
STD DEV	16.1	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Equipment Biased	# Required	# Obtained
	44	38
MIN	0	-42
MAX	6	84
MEAN	1.3	8.7
STD DEV	1.9	26.4
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
N/A	N/A

Total Uranium Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	100

801

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 1518
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due 6-29-00
Bkg. 0.2 cpm	Bkg. 0.3 cpm	Bkg. 0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 12.9 20 dpm 9.4 5-1-00	MDA 13.9 20 dpm 9.4 5-1-00	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 939	Serial # 833	Serial #
Cal Due 7-19-00	Cal Due 7-14-00	Cal Due
Bkg. 40 cpm	Bkg. 36 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 98.1 dpm	MDA 93.7 dpm	MDA

Survey Type: **Contamination**

Building: Exterior 707 Tanks

Location: Various Tanks Survey Area DD

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 5-1-00 Time: 1630

[redacted]

Comments: Equipment : Biased survey points. T-290 tank & piping underground & inaccessible (Also TH contain). 1 minute pats and swipes. See map for locations. T-324, T-325 not found - unable to locate - assume underground tanks or they were taken off site. Did do T-711 Diesel tank. (not on list)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	T-223	0	0	42	16.	T-214 piping	0	-12	18
2.	T-223 piping	0	36	36	17.	T-215	0	8	24
3.	T-16	0	-36	48	18.	T-215 piping	3	56	36
4.	T-16 piping	0	-16	36	19.	T-216	0	16	42
5.	T-209	3	28	90	20.	T-216 piping	3	12	72
6.	T-209 piping	3	12	48	21.	T-217	6	-36	42
7.	T-210	0	16	48	22.	T-217 piping	0	16	54
8.	T-210 piping	3	40	36	23.	T-218	0	-8	30
9.	T-211	0	20	42	24.	T-218 piping	6	-4	30
10.	T-211 piping	3	52	48	25.	T-219	0	16	36
11.	T-212	3	12	60	26.	T-219 piping	0	12	48
12.	T-212 piping	0	8	36	27.	T-220	0	-4	18
13.	T-213	0	-42	48	28.	T-220 piping	0	32	48
4.	T-213 piping	3	-4	42	29.	T-221	3	-36	36
15.	T-214	0	-4	36	30.	T-221 piping	0	4	42

Date Reviewed: 5-2-00 RS Supervisio[redacted]

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	T- 284	0	44	18	61.	NA			
32.	T- 284 piping	3	84	36	62.				
33.	T 208	0	16	48	63.				
34.	T- 208 piping	0	-4	78	64.				
35.	T-206	0	-16	66	65.				
36.	T-206 piping	6	0	42	66.				
37.	T-711	3	-4	78	67.				
38.	T-711 piping	0	16	48	68.				
39.	END OF SURVEY			NA	69.				
40.					70.				
41.					71.				
42.					72.				
3.					73.				
44.					74.				
45.					75.				
46.					76.				
47.					77.				
48.					78.				
49.					79.				
50.					80.				
51.					81.				
52.					82.				
53.					83.				
54.					84.				
55.					85.				
56.					86.				
7.					87.				
8.					88.				
59.					89.				
60.	NA				90.				NA

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg.	Mfg. Ludlum
Model SAC-4	Model	Model 12-1A
Serial # 837	Serial #	Serial # 63454
Cal Due 5-17-00	Cal Due	Cal Due 12-7-00
Bkg. 0.3 cpm	Bkg.	Bkg. <125 cpm
Efficiency 33%	Efficiency	Efficiency 50%
MDA 20 dpm	MDA	MDA 250 dpm
Mfg.	Mfg.	Mfg.
Model	Model	Model
Serial #	Serial #	Serial #
Cal Due	Cal Due	Cal Due
Bkg.	Bkg.	Bkg.
Efficiency	Efficiency	Efficiency
MDA	MDA	MDA

Survey Type: Contamination/Radiation
Building: 707
Location: Module A + B
Purpose: Job Coverage

RWP # 00-707-5434
Date: ~~4/5~~ 4-25-00 Time: 2100

RCT [redacted]

RCT: N/A
Print name / Signature Emp. #

PRN/REN # :
Comments: Survey is typical of all 8 sampling locations

SURVEY RESULTS

ALPHA I.D. #		DPM/ 100cm² (SWIPE)	DPM/ 100cm² (DIRECT)	DPM (WIPE)
Pre-Job	1.	<250	<500	N/A
During	2.	<250	<500	N/A
Post Job	3.	<250	<500	<20
	4.			
	5.			
	6.			
	7.			
	8. N/A			
	9.			
	10.			
	11.			
	12.			
	13.			
	14.			
	15.			

GAMMA/NEUTRON mrem/HR. @ 30 cm	GAMMA	NEUTRON	TOTAL
1.			
2.			
3.			
4.			
5.			
6.			
7.		N/A	
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			

Date Reviewed: 4-26-00 RS Supervision: [redacted]

504

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Ludlum	Mfg.
Model SAC-4	Model 12-1	Model
Serial # 837	Serial # 63454	Serial #
Cal Due 5-17-00	Cal Due 12-7-00	Cal Due N/A
Bkg. 0.1 cpm	Bkg. <125 cpm	Bkg.
Efficiency 33%	Efficiency 50%	Efficiency
MDA 20 dpm	MDA 250 dpm	MDA
Mfg.	Mfg.	Mfg.
Model	Model	Model
Serial #	Serial #	Serial #
Cal Due N/A	Cal Due N/A	Cal Due N/A
Bkg.	Bkg.	Bkg.
Efficiency	Efficiency	Efficiency
MDA	MDA	MDA

Survey Type: Contamination/Radiation
Building: 707
Location: Module C
Purpose: Job Coverage

RWP # 00-707-5434

Date: 4-26-00 Time: 1630

RCT: [redacted]
Print name / Signature / Emp. =

RCT: N/A
Print name / Signature / Emp. =

PRN/REN #: 00418-00881-001 + 000421-00881-001

Comments: 4 samples taken in C module

SURVEY RESULTS

	I.D. #	ALPHA DPM/100cm² (SWIPE)	ALPHA DPM/100cm² (DIRECT)	ALPHA DPM (WIPE)	GAMMA/NEUTRON mrem/HR. @ 30 cm GAMMA	NEUTRON	TOTAL
C-120	Prejob 1.	<250	<500	N/A	1.		
	During 2.	<250	4000	N/A	2.		
	Post Job 3.	<250	4000	<20	3.		
C-110	Prejob 4.	<250	<500	N/A	4.		
	During 5.	<250	2000	N/A	5.		
	Post Job 6.	<250	2000	<20	6.		
NW Door	Prejob 7.	<250	<500	N/A	7.	N/A	
	During 8.	<250	<500	N/A	8.		
	Post Job 9.	<250	<500	<20	9.		
6-60	Prejob 10.	<250	<500	N/A	10.		
	During 11.	<250	<500	N/A	11.		
	Post Job 12.	<250	<500	<20	12.		
	13.				13.		
	14. N/A				14.		
	15.				15.		

Date Reviewed: 4-26-00 RS Supervision: [redacted]

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg.	Mfg.	Mfg.
Model	Model	Model
Serial #	Serial #	Serial #
Cal Due	Cal Due	Cal Due
Bkg.	Bkg.	Bkg.
Efficiency	Efficiency	Efficiency
MDA	MDA	MDA
Mfg.	Mfg.	Mfg. N/E Tech
Model	Model	Model Electra
Serial #	Serial #	Serial # 1518
Cal Due	Cal Due	Cal Due 6-29-00
Bkg.	Bkg.	Bkg. 2.0 cpm
Efficiency	Efficiency	Efficiency .2186
MDA	MDA	MDA 94 dpm

Survey Type: Contamination/Radiation
Building: 707
Location: Mod A, B, C, J
Purpose: Job Coverage

RWP # 00707 5434

Date: 4-27-00 Time: 1230

[redacted]

RCT: NA
Print name / Signature / Emp. #

PRN/REN # :
Comments: NW Corner Mod A Area 2.0 - NW Corner Mod B Area 2.1
NE Corner Mod C Area 0.2 - SW Corner Mod J Area 5.2
Pre During Post

SURVEY RESULTS

ALPHA I.D. #		DPM/ 100cm² (SWIPE)	DPM/ 100cm² (DIRECT)	DPM (WIPE)
Area 2.0	1.	NA	<94	<94
Area 2.1	2.	NA	<94	<94
Area 0.2	3.	NA	<94	<94
Area 5.2	4.	NA	<94	<94
	5.			
	6.			
	7.			
	8.			
	9.			
	10.			
	11.			
	12.			
	13.			
	14.			
	15.			

GAMMA/NEUTRON mrem/HR. @ 30 cm	GAMMA	NEUTRON	TOTAL
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			

NA

Date Reviewed: 4-28-00 RS Supervision: [redacted]

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. N/A	Mfg. Ludlum
Model SAC-4	Model	Model 12-1
Serial # 955	Serial #	Serial # 63454
Cal Due 10-12-00	Cal Due	Cal Due 12-7-00
Bkg. 0.3 cpm	Bkg.	Bkg. <125 cpm
Efficiency 33 %	Efficiency	Efficiency 50%
MDA 20 dpm	MDA	MDA 250 dpm
Mfg. N/A	Mfg. N/A	Mfg. N/A
Model	Model	Model
Serial #	Serial #	Serial #
Cal Due	Cal Due	Cal Due
Bkg.	Bkg.	Bkg.
Efficiency	Efficiency	Efficiency
MDA N/A	MDA N/A	MDA N/A

Survey Type: Contamination/Radiation
Building: 707
Location: Module D E
Purpose: Job Coverage

RWP # 00-707-5434 ✓

Date: 4-27-00 Time: 1630

RCT [redacted]

RCT: N/A
Print name / Signature / Emp. #

PRN/REN # :

Comments: 5 sample locations in Module D + E

SURVEY RESULTS

I.D. #		ALPHA DPM/100cm² (SWIPE)	ALPHA DPM/100cm² (DIRECT)	ALPHA DPM (WIPE)	GAMMA/NEUTRON mrem/HR. @ 30 cm GAMMA	NEUTRON	TOTAL
Pre Job	1.	<250	<500	N/A			
During	2.	N/A	<500	N/A			
Post Job	3.	<250	<500	<20			
	4.						
	5.						
	6.						
	7.					N/A	
	8.	N/A					
	9.						
	10.						
	11.						
	12.						
	13.						
	14.						
	15.						

Date Reviewed: 4-27-00 RS Supervision: [redacted]
Print Name Signature Emp. #

810

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg.	Mfg.	Mfg.
Model	Model	Model
Serial #	Serial #	Serial # N/A
Cal Due	Cal Due	Cal Due
Bkg.	Bkg.	Bkg.
Efficiency	Efficiency	Efficiency
MDA N/A	MDA N/A	MDA
Mfg.	Mfg.	Mfg. NETech
Model	Model	Model Electra
Serial #	Serial #	Serial # 1518
Cal Due	Cal Due	Cal Due 6-29-00
Bkg.	Bkg.	Bkg. 2.0 cpm
Efficiency	Efficiency	Efficiency .1286
MDA	MDA	MDA 94 dpm

Survey Type: **Contamination/Radiation**

Building: **707**

Location: Module G

Purpose: **Job Coverage**

RWP # 007075434 ✓

Date: 4-27-00 Time: 1600

[redacted]

RCT: N/A

Print name / Signature / Emp. #

PRL # : N/A

Comments: Paint Samples Pre Post During

SURVEY RESULTS

ALPHA I.D. #		DPM/ 100cm² (SWIPE)	DPM/ 100cm² (DIRECT)	DPM (WIPE)	GAMMA/NEUTRON mrem/HR. @ 30 cm GAMMA	NEUTRON	TOTAL
707P1900	1.	NA	<94	<94			
707P2000	2.	NA	<94	<94			
707P2100	3.	NA	<94	<94			
	4.						
	5.						
	6.						
	7.						
	8.						
	9.						
	10.						
	11.						
	12.						
	13.						
	14.						
	15.						

N/A

Date Reviewed: 4-28-00 RS Supervision: [redacted]

Print Name Signature Emp. #

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. NETech	Mfg. NA
Model SAC-4	Model Electra	Model
Serial # 849	Serial # 3134	Serial #
Cal Due 10-00	Cal Due 7-00	Cal Due
Bkg. 0.0 cpm	Bkg. 3.0 cpm	Bkg.
Efficiency 33%	Efficiency 17%	Efficiency
MDA 20 DPM	MDA 94 dpm	MDA NA
Mfg. Eberline	Mfg. NA	Mfg. NA
Model SAC-4	Model	Model
Serial # 982	Serial #	Serial #
Cal Due 5-00	Cal Due	Cal Due
Bkg. 0.0 cpm	Bkg.	Bkg.
Efficiency 33%	Efficiency	Efficiency
MDA 20 DPM	MDA NA	MDA NA

Survey Type: **Contamination/Radiation**
Building: **707**
Location: H-mod - Corr's - Rm 173
Purpose: **Job Coverage**

RWP # 00-707-5434

Date: 4-28-00 Time: 0500

[redacted]
Print name / Signature / Emp. #

RCT: NA → NA
Print name / Signature / Emp. #

PRN/REN # :

Comments: Locations pre-dur-post
Paint samples in RBA

SURVEY RESULTS

	ALPHA I.D. #		DPM/ 100cm² (SWIPE)	DPM/ 100cm² (DIRECT)	DPM (WIPE)	GAMMA/NEUTRON mrem/HR. @ 30 cm GAMMA	NEUTRON	TOTAL
H-mod	Loc 1	1.	<20	<94	NA	1. NA		
H-mod	Loc 2	2.	<20	<94		2.		
Corr R	Loc 3	3.	<20	<94		3.		
Corr R	Loc 4	4.	<20	<94		4.		
Corr N	Loc 5	5.	<20	<94		5.		
Rm 173	Loc 6	6.	<20	<94		6.		
Corr L	Loc 7	7.	<20	<94		7.		
Corr F	Loc 8	8.	<20	<94		8.		
Corr H	Loc 9	9.	<20	<94	NA	9.		
	NA	10.				10.		
		11.				11.		
		12.				12.		
		13.				13.		
		14.				14.		
		15.			NA	15.		NA

Date Reviewed: 4-29-00 RS Supervision: [redacted]

314

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBR	Mfg. EBR	Mfg. NE Tech
Model SAC4	Model SAC4	Model Electra
Serial # 817	Serial # 812	Serial # 1373
Cal Due 10-5-00	Cal Due 9-25-00	Cal Due 9-2-00
Bkg. 0.0 cpm	Bkg. 0.0 cpm	Bkg. 0.0 cpm
Efficiency .33	Efficiency .33	Efficiency .2077
MDA 20 dpm	MDA 20 dpm	MDA 94 dpm
Mfg.	Mfg.	Mfg.
Model	Model	Model
Serial #	Serial #	Serial #
Cal Due	Cal Due	Cal Due
Bkg.	Bkg.	Bkg.
Efficiency	Efficiency	Efficiency
MDA	MDA	MDA

Survey Type: **Contamination/Radiation**
Building: 707
Location: Plenum Area upstairs, Mod A, B, C, J
Purpose: **Job Coverage**

RWP # 00 707 5434

Date: 5-2-00 Time: ~~1040 1840~~ 2200

[redacted]

RCT: NA
Print name / Signature / Emp. #

PRN/REN # : NA
Comments: Pre Post During
C1, C2, C3, C4, - CA AREA

SURVEY RESULTS

I.D. #		ALPHA DPM/100cm² (SWIPE)	ALPHA DPM/100cm² (DIRECT)	ALPHA DPM (WIPE)	GAMMA/NEUTRON mrem/HR. @ 30 cm GAMMA	NEUTRON	TOTAL
C5 (0.2	1.	<20	<94	<94			
C6 (1.0)	2.	<20	<94	<94			
C7 (3.0)	3.	<20	<94	<94			
KC1	4.	<20	<94	<94			
KC2	5.	<20	<94	<94			
KC3	6.	<20	<94	<94			
KC4	7.	<20	<94	<94			
KC5	8.	<20	<94	<94			
C1 (2.0)	9.	NA ~~726~~ BL 5-2-00	<94	<94			
C4 (2.1)	10.	NA	<94	<94			
C3 (0.2)	11.	NA	<94	<94			
C1 (5.2)	12.	NA	<94	<94			
C2 (5.2)	13.	NA	<94	<94			
	14.						
	15.						

NA

Date Reviewed: 5/3/00 RS Supervis [redacted]

816

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBR	Mfg. EBR	Mfg. Bicron
Model SAC4	Model SAC4	Model Micro rem
Serial # 846	Serial # 1054	Serial # B265U
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due 7-20-00
Bkg. 0.2 cpm	Bkg. 0.3 cpm	Bkg. NA
Efficiency .33	Efficiency .33	Efficiency NA
MDA 20 dpm	MDA 20 dpm	MDA 17 μrem/h
Mfg. EBR	Mfg. EBR	Mfg. NETech
Model BC-4	Model BC-4	Model Electra
Serial # 959	Serial # 863	Serial # 1518
Cal Due 7-19-00	Cal Due 7-14-00	Cal Due 6-29-00
Bkg. 40 cpm	Bkg. 42 cpm	Bkg. 110 cpm
Efficiency .25	Efficiency .25	Efficiency .2186
MDA 200 dpm	MDA 200 dpm	MDA 94 dpm

Survey Type: CONTAMINATION / RADIATION

Building: 731, 708, 707

Location: Floor and Roof

Purpose: Paint Sampling

RWP # 067075434

Date: 5-3-00 Time: 1500

[redacted]

Print name Signature Emp. #

RCT: NA / /

Print name Signature Emp. #

PRN/REN #: 00 707 1047

Comments: REN# 00A7196 Events 42, 43, 44, 45, 46, 47, 63 Bottles 1 thru 2 Direct α <94 1 Swipe Per Bottle

Typical

SURVEY RESULTS

I.D. #	ALPHA DPM/100cm² (SWIPE)	BETA DPM/100cm² (SWIPE)	GAMMA/NEUTRON 1 μrem ~~mrem~~/HR. @ 30 cm R 5-3-00	
NA	1. <20	1. <200	1. <17	0
NA	2. <20	2. <200	2. <17	0
	3. NA	3. NA	3. NA	
	4.	4.	4.	
	5.	5.	5.	
	6.	6.	6.	
	7.	7.	7.	
	8.	8.	8.	
	9.	9.	9.	
	10.	10.	10.	
	11.	11.	11.	
	12.	12.	12.	
	13.	13.	13.	
	14.	14.	14.	
	15.	15.	15.	
	16.	16.		

Date Reviewed: 5-3-00 RS Supervision: [redacted]

Print Name Signature Emp. #

318

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBR	Mfg. EBR	Mfg. NETech
Model SAC-4	Model SAC-4	Model Electra
Serial # 846	Serial # 1054	Serial # 1518
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due 6-29-00
Bkg. 0.2 cpm	Bkg. 0.3 cpm	Bkg. 1.0 cpm
Efficiency .33	Efficiency .133	Efficiency .2186
MDA 20 dpm	MDA 20 dpm	MDA 94 dpm
Mfg. N/A	Mfg.	Mfg.
Model	Model	Model
Serial #	Serial #	Serial #
Cal Due	Cal Due	Cal Due
Bkg.	Bkg.	Bkg.
Efficiency	Efficiency	Efficiency
MDA	MDA	MDA

Survey Type: **Contamination/Radiation**
Building: 707, 708, 731
Location: Floors and Roof
Purpose: **Job Coverage** Paint Sampling
RWP # 00707 5434
Date: 5-3-00 Time: 1530

[redacted]

RCT: N/A
Print name / Signature / Emp. #

PRN/REN #: N/A
Comments: 731-042 708-043 044 047, 707-045 046

SURVEY RESULTS

I.D. #		ALPHA DPM/100cm² (SWIPE)	ALPHA DPM/100cm² (DIRECT)	ALPHA DPM (WIPE)	GAMMA/NEUTRON mrem/HR. @ 30 cm GAMMA	NEUTRON	TOTAL
42-00	1.	<20	<00	<94	1.		
43-00	2.	<20	<94	<94	2. N/A		
44-00	3.	<20	<94	<94	3.		
45-00	4.	<20	<94	<94	4.		
46-00	5.	<20	<94	<94	5.		
47-00	6.	<20	<94	<94	6.		
N/A	7.	N/A			7.		
	8.				8.		
	9.				9.		
	10.				10.		
	11.				11.		
	12.				12.		
	13.				13.		
	14.				14.		
	15.				15.		

Date Reviewed: 5-3-00 RS Supervision: [redacted]

20

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBR	Mfg. EBR	Mfg. NETech
Model SAC-4	Model SAC 4	Model Electra
Serial # 1394	Serial # 817	Serial # 1518
Cal Due 5-9-00	Cal Due 11-5-00	Cal Due 6-29-00
Bkg. 0.0 cpm	Bkg. 0.1 cpm	Bkg. 1.0 cpm
Efficiency .133	Efficiency .133	Efficiency .2186
MDA 20 dpm	MDA 20 dpm	MDA 94 dpm
Mfg. N/A	Mfg.	Mfg.
Model	Model	Model
Serial #	Serial #	Serial #
Cal Due	Cal Due	Cal Due
Bkg.	Bkg.	Bkg.
Efficiency	Efficiency	Efficiency
MDA	MDA	MDA

Survey Type: **Contamination/Radiation**

Building: 707

Location: RBA - C4

Purpose: **Job Coverage** Core Drilling

RWP # 00707 5434

Date: 5-4-00 Time: 1600

[redacted]

RCT: N/A

Print name Signature / Emp. =

PRN/REN # : NA

Comments: Heat Gun S/N 122-28863 ; HLLC; TE72; Barcode T000107800 MTS Electrical Drop cord 50 ft. No Contamination found in Areas used

SURVEY RESULTS

I.D. #		ALPHA DPM/100cm² (SWIPE)	ALPHA DPM/100cm² (DIRECT)	ALPHA DPM (WIPE)	GAMMA/NEUTRON mrem/HR. @ 30 cm GAMMA	NEUTRON	TOTAL
Drill	1.	<20	<94		1.		
"	2.	<20	<94		2.		
"	3.	<20	<94		3.		
"	4.	<20	<94		4.		
"	5.	<20	<94		5.		
"	6.	<20	<94		6.		
"	7.	<20	<94		7.		
"	8.	<20	<94		8.		
"	9.	<20	<94		9.		
"	10.	<20	<94		10.		
"	11.	<20	<94		11.		
Heat Gun	12.	<20	<94		12.		
"	13.	<20	<94		13.		
"	14.	<20	<94		14.		
"	15.	<20	<94		15.		

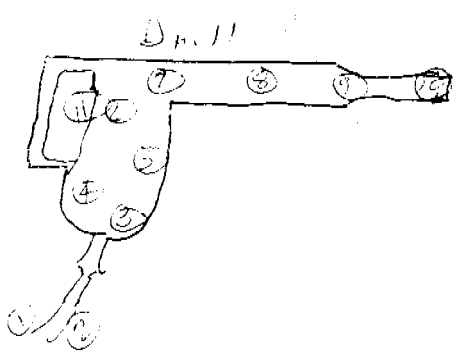
Date Reviewed: 5/4/00 RS Supervisio[redacted]

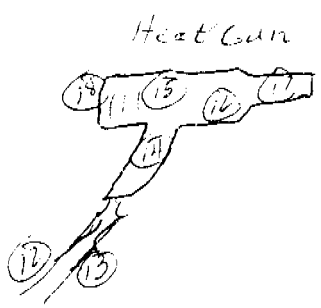
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

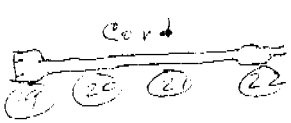
Drawing Showing Survey Points

SURVEY RESULTS

I.D. #		ALPHA DPM/ 100cm^2 (SWIPE)	ALPHA DPM/ 100cm^2 (DIRECT)	ALPHA DPM (WIPE)	GAMMA/NEUTRON mrem/HR. @ 30 cm GAMMA	NEUTRON	TOTAL
Heat Gun	16.	<20	<94		16.		
"	17.	<20	<94		17.		
"	18.	<20	<94		18.		
Drop Cord	19.	<20	<94		19.		
"	20.	<20	<94		20.		
"	21.	<20	<94		21.		
"	22.	<20	<94		22.		
N/A	23.				23.		
	24.				24.		
	25.				25.		
	26.				26.		
	27.				27.		
	28.				28.		
	29.				29.		
	30.				30.		







823/823

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

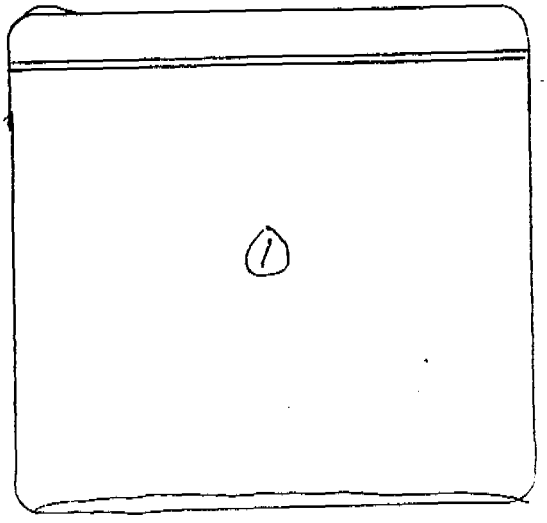
Drawing Showing Survey Points

ALPHA I.D. #		SURVEY RESULTS DPM/ 100cm^2 (SWIPE)	DPM/ 100cm^2 (DIRECT)	DPM (WIPE)	GAMMA/NEUTRON mrem/HR. @ 30 cm GAMMA	NEUTRON	TOTAL
	16.				16.		
	17.				17.		
	18.				18.		
	19.		N/A		19.		
	20.				20.		
	21.				21.		
	22.				22.		
	23.				23.		
	24.				24.		
	25.				25.		
	26.				26.		
	27.				27.		
	28.				28.		
	29.				29.		
	30.				30.		

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



Typical

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

SURVEY RESULTS

ALPHA I.D. #		DPM/ 100cm^2 (SWIPE)	DPM/ 100cm^2 (DIRECT)	DPM (WIPE)		GAMMA/NEUTRON mrem/HR. @ 30 cm GAMMA	NEUTRON	TOTAL
	16.					16.		
	17.					17.		
	18.					18.		
	19.					19.		
	20.				N	20.		
	21.				A	21.		
	22.					22.		
	23.					23.		
	24.					24.		
	25.					25.		
	26.					26.		
	27.					27.		
	28.					28.		
	29.					29.		
	30.					30.		

817

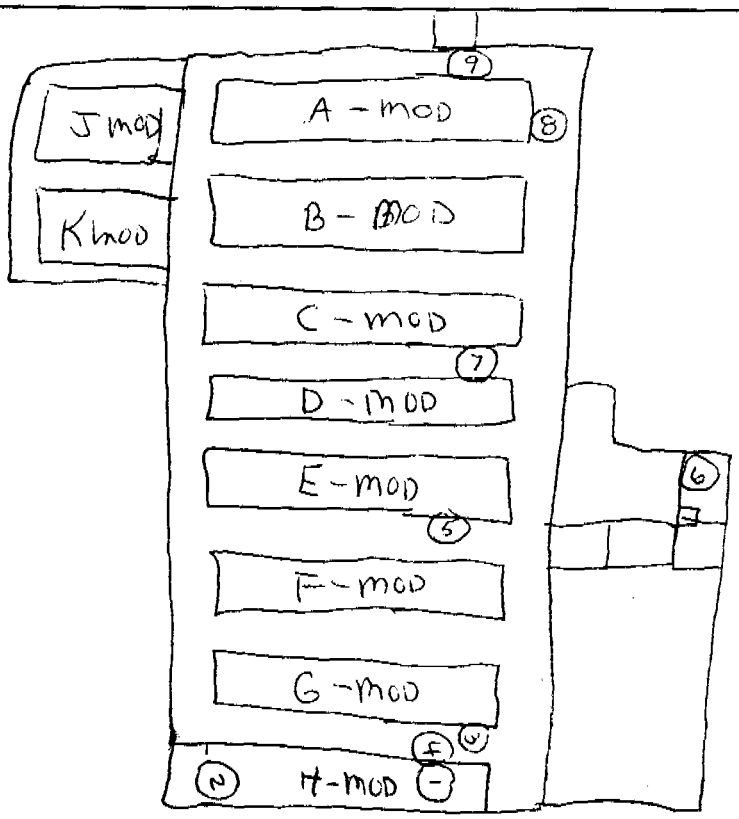
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

SURVEY RESULTS

ALPHA I.D. #		DPM/ 100cm^2 (SWIPE)	DPM/ 100cm^2 (DIRECT)	DPM (WIPE)	GAMMA/NEUTRON mrem/HR. @ 30 cm GAMMA	NEUTRON	TOTAL
NA	16.				16.		
	17.				17.		
	18.				18.		
	19.				19.		
	20.				20.		
	21.				21.		
	22.				22.		
	23.				23.		
	24.				24.		
	25.				25.		
	26.				26.		
	27.				27.		
	28.				28.		
	29.				29.		
	30.				30.		NA



ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

ALPHA	SURVEY RESULTS			GAMMA/NEUTRON mrem/HR. @ 30 cm		
I.D. #	DPM/ 100cm^2 (SWIPE)	DPM/ 100cm^2 (DIRECT)	DPM (WIPE)	GAMMA	NEUTRON	TOTAL
_____ 16.	_____	_____	_____	16. _____	_____	_____
_____ 17.	_____	_____	_____	17. _____	_____	_____
_____ 18.	_____	_____	_____	18. _____	_____	_____
_____ 19.	_____	_____	_____	19. _____	_____	_____
_____ 20.	_____	_____	_____	20. _____	_____	_____
_____ 21.	_____	_____	_____	21. _____	_____	_____
_____ 22.	_____	_____	_____	22. _____	_____	_____
_____ 23.	_____	_____	_____	23. _____	_____	_____
_____ 24.	_____	_____	_____	24. _____	_____	_____
_____ 25.	_____	_____	_____	25. _____	_____	_____
_____ 26.	_____	_____	_____	26. _____	_____	_____
_____ 27.	_____	_____	_____	27. _____	_____	_____
_____ 28.	_____	_____	_____	28. _____	_____	_____
_____ 29.	_____	_____	_____	29. _____	_____	_____
_____ 30.	_____	_____	_____	30. _____	_____	_____

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

ALPHA				SURVEY RESULTS	GAMMA/NEUTRON mrem/HR. @ 30 cm		
I.D. #		DPM/ 100cm^2 (SWIPE)	DPM/ 100cm^2 (DIRECT)	DPM (WIPE)		GAMMA	NEUTRON	TOTAL
_____	16.	_____	_____	_____	16.	_____	_____	_____
_____	17.	_____	_____	_____	17.	_____	_____	_____
_____	18.	_____	_____	_____	18.	_____	_____	_____
_____	19.	_____	_____	_____	19.	_____	_____	_____
_____	20.	_____	_____	_____	20.	_____	_____	_____
_____	21.	_____	_____	_____	21.	_____	_____	_____
_____	22.	_____	_____	_____	22.	_____	_____	_____
_____	23.	_____	_____	_____	23.	_____	_____	_____
_____	24.	_____	_____	_____	24.	_____	_____	_____
_____	25.	_____	_____	_____	25.	_____	_____	_____
_____	26.	_____	_____	_____	26.	_____	_____	_____
_____	27.	_____	_____	_____	27.	_____	_____	_____
_____	28.	_____	_____	_____	28.	_____	_____	_____
_____	29.	_____	_____	_____	29.	_____	_____	_____
_____	30.	_____	_____	_____	30.	_____	_____	_____

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

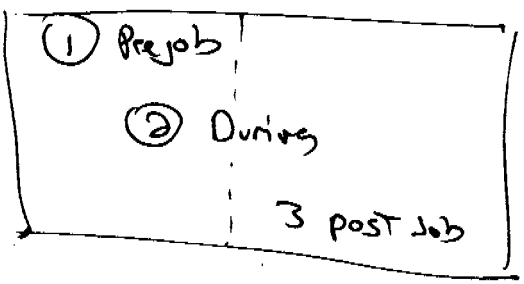
ALPHA I.D. #		SURVEY RESULTS DPM/ 100cm^2 (SWIPE)	DPM/ 100cm^2 (DIRECT)	DPM (WIPE)		GAMMA/NEUTRON mrem/HR. @ 30 cm GAMMA	NEUTRON	TOTAL
_____	16.	_____	_____	_____	16.	_____	_____	_____
_____	17.	_____	_____	_____	17.	_____	_____	_____
_____	18.	_____	_____	_____	18.	_____	_____	_____
_____	19.	_____	_____	_____	19.	_____	_____	_____
_____	20.	_____	_____	_____	20.	_____	_____	_____
_____	21.	_____	_____	_____	21.	_____	_____	_____
_____	22.	_____	_____	_____	22.	_____	_____	_____
_____	23.	_____	_____	_____	23.	_____	_____	_____
_____	24.	_____	_____	_____	24.	_____	_____	_____
_____	25.	_____	_____	_____	25.	_____	_____	_____
_____	26.	_____	_____	_____	26.	_____	_____	_____
_____	27.	_____	_____	_____	27.	_____	_____	_____
_____	28.	_____	_____	_____	28.	_____	_____	_____
_____	29.	_____	_____	_____	29.	_____	_____	_____
_____	30.	_____	_____	_____	30.	_____	_____	_____

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

ALPHA	SURVEY RESULTS			GAMMA/NEUTRON mrem/HR. @ 30 cm		
I.D. #	DPM/ 100cm^2 (SWIPE)	DPM/ 100cm^2 (DIRECT)	DPM (WIPE)	GAMMA	NEUTRON	TOTAL
_____ 16.	_____	_____	_____	16. _____	_____	_____
_____ 17.	_____	_____	_____	17. _____	_____	_____
_____ 18.	_____	_____	_____	18. _____	_____	_____
_____ 19.	_____	_____	_____	19. _____	_____	_____
_____ 20.	_____	_____	_____	20. _____	_____	_____
_____ 21.	_____	_____	_____	21. _____	_____	_____
_____ 22.	_____	_____	_____	22. _____	_____	_____
_____ 23.	_____	_____	_____	23. _____	_____	_____
_____ 24.	_____	_____	_____	24. _____	_____	_____
_____ 25.	_____	_____	_____	25. _____	_____	_____
_____ 26.	_____	_____	_____	26. _____	_____	_____
_____ 27.	_____	_____	_____	27. _____	_____	_____
_____ 28.	_____	_____	_____	28. _____	_____	_____
_____ 29.	_____	_____	_____	29. _____	_____	_____
_____ 30.	_____	_____	_____	30. _____	_____	_____



ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

ALPHA I.D. #		DPM/ 100cm^2 (SWIPE)	DPM/ 100cm^2 (DIRECT)	SURVEY RESULTS DPM (WIPE)		GAMMA/NEUTRON mrem/HR. @ 30 cm GAMMA	NEUTRON	TOTAL
	16.				16.			
	17.				17.			
	18.				18.			
	19.				19.			
	20.				20.			
	21.				21.			
	22.				22.			
	23.				23.			
	24.				24.			
	25.				25.			
	26.				26.			
	27.				27.			
	28.				28.			
	29.				29.			
	30.				30.			

(1) Pre
(2) During
(3) Post

'05