N.S. SAVANNAH
RADIOLOGICAL SURVEY

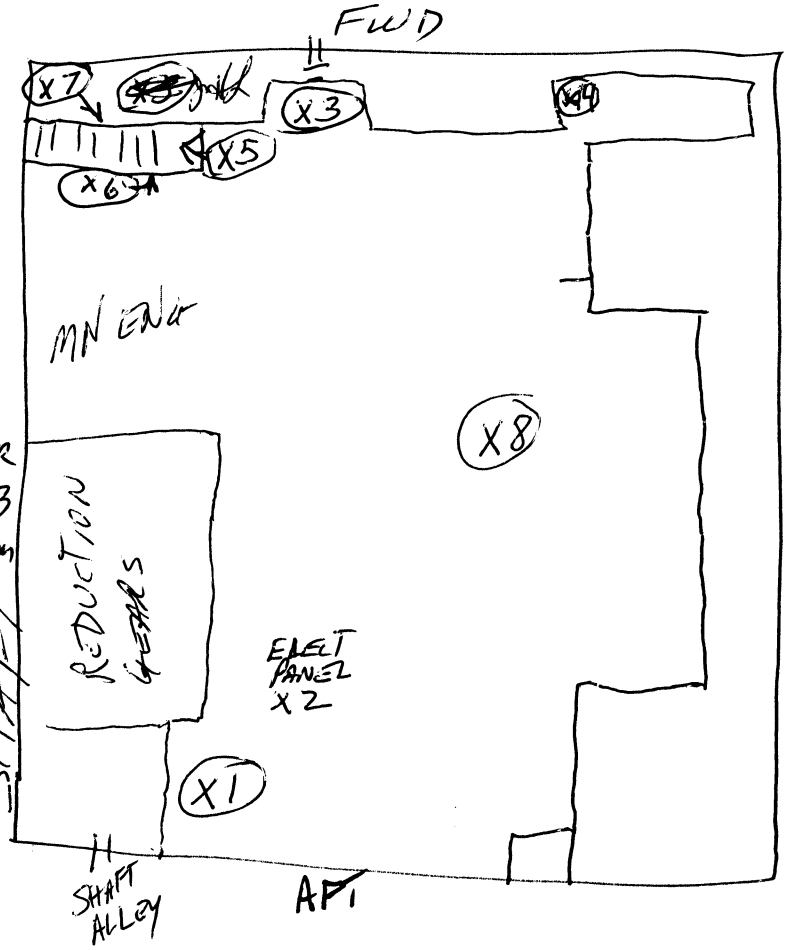
NSS-01 SURVEY NO. NSS-0043

Date 3/31/05 Time	DOSE RATE	CONTAMINATION	
Surveyor Craddock	Inst. Type LUDLUM	Beta ✓ Alpha ____	Beta ____ Alpha ____
Signature Craddock	Serial No. 95499	Inst.Sn 97416	
Reviewed [signature]	β⁻Factor +9 HL	Eff. 10%	
	4 mR/HR	Bkg. 30 cpm	cpm

AREA LOWER LEVEL MAIN ENGINE RM STBD SIDE OF SHAFT

COMPONENT

#1 deck under new Elec box NS Savannah Hand
#2 Rail under diesel Eng Start Box #102
#3 Deck STBD side Charge Pump Ent. way
4 DECK STBD FWD UNDER POWER PANEL H-126-3
5. DECK STBD FWD BOTTOM OF LADDER
6. HAND RAIL of FWD ℄ LADDER NEXT COND
7. HAND RAIL FWD ℄ OPPOSITE #6
8. DECK BETWEEN DIESEL GEN.



ALL AREAS < BKGD < 100 CPM

SMEAR RESULTS ~~IN DPM/100 CM²~~ ~~B = BETA in mRAD/hr/100 CM²~~

NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS
1	< BKG								
2	< BKG								
3	< BKG								
4	< BKG								
5	< BKG								
6	< BKG								
7	< BKG								
8	< BKG								

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN μrem/hr

RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

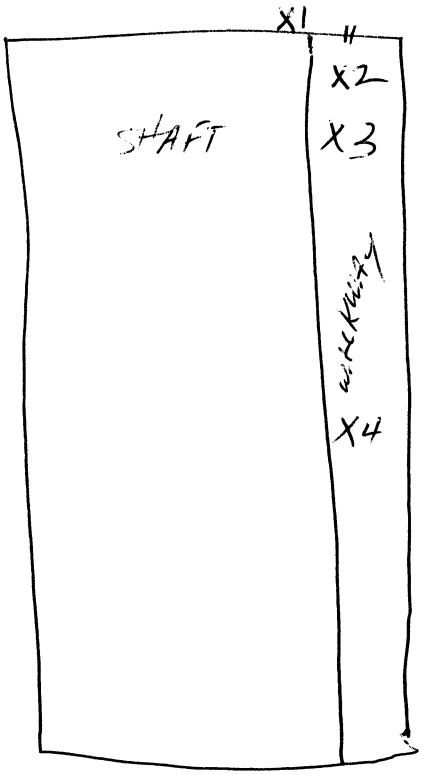
N.S. SAVANNAH
RADIOLOGICAL SURVEY

NSS-01 SURVEY NO. NSS-0044

Date 3-31-05 Time	DOSE RATE	CONTAMINATION	
Surveyor CRADDOCK	Inst. Type LUDLUM	Beta L Alpha	Beta Alpha
Signature	Serial No. 95499	Inst.Sn 97416	
Reviewed	β^- Factor	Eff. 10%	
	4 mR/HR	Bkg. 30 cpm	cpm

AREA SHAFT ALLY

COMPONENT



1. HAND CRANK FOR DOOR
2. HAND RAIL
3. DECK GRADING
4. DECK GRADING

ENTIRE SHAFT ALLEY
DR < BKGD
FIXED < 1000 CPM

SMEAR RESULTS ~~IN DPM/100 CM²~~ ~~B = BETA in mRAD/hr/100 CM²~~

NO.	RESULTS	N O.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS
1	< BKG								
2	< BKG								
3	< BKG								
4	< BKG								

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN µrem/hr

RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

N.S. SAVANNAH

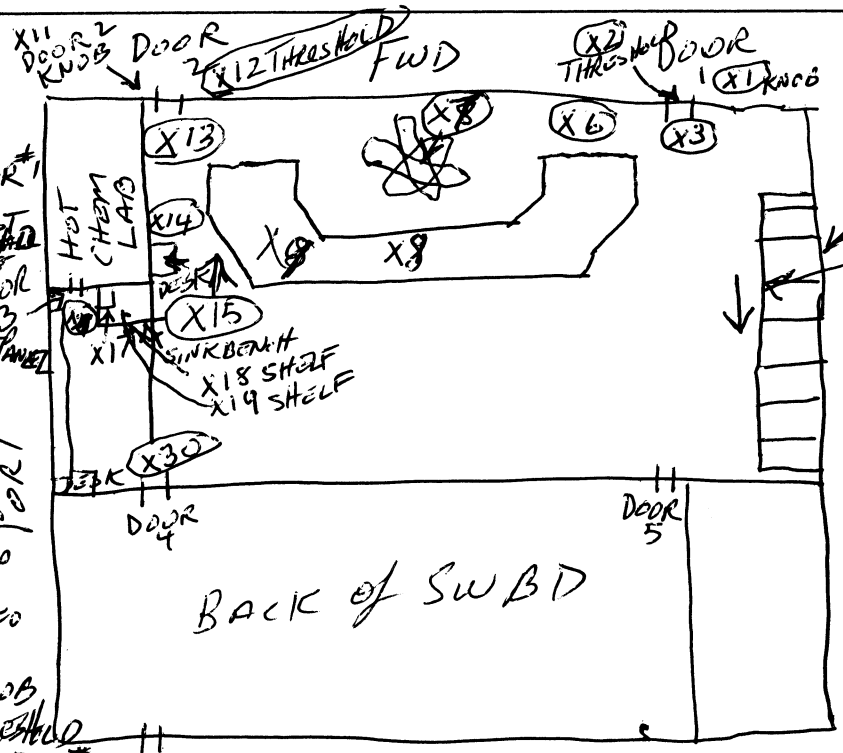
RADIOLOGICAL SURVEY

NSS-01 SURVEY NO. NSS-0045

Date 4/1/05 Time	DOSE RATE	CONTAMINATION	
Surveyor Craddock	Inst. Type LUDLUM	Beta ✓ Alpha ____	Beta ____ Alpha ____
Signature Craddock	Serial No. 95499	Inst.Sn 97416	
Reviewed [illegible]	β⁻Factor	Eff. 10%	
	4mR/Hr	Bkg. 30 cpm	cpm

AREA MAIN ENGINE ROOM'S CONTROL ROOM

COMPONENT



1. DOOR #1 KNOB
2. DOOR #1 THRESHOLD
3. DECK INSIDE DOOR #1
4. HANDRAIL AGAINST BHD
5. HANDRAIL OPP SIDE DOOR 3
6. DECK BESIDE SWBD PANEL
7. DECK NUC SYM.
8. HANDLE ON LEFT ROD CONT. PANEL
9. FACE OF PANEL BETWEEN ROD CONTROL & GROUP SELECTOR
10. DECK PORTSIDE OF CONTROL PANEL
11. DOOR #2 KNOB
12. DOOR #2 THRESHOLD
13. DECK INSIDE DOOR #2
14. DECK UNDER DESK
15. DECK PORT OF CONT-PANEL

ALL AREAS < BKGD
< 30 CPM

16. WORK BENCH OUTSIDE HOT CHEM LAB.
17. INSIDE SINK
18. WORK BENCH TOP SHELF
19. WORK BENCH BOTTOM SHELF
20. DOOR KNOB TO HOT CHEM LAB
21. DECK OUTSIDE HOT CHEM LAB AT DOOR
22. VENT OVER HOOD LIGHT
23. HANDLES FOR DOOR TO MIXING STATION
24. INSIDE MIXING STATION BOTTOM LEDGE
25. INSIDE MIXING STATION BOTTOM SURFACE
26. WORK BENCH STBD.
27. 2 SHELF WC CABINET
28. DESK TOP
29. DECK UNDER DESK
X-DENOTES SWIPES
30. DECK OUTSIDE DOOR BEHIND SWBD.

SMEAR RESULTS ~~IN DPM/100 CM²~~ ~~B = BETA in mRAD/hr/100 CM²~~

NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS
1	<BKG	9	<BKG	17	<BKG	25	<BKG		
2	<BKG	10	<BKG	18	<BKG	26	<BKG		
3	<BKG	11	<BKG	19	<BKG	27	<BKG		
4	<BKG	12	<BKG	20	<BKG	28	<BKG		
5	<BKG	13	<BKG	21	<BKG	29	<BKG		
6	<BKG	14	<BKG	22	<BKG	30	<BKG		
7	<BKG	15	<BKG	23	<BKG				
8	<BKG	16	<BKG	24	<BKG				

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN µrem/hr

RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

N.S. SAVANNAH

RADIOLOGICAL SURVEY

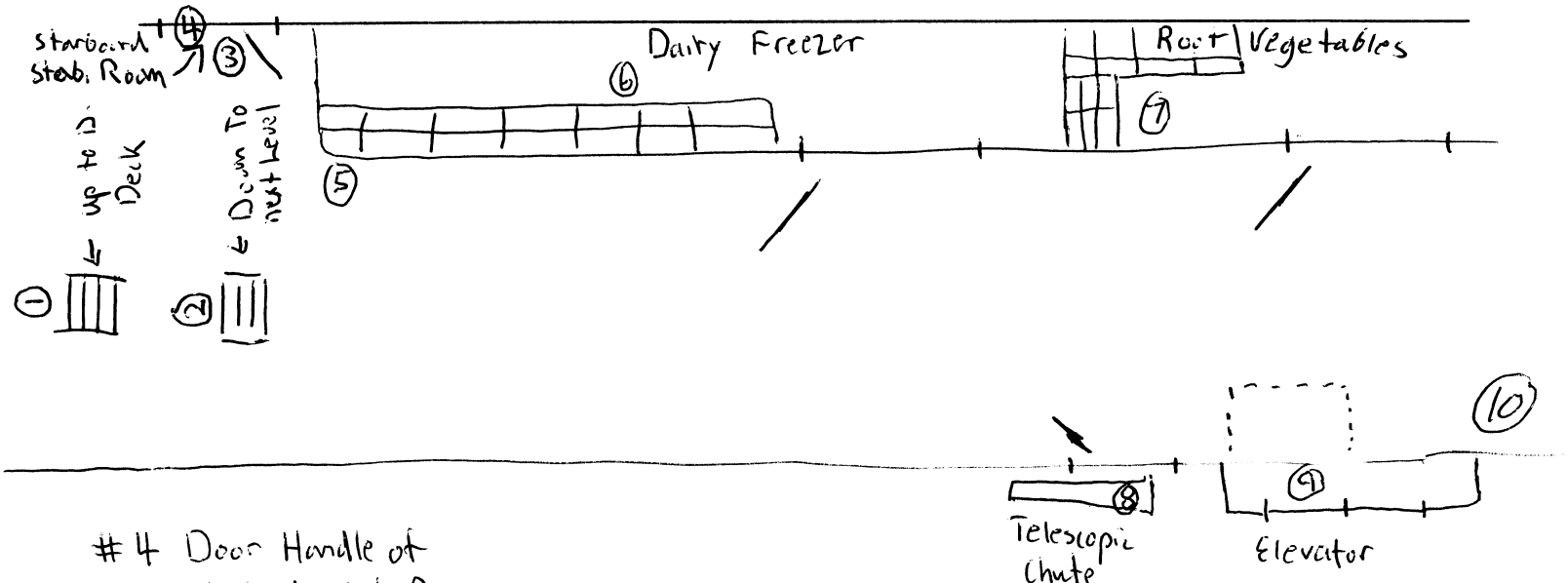
NSS-01

SURVEY NO. NSS-0046

Date 4/1/05 Time 10:00	DOSE RATE	CONTAMINATION	
Surveyor Ben Scott	Inst. Type Ludlum 19	Beta ✓ Alpha ____	Beta ____ Alpha ____
Signature	Serial No. 42472	Inst.Sn 91037	
Reviewed	β⁻ Factor ✓	Eff. 10%	
	BKG < 4 MR/Hr	Bkg. 40 cpm	cpm

AREA 14' Flat (~~Hold Deck~~ 03) Starboard Side

COMPONENT



#4 Door Handle of Starboard stab. Room

#8 Top of Chute

SMEAR RESULTS ~~IN DPM/100 CM²~~ ~~B – BETA in mRAD/hr/100 CM²~~

NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS
1	<BKGD	9	<BKGD						
2	<BKGD	10	<BKGD						
3	<BKGD								
4	<BKGD								
5	<BKGD								
6	<BKGD								
7	<BKGD								
8	<BKGD								

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN µrem/hr

RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

N.S. SAVANNAH

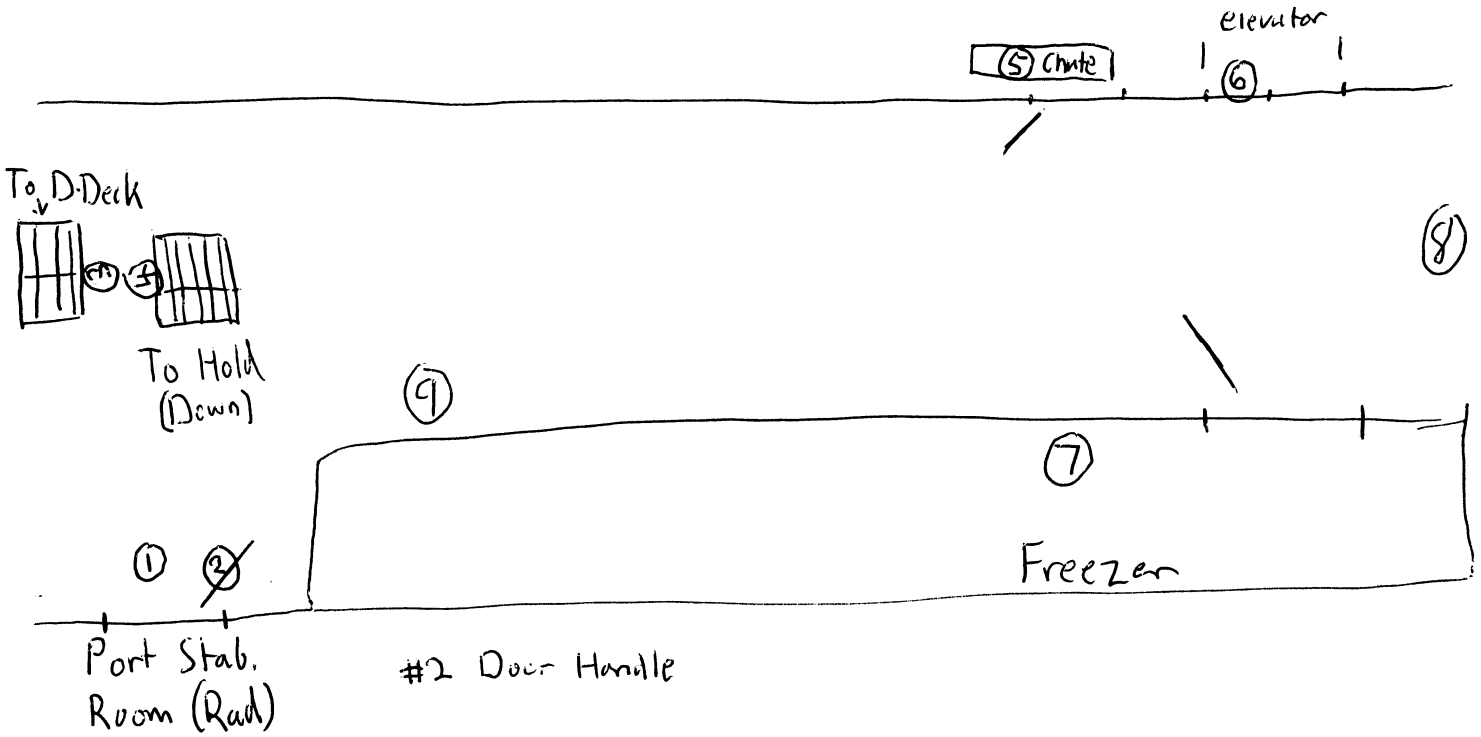
RADIOLOGICAL SURVEY

NSS-01 SURVEY NO. NSS-0047

Date 4/1/05 Time 10:00	DOSE RATE	CONTAMINATION	
Surveyor Ben Scott	Inst. Type Iodine 19	Beta ✓ Alpha ____	Beta ____ Alpha ____
Signature	Serial No. 42972	Inst.Sn 91037	
Reviewed	β⁻ Factor ~	Eff. 10%	
	BKG < 4 MR/Hr	Bkg. 40 cpm	cpm

AREA 14' Flat (Port)

COMPONENT



SMEAR RESULTS ~~IN DPM/100 CM²~~ ~~B = BETA in mRAD/hr/100 CM²~~

NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS
1	< BKGD	9	< BKGD					•	
2	< BKGD								
3	< BKGD								
4	< BKGD								
5	< BKGD								
6	< BKGD								
7	< BKGD								
8	< BKGD								

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN µrem/hr

RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

3

N.S. SAVANNAH
RADIOLOGICAL SURVEY

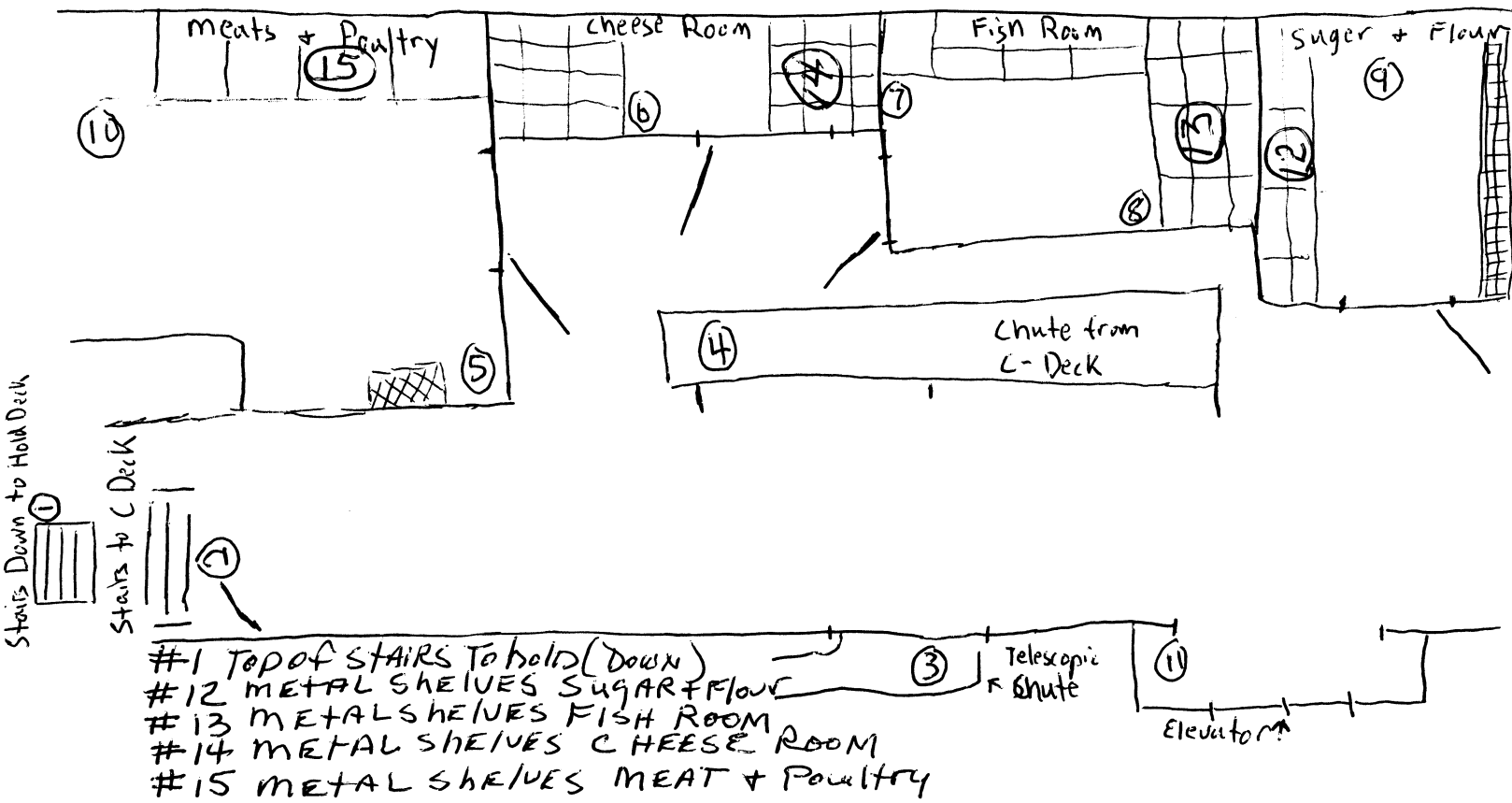
NSS-01 SURVEY NO. NSS-0048

Date 4-105 Time 8:45	DOSE RATE	CONTAMINATION	
Surveyor Loman Scott	Inst. Type Ludlum 19	Beta ✓ Alpha ____	Beta ____ Alpha ____
Signature Loman Scott	Serial No. 42972	Inst.Sn 75809	
Reviewed Ralph E. Lunnah	~~β Factor~~	Eff. 10%	
	BKG 4/hR/h	Bkg. 40 cpm	cpm

AREA D - Deck Food Stores

COMPONENT

STARBOARD SIDE



#1 Top of stairs To hold (Down)
#12 metal shelves Sugar + Flour
#13 metal shelves Fish Room
#14 metal shelves Cheese Room
#15 metal shelves Meat + Poultry

SMEAR RESULTS ~~IN DPM/100 CM²~~ ~~B = BETA in mRAD/hr/100 CM²~~

NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS
1	< BKGD	9	< BKGD						
2	< BKGD	10	< BKGD						
3	< BKGD	11	< BKGD						
4	< BKGD	12	< BKGD						
5	< BKGD	13	< BKGD						
6	< BKGD	14	< BKGD						
7	< BKGD	15	< BKGD						
8	< BKGD								

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN μrem/hr

RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

FRSK < 100
DMC BKG

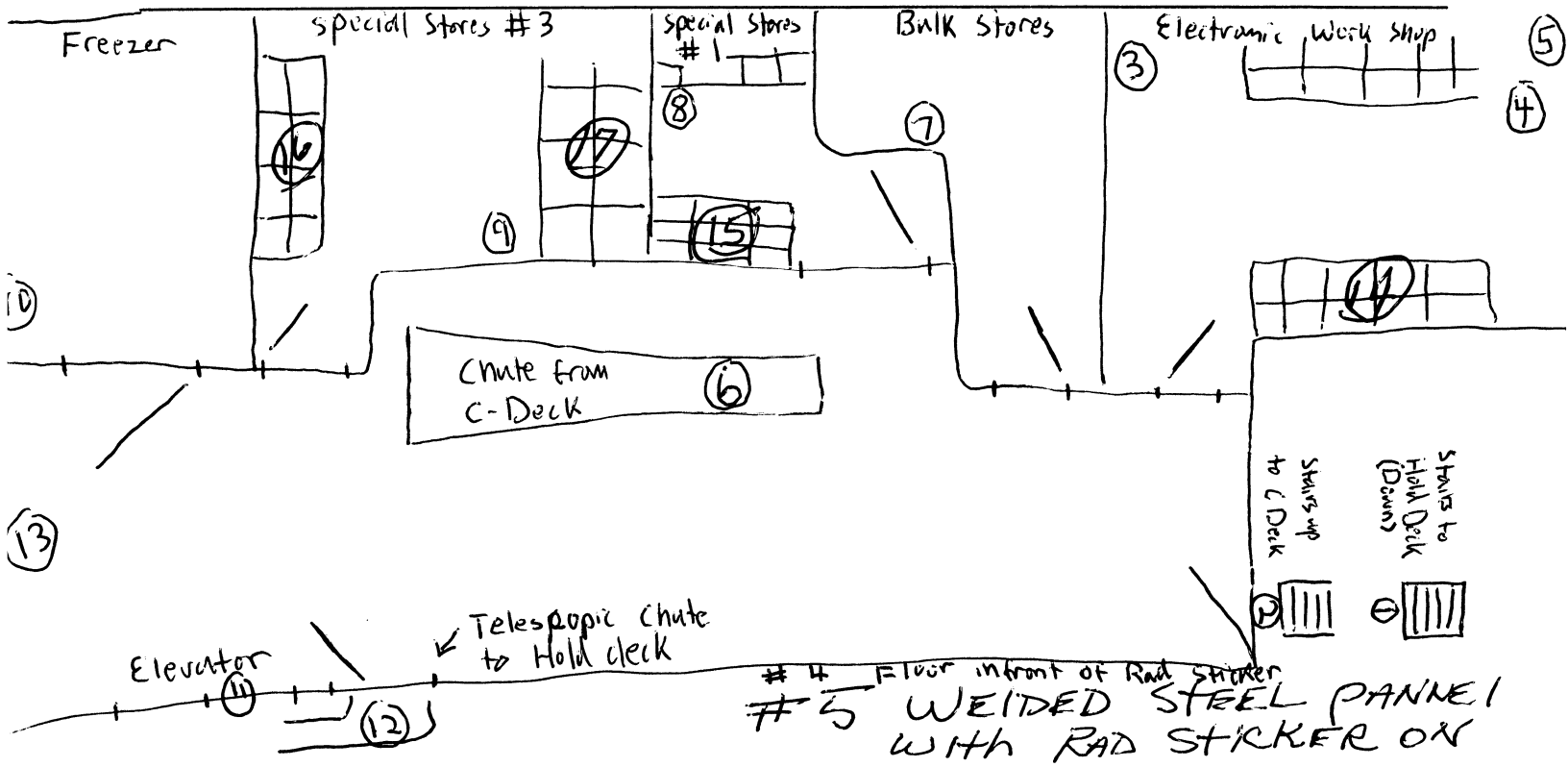
N.S. SAVANNAH
RADIOLOGICAL SURVEY

NSS-01 SURVEY NO. NSS-0049

Date 4-1-05 Time 1030	DOSE RATE	CONTAMINATION	
Surveyor Loman Scott	Inst. Type lud/um 19	Beta ✓ Alpha ____	Beta ____ Alpha ____
Signature Loman Scott	Serial No. 42972	Inst.Sn 75809	
Reviewed [signature]	~~β Factor~~	Eff. 10 %	
	BKG 4 hR/h	Bkg. 40 cpm	cpm

AREA D-Deck Port Special Stores, Ect.

COMPONENT Port SIDE



#4 Floor infront of Rad Sticker
#5 WELDED STEEL PANNEL WITH RAD STICKER ON WALL
#11 threshold of Elevator
#14, 15, 16, 17 - SHELVING SMEARS

FRSK < 100
DM < Background

SMEAR RESULTS ~~IN DPM/100 CM²~~ ~~B = BETA in mRAD/hr/100 CM²~~

NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS
1	<BKGD	9	<BKGD	17	<BKGD				
2	<BKGD	10	<BKGD						
3	<BKGD	11	<BKGD						
4	<BKGD	12	<BKGD						
5	<BKGD	13	<BKGD						
6	<BKGD	14	<BKGD						
7	<BKGD	15	<BKGD						
8	<BKGD	16	<BKGD						

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN μrem/hr

RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

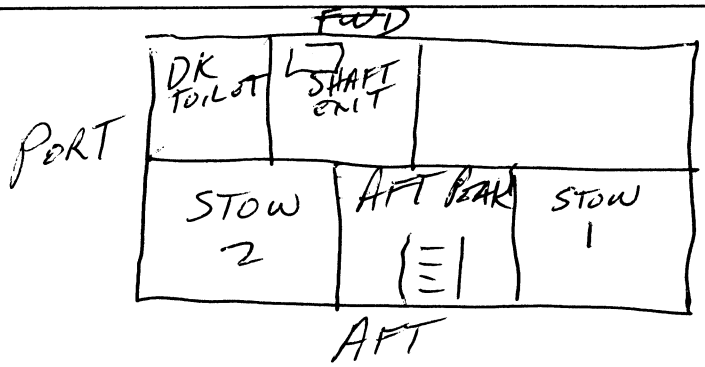
N.S. SAVANNAH
RADIOLOGICAL SURVEY

NSS-01 SURVEY NO. NSS - 0050

Date 4.1.05 Time	DOSE RATE	CONTAMINATION	
Surveyor Caddock	Inst. Type LUDLUM	Beta ✓ Alpha ____	Beta ____ Alpha ____
Signature Caddock	Serial No. 95499	Inst.Sn 97416	
Reviewed Robert E Rennack	β⁻Factor	Eff. 10%	
	4mR/HR	Bkg. 30 cpm	cpm

AREA A DECK AFT HOUSE

COMPONENT



SWIPES

STOW #1 STBD
1. OUTSIDE DOOR LATCH HANDLE
2. INSIDE " " "

AFT PEAK
3 OUTSIDE DOOR LATCHES
4 INSIDE DOOR LATCHES

STOW #2 PORT
5. OUTSIDE DOOR LATCHES
6. INSIDE DOOR LATCHES

DK TOILET PORT
7. OUTSIDE DOOR LATCH
8. INSIDE DOOR LATCH

SHAFT ALLEY EXIT
9. TOP RUNG ON LADDER
10. EXIT DOOR LATCH
11 ENTER DOOR LATCH

ALL AREA IN DIA
DR < BKGD
FRISK < 100 CPM

SMEAR RESULTS ~~IN DPM/100 CM²~~ ~~B = BETA in mRAD/hr/100 CM²~~

NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS
1	< BKGD	9	< BKGD						
2	< BKGD	10	< BKGD						
3	< BKGD	11	< BKGD						
4	< BKGD								
5	< BKGD								
6	< BKGD								
7	< BKGD								
8	< BKGD								

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN μrem/hr

RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

N.S. SAVANNAH

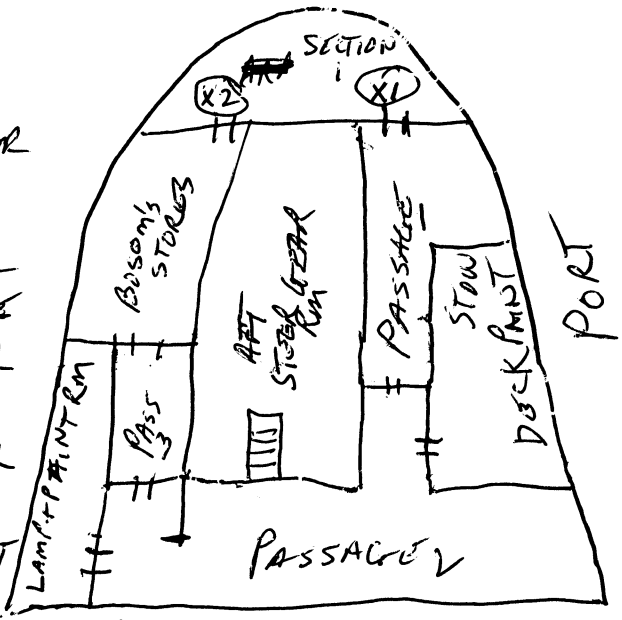
RADIOLOGICAL SURVEY

NSS-01 SURVEY NO. NSS-0051

Date 4/1/05 Time	DOSE RATE	CONTAMINATION	
Surveyor Craddock	Inst. Type LUDLUM	Beta ✓ Alpha ____	Beta ____ Alpha ____
Signature Craddock	Serial No. 95499	Inst.Sn 97416	
Reviewed [signature]	β Factor	Eff. 10%	
	4 MR/HR	Bkg. 30 cpm	cpm

AREA B DECK STERN COMPARTMENTS

COMPONENT



BOSUN'S STORES
15. DECK INSIDE DOOR

LAMP & PAINT RM
16. DOOR HANDLE ~~INSIDE~~ EXIT
17. DOOR HANDLE ENTER

AFT STEER GEAR RM
18. ENTER DOOR OPENER
19. EXIT DOOR KNOB
20 DECK ~~INSIDE~~ COMPT AT DOOR
21 DECK AFT STEER GEAR RM
22 STEP OVER STBD STEER GEAR RM
ALL AREAS IN DIA-
DR < BKGD
T-RISK 100 CPM

ENTIRE AREA IS IN DIA. FOR B DK
DR < BKGD
T-RISK 100 CPM

SWIPES

SECTION 1
1 DOORWAY
2 DOORWAY

PASS 1
~~3~~: ENTER DOOR KNOB
4 EXIT DOOR KNOB
5 DECK INSIDE PASS 1

PASS 2
~~8~~ DECK OUTSIDE PT. STOW.
~~9~~ HAND RAIL

DECK PAINT STORAGE
6. DOOR HANDLE ENTER
7. DOOR HANDLE EXIT

PASSAGEWAY 2
10. DECK BOTTOM of LADDER
11 PORT HAND RAIL
12 STBD HAND RAIL
13 ~~DECK~~ PASS 2 STBD
14 PASS 2 HANDRAIL STBD
~~15 B~~

SMEAR RESULTS ~~IN DPM/100 CM²~~ ~~B = BETA in mRAD/hr/100 CM²~~

NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS
1	< BKGD	9	< BKGD	17	< BKGD				
2	< BKGD	10	< BKGD	18	< BKGD				
3	< BKGD	11	< BKGD	19	< BKGD				
4	< BKGD	12	< BKGD	20	< BKGD				
5	< BKGD	13	< BKGD	21	< BKGD				
6	< BKGD	14	< BKGD	22	< BKGD				
7	< BKGD	15	< BKGD						
8	< BKGD	16	< BKGD						

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN µrem/hr

RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

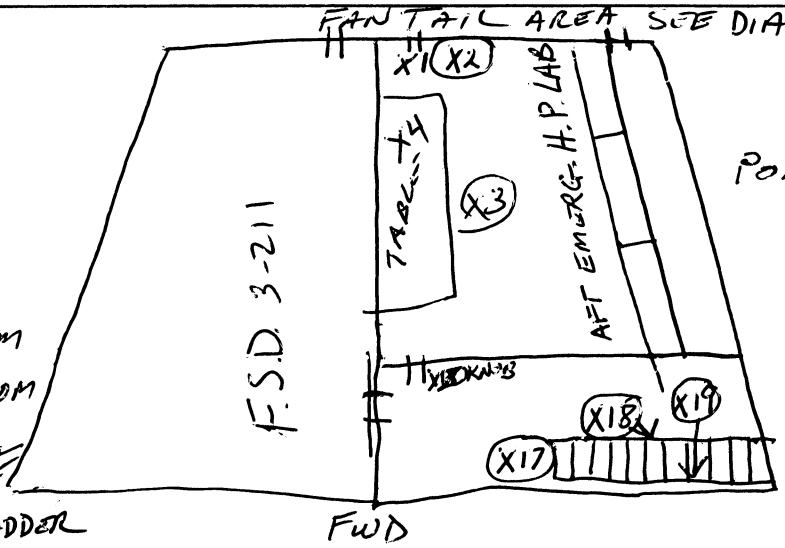
N.S. SAVANNAH
RADIOLOGICAL SURVEY

NSS-01 SURVEY NO. NSS-0052

Date 4/1/05 Time	DOSE RATE	CONTAMINATION	
Surveyor Craddock	Inst. Type LUDLUM	Beta ✓ Alpha ____	Beta ____ Alpha ____
Signature [signature]	Serial No. 95499	Inst.Sn 97416	
Reviewed [signature]	β⁻Factor	Eff. 10%	
	4 mR/HR	Bkg. 30 cpm	cpm

AREA STERN "C" DECK EMERG. HP LAB

COMPONENT



1. AFT INSIDE DOOR KNOBS OF HP LAB
2. DK AT AFT DOOR
3. DK AT WORK TABLE
4. TABLE TOP
5. ~~TAB~~ SHELF ABOVE TABLE
6. PHONE
7. VENT DUCT OVE
8. EXH VENT
9. TABLE TOP WITH DRAWERS
10. TABLE TOP WITH SHELVES
11. ~~EXT~~ DOOR KNOBS
12. DECK AT DOOR
13. TOP SHELF INSIDE CABINET

SWIPES
14. 2ND TOP SHELF FROM
15. 3RD SHELF FROM TOP
16. BOTTOM SHELF
17. DECK BOTTOM of LADDER
18 HAND RAIL LADDER AFT
19 HAND RAIL LADDER FWD
20 DOOR KNOB HP EMER LAB
21 DECK OUTSIDE HP LAB DOOR
22 DOOR KNOB TO FSD 3-211
23 DECK IN PASS. OUTSIDE 3-211
24. DECK INSIDE 3-211
25. DOOR KNOB AFT IN 3-211

ENTIRE AREA IN DIA.
DR < BKGD
FRISK < 100 CPM

DIA. #2

SMEAR RESULTS ~~IN DPM/100 CM²~~ ~~B = BETA in mRAD/hr/100 CM²~~

NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS
1	< BKGD			9	< BKGD	17	< BKGD	25	< BKGD
2	< BKGD			10	< BKGD	18	< BKGD		
3	< BKGD			11	< BKGD	19	< BKGD		
4	< BKGD			12	< BKGD	20	< BKGD		
5	< BKGD			13	< BKGD	21	< BKGD		
6	< BKGD			14	< BKGD	22	< BKGD		
7	< BKGD			15	< BKGD	23	< BKGD		
8	< BKGD			16	< BKGD	24	< BKGD		

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN μrem/hr

RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

N.S. SAVANNAH
RADIOLOGICAL SURVEY

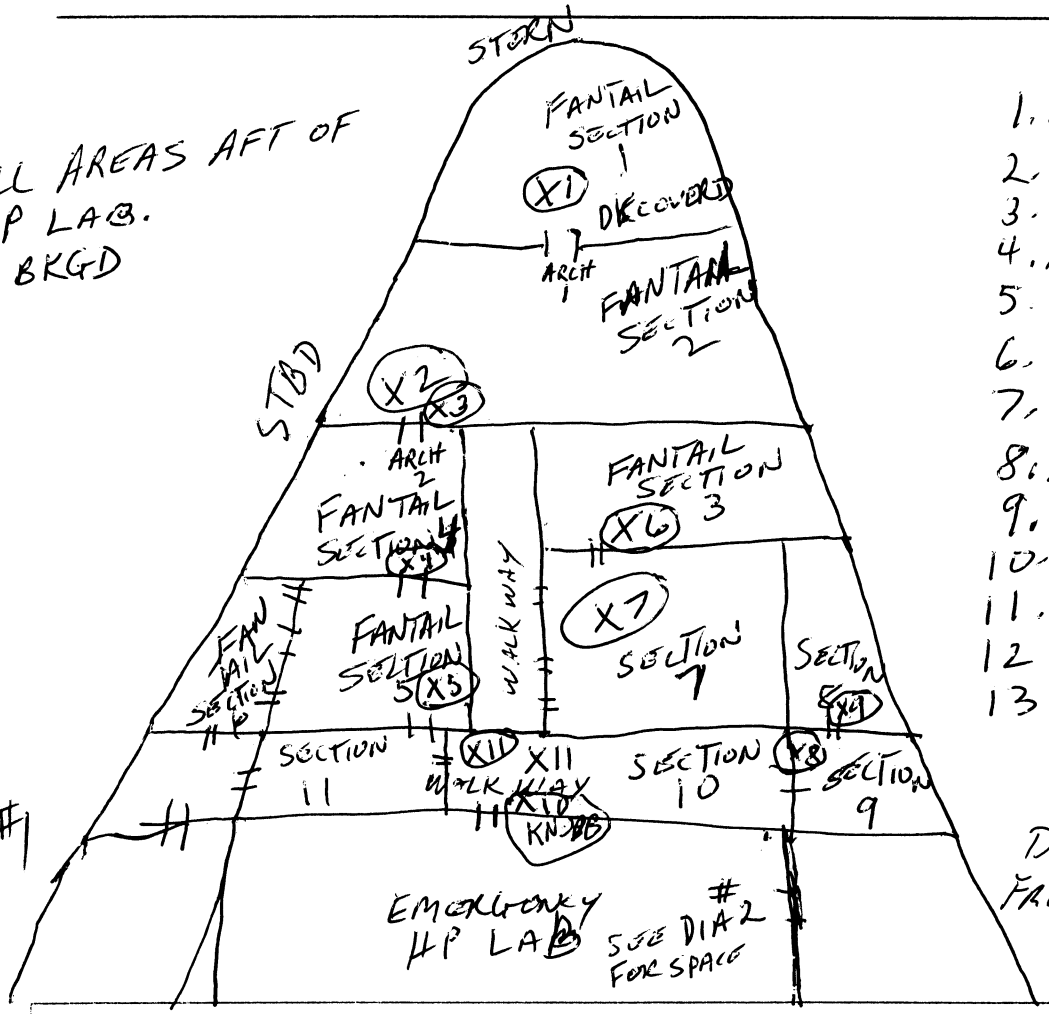
NSS-01 SURVEY NO. NSS-0053

Date 4/1/05 Time	DOSE RATE	CONTAMINATION	
Surveyor Craddock	Inst. Type LUDLUM	Beta ✓ Alpha ____	Beta ____ Alpha ____
Signature [signature]	Serial No. 95499	Inst.Sn 97416	
Reviewed [signature]	β⁻ Factor	Eff. 10%	
	4mR/HR	Bkg. 30 cpm	cpm

AREA C DECK AFT OF EMERGENCY HP LAB

COMPONENT

ALL AREAS AFT OF HP LAB. < BKGD



SWIPES

1. BASEPLT BEAM ℄
2. ACCESS RING
3. STBD ACCESS RING SIDE
4. ACCESS ENTERING SECTION 2
5. DK SECTION 5
6. DK SECTION 3
7. DECK SECTION 7
8. ACCESS RING SECTION 9
9. ACCESS RING SECTION 8
10. DOOR KNOB OUTSIDE LAB
11. PASS AFT of LAB
12. DK SECTION 11
13. ACCESS RING TO SECTION 6

ENTIRE C DECK STERN AREAS
DR < BKGD
FRISK < ~~100~~ 100 CPM

SMEAR RESULTS ~~IN DPM/100 CM²~~ ~~B = BETA in mRAD/hr/100 CM²~~

NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS
1	< BKGD	9	< BKGD						
2	< BKGD	10	< BKGD						
3	< BKGD	11	< BKGD						
4	< BKGD	12	< BKGD						
5	< BKGD	13	< BKGD						
6	< BKGD								
7	< BKGD								
8	< BKGD								

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN μrem/hr

RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

N.S. SAVANNAH

RADIOLOGICAL SURVEY

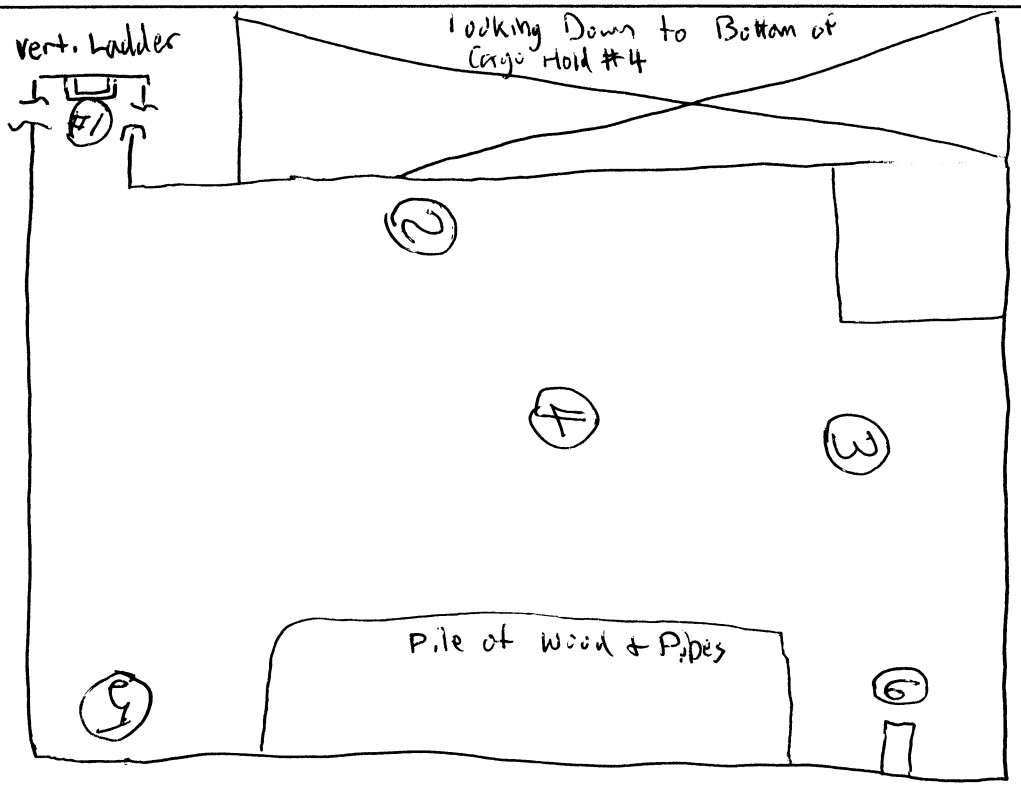
NSS-01 SURVEY NO. NSS-0054

Date 4/1/05 Time 2:00	DOSE RATE	CONTAMINATION	
Surveyor Ben Scott	Inst. Type Ludlum 19	Beta ✓ Alpha ____	Beta ____ Alpha ____
Signature	Serial No. 42972	Inst.Sn 91037	
Reviewed	β⁻ Factor /	Eff. 10%	
	BKG < 4 μR/Hr	Bkg. 40 cpm	cpm

AREA Cargo Hold #4 - 2nd from bottom (D-Deck)

COMPONENT

#6 EXHAUST VENT FOR REACTOR. FRONT



Frisk < 100cpm / DM < BKG

SMEAR RESULTS ~~IN DPM/100 CM²~~ ~~B = BETA in mRAD/hr/100 GM²~~

NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS
1	<BKGD								
2	<BKGD								
3	<BKGD								
4	<BKGD								
5	<BKGD								
6	<BKGD								

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN μrem/hr

RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

N.S. SAVANNAH
RADIOLOGICAL SURVEY

NSS-01 SURVEY NO. NSS-0054

Date 4/4/05 Time 9:40	DOSE RATE	CONTAMINATION	
Surveyor Ben Scott	Inst. Type Ludlum 19	Beta ✓ Alpha ____	Beta ____ Alpha ____
Signature [signature]	Serial No. 42972	Inst.Sn 91037	
Reviewed [signature]	β⁻Factor /	Eff. 10%	
	BKG < 4 μR/Hr	Bkg. 40 cpm	cpm

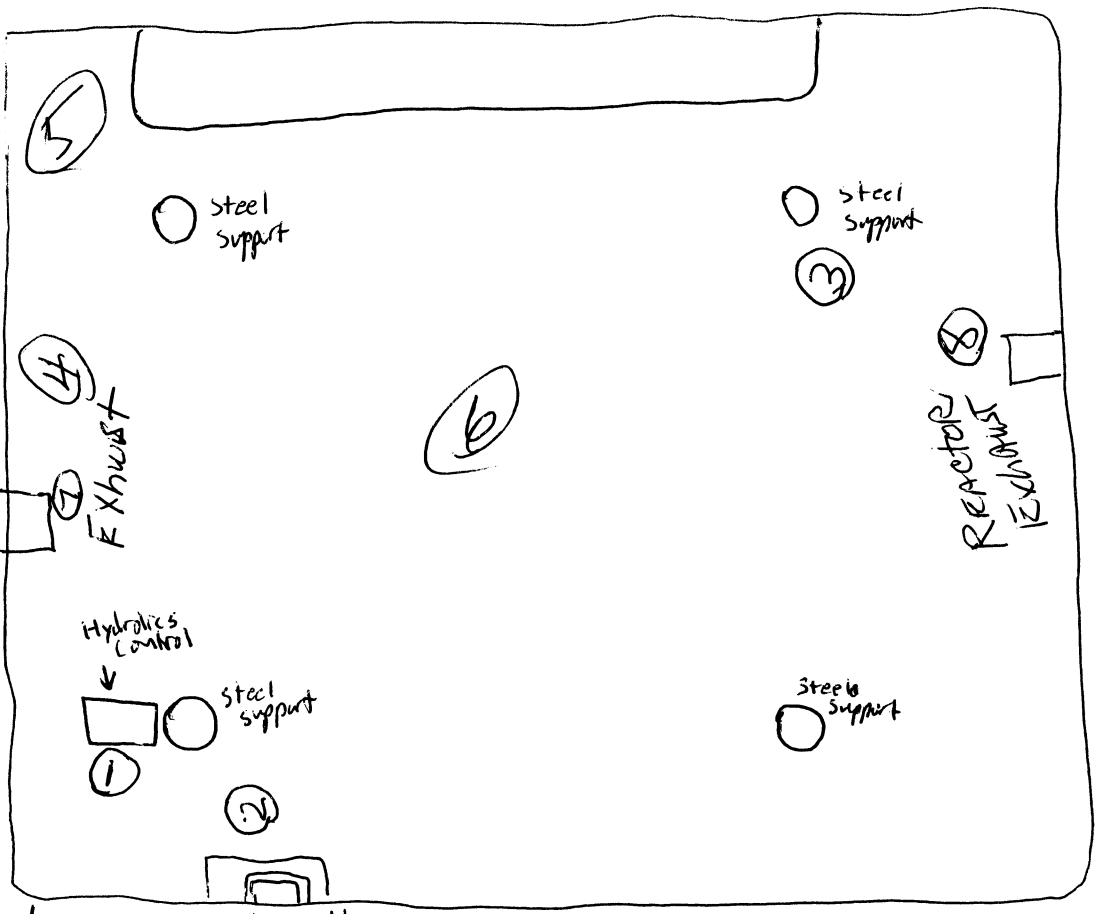
AREA Cargo Hold #4 - 3RD from bottom (C Deck)

COMPONENT

#1 Hydro Controll Leavers

#7 on Front of Exhaust Vent

#8 on Front of Exhaust Vent (Reactor)



Frisk < 100cpm / DM < BKG

SMEAR RESULTS ~~IN DPM/100 CM²~~ ~~B = BETA in mRAD/hr/100 CM²~~

NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS
1	< BKGD								
2	< BKGD								
3	< BKGD								
4	< BKGD								
5	< BKGD								
6	< BKGD								
7	< BKGD								
8	< BKGD								

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN μrem/hr

RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

N.S. SAVANNAH
RADIOLOGICAL SURVEY

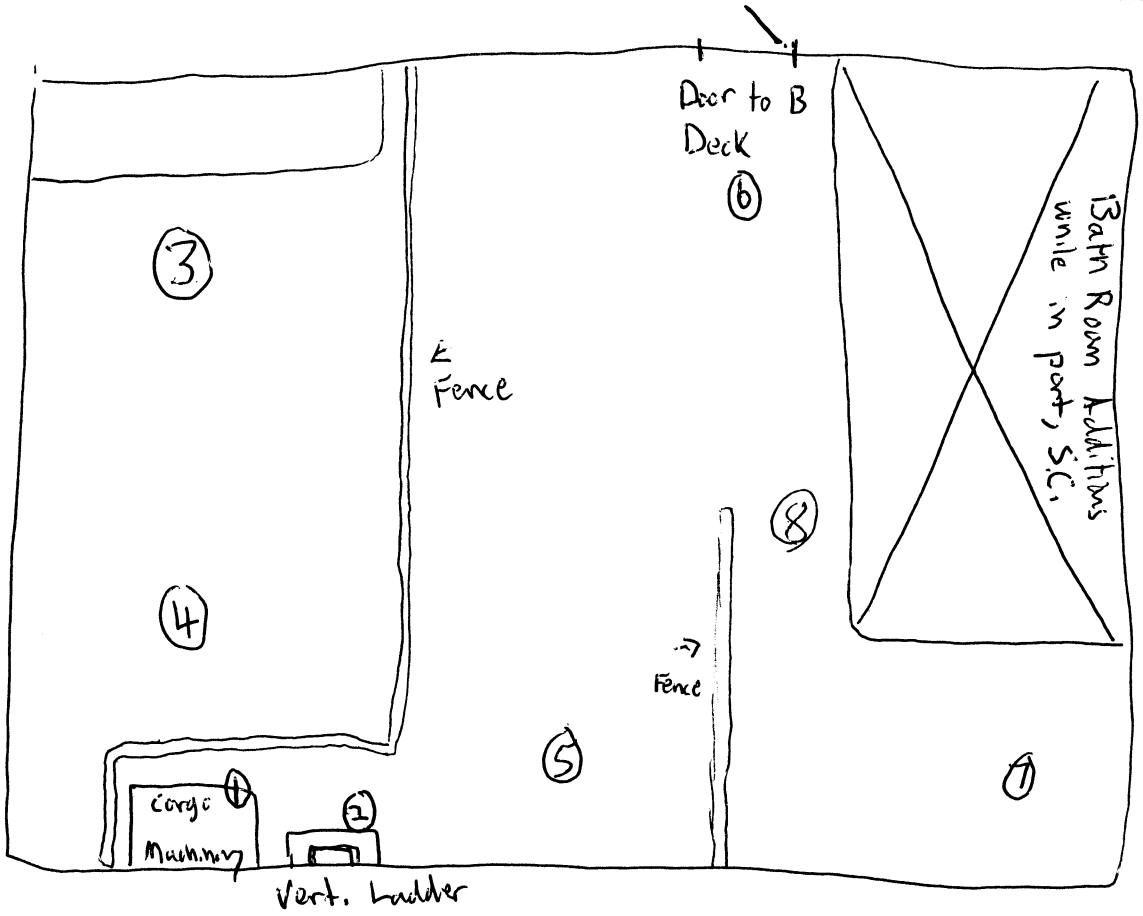
NSS-01 SURVEY NO. NSS-0054

Date 4/4/05 Time 10:00	DOSE RATE	CONTAMINATION	
Surveyor Ben Scott	Inst. Type Inalum 19	Beta ✓ Alpha ____	Beta ____ Alpha ____
Signature [signature]	Serial No. 42972	Inst.Sn 91037	
Reviewed [signature]	β⁻ Factor ✓	Eff. 10%	
	BKG < 4 μR/Hr	Bkg. 40 cpm	cpm

AREA Cargo Hold #4 - B Deck

COMPONENT

#1 ON Top



Frisk < 100CPM / DM < BKG

FOWARD

SMEAR RESULTS ~~IN DPM/100 CM²~~ ~~B = BETA in mRAD/hr/100 CM²~~

NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS
1	< BKGD								
2	< BKGD								
3	< BKGD								
4	< BKGD								
5	< BKGD								
6	< BKGD								
7	< BKGD								
8	< BKGD								

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN μrem/hr

RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

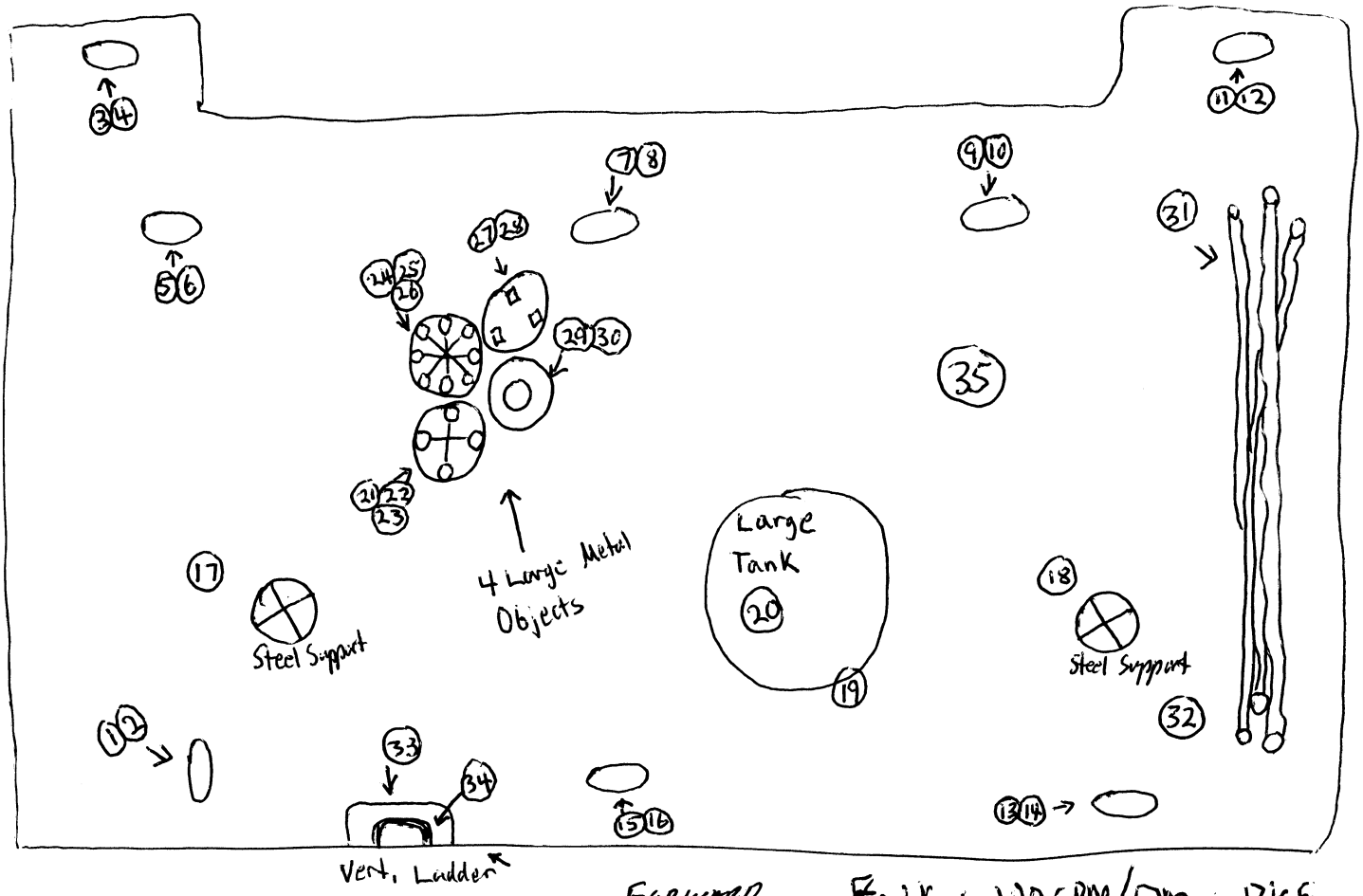
N.S. SAVANNAH
RADIOLOGICAL SURVEY

NSS-01 SURVEY NO. NSS-0054

Date 4/1/05 Time 12.30	DOSE RATE	CONTAMINATION	
Surveyor Ben Scott	Inst. Type Ludlum M	Beta ✓ Alpha ____	Beta ____ Alpha ____
Signature	Serial No. 42972	Inst.Sn 91037	
Reviewed	β⁻ Factor ~	Eff. 10%	
	BKG < 4 MR/Hr	Bkg. 40 cpm	cpm

AREA _____

COMPONENT Cargo Hold #4 (Hold and 14' Flat Decks)



Fr. SK < 100CPM/DM & BKG

SMEAR RESULTS ~~IN DPM/100 CM²~~ ~~B = BETA in mRAD/hr/100 CM²~~

NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS
1	< BKGD	9	< BKGD	17	< BKGD	25	< BKGD	33	< BKGD
2	< BKGD	10	< BKGD	18	< BKGD	26	< BKGD	34	< BKGD
3	< BKGD	11	< BKGD	19	< BKGD	27	< BKGD	35	< BKGD
4	< BKGD	12	< BKGD	20	< BKGD	28	< BKGD		
5	< BKGD	13	< BKGD	21	< BKGD	29	< BKGD		
6	< BKGD	14	< BKGD	22	< BKGD	30	< BKGD		
7	< BKGD	15	< BKGD	23	< BKGD	31	< BKGD		
8	< BKGD	16	< BKGD	24	< BKGD	32	< BKGD		

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN µrem/hr

RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

N.S. SAVANNAH

RADIOLOGICAL SURVEY

NSS-01 SURVEY NO. NSS-0054 CONTINUED

Date 4-1-05 Time	DOSE RATE	CONTAMINATION	
Surveyor	Inst. Type	Beta____ Alpha____	Beta____Alpha____
Signature	Serial No.	Inst.Sn	
Reviewed	β^-Factor	Eff.	
		Bkg. cpm	cpm

AREA Cargo Hold #4 (Hold + 14' Flat Deck)

COMPONENT DESCRIPTIONS

#1 Top of Hatch
#2 Inside of Hatch
#3 " "
#4 " "
#5 " "
#6 " "
#7 " "
#8 " "
#9 " "
#10 " "
#11 " "
#12 " "
#13 " "
#14 " "
#15 " "
#16 " "

#17 Side of Steel Support
#18 Side of Steel Support
#19 Side of Large Tank
#20 Valve on Bottom of Tank
#21 Top Lip of Object
#22 Metal on inside
#23 Bottom
#24 Side
#25 Spindles
#26 Inside
#27 Top
#28 Side
#29 Side
#30 Top
#31 Inside Discarded Flex. pipe
#32 Other End "
#33 Floor outside Ladder
#34 Floor inside Ladder
#35 Floor Smear

SMEAR RESULTS ~~IN DPM/100 CM²~~ ~~B = BETA in mRAD/hr/100 CM²~~

NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS
1		9		17		25		33	
2		10		18		26		34	
3		11		19		27		35	
4		12		20		28			
5		13		21		29			
6		14		22		30			
7		15		23		31			
8		16		24		32			

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN µrem/hr

RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

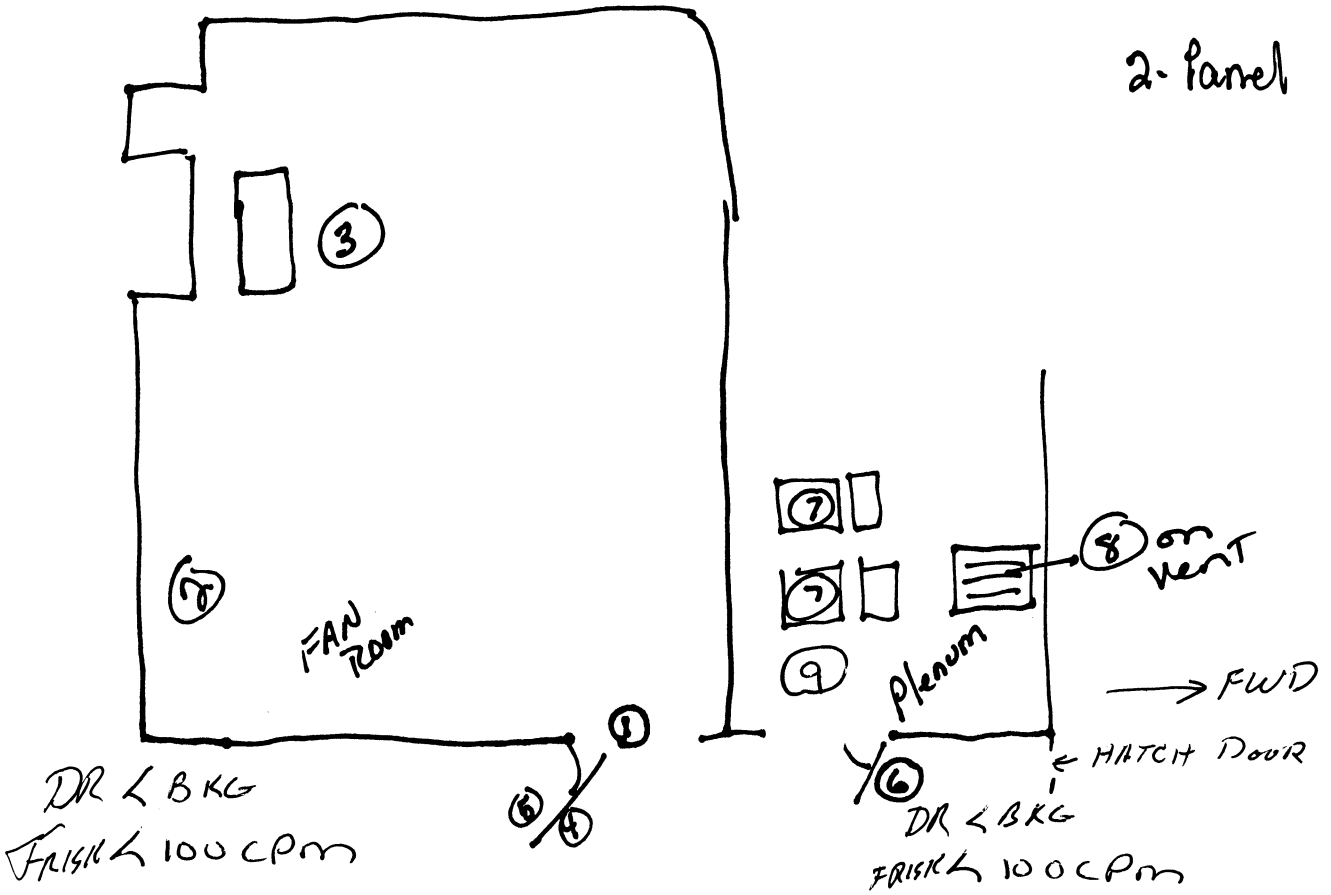
N.S. SAVANNAH
RADIOLOGICAL SURVEY

NSS-01 SURVEY NO. NSS-0055

Date 4-4-05 Time	DOSE RATE	CONTAMINATION	
Surveyor Craddock	Inst. Type Ludlum	Beta ✓ Alpha ____	Beta ____ Alpha ____
Signature Craddock	Serial No. 95499	Inst.Sn 97416	
Reviewed [signature]	β⁻ Factor	Eff. 10%	
	4 uR/Hr	Bkg. 30 cpm	cpm

AREA A deck FAN Rm & Plenum Port side

COMPONENT



SMEAR RESULTS ~~IN DPM/100 CM²~~ ~~B = BETA in mRAD/hr/100 CM²~~

NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS
1	< BKG	9	< BKGD						
2	< BKG								
3	< BKG								
4	< BKG								
5	< BKG								
6	< BKG								
7	< BKG								
8	< BKG								

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN μrem/hr

RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

N.S. SAVANNAH
RADIOLOGICAL SURVEY

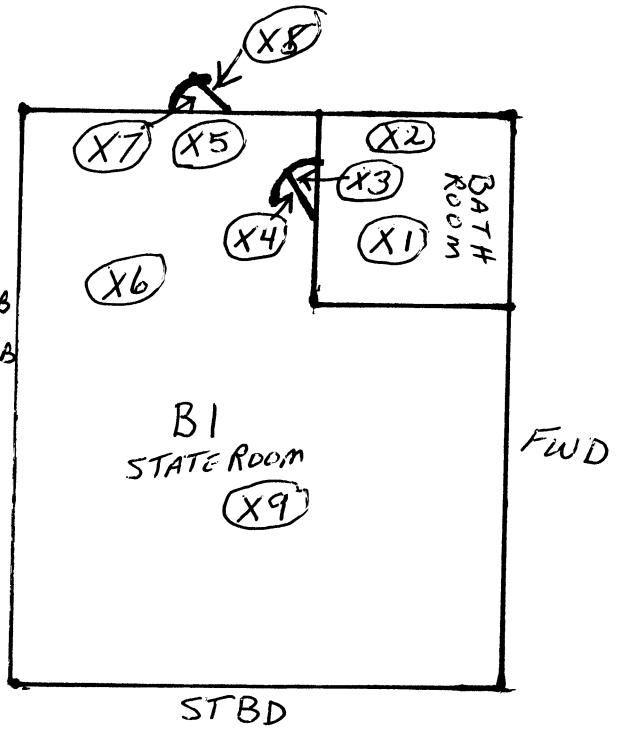
NSS-01 SURVEY NO. NSS-0056

Date 4/4/05 Time	DOSE RATE	CONTAMINATION	
Surveyor CRADDOCK	Inst. Type LUDLUM	Beta ✓ Alpha ____	Beta ____ Alpha ____
Signature [signature]	Serial No. 95499	Inst.Sn 97416	
Reviewed [signature]	β⁻ Factor	Eff. 10%	
	4 μR/HR/hr	Bkg. 30 cpm	cpm

AREA B-1 STATE ROOM AND BATH "B" DECK STBD

COMPONENT WASTE STORAGE ROOM FOR RADWASTE

1. DECK BATH RM
2. BATH VENT
3. BATH EXIT DOOR KNOB
4. BATH ENTER DOOR KNOB
5. STATE ROOM VENT
6. STATE ROOM DECK
7. EXIT STATEROOM DOORKNOB
8. ENTER STATEROOM DOORKNOB
9. STATE ROOM DECK NEXT TO BARRELS



ALL AREAS IN DIAGRAM
< BKGD
< 100 CPM

SMEAR RESULTS ~~N=DPM/100 CM²~~ ~~B = BETA in mRAD/hr/100 CM²~~

NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS
1	< BKG	9	< BKG						
2	< BKG								
3	< BKG								
4	< BKG								
5	< BKG								
6	< BKG								
7	< BKG								
8	< BKG								

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN μrem/hr

RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

N.S. SAVANNAH
RADIOLOGICAL SURVEY

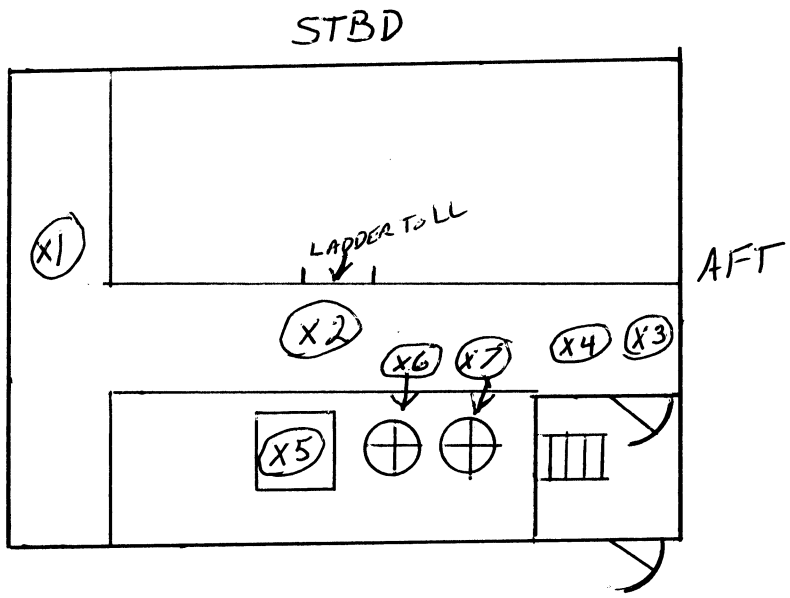
NSS-01 SURVEY NO. NSS-0057

Date 4/4/05 Time	DOSE RATE	CONTAMINATION	
Surveyor Craddock	Inst. Type LUDLUM	Beta ✓ Alpha ____	Beta ____ Alpha ____
Signature Craddock	Serial No. 95499	Inst.Sn 97416	
Reviewed [signature]	β⁻ Factor	Eff. 10%	
	4uR/HR	Bkg. 30 cpm	cpm

AREA FWD STBD STABLIZER RM. 14 FOOT FLAT

COMPONENT

SWIPES
1. DECK FWD WALK WAY
2. DECK AT LADDER TO LL
3. LIGHT SWITCH AFT BHD
4. DECK AT LIGHT SWITCH
5. DECK OF GRATING FWD OF VALVES
6. FWD LARGE VALVE
7. AFT LARGE VALVE



ALL AREAS IN DIAGRAM
DR < BKGD
FRISK 100 CPM

SMEAR RESULTS ~~IN DPM/100 CM²~~ ~~B = BETA in mRAD/hr/100 CM²~~

NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS
1	< BKG								
2	< BKG								
3	< BKG								
4	< BKG								
5	< BKG								
6	< BKG								
7	< BKG								

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN μrem/hr

RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

N.S. SAVANNAH
RADIOLOGICAL SURVEY

NSS-01 SURVEY NO. NSS-0058

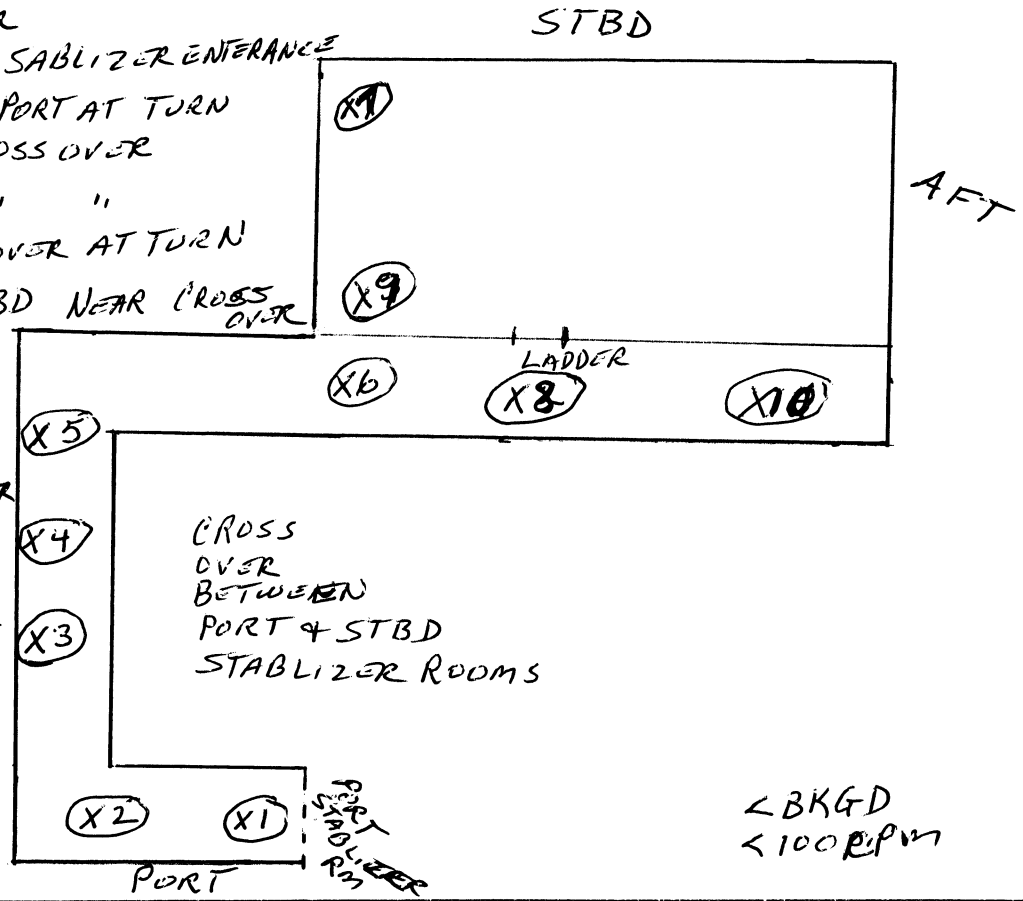
Date 4/4/05 Time	DOSE RATE	CONTAMINATION	
Surveyor Craddock	Inst. Type LUDLUM	Beta ✓ Alpha ____	Beta ____ Alpha ____
Signature [signature]	Serial No. 95499	Inst.Sn 97416	
Reviewed [signature]	β⁻Factor	Eff. 10%	
	4uR/HR	Bkg. 30cpm	cpm

AREA FWD STBD STABLIZER RM AND CROSS OVER LOWER LEVEL HOLD DECK

COMPONENT

SWIPES

1. DECK ~~STBD~~ CROSSOVER AT PORT SABLIZER ENTERANCE
2. DECK ~~STBD~~ DHL CROSSOVER PORT AT TURN
3. DECK PORT of ℄ CROSSOVER
4. DECK STBD of ℄ " "
5. DECK STBD CROSSOVER AT TURN
6. BILGE AREA STBD NEAR CROSS OVER
7. TANK TOP FWD STBD
8. WALKWAY BOTTOM LADDER
9. FWD DECK TANK TOP AT CROSSOVER OPENING
10. WALKWAY DECK AFT



<BKGD
<100 CPM

SMEAR RESULTS ~~IN DPM/100 CM²~~ ~~B = BETA in mRAD/hr/100 CM²~~

NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS
1	<BKG	9	<BKG						
2	<BKG	10	<BKG						
3	<BKG								
4	<BKG								
5	<BKG								
6	<BKG								
7	<BKG								
8	<BKG								

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN μrem/hr

RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

N.S. SAVANNAH

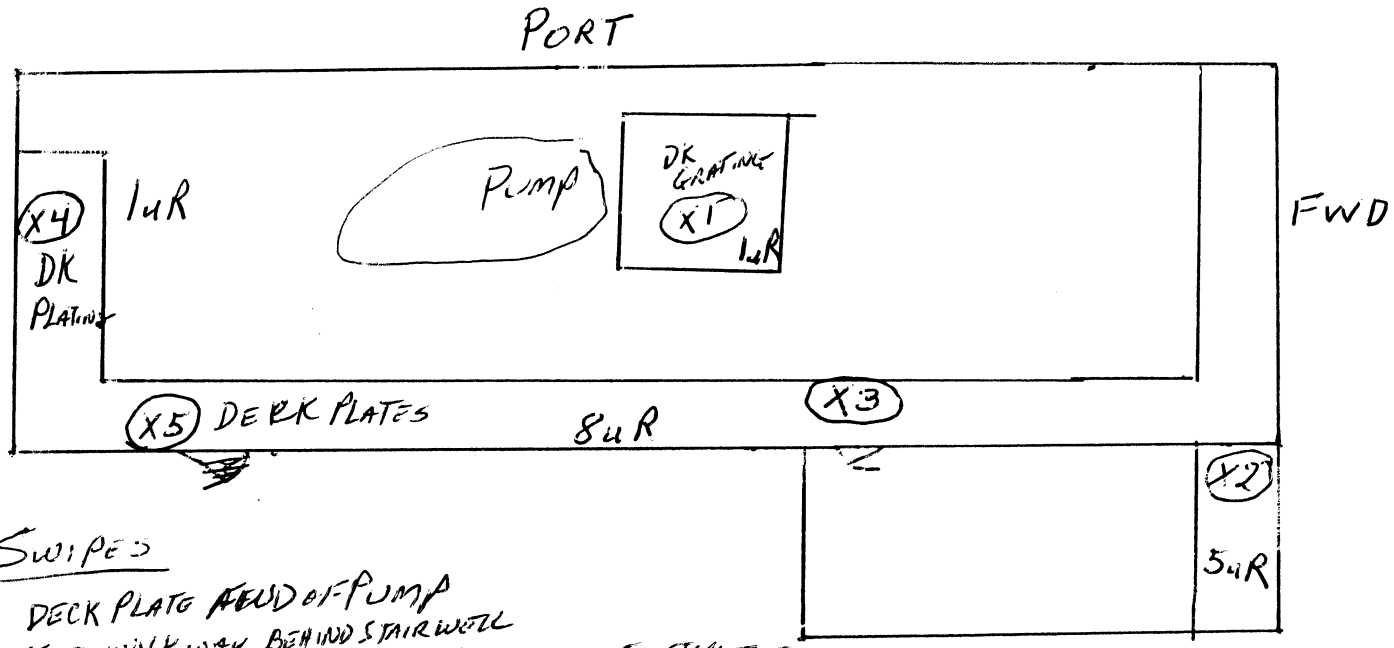
RADIOLOGICAL SURVEY

NSS-01 SURVEY NO. NSS-0059

Date 4/4/05 Time	DOSE RATE	CONTAMINATION	
Surveyor CRADDOCK	Inst. Type LUDLUM	Beta ✓ Alpha ____	Beta ____ Alpha ____
Signature [signature]	Serial No. 95449	Inst.Sn 97416	
Reviewed [signature]	β⁻Factor	Eff. 10%	
	4uR/HR	Bkg. 30 cpm	cpm

AREA PORT FWD STABLIZER ROOM UPPER LEVEL
14 FLAT

COMPONENT



SWIPES

1. DECK PLATE AFWD OF PUMP
2. FWD WALKWAY BEHIND STAIRWELL
3. WALK WAY INSIDE DOOR ACCESS TO STABLIZER
4. AFT DECK PLATING OUTBD.
5. AFT DECK AT LL LADDER

DR <BKG
FRISK <100 CPM

SMEAR RESULTS ~~IN DPM/100 CM²~~ ~~B = BETA in mRAD/hr/100 CM²~~

NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS
1	<BKG								
2	<BKG								
3	<BKG								
4	<BKG								
5	<BKG								

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN µrem/hr

RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

N.S. SAVANNAH
RADIOLOGICAL SURVEY

NSS-01 SURVEY NO. NSS-0060

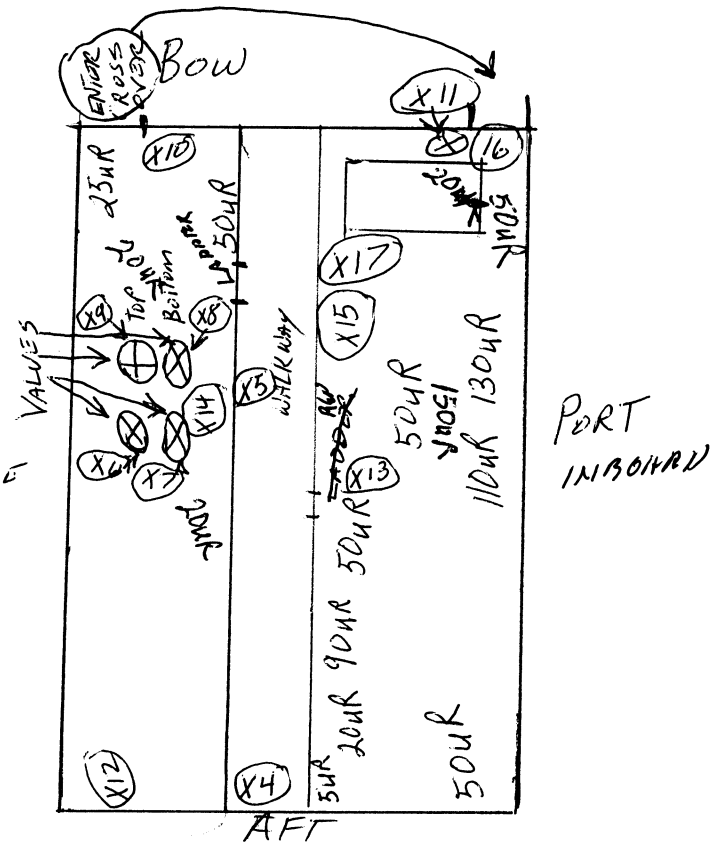
Date 4/4/05 Time	DOSE RATE	CONTAMINATION	
Surveyor Craddock	Inst. Type LUDLUM	Beta ✓ Alpha ____	Beta ____ Alpha ____
Signature Craddock	Serial No. 95499	Inst.Sn 97416	
Reviewed [signature]	β⁻Factor	Eff. 10%	
	4uR/HR	Bkg. 30 cpm	cpm

AREA PORT FWD STABLIZER ROOM LOWER LEVEL

COMPONENT

SWIPES

1. UL
2. UL
3. UL
4. DECK PLATES AFT END
5. DECK AT 4 LARGE VALVES
6. AFT TOP LARGE VALVE FLANGE + GLAND SEAL
7. AFT BOTTOM " " " " "
8. BOTTOM FWD " " " " "
9. TOP FWD " " " " "
10. TANK TOP SURFACE FWD AT CROSS OVER ENTERANCE
11. INBOARD PORT VALVE FLANGE + GLAND SEAL
12. DECK AFT PORT OUTBOARD
13. DECK TANK TOP INBOARD OF LADDER
14. DECK BETWEEN 4 LARGE VALVES
15. DECK BELOW WALKWAY INBOARD
16. DECK BELOW AIR OPERATE VALVE
17. FWD DECK AREA



No FRISK DATA

SMEAR RESULTS ~~IN DPM/100 CM²~~ ~~B = BETA in mRAD/hr/100 CM²~~

NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS
4	< BKGD	12	< BKGD						
5	< BKGD	13	< BKGD						
6	< BKGD	14	< BKGD						
7	< BKGD	15	< BKGD						
8	< BKGD	16	< BKGD						
9	< BKGD	17	< BKGD						
10	< BKGD								
11	< BKGD								

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN μrem/hr

RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

N.S. SAVANNAH

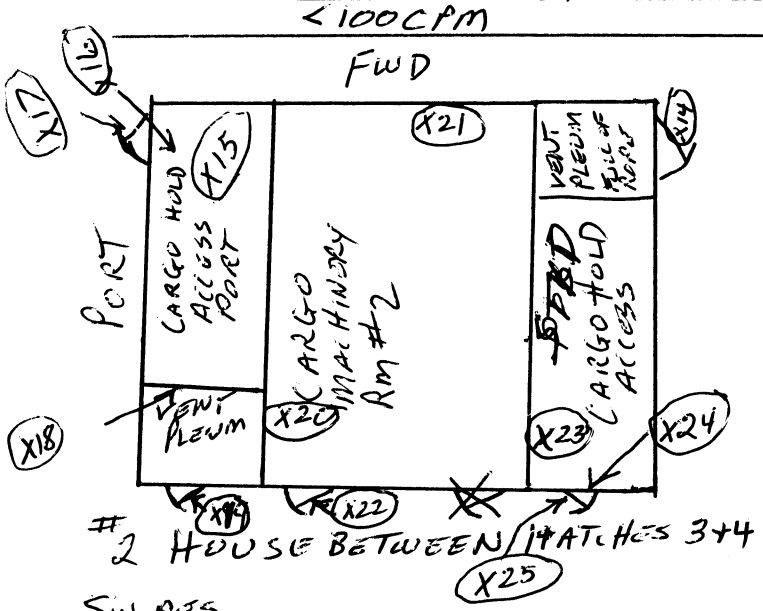
RADIOLOGICAL SURVEY

NSS-01 SURVEY NO. NSS-0061

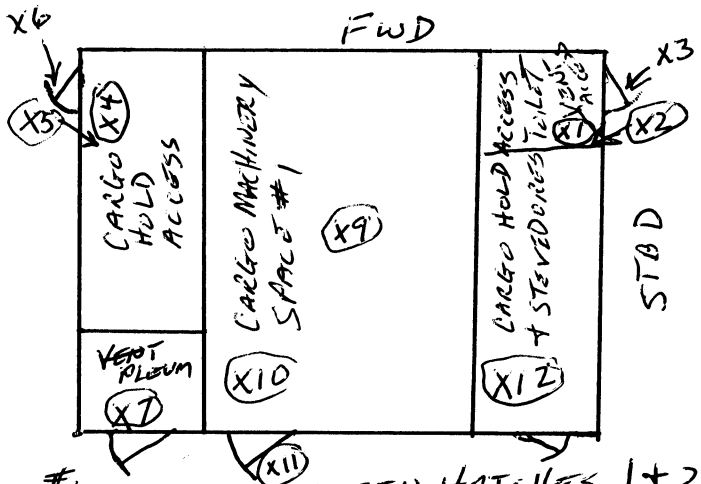
Date 4/5/05 Time 08:30	DOSE RATE	CONTAMINATION	
Surveyor Craddock	Inst. Type LUDLUM	Beta ✓ Alpha ____	Beta ____ Alpha ____
Signature Craddock	Serial No. 95499	Inst.Sn 97416	
Reviewed Ralph T. Runnels	β⁻ Factor	Eff. 10%	
	4mR/HR BKG	Bkg. 30 cpm	cpm

AREA FWD WEATHER DECK HOUSES BETWEEN HATCHES 1 & 4

COMPONENT ALL AREAS SHOWN ON DIAGRAMS ARE <BKGD & <100CPM



#2 HOUSE BETWEEN HATCHES 3+4



#1 HOUSE BETWEEN HATCHES 1+2

SWIPES

1. #1 House STBD Vent Trunk Deck
2. Supply Vent Switches
3. Access Door Handles
4. #1 House Cargo Hold Access Deck
5. #1 House " " " Light Switch
6. #1 House " " " Door Handles
7. #1 House Port Vent Access DK
8. #1 House Port " " Door Handles

SWIPES

9. Fwd Vent Cargo Mach'y Sp #1
10. Cargo Mach'y Sp #1 DK
11. Cargo Mach'y Sp #1 Door Handles
12. Stevedore Toilet DK
13. Stevedore Toilet Door Handles
14. #2 House Cargo Vent Rm Door Handles STBD
15. #2 House Port Cargo ~~Vent~~ Access Deck
16. " " " " Light Switch
17. " " " " Door Handles
18. #2 House Port Vent Plenum. Vent Switch
19. " " " " Door Handles

SMEAR RESULTS ~~IN DPM/100 CM²~~ ~~B = BETA in mRAD/hr/100 CM²~~

NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS
1	<BKGD	9	<BKGD	17	<BKGD	20	<BKGD		
2	<BKGD	10	<BKGD	18	<BKGD				
3	<BKGD	11	<BKGD	19	<BKGD				
4	<BKGD	12	<BKGD	21	<BKGD				
5	<BKGD	13	<BKGD	22	<BKGD				
6	<BKGD	14	<BKGD	23	<BKGD				
7	<BKGD	15	<BKGD	24	<BKGD				
8	<BKGD	16	<BKGD	25	<BKGD				

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN µrem/hr

RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

(OVER)

N.S. SAVANNAH
RADIOLOGICAL SURVEY

NSS-01 SURVEY NO. NSS-0061

Date 4/4/03 Time 0830	DOSE RATE	CONTAMINATION	
Surveyor	Inst. Type LUDLUM	Beta ✓ Alpha ____	Beta ____ Alpha ____
Signature	Serial No. 95499	Inst.Sn 97416	
Reviewed	β⁻Factor	Eff. 10 %	
	4mR/hr BKGD	Bkg. 30 cpm	cpm

AREA FWD WEATHER DECK HOUSES BETWEEN HATCHES 1 AND 4

COMPONENT ALL AREAS SHOWN ON DIAGRAMS ARE < BKGD AND < 100 CPM

CONTINUATION OF PAGE 1

SWIPES

20. #2 HOUSE CARGO MACHINERY SP. #2 DECK
21. " " " " " VENT
22. " " " " " DOOR LATCH
23. #2 HOUSE CARGO HOLD ACCESS HAND HOLD
24. " " " " DOOR LATCH EXIT
25. " " " " " " ENTERANCE

Page 2 of 2

SMEAR RESULTS IN DPM/100 CM² B = BETA in mRAD/hr/100 CM²

NO.	RESULTS	N O.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN µrem/hr

RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

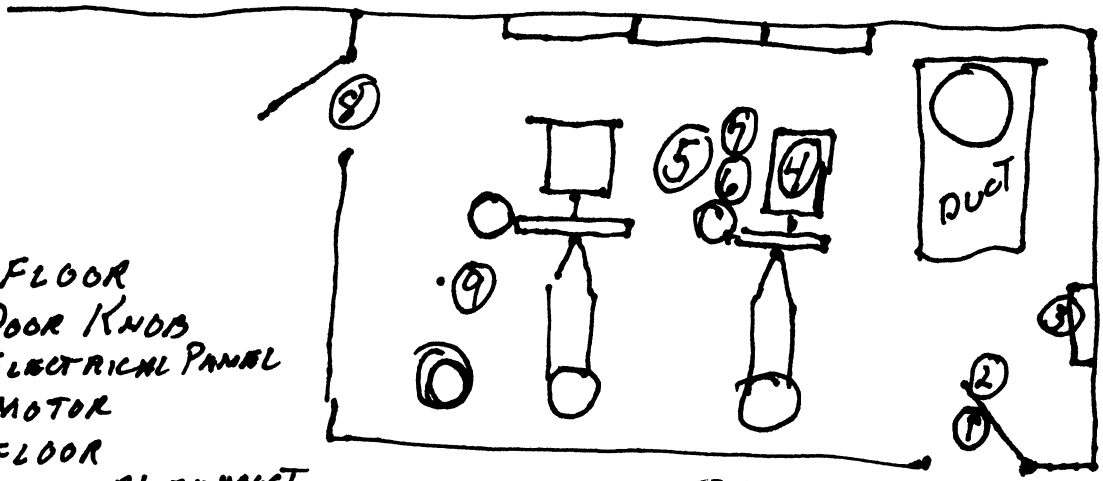
N.S. SAVANNAH
RADIOLOGICAL SURVEY

NSS-01 SURVEY NO. NSS-0062

Date 4-5-05 Time 9:30	DOSE RATE	CONTAMINATION	
Surveyor Craddock	Inst. Type LUDLUM	Beta ✓ Alpha	Beta Alpha
Signature A Craddock	Serial No. 95499	Inst.Sn 97416	
Reviewed Ralph E Pinnock	β⁻ Factor	Eff. 10%	
	4uR/HR BKG	Bkg. 30 cpm	cpm

AREA B DECK FAN ROOM TO COLD CHEMS LAB

COMPONENT



FWD

1 - FLOOR
2 - DOOR KNOB
3 - ELECTRICAL PANEL
4 - MOTOR
5 - FLOOR
6 - FAN RS-P1 EXHAUST VALVE (HEAD HIGH)
7 - EXHAUST BYPASS VALVE HEAD HIGH
8 - THRESHOLD

DR ∠ BG
FRISK ∠ 100 CPM

SMEAR RESULTS ~~IN DPM/100 CM²~~ ~~B = BETA in mRAD/hr/100 CM²~~

NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS
1	< BKG	9	< BKG						
2	< BKG	~~10~~	BKG						
3	< BKG								
4	< BKG								
5	< BKG								
6	< BKG								
7	< BKG								
8	< BKG								

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN µrem/hr

RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

N.S. SAVANNAH

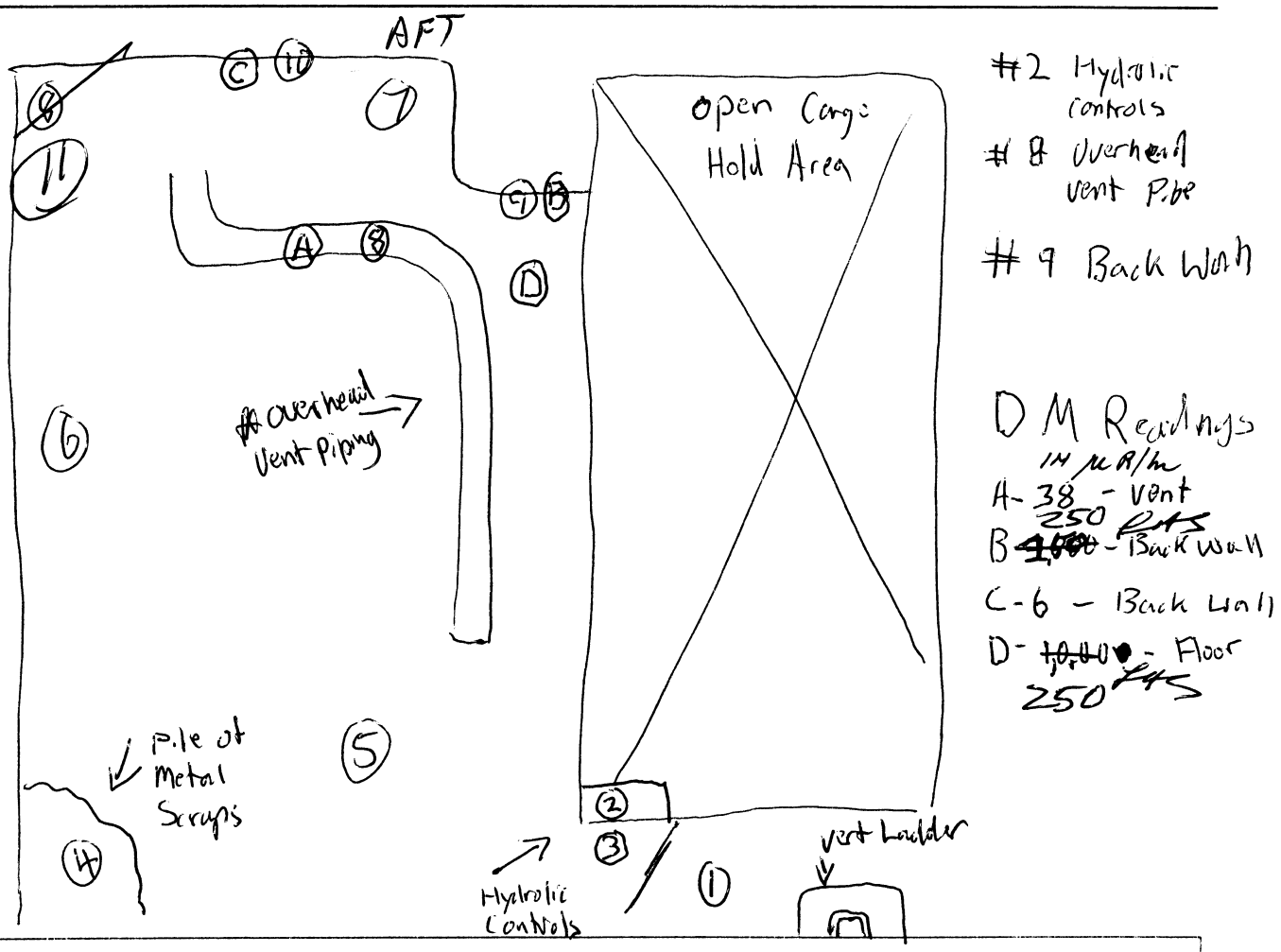
RADIOLOGICAL SURVEY

NSS-01 SURVEY NO. NSS-0063

Date 4/30/05 Time 1315	DOSE RATE	CONTAMINATION	
Surveyor Lomax Scott	Inst. Type Ludlum 19	Beta ✓ Alpha ____	Beta ____ Alpha ____
Signature Lomax Scott	Serial No. 42972	Inst.Sn 91037	
Reviewed [signature]	~~B Factor~~	Eff. 10%	
	BKG 4 hr/h	Bkg. 40 cpm	cpm

AREA Hold #4 D Deck (Starboard)

COMPONENT



SMEAR RESULTS ~~IN DPM/100 CM²~~ ~~B = BETA in mRAD/hr/100 CM²~~

NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS
1	< BKG	9	< BKG						
2	< BKG	10	< BKG						
3	< BKG	11	< BKG						
4	< BKG								
5	< BKG								
6	< BKG								
7	< BKG								
8	< BKG								

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN µrem/hr

RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

N.S. SAVANNAH
RADIOLOGICAL SURVEY

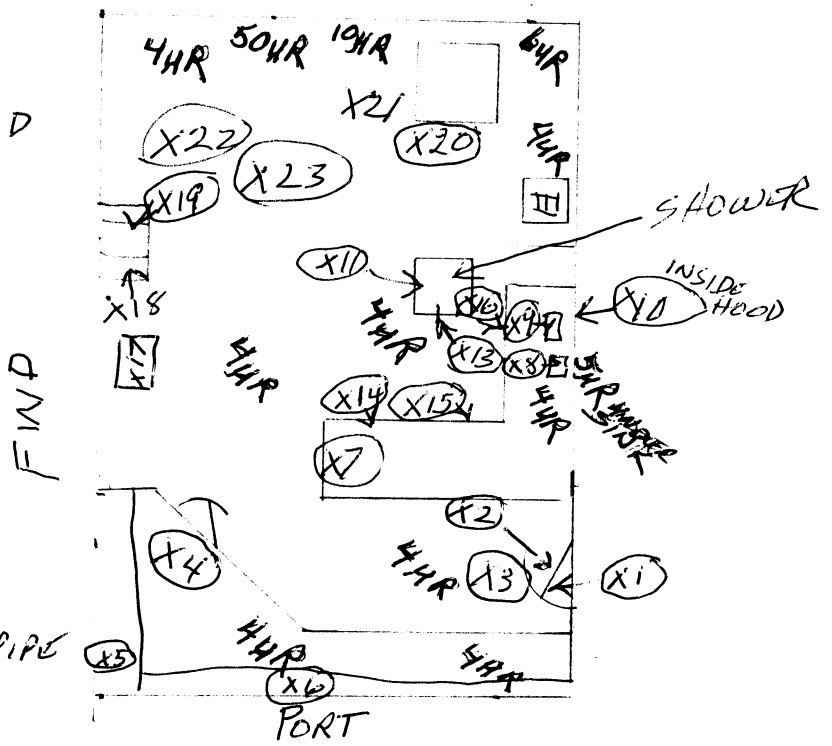
NSS-01 SURVEY NO. NSS-0064

Date 4/5/05 Time 09:00	DOSE RATE	CONTAMINATION	
Surveyor	Inst. Type LUDLUM	Beta ✓ Alpha ____	Beta ____ Alpha ____
Signature Caddock	Serial No. 95499	Inst.Sn 97416	
Reviewed Caddock	β⁻ Factor	Eff. 10%	
[signature]	4uR/HR BKG	Bkg. 30 cpm	cpm

AREA UPPER LEVEL "C" DECK COLD WATER CHEMICAL LABORATORY RADIATION MONITORING ROOM FWD

COMPONENT

1. ENTER DOOR LATCH
2. EXIT DOOR LATCH
3. DECK INSIDE DOOR
4. DECK INSIDE STORAGE
5. POLY 5 GAL BOTTLE FULL OF FLUID
6. PORT SHELF 4TH FROM BOTTOM
7. DRAIN TABLE FWD PORT END
8. DRAIN TABLE AT 1ST SINK INSIDE
9. ~~SINK~~ UNDER HOOD SINK
10. INSIDE HOOD OVER SINK
11. SHOWER HANDLE
12. SHOWER DECK
13. SHOWER DOOR WAY
14. 1ST SHELF FROM TOP FWD PORT TABLE
15. 2ND " " " " "
16. DK INSIDE SINK CABINET UNDER DRAIN PIPE
17. EXH VENT OVERHEAD
18. CROSS OVER STEP PORT ℄
19. CROSS OVER STEP STBD ℄



(Page 1 of 2)

SMEAR RESULTS ~~IN DPM/100 CM²~~ ~~B = BETA in mRAD/hr/100 CM²~~

NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS
1	< BKG	9	< BKG	17	< BKG				
2	< BKG	10	< BKG	18	< BKG				
3	< BKG	11	< BKG	19	< BKG				
4	< BKG	12	< BKG	20	< BKG				
5	< BKG	13	< BKG	21	< BKG				
6	< BKG	14	< BKG	22	< BKG				
7	< BKG	15	< BKG	23	< BKG				
8	< BKG	16	< BKG	2					

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN μrem/hr

RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

N.S. SAVANNAH

RADIOLOGICAL SURVEY

NSS-01 SURVEY NO. NSS-0064

Date 4/5/05 Time 0900	DOSE RATE	CONTAMINATION	
Surveyor	Inst. Type LUDLUM	Beta ✓ Alpha ____	Beta ____ Alpha ____
Signature	Serial No. 95499	Inst.Sn 97416	
Reviewed	β^- Factor	Eff. 10%	
		Bkg. 30 cpm	cpm

AREA UPPER LEVEL "C" DECK COLD WATER CHEMICAL LABORATORY RADIATION MON. TORING ROOM

COMPONENT

CONT' FROM PAGE 1

SWIPES

20. TOP OF LEAD BRICKS UNDER ITEM COVERED WITH LEAD
21. DECK IN FRONT OF ITEM LISTED ABOVE
22. DECK BESIDE RC VENT
23. INSIDE ORANGE VENT DUCT IN OVER HEAD

PAGE 2 of 2

SMEAR RESULTS ~~IN DPM/100 CM²~~ ~~β - BETA IN mRAD/HR/100 CM²~~

NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN µrem/hr

RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

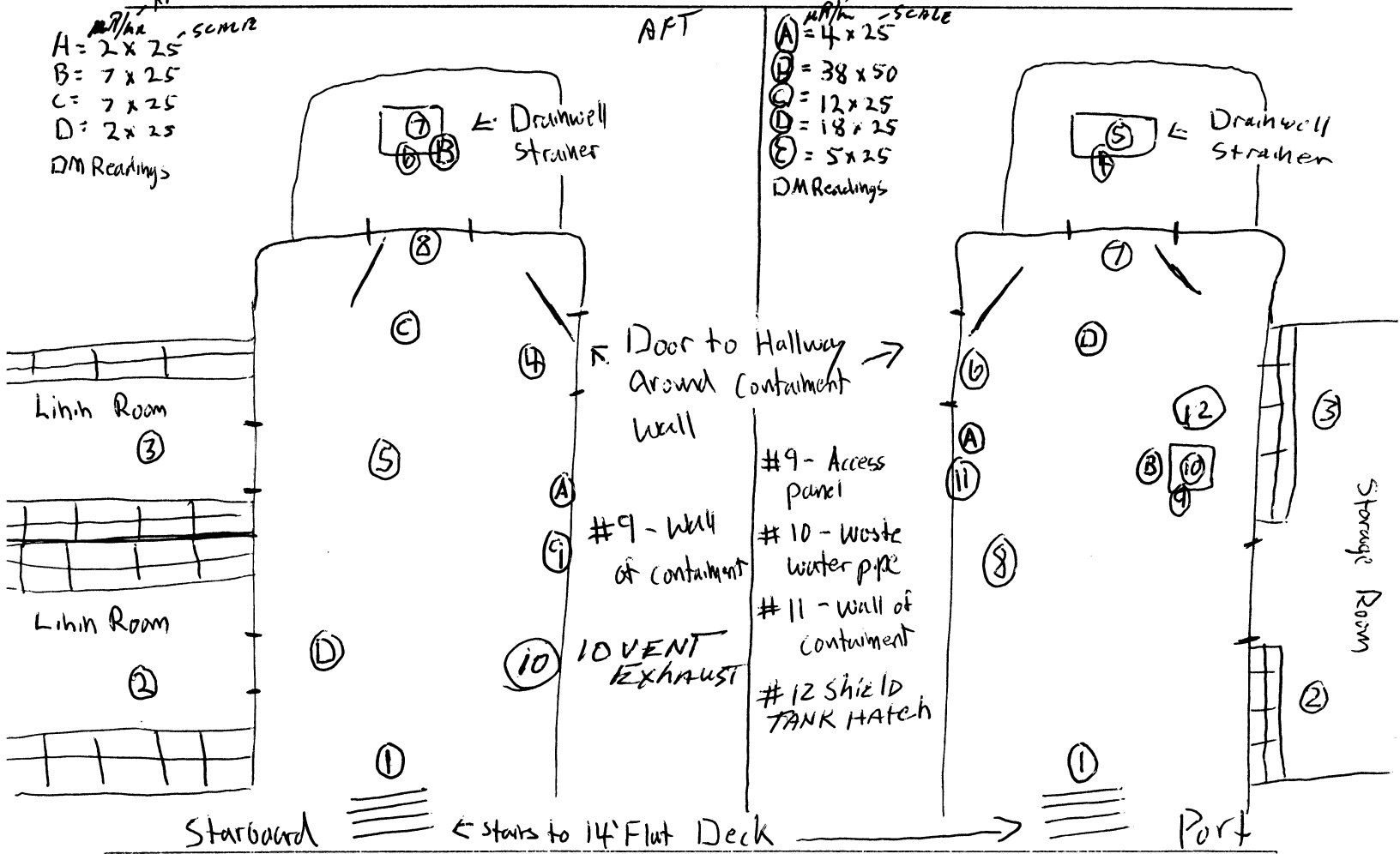
N.S. SAVANNAH
RADIOLOGICAL SURVEY

NSS-01 SURVEY NO. NSS-0065

Date 4-5-05 Time 1100	DOSE RATE	CONTAMINATION	
Surveyor Lomar Scott	Inst. Type Ludlum 19	Beta ✓ Alpha ____	Beta ____ Alpha ____
Signature Lomar Scott	Serial No. 42972	Inst.Sn 90137	
Reviewed [signature]	~~β Factor~~	Eff. 10%	
	4 MR/hr	Bkg. 4 cpm	cpm

AREA Hold Deck Starboard & Port

COMPONENT



SMEAR RESULTS ~~IN DPM/100 CM²~~ ~~B = BETA in mRAD/hr/100 CM²~~

NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS
1	<BKG	9	<BKG			1	<BKG	9	<BKG
2	<BKG	10	<BKG			2	<BKG	10	<BKG
3	<BKG					3	<BKG	11	<BKG
4	<BKG					4	<BKG	12	<BKG
5	<BKG					5	<BKG		
6	<BKG					6	<BKG		
7	<BKG					7	<BKG		
8	<BKG					8	<BKG		

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN μrem/hr

RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

N.S. SAVANNAH
RADIOLOGICAL SURVEY

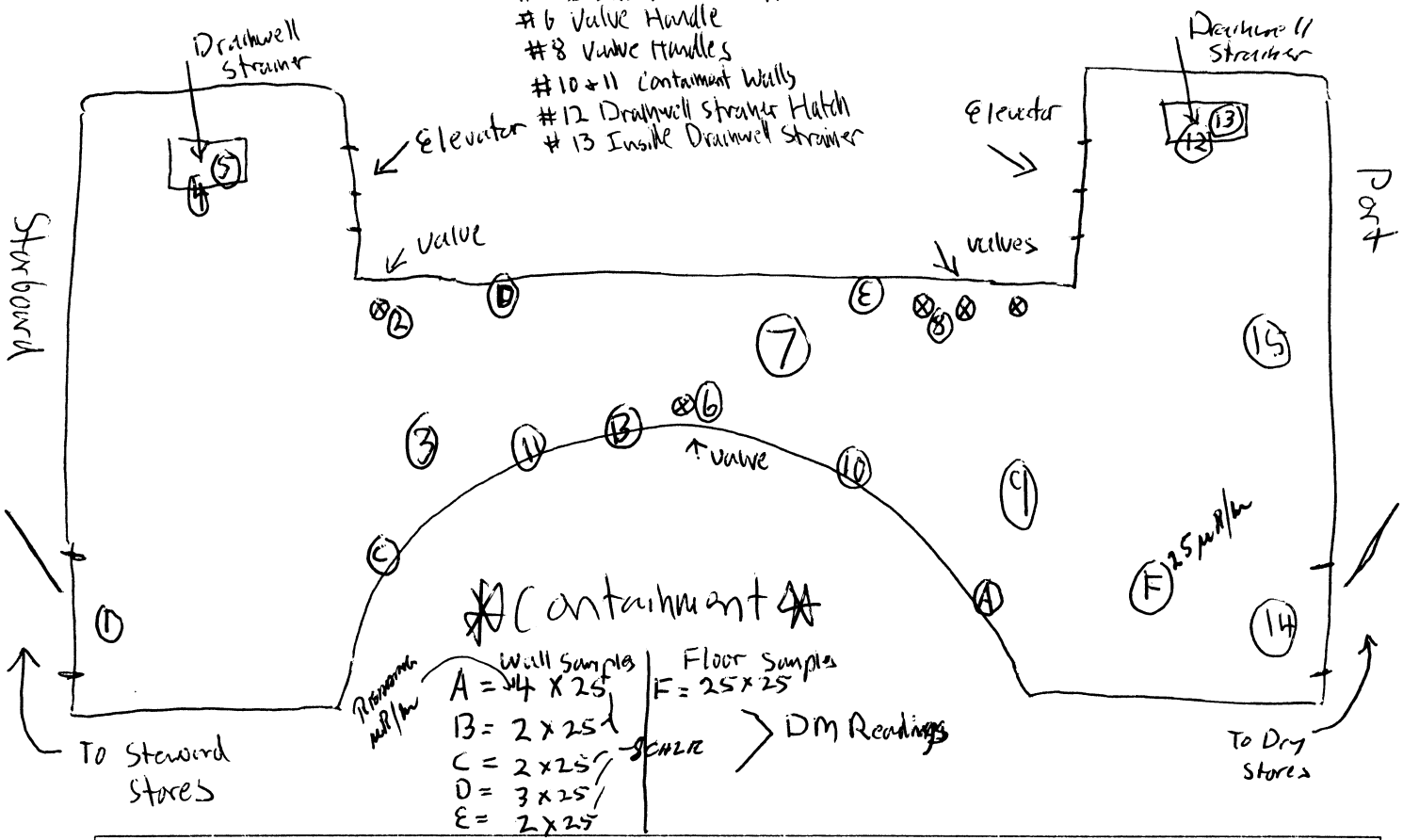
NSS-01 SURVEY NO. NSS-0066

Date 4-5-05 Time 1100	DOSE RATE	CONTAMINATION	
Surveyor Lemuel Scott	Inst. Type Ludlum 19	Beta ✓ Alpha ____	Beta ____ Alpha ____
Signature Lemuel Scott	Serial No. 42978	Inst.Sn 90137	
Reviewed [illegible]	~~β-Factor~~	Eff. 10%	
	4 MR/hr	Bkg 4 cpm	cpm

AREA Hallway Inbetween Port + Starboard on Hold Deck (Around Containment)

COMPONENT ____

#2 Valve Handle
#4 Drainwell Strainer Hatch
#5 Inside Drainwell Strainer
#6 Valve Handle
#8 Valve Handles
#10 & 11 Containment Walls
#12 Drainwell Strainer Hatch
#13 Inside Drainwell Strainer



SMEAR RESULTS ~~IN DPM/100 CM²~~ ~~B = BETA in mRAD/hr/100 CM²~~

NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS
1	< BKG	9	< BKG						
2	< BKG	10	< BKG						
3	< BKG	11	< BKG						
4	< BKG	12	< BKG						
5	< BKG	13	< BKG						
6	< BKG	14	< BKG						
7		15	< BKG						
8									

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN µrem/hr

RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

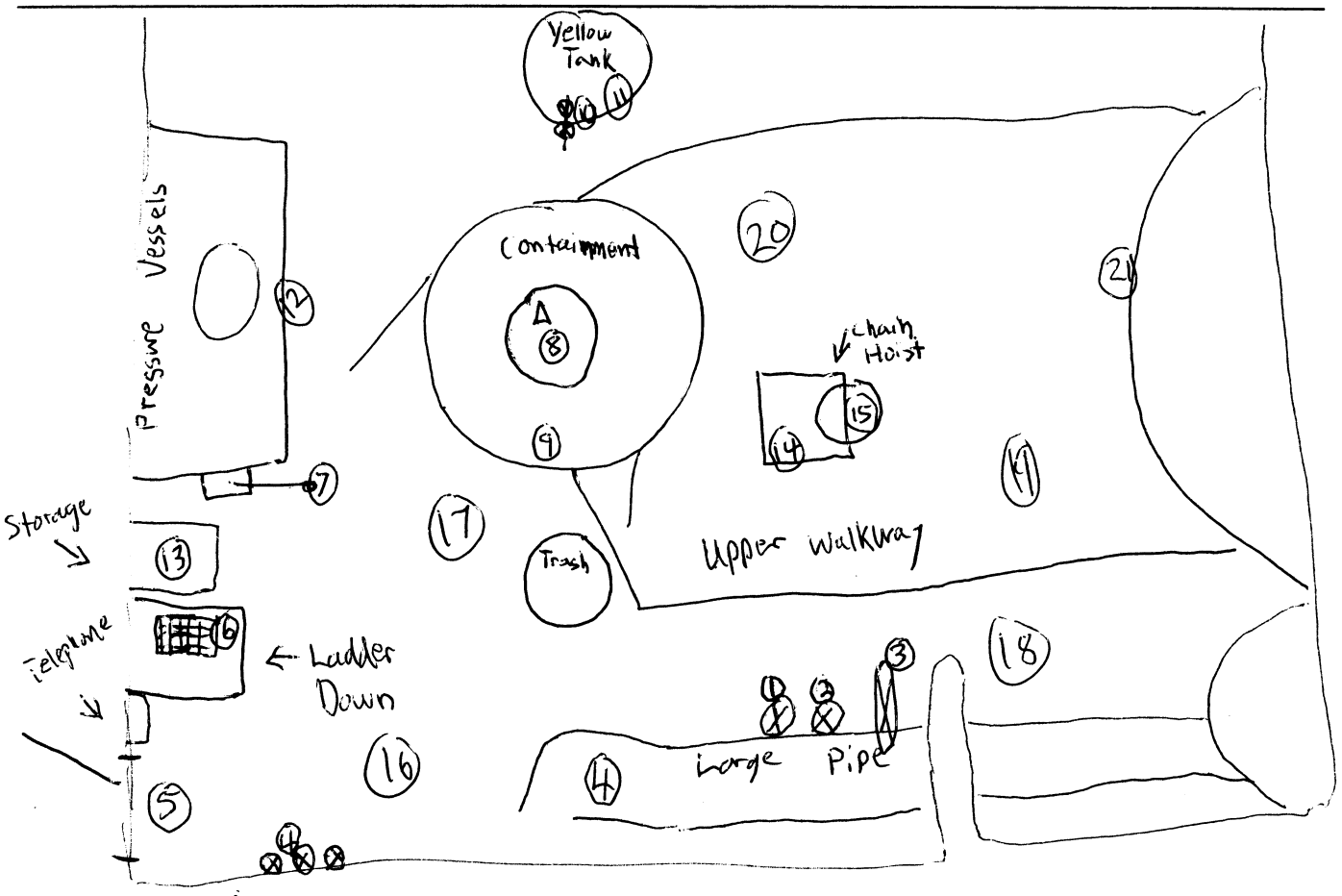
N.S. SAVANNAH
RADIOLOGICAL SURVEY

NSS-01 SURVEY NO. NSS-0067

Date 4/6/05 Time 1:00	DOSE RATE	CONTAMINATION	
Surveyor Bry Scott	Inst. Type Ludlum 19	Beta ✓ Alpha ____	Beta ____ Alpha ____
Signature [signature]	Serial No. 95499	Inst.Sn 42972	
Reviewed [signature]	β⁻Factor /	Eff. 10%	
	BKG 4 MR/Hr	Bkg. 40 [illegible] cpm	cpm

AREA Secondary ~~Main~~ Containment - B Deck AFT OF REACTOR

COMPONENT



DR< BKG/< 100 CPM FRISK

SMEAR RESULTS ~~IN DPM/100 CM²~~ ~~B – BETA in mRAD/hr/100 CM²~~

NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS
1	<BKG	9	<BKG	17	<BKG				
2	<BKG	10	<BKG	18	<BKG				
3	<BKG	11	<BKG	19	<BKG				
4	<BKG	12	<BKG	20	<BKG				
5	<BKG	13	<BKG	21	<BKG				
6	<BKG	14	<BKG						
7	<BKG	15	<BKG						
8	<BKG	16	<BKG						

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN μrem/hr

RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

N.S. SAVANNAH
RADIOLOGICAL SURVEY

NSS-01 SURVEY NO. NSS-0067

Date Time	DOSE RATE	CONTAMINATION	
Surveyor	Inst. Type	Beta____ Alpha____	Beta____ Alpha____
Signature	Serial No.	Inst.Sn	
Reviewed	β^- Factor	Eff.	
		Bkg. cpm	cpm

AREA ~~Secondary Main~~ Containment - B Deck Aft of Reactor

COMPONENT

#1 + #2 - Valve Controls
#3 - Large Valve Control
#4 - Side of Large Pipe
#6 - Ladder Down
#7 - Handle for Pressure Vessel
#8 - Removable Steel Cover
#9 - Containment Housing
#10 - Valve controls
#11 - Side of Large Yellow Tank
#12 - Side of Pressure Vessel
#13 - Top of Storage Cab.
#14 - Chain on Chain Hoist
#15 - Main Part of Chain Hoist
#21 Side of Reactor

SMEAR RESULTS ~~IN DPM/100 CM²~~ ~~B = BETA in mRAD/hr/100 CM²~~

NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN µrem/hr

RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

N.S. SAVANNAH
RADIOLOGICAL SURVEY

NSS-01 SURVEY NO. NSS-0068

Date 4/6/05 Time 10:00	DOSE RATE	CONTAMINATION	
Surveyor Ben Scott	Inst. Type Iudlum 19	Beta ✓ Alpha ____	Beta ____ Alpha ____
Signature [signature]	Serial No. 95499	Inst.Sn 97416	
Reviewed [signature]	β⁻ Factor /	Eff. 10%	
	BKG 2 μR/H	Bkg. 40 cpm	cpm

AREA HP Lab - A Deck

COMPONENT

#2 - #10 - Upper Cabinets

#13 - Top of Scaler

#14 - Counter in front of Scaler

#16 - Top of Scaler

#17 - Counter in front of Scaler

#20 - Inside Reg. Sink
#21 " "

#22 - Inside Hot Sink
#23 - Top of Drain inside Hot Sink
#24 - Outside of trap of Hot Sink

#32 - #38 - Lower Cabinets + Shelves
#40 - Air Vent
#41 - " "

DM Readings

- 4 μR above Hot Sink
- 5 μR inside Hot Sink

CPM Readings

- 350 inside Hot sink
- Rest of the Room < 100 CPM

* Smear No. 22 and 23 had activity levels above background ~~but below MDA (minimum detectable activity) 160 dpm~~. RDR

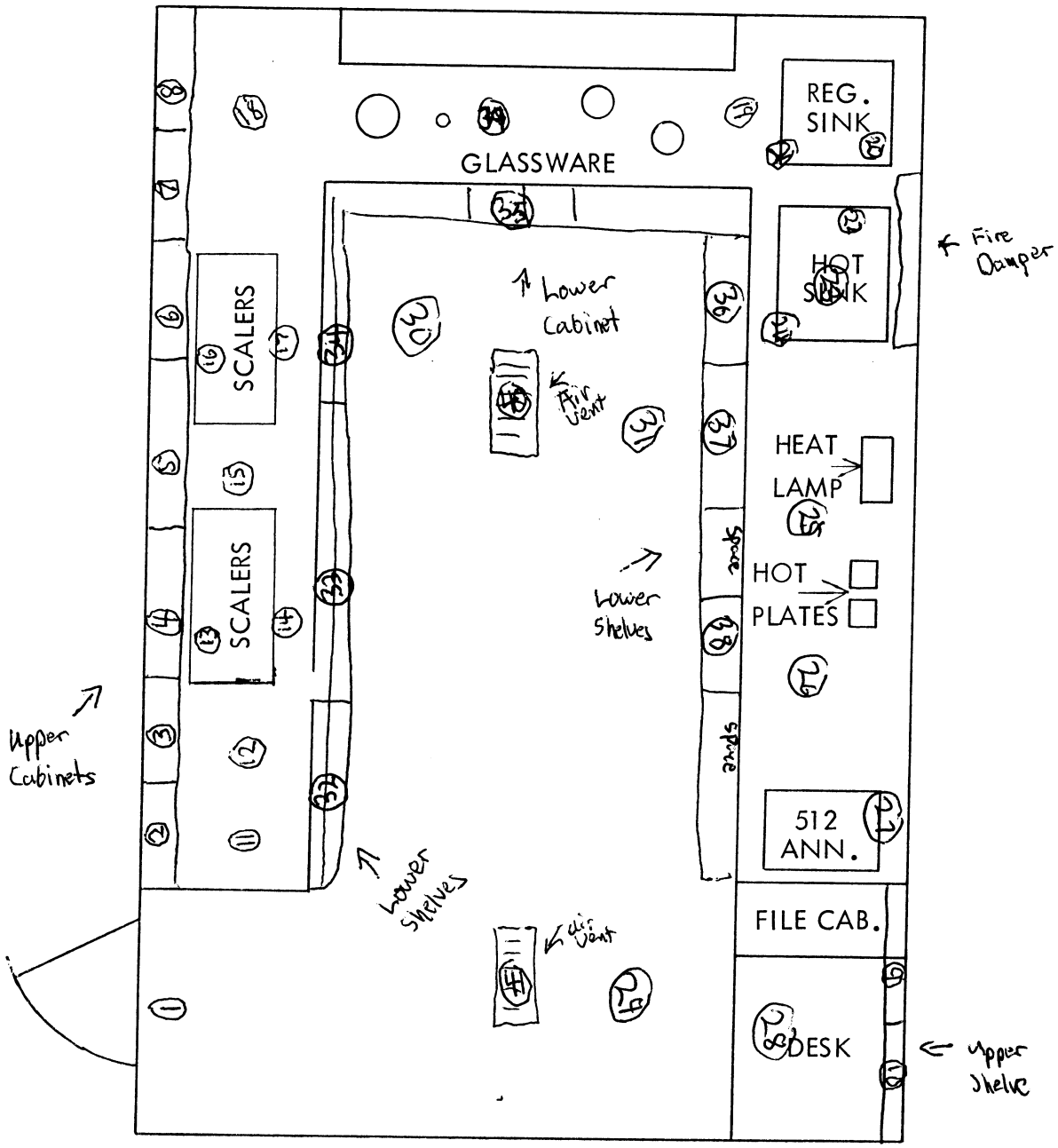
Smear #23 ~~1410~~ 1221 dpm/100cm² counter #2
Smear #22 ~~800~~ 646 dpm/100cm² counter #1

SMEAR RESULTS ~~IN DPM/100 CM²~~ ~~B = BETA in mRAD/hr/100 CM²~~

NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS
1	< BKG	9	< BKG	17	< BKG	25	< BKG	33	< BKG
2	< BKG	10	< BKG	18	< BKG	26	< BKG	34	< BKG
3	< BKG	11	< BKG	19	< BKG	27	< BKG	35	< BKG
4	< BKG	12	< BKG	20	< BKG	28	< BKG	36	< BKG
5	< BKG	13	< BKG	21	< BKG	29	< BKG	37	< BKG
6	< BKG	14	< BKG	22 *	~~[illegible]~~ 100	30	< BKG	28	< BKG
7	< BKG	15	< BKG	23 *	148	31	< BKG	39	< BKG
8	< BKG	16	< BKG	24	< BKG	32	< BKG	40	< BKG
								41	< BKG

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN μrem/h

RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA


REG. SINK
GLASSWARE
HOT SINK
Fire Damper
Lower Cabinet
Air Vent
SCALERS
SCALERS
HEAT LAMP
HOT PLATES
Lower Shelves
Upper Cabinets
512 ANN.
FILE CAB.
Lower Shelves
Air Vent
DESK
Upper Shelve

N.S. SAVANNAH
RADIOLOGICAL SURVEY

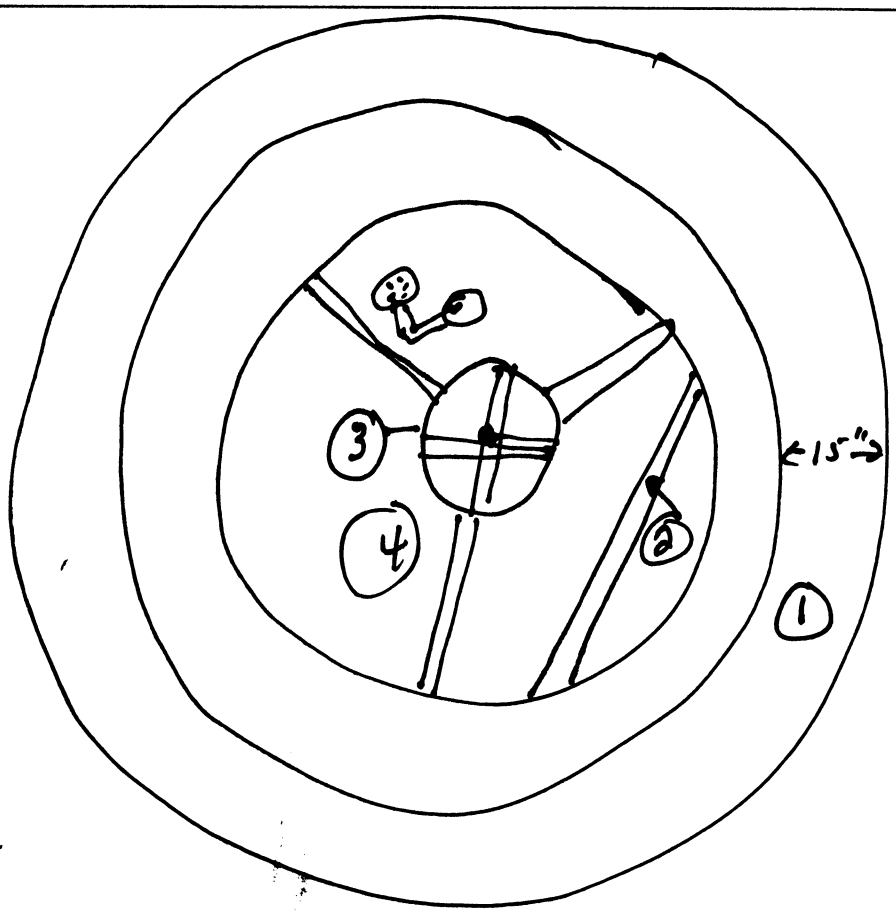
NSS-01 SURVEY NO. NSS-0069

Date 4-7-05 Time 900	DOSE RATE	CONTAMINATION	
Surveyor Logan Scott	Inst. Type Ludlum 19	Beta ✓ Alpha ____	Beta ____ Alpha ____
Signature [signature]	Serial No. 95469	Inst.Sn 75809	
Reviewed [signature]	~~β Factor~~ 2 uR/h	Eff. 10%	
	~~CPM < 100~~	Bkg. 30 cpm	cpm

AREA Containment Vessel, Plug & inside Hatch Controls

COMPONENT

1 - inside plug wall
2 - hand handle
3 - wheel
4 - under wheel
5 - on guage



15 uRh @ guage

SMEAR RESULTS ~~IN DPM/100 CM²~~ ~~B = BETA in mRAD/hr/100 CM²~~

NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS
1	< BKG								
2	< BKG								
3	< BKG								
4	< BKG								
5	< BKG								

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN urem/hr

RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

N.S. SAVANNAH

RADIOLOGICAL SURVEY

NSS-01 SURVEY NO. NSS-0070

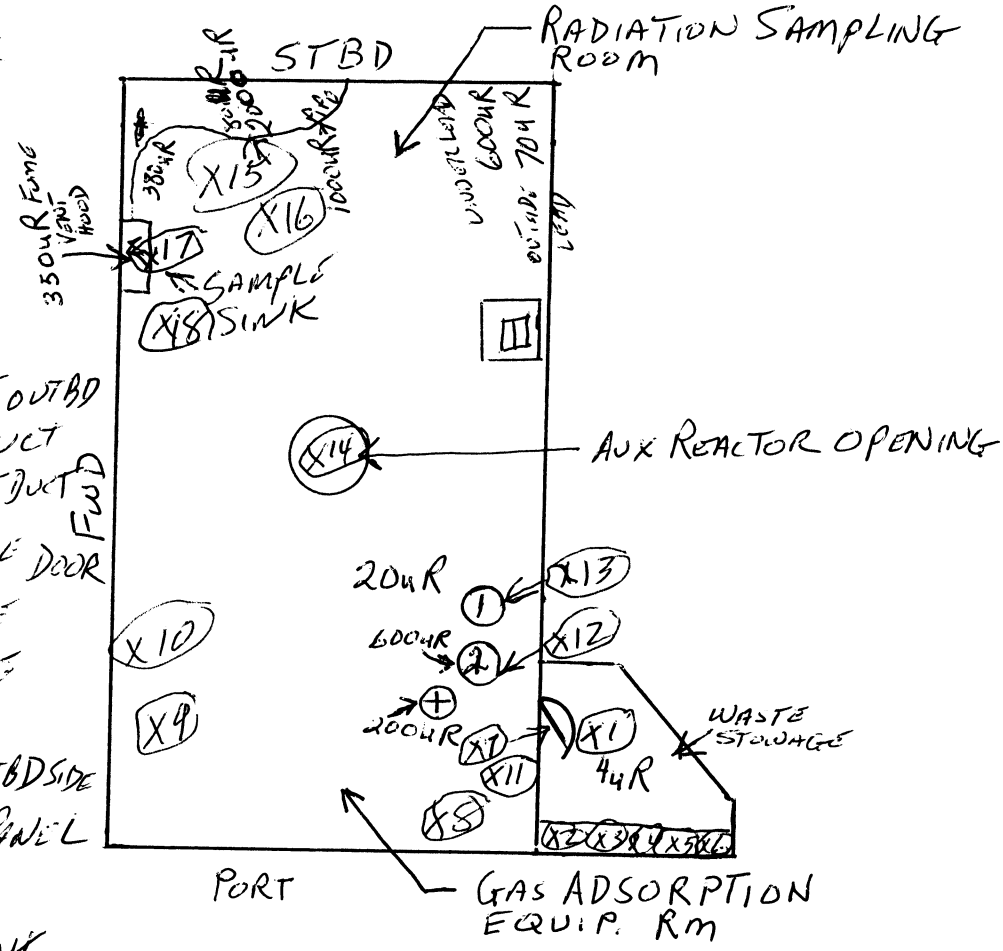
Date 4-7-05 Time	DOSE RATE	CONTAMINATION	
Surveyor JAMES H. LOVEDAHL	Inst. Type LUDLUM	Beta ✓ Alpha ____	Beta ____ Alpha ____
Signature James H. Lovedahl	Serial No. 95499	Inst.Sn 97416	
Reviewed Ralph E. Pennock	β⁻ Factor	Eff. 10%	
	4uR/HR	Bkg. 30 cpm	cpm

AREA LOWER LEVEL "D" DECK RADIATION SAMPLING RM, GAS ADSORPTION EQUIP. RM., WASTE STOWAGE RM

COMPONENT ACCESS THROUGH "C" DECK, COLD WATER CHEMISTRY LAB

SWIPES

1. INSIDE WASTE STORAGE DECK
2. TOP SHELF " "
3. 2ND SHELF " "
4. 3RD " "
5. 4TH " "
6. BOTTOM " "
7. ENTER DOOR KNOB
8. DK RADIATION SAMPL. RM PORT OUTBD
9. INSIDE HANGING VENT DUCT
10. INSIDE OPPOSITE END VENT DUCT
11. DK AT WASTE STORAGE DOOR
12. FILTER #1 FANS FOR FANGE
13. FILTER #1 CANISTER FLANGE
14. TOP of AUX REACTOR PLUG
15. ELECT SWITCH PANEL STBD SIDE
16. DECK UNDER SWITCH PANEL
17. INSIDE SAMPL. SINK
18. DECK AT SAMPLE SINK



SMEAR RESULTS ~~IN DPM/100 CM²~~ ~~B = BETA in mRAD/hr/100 CM²~~

NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO	RESULTS	NO.	RESULTS
1	< BKG	9	< BKG	17	* [redacted] 427				
2	< BKG	10	< BKG	18	< BKG				
3	< BKG	11	< BKG						
4	< BKG	12	< BKG						
5	< BKG	13	< BKG						
6	< BKG	14	< BKG						
7	< BKG	15	< BKG						
8	< BKG	16	< BKG						

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN urem/hr

RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

	cts	cpm	Bkg cpm	Eff.	dis/~~cm~~100 cm²
* [redacted]	427	854	42	20.9%	3904 d/~~cm~~

N.S. SAVANNAH

RADIOLOGICAL SURVEY

NSS-01 SURVEY NO. NSS-0071

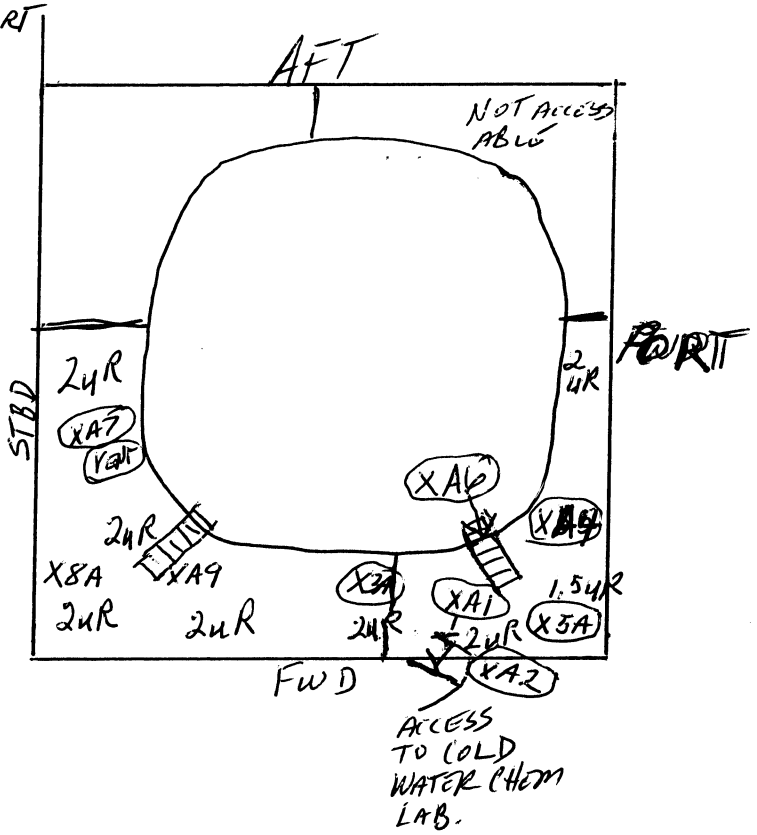
Date 4/8/05 Time	DOSE RATE	CONTAMINATION	
Surveyor JAMES H. LOVEDAHL	Inst. Type LUDLUM	Beta ✓ Alpha ____	Beta ____ Alpha ____
Signature James H. Lovedahl	Serial No. 95499	Inst.Sn 97416	
Reviewed Robert Runnals	β⁻ Factor	Eff. 10%	
	4uR/HR	Bkg. 30 cpm	cpm

AREA "C" DECK LEVEL UNDER UPPER LEVEL OF SECONDARY CONTAINMENT

COMPONENT

SWIPES

A1. DOOR HANDLE TO COLD WTR CHEM LAB PORT
A2. DECK AT ACCESS DOOR
A3. HAND RAIL AT DOOR
A4. REACTOR COOLING VALVE FLANGE PORT
A5. DECK FWD PORT
A6. PORT FWD LADDER
A7. VENT OPENING
A8. VENT MOTOR
A9. STBD FWD LADDER



No Swipes

SMEAR RESULTS ~~IN DPM/100 CM²~~ ~~B = BETA in mRAD/hr/100 CM²~~

NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS
A1	<BKG	A9	<BKG						
A2	<BKG								
A3	<BKG								
A4	<BKG								
A5	<BKG								
A6	<BKG								
A7	<BKG								
A8	<BKG								

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN µrem/hr

RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

N.S. SAVANNAH
RADIOLOGICAL SURVEY

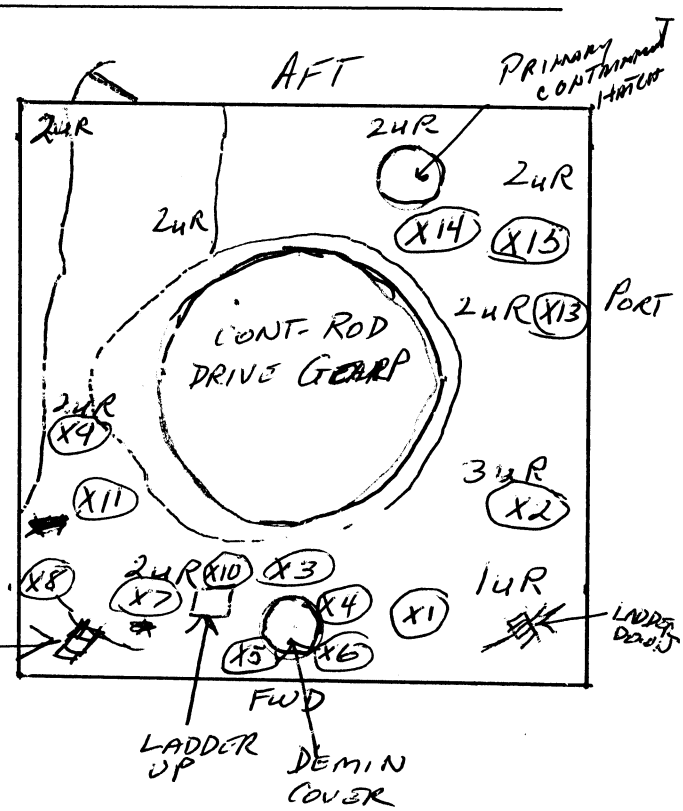
NSS-01 SURVEY NO. NSS-0072

Date 4-8-05 Time	DOSE RATE	CONTAMINATION	
Surveyor JAMES H. LOVEDAHL	Inst. Type LUDLUM	Beta ✓ Alpha ____	Beta ____ Alpha ____
Signature James H. Lovedahl	Serial No. 95499	Inst.Sn 97416	
Reviewed Robert E. Pennock	β⁻ Factor	Eff. 10%	
	4uR/HR	Bkg. 30 cpm	cpm

AREA "B" DECK UPPER LEVEL SECONDARY CONTAINMENT AREA

COMPONENT

1. FWD PORT DECK AT LADDER
2. FWD PORT DECK UNDER VENT
3. OVHD CHAIN FALL CLAMP HANDLE OVER DEMIN COVER
4. AFT CHAIN ON CHAIN FALL
5. FWD CHAIN ON CHAIN FALL
6. TOP OF DEMIN. COVER
7. FWD VERT LADDER TO A DECK
8. DECK AT STBD LL LADDER FWD.
9. DECK STBD OF CRDC
10. ~~VERT~~ UP FWD LADDER
11. FWD. INLET/OUTLET VALVE FLANGE + GLAND
12. REACTOR SPACE VENT DAMPER STBD FWD.
13. PORT ELIMITOR QU VALVE
14. PORT AFT DECK TO LL
15. VENT DUCT OPENING PORT OF CRDC



NO FRISKING

SMEAR RESULTS ~~IN DPM/100 CM²~~ ~~B = BETA in mRAD/hr/100 CM²~~

NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS
1	<BKG	9	<BKG						
2	<BKG	10	<BKG						
3	<BKG	11	<BKG						
4	<BKG	12	<BKG						
5	<BKG	13	<BKG						
6	<BKG	14	<BKG						
7	<BKG	15	<BKG						
8	<BKG								

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN μrem/hr

RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

N.S. SAVANNAH

RADIOLOGICAL SURVEY

NSS-01 SURVEY NO. NSS-0073

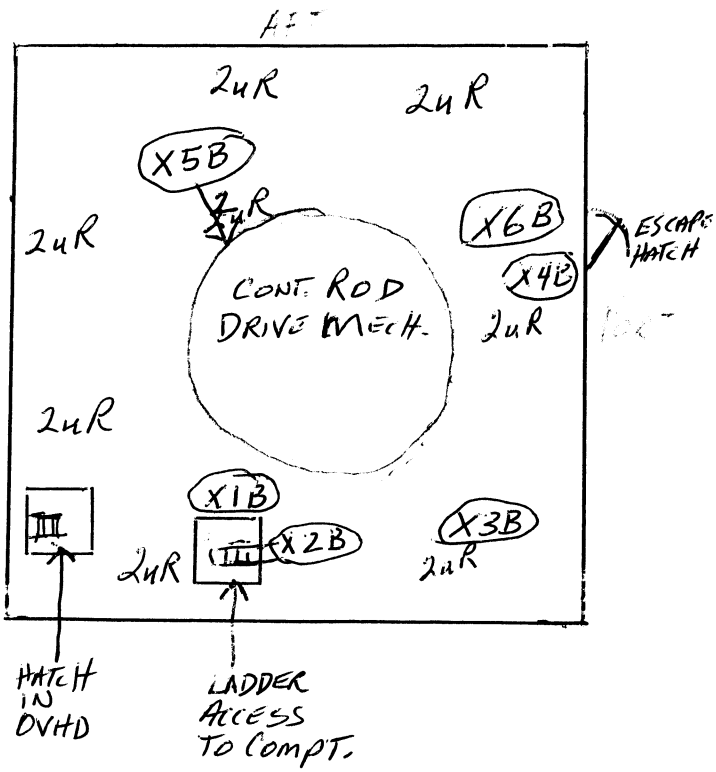
Date 4/8/05 Time	DOSE RATE	CONTAMINATION	
Surveyor JAMES H. LOVEDAHL	Inst. Type LUDLUM	Beta ✓ Alpha ____	Beta ____ Alpha ____
Signature James H. Lovedahl	Serial No. 95499	Inst.Sn 97416	
Reviewed	β⁻ Factor	Eff. 10%	
	4uR/HR	Bkg. 30 cpm	cpm

AREA "A" DECK ABOVE SECONDARY CONTAINMENT

COMPONENT

SWIPES

1B. RAIL ON FWD ~~STBD~~ SHD ACCESS LADDER
2B. DECK AT ACCESS LADDER
3B. ESCAPE HATCH HANDLE
4B. DECK AT ESCAPE HATCH
5B. RING GASKET SEAL ON CRDM
6B. VENT DUCK ON ~~STBD~~ SHD PORT AT HATCH



FRISK < 100 CPM

SMEAR RESULTS ~~IN DPM/100 CM²~~ ~~B = BETA in mRAD/hr/100 CM²~~

NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS
1B	< BKG								
2B	< BKG								
3B	< BKG								
4B	< BKG								
5B	< BKG								
6B	< BKG								

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN µrem/hr

RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

N.S. SAVANNAH

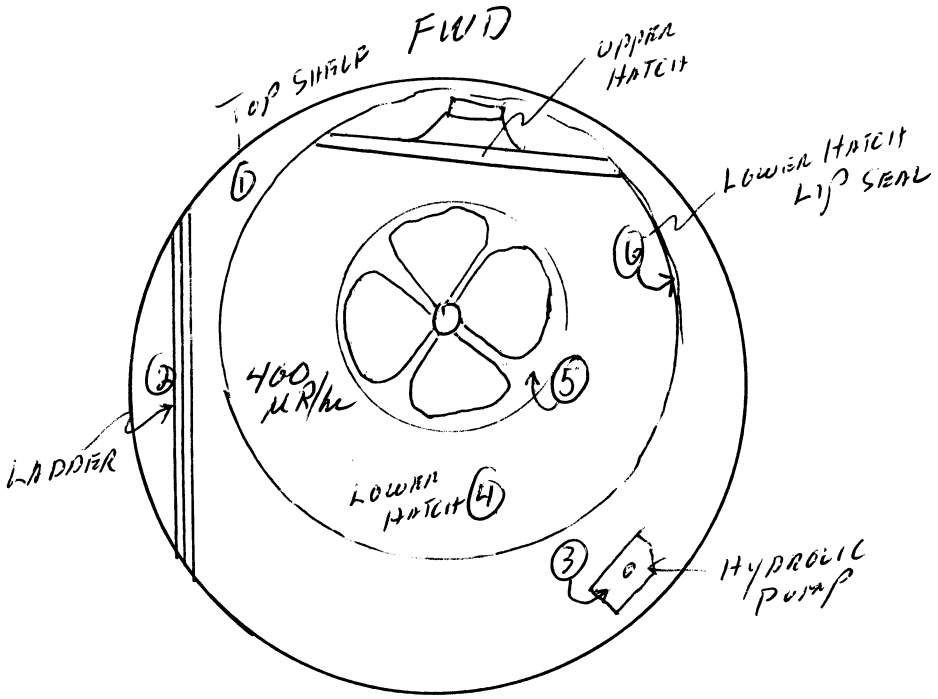
RADIOLOGICAL SURVEY

NSS-01 SURVEY NO. NSS-0074

Date 4-8-05 Time 1:00 PM	DOSE RATE	CONTAMINATION	
Surveyor CRADDOCK	Inst. Type Ludlum MR	Beta ✓ Alpha	Beta Alpha
Signature [signature]	Serial No. 95499	Inst.Sn 97416	
Reviewed [signature]	β Factor	Eff. 10%	
	BKG 4μR/hr	Bkg. 30 cpm	cpm

AREA PRIMARY CONTAINMENT AIR LOCK

COMPONENT



SMEAR RESULTS ~~IN DPM/100 CM²~~ ~~β - BETA in mRAD/hr/100 CM²~~

NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS
1	~BKG								
2	< BKG								
3	< BKG								
4	< BKG								
5	< BKG								
6	< BKG								

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN μrem/hr

RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

N.S. SAVANNAH
RADIOLOGICAL SURVEY

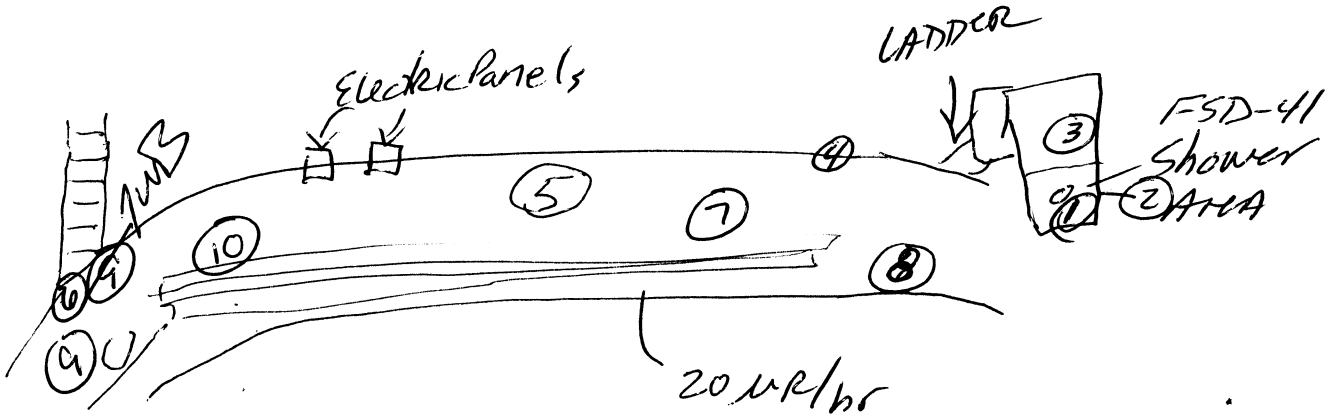
NSS-01 SURVEY NO. NSS-0075

Date 4-8-05 Time 1300	DOSE RATE	CONTAMINATION	
Surveyor Scott / Bowen	Inst. Type Lud/Mm 19	Beta____ Alpha____	Beta____ Alpha____
Signature Lamar Scott	Serial No. 42972	Inst.Sn NA	
Reviewed Robt Pennah LAB	~~B Factor BKG~~ <100	Eff.	
	2 μR/h	Bkg. cpm	cpm

AREA Secondary Cont. AFT - Mezzine & Lower area (mid level)

COMPONENT

General Area dose rate 3-5 μR/hr



SMEAR RESULTS ~~IN DPM/100 CM²~~ ~~B = BETA in mRAD/hr/100 CM²~~

NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS
1	<BKG	9	<BKG						
2	<BKG	10	<BKG						
3	<BKG								
4	<BKG								
5	<BKG								
6	<BKG								
7	<BKG								
8	<BKG								

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN μrem/hr

RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

DURATEC 28991 TELETECTOR

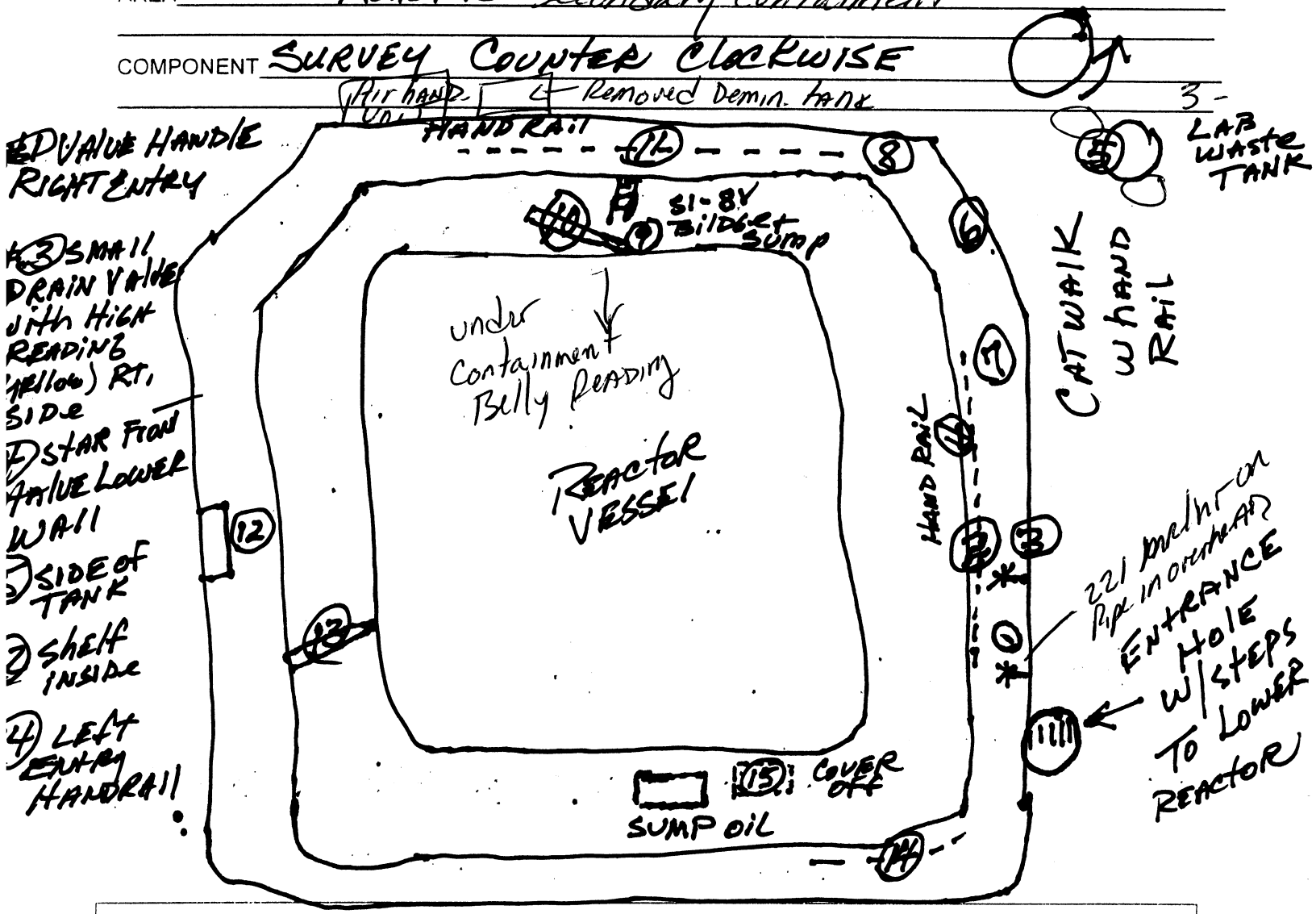
N.S. SAVANNAH
RADIOLOGICAL SURVEY

NSS-01 BOWEN SURVEY NO. NSS-0076

Date 4-8-05 Time 1400	DOSE RATE	CONTAMINATION	
Surveyor Scott ~~Bowden~~	Inst. Type Ludlum 19	Beta ✓ Alpha ____	Beta ____ Alpha ____
Signature Lomar Scott	Serial No. 42972	Inst.Sn	
Reviewed Robert E Pennard	β⁻Factor	Eff.	
	BKG < ~~100 RA~~ 1uR/hr	Bkg. cpm	cpm

AREA LOWER REACTOR Secondary Containment

COMPONENT SURVEY COUNTER CLOCKWISE



SMEAR RESULTS ~~IN DPM/100 CM²~~ ~~B = BETA in mRAD/hr/100 CM²~~

NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS
1	< BKG	9*	< BKG						
2	< BKG	10	< BKG						
3	< BKG	11*	< BKG						
4	< BKG	12	< BKG						
5	< BKG	13	< BKG						
6	< BKG	14	< BKG						
7	< BKG	15	< BKG						
8	< BKG								

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN μrem/hr

RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

* 10 min count FOR ALPHA

ALSO USED DURATEC 28991 TELETECTOR

N.S. SAVANNAH
RADIOLOGICAL SURVEY

NSS-01

SURVEY NO. NSS-0076

Date 4-8-05 Time 1400	DOSE RATE	CONTAMINATION	
Surveyor SCOTT-BOWDEN	Inst. Type LUD/UM 19	Beta ✓ Alpha ____	Beta ____ Alpha ____
Signature [signature]	Serial No. 42972	Inst.Sn	
Reviewed [signature]	~~β Factor~~ BKG LI ~~00~~ mR/hr	Eff.	
		Bkg. cpm	cpm

AREA SURVEY NOTES

COMPONENT LOWER CONTAINMENT AREA

221 mR/hr DRAIN VALVE RIGHT ENTRY MARKED

HEAD LEVEL - 1.4 1.6 MR/hr

1-3 TANKS 400 - 600 ~~AR~~ TWB (LAB WASTE TANKS) μR/hr

STAR FRONT half - 400-500 MR/hr (Gen. AREA)

LAB WASTE TANK - 600 ~~M~~ μR/hr (#2 tank)

400 MR/hr STAR-FORWARD primary on Relief Valve

FORWARD READING UNDER Containment Vessel Belly 130-150 mr

PORT Aft ~~GENERATOR~~ 60-80 AFT Gen. Area - 60 μR/hr

PENetration generAL AreA #56 (WALL on PORT SIDE) - 80 μR/hr

PORT SIDE Gen. AreA - 60-80 μR/hr

SMEAR RESULTS ~~IN DPM/100 CM²~~ ~~B = BETA in mRAD/hr/100 CM²~~

NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN μrem/hr

RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

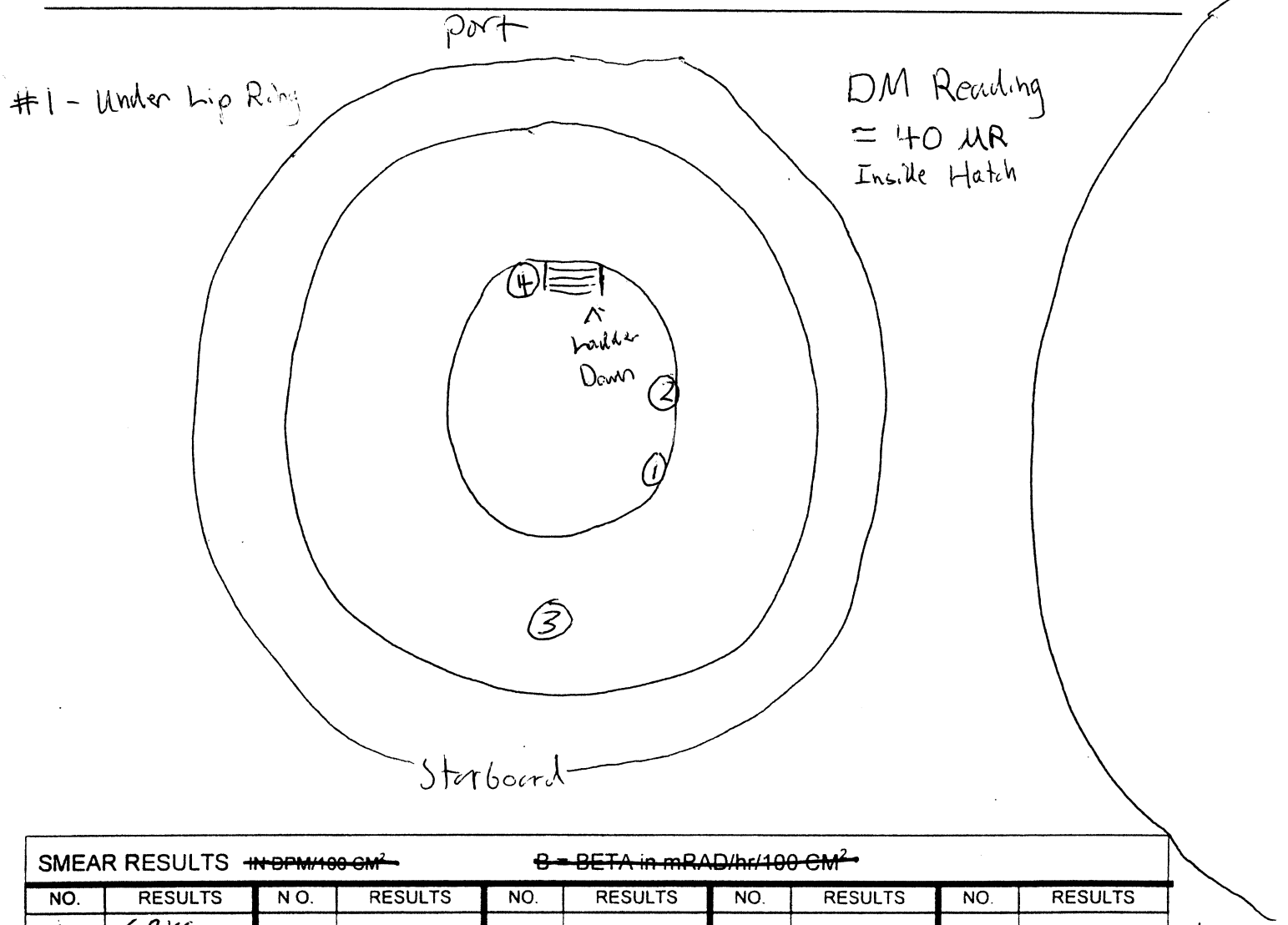
N.S. SAVANNAH
RADIOLOGICAL SURVEY

NSS-01 SURVEY NO. NSS-0077

Date 4/11/05 Time 8:45	DOSE RATE	CONTAMINATION	
Surveyor Ben Scott	Inst. Type Ludlum 14	Beta ✓ Alpha ____	Beta ____ Alpha ____
Signature [signature]	Serial No. 95499	Inst.Sn 97416	
Reviewed [signature]	β⁻Factor ✓	Eff. 10%	
		Bkg. 30 cpm	cpm

AREA Primary Cont. Hatch (Lower) - Upper hatch to Primary containment - Lower hatch still sealed at this point

COMPONENT



SMEAR RESULTS ~~IN DPM/100 CM²~~ ~~B = BETA in mRAD/hr/100 CM²~~

NO.	RESULTS	N O.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS
1	< BKG								
2	< BKG								
3	< BKG								
4	< BKG								

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN μrem/hr

RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

N.S. SAVANNAH
RADIOLOGICAL SURVEY

NSS-01 SURVEY NO. NSS-0078

Date 4/11/05 Time	DOSE RATE	CONTAMINATION	
Surveyor J. Bowen	Inst. Type	Beta____ Alpha____	Beta____Alpha____
Signature J.W.B.	Serial No.	Inst.Sn	
Reviewed	β⁻Factor	Eff.	
		Bkg. cpm	cpm

AREA PRIMARY CONTAINMENT 1ST LEVEL (Preliminary)

COMPONENT

Upon 1st Entry - General Location Smears - No MAP - Perform Rough Assessment - Detail survey will follow.

JWB

#11 250dpm
#15 96dpm — < 1000dpm/100cm²

SMEAR RESULTS ~~N = DPM/100 CM²~~ ~~B = BETA in mRAD/hr/100 CM²~~

NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS
1	<BKGD	9	<BKG						
2	<BKGD	10	<BKG						
3	<BKGD	11	47 cts						
4	<BKG	12	<BKG						
5	<BKG	13	<BKG						
6	<BKG	14	<BKG						
7	<BKG	15	~~<BKG~~ 31cts						
8	<BKG								

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN µrem/hr

RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

N.S. SAVANNAH
RADIOLOGICAL SURVEY

NSS-01 SURVEY NO. NSS-6079

Date 4-14-05 Time 9 AM	DOSE RATE	CONTAMINATION	
Surveyor R. ST PENNOCK	Inst. Type N/A	Beta____ Alpha____	Beta____Alpha____
Signature R. St Pennock	Serial No.	Inst.Sn (See Below)	
Reviewed [illegible]	β⁻Factor	Eff.	
		Bkg. cpm	cpm

AREA PRIMARY CONTAINMENT 1ST LEVEL FORWARD

COMPONENT RB SURROUNDING SUSPECT AREAS From Survey Number:

Counter # 1 102001
Beff 25.2%
2 160019
Beff 20.8%

1X - TOP OF PRESSURIZER

1 LARGE VALVES OFF OF PRESS. LINE TO REACTOR
2 MEDIUM SIZE VALVES TO RT OF PRESSURIZER
3 CONTAMINATED VALVING ON FLOOR
4 SS LINES & VALVES TO RT OF PRESS.
5 FLOOR
6 PRESSURIZER LINES LEFT OF PRESS.

1B - PRESSURIZER AT PIPE 6 TO RT OF TOP
2B - " PIPE 2 RT OF PRES.
3B FLOOR RT OF CONTAMINATED AREA
4B " LT OF " "
5B " LT OF PRESSURIZER

XRAD

Sample #	Counter	gross counts	gross cpm	BKG cpm	Net cpm	dpm / 100 cm²
1X	2	52	104	42	62	298
3	1	50	100	37	63	250
4	2	68	136	42	94	452
5	1	171	342	37	305	1210

Smear #5
1-hour Count
α activity =
2.8 dpm/100cm²
Smear #4
< MDA

4-14 Smear # 5 (Floor) α = 77, B = 23067 Smear #4 (ss lines) α = 19, B = 6701

10 minute
2:01

SMEAR RESULTS ~~IN DPM/100 CM²~~ ~~B = BETA in mRAD/hr/100 CM²~~

NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS
1X	52 (2*)	1A	< BKG	9A	< BKG	1B	< BKG		
1	< BKG	2A	< BKG	10A	< BKG ** JMS	2B	< BKG		
2	< BKG	3A	< BKG			3B	< BKG		
3	50 (1)	4A	< BKG			4B	< BKG		
4	68 (2)	5A	< BKG			5B	< BKG		
5	171 (1)	6A	< BKG ** JMS						
6	< BKG	7A	< BKG						
XRAD		8A	< BKG						

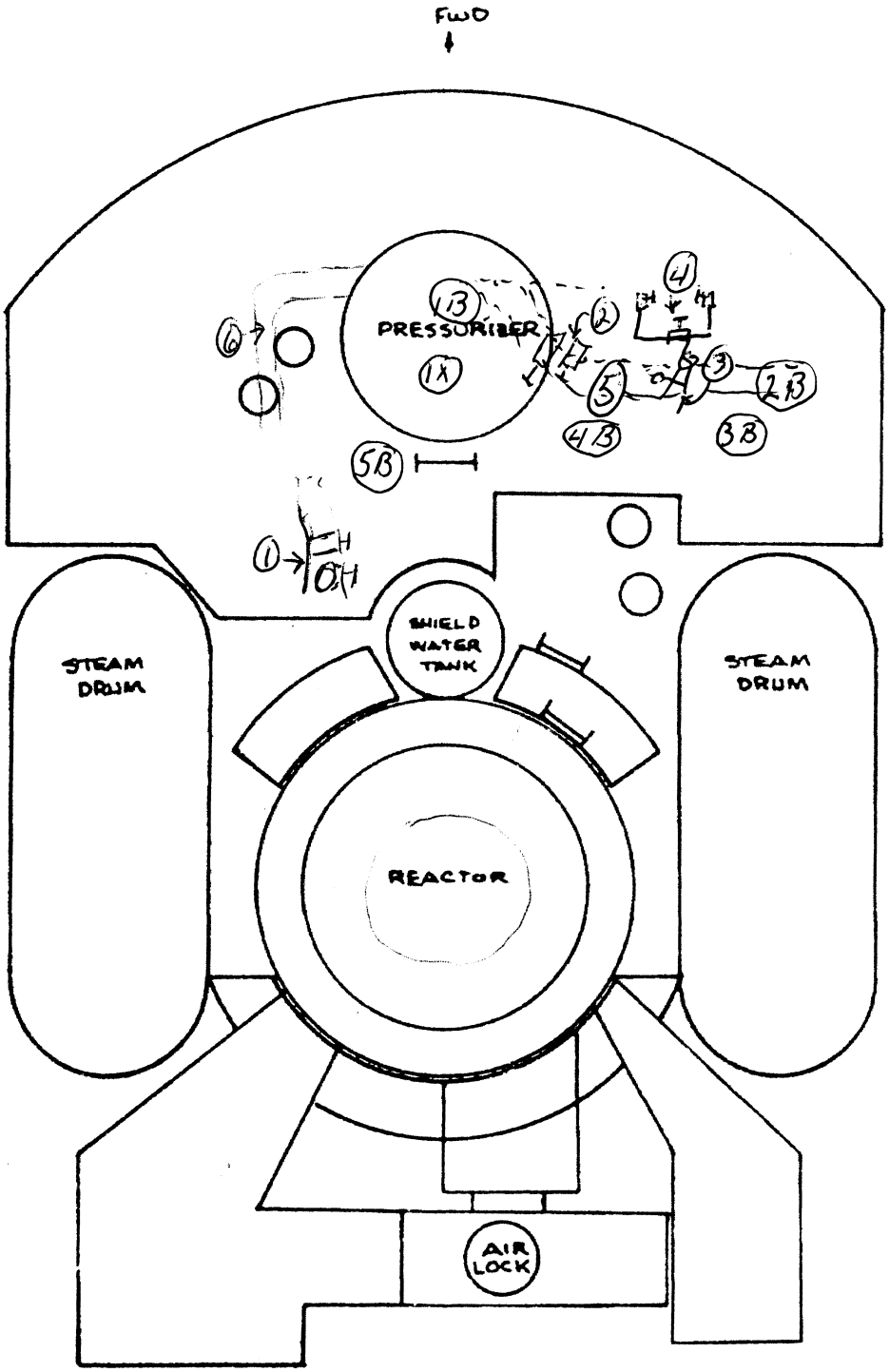
RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN µrem/hr

RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA ** - See U-tube smear data JMS

* Instrument (Counter) # 1

Inst. Type:	Ser. No.:
Probe:	Cal. Date:

CONTAINMENT VESSEL
1ST LEVEL



CONTAINMENT VESSEL

N.S. SAVANNAH
RADIOLOGICAL SURVEY

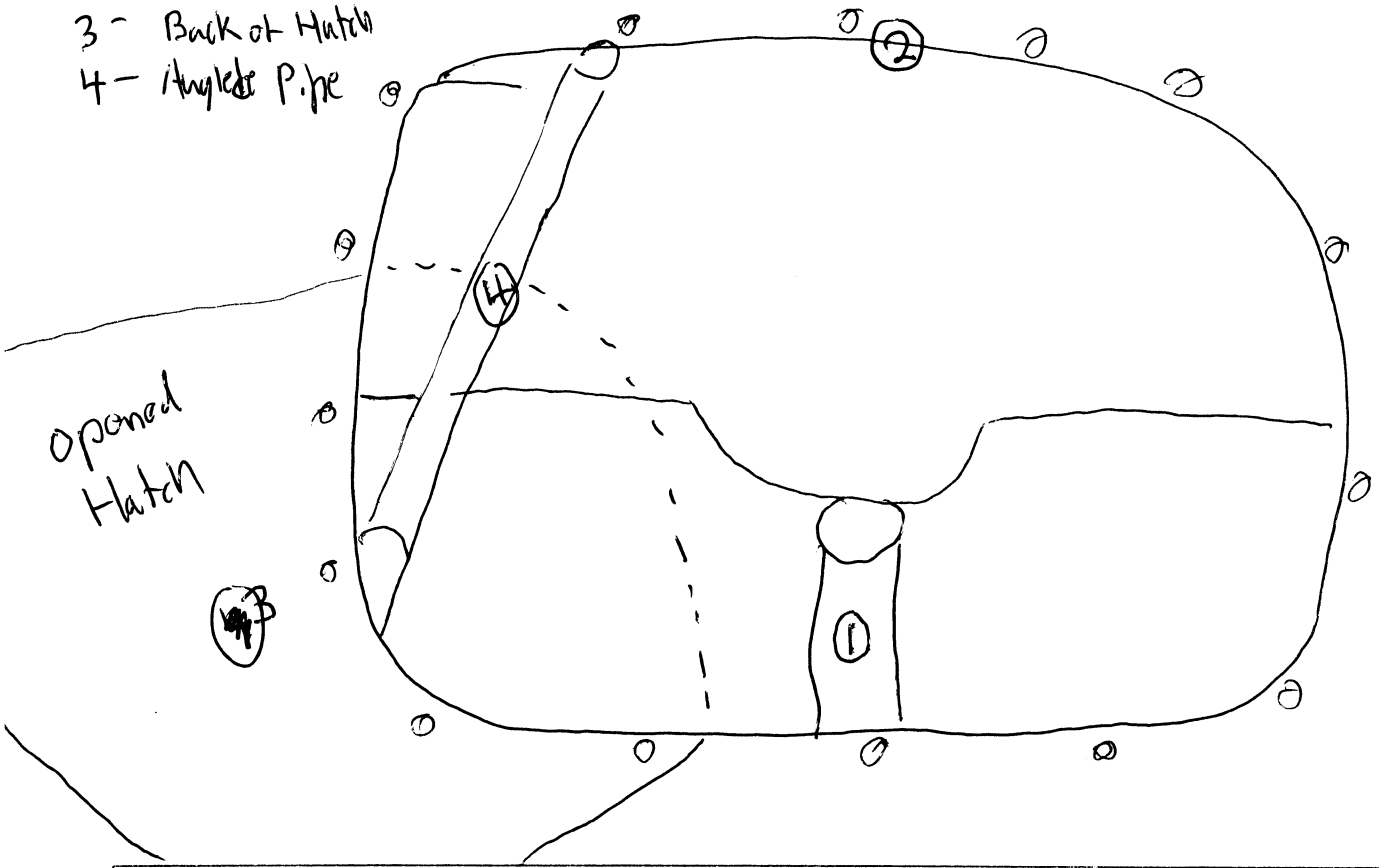
NSS-01 SURVEY NO. NSS-0080

Date 04/06/05 Time 2:00	DOSE RATE	CONTAMINATION	
Surveyor Ben Scott	Inst. Type	Beta____ Alpha____	Beta____Alpha____
Signature	Serial No. N/A	Inst.Sn N/A	
Reviewed	β⁻Factor	Eff.	
		Bkg. cpm	cpm

AREA Steam Cond. Hatch (Engine Room)

COMPONENT

1 - Cross Pipe
2 - Hatch Wall
3 - Back of Hatch
4 - Unlabeled Pipe



SMEAR RESULTS ~~IN DPM/100 CM²~~ ~~B = BETA in mRAD/hr/100 CM²~~

NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS
1	<BKG								
2	<BKG								
3	<BKG								
4	<BKG								

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN μrem/hr

RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

N.S. SAVANNAH
RADIOLOGICAL SURVEY

NSS-01 SURVEY NO. NSS-0081

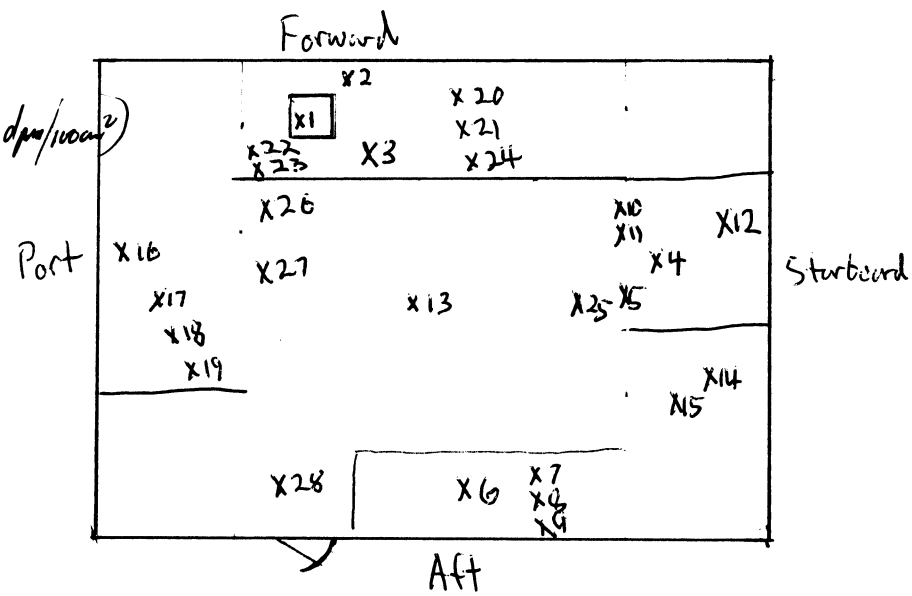
Date 4/11/05 Time 1100 Am	DOSE RATE	CONTAMINATION	
Surveyor JAMES LOVEDAHL	Inst. Type LUDLUM	Beta ✓ Alpha ____	Beta ____ Alpha ____
Signature [signature]	Serial No. 95469	Inst.Sn 97416	
Reviewed [signature]	β⁻Factor	Eff. 10%	
	~~3uR~~ 3uR/hr	Bkg. 30 cpm	cpm

AREA "D" DECK HOT CHEM LAB AT CONTROL ROOM

COMPONENT Seal # 7603

SWIPES

#1 Sink
#2 Inside Collection tank (waste) (369 dpm/100cm²)
#3 Top of countertop
#4 Inside Hood
#5 Outside Hood Door
#6 Aft countertop
#7 1st Shelf inside Aft Countertop
#8 2ND Shelf inside Aft Countertop
#9 Bottom shelf " "
#10 Top Shelf under Hood
#11 Bottom " "
#12 Hood Vent
#13 Overhead Vent
#14 Shelf Aft of Hood (top)
#15 " "(Bottom)
#16 Port Top Shelf
#17 Port Top of Cabinet
#18 Middle Shelf Port Side



#19 Bottom Shelf Port
#20 Top Shelf Forward
#21 Middle Shelf Forward
#22 Drain under sample sink
#23 Bottom shelf under sink — (346 dpm/100 cm²)
#24 Bottom Shelf Forward
#25 Floor infront of Hood
#26 Floor infront of Sample Sink
#27 Deck Drain
#28 Floor infront of Door
#29 Light Switch
#30 Inside Door knob

DM Readings < BKG

SMEAR RESULTS ~~IN DPM/100 CM²~~ IN cp.5m B = ~~BETA in mRAD/hr/100 CM²~~

NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS
1	<BKG	9	<BKG	17	<BKG	25	<BKG		
2	65cts	10	<BKG	18	<BKG	26	<BKG		
3	<BKG	11	<BKG	19	<BKG	27	<BKG		
4	<BKG	12	<BKG	20	<BKG	28	<BKG		
5	<BKG	13	<BKG	21	<BKG	29	<BKG		
6	<BKG	14	<BKG	22	<BKG	30	<BKG		
7	<BKG	15	<BKG	23	57cts				
8	<BKG	16	<BKG	24	<BKG				

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN µrem/hr
RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

Smear #	Ct	Cpm	Bkgd	Net cts	dpm/100 cm²
2	65	130	37	93	369
23	57	114	42	72	341

N.S. SAVANNAH
RADIOLOGICAL SURVEY

NSS-01 SURVEY NO. NSS-0082

Date 4-12-05 Time 1000	DOSE RATE	CONTAMINATION	
Surveyor BOWEN SCOTT	Inst. Type Tele	Beta____ Alpha____	Beta____ Alpha____
Signature [signature]	Serial No. Detector	Inst.Sn	
Reviewed [signature]	β⁻Factor 28991	Eff.	
		Bkg. cpm	cpm

AREA PRIMARY

COMPONENT CONTAINMENT VESSEL ~~3RD~~ 4TH LEVEL

SEE DRAWING.

* SMEARS FROM CONTAINMENT - 1st LVL AFT. DATA MOVED TO APPROPRIATE SURVEY

SMEAR RESULTS ~~IN DPM/100 CM²~~ ~~B = BETA in mRAD/hr/100 CM²~~

NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS
1A	<BKG	~~9A~~	~~<BKG~~ *	6	<BKG				
2A	<BKG	10A	~~<BKG~~	7	<BKG				
3A	<BKG			8	<BKG				
4A	<BKG	1	<BKG	9	<BKG				
~~5A~~	<BKG	2	<BKG	10	<BKG				
6A	<BKG	3	<BKG						
7A	~~<BKG~~ *	4	<BKG						
8A	<BKG	5	<BKG						

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN μrem/hr

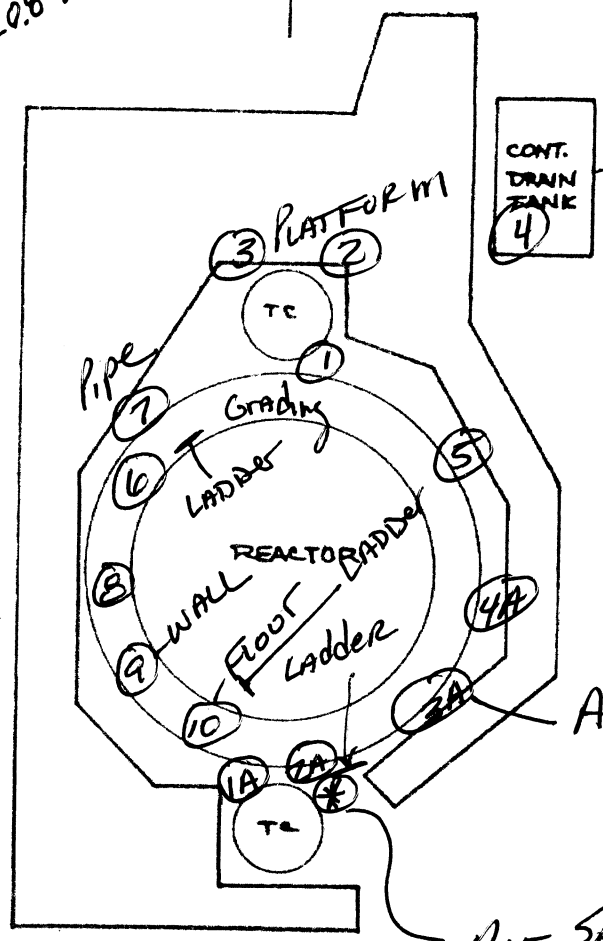
RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

CONTAINMENT VESSEL
4th LEVEL

Gen. Area - 4th Level 1-3 mr/hr

FWD

O2 Level is 20.4 to 20.8%



~~TSC-ND-127~~

N.S. SAVANNAH
RADIOLOGICAL SURVEY

NSS-01 SURVEY NO. NSS-0083

Date 4-12-05 Time 1000	DOSE RATE	CONTAMINATION	
Surveyor Bowen Scott	Inst. Type TELE	Beta____ Alpha____	Beta____Alpha____
Signature B.W.S.	Serial No. Detector	Inst.Sn N/A	
Reviewed Robert Kennedy	β⁻Factor 28991	Eff.	
		Bkg. cpm	cpm

AREA Containment Vessel / 1st Level / Primary

COMPONENT

SEE ATTACHED DRAWING

μR/hr METER SN 95469

SMEAR RESULTS ~~IN DPM/100 CM²~~ ~~B = BETA in mRAD/hr/100 CM²~~

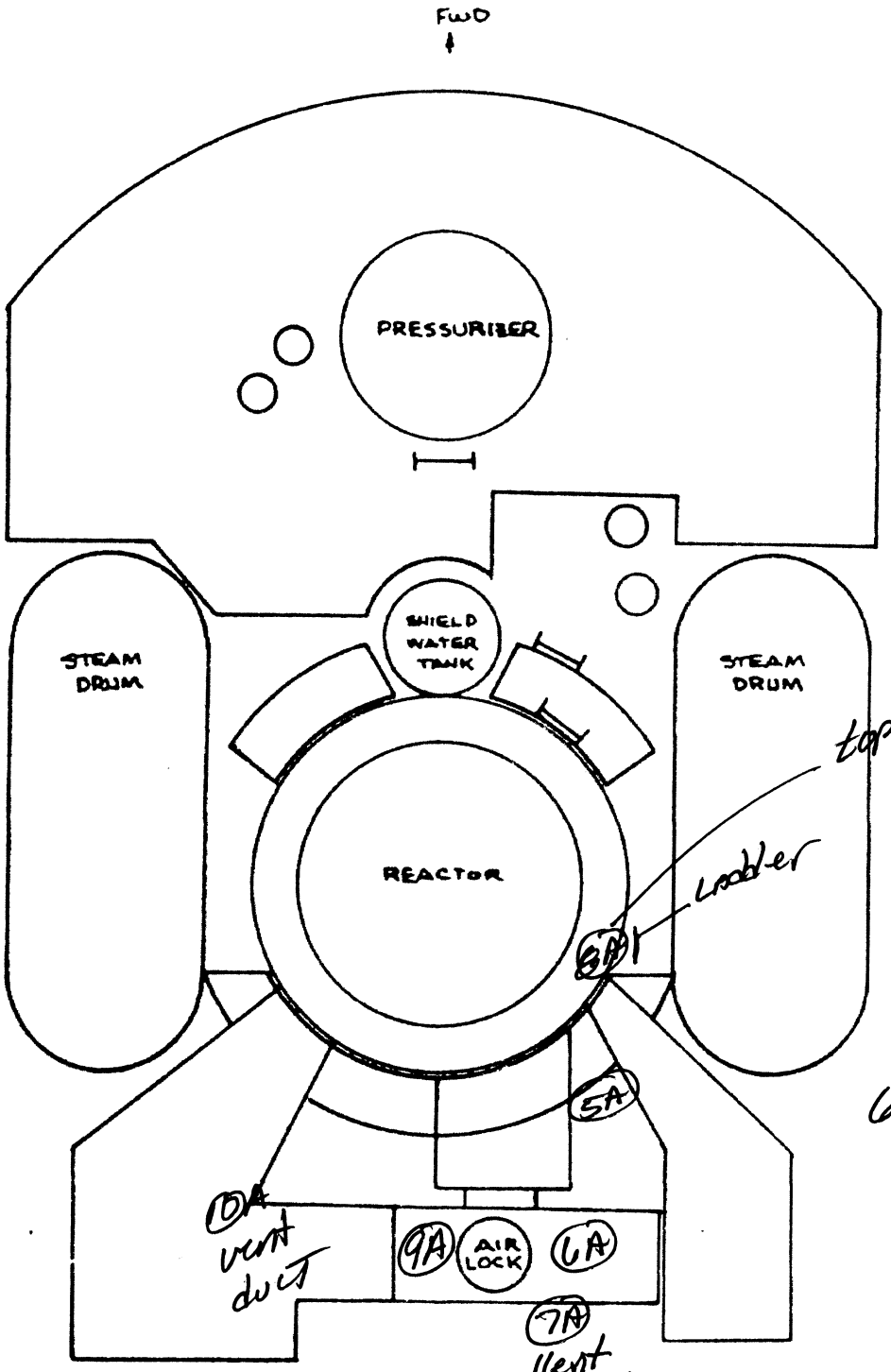
NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS
5A	< BKG								
6A	< BKG								
7A	< BKG								
8A	< BKG								
9A	< BKG								
10A	< BKG								

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN μrem/hr

RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

Probe:	Cal. Date:

CONTAINMENT VESSEL
1ST LEVEL



Gen. Area
600 - 800 μr/hr

~~CONTAINMENT VESSEL~~
~~3RD LEVEL~~

N.S. SAVANNAH
RADIOLOGICAL SURVEY

NSS-01 SURVEY NO. NSS-0084

Date 4-12-05 Time 1000 Hrs	DOSE RATE	CONTAMINATION	
Surveyor JOWEN SCOTT	Inst. Type tele detector	Beta____ Alpha____	Beta____Alpha____
Signature Jowen Scott	Serial No. 28991	Inst.Sn	
Reviewed Robert E Kennedy	β⁻ Factor	Eff.	
		Bkg. cpm	cpm

AREA Primary Containment - 2nd Level

COMPONENT

SEE ATTACHED DRAWING

SMEAR RESULTS ~~IN DPM/100 CM²~~ ~~B = BETA in mRAD/hr/100 CM²~~

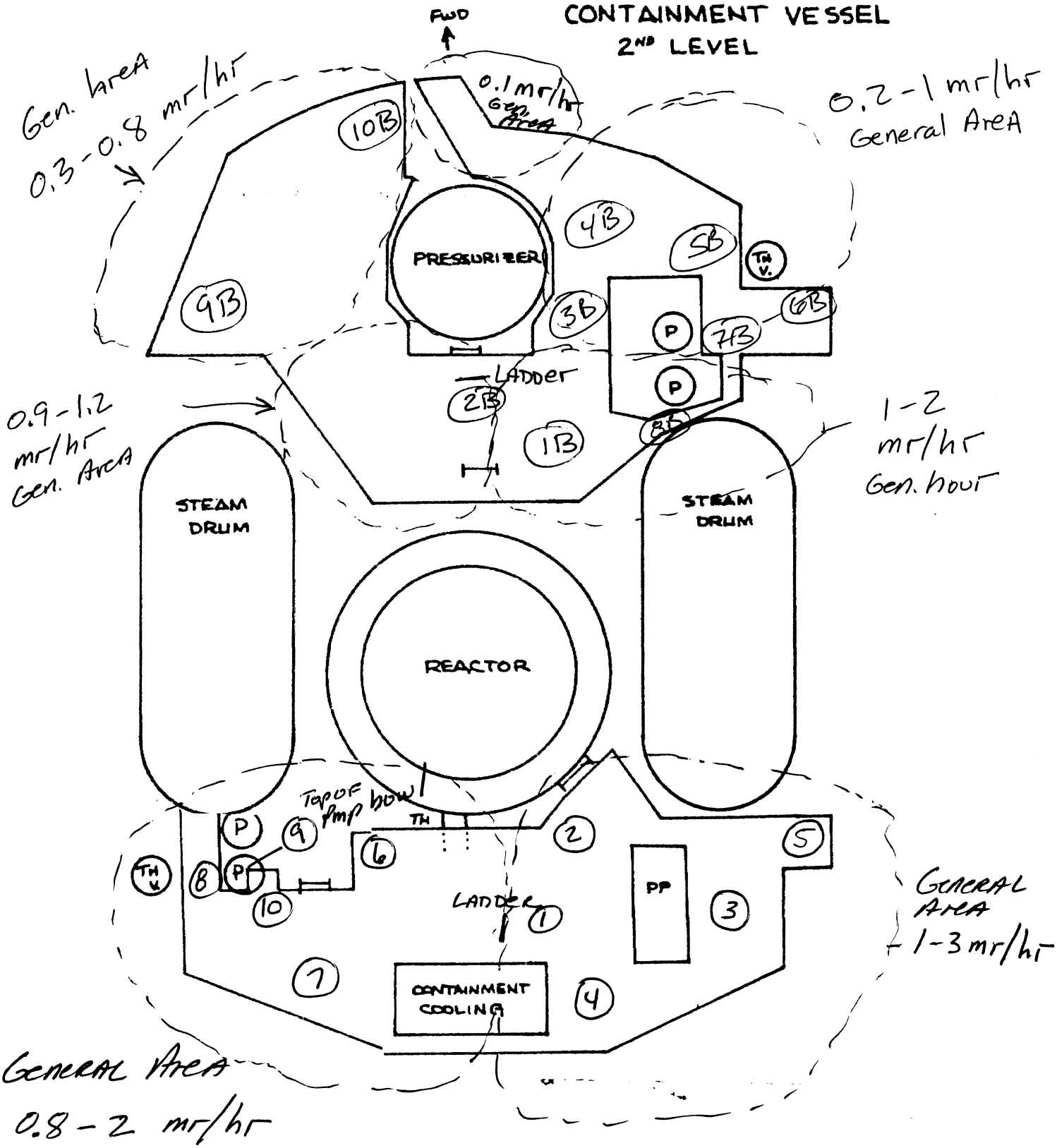
NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS
1	< BKG	9	< BKG	~~1~~ 1B	< BKG	9B	< BKG		
2	< BKG	10	< BKG	2B	< BKG	10B	< BKG		
3	< BKG			3B	< BKG				
4	< BKG			4B	< BKG				
5	< BKG			5B	< BKG				
6	< BKG			6B	< BKG				
7	< BKG			7B	< BKG				
8	< BKG			8B	< BKG				

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN µrem/hr

RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

Containment Vessel Survey

Scaler:	Bgr: c/m
Eff.: %	Eff. Date:



N.S. SAVANNAH
RADIOLOGICAL SURVEY

NSS-01 SURVEY NO. NSS-0095

Date 4-12 Time 10:00	DOSE RATE	CONTAMINATION	
Surveyor Bowen, Scott	Inst. Type Telefactor	Beta____ Alpha____	Beta____ Alpha____
Signature [signature]	Serial No. Detector	Inst.Sn	
Reviewed [signature]	~~β Factor~~ 28991	Eff.	
		Bkg. cpm	cpm

AREA Primary Containment

COMPONENT 3rd level Vessel Containment

SEE ATTACHED MAP

SMEAR
10A = 273 dpm/100cm²
7 = 269 dpm/100cm²

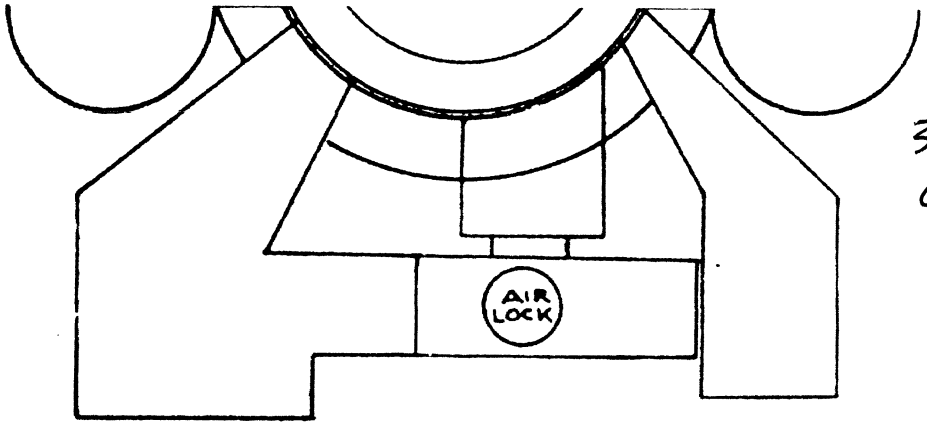
SMEAR RESULTS ~~IN DPM/100 CM²~~ ~~B = BETA in mRAD/hr/100 CM²~~

NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS
1A	< BKG	9A	< BKG	1	< BKG	9	< BKG		
2A	< BKG	10A	*53 ct (106 cpm)	2	< BKG	10	< BKG		
3A	< BKG			3	< BKG				
4A	< BKG			4	< BKG				
5A	< BKG			5	< BKG				
6A	< BKG			6	< BKG				
7A	< BKG			7	*49 (98 cpm)				
8A	< BKG			8	< BKG				

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN μrem/hr

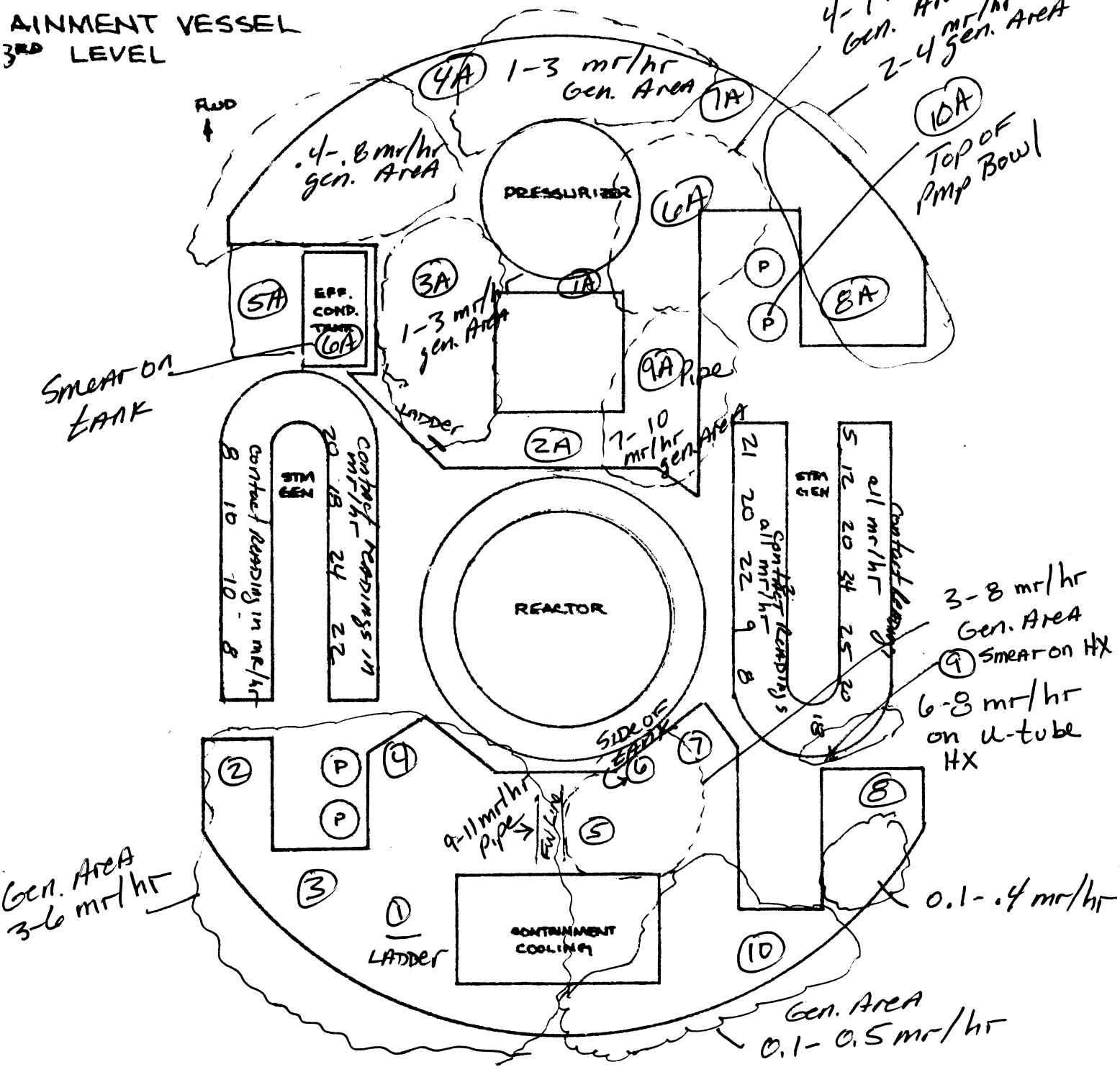
RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

* Smears 10A & 7 retained



3rd Level Containment

AINMENT VESSEL
3RD LEVEL



N.S. SAVANNAH
RADIOLOGICAL SURVEY

NSS-01 SURVEY NO. NSS-008 ~~X~~ 6

Date 4/12/05 Time	DOSE RATE	CONTAMINATION	
Surveyor Ben Scott	Inst. Type 42972	Beta ✓ Alpha ____	Beta ____ Alpha ____
Signature [signature]	Serial No. Ludlum 19	Inst.Sn 91037	
Reviewed [signature]	β Factor —	Eff. 10%	
	BKG 4 MR/H	Bkg. 40 cpm	✓ cpm

AREA Charge Pumps 1-3

COMPONENT

Charge Pump #2 STBD.

#1 Floor
#2 Top of Catch Tank
#3 Floor
#4 Controls for Sump Pump (Aft)
#5 Large Valve (Pump SL-P1 Suct. SL-1V)
#6 Large Machine (Worthington)
#7 Controls for Sump Pump (Forward)
#8 Large Metal Bell with Large Bolts
#9 Controls for Waste Dilution Pump
#10 Floor
#11 Floor
#12 Flow Gages

* up against Charge Pump - D. Meter was 180 MR/H / FSKR was 280 CPM

Charge Pump # 1 & 3 Port.

#1 Floor
2 Primary Gate Valve Control
3 main feed H2O Control
4 floor
5 floor
6 walkway deck @ motor
7 - Floor btw motors
8 - floor btw chg. Pumps
9 top of Elec Motor chg Pump #3
10 Housing btw Elec motor & chg Pump
11 Charge Pump #3
12 top of Elec Motor chg Pump #1
13 Housing btw motor & chg Pump #1
14 chg Pump #1
15 - Catch tank
16 - main feed Pump controls. #2
17 - main feed pump control #1

* Up against Charge Pumps - D. Meter was around 180 MR/H / FSKR was 280 CPM

STB Chg Pump Rm

< BKG / FSKR < 100 CPM (General)

Port chg Room Pairs

< BKG / FSKR < 100 CPM (General)

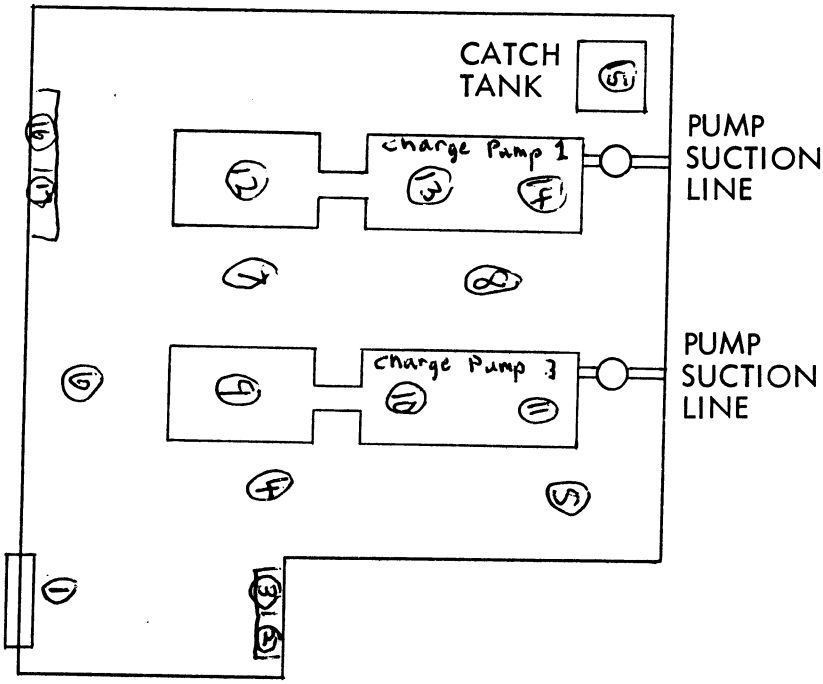
SMEAR RESULTS ~~IN DPM/100 CM²~~ ~~B – BETA in mRAD/hr/100 CM²~~

NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS
1	<BKG	9	<BKG			1	<BKG	9	<BKG
2	<BKG	10	<BKG			2	<BKG	10	<BKG
3	<BKG	11	<BKG			3	<BKG	11	<BKG
4	<BKG	12	<BKG			4	<BKG	12	<BKG
5	<BKG					5	<BKG	13	<BKG
6	<BKG					6	<BKG	14	<BKG
7	<BKG					7	<BKG	15	<BKG
8	<BKG					8	<BKG	16	<BKG
								17	<BKG

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN μrem/hr

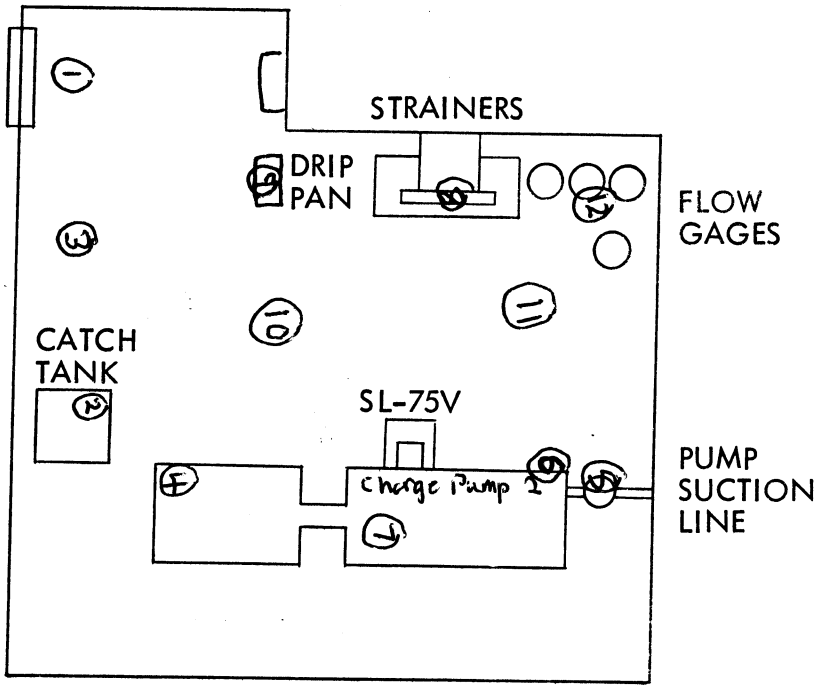
RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

PORT
CHARGE PUMP



FORWARD

STBD
CHARGE PUMP



N.S. SAVANNAH
RADIOLOGICAL SURVEY

NSS-01 SURVEY NO. NSS-0087

Date 4-13-04 Time 9:15 AM	DOSE RATE	CONTAMINATION	
Surveyor Robt Pennock	Inst. Type μ Rmeter	Beta____ Alpha____	Beta____ Alpha____
Signature [signature]	Serial No. 95469	Inst.Sn N/A (see Below)	
Reviewed [signature]	β⁻Factor	Eff.	
	BKG 2 μR/hr	Bkg. cpm	cpm

AREA Primary Containment - 1st Level
OVER REACTOR & FOWARD

Contamination ~~COMPONENT~~ Ludlum 2929 #2 SN 160019 EFF .208
Inst. BKG 42 cpm 30 sec counts

SEE ATTACHED DRAWING

TELETECTOR
28991

RECOUNT FOR ALPHA
4-14-05
10 min count (ctr #2)

			dpm/100cm²
6	α = 2ct (0.2cpm)	β = 1838 (184)	683
6A	α = 2ct (0.2cpm)	β = 1153 (115)	351
8A	α = 1ct (0.1cpm)	β = 1140 (114)	346
9A	α = 1ct (0.1cpm)	β = 2061 (206)	788

All Count Rates < MDA
< 3.81 dpm

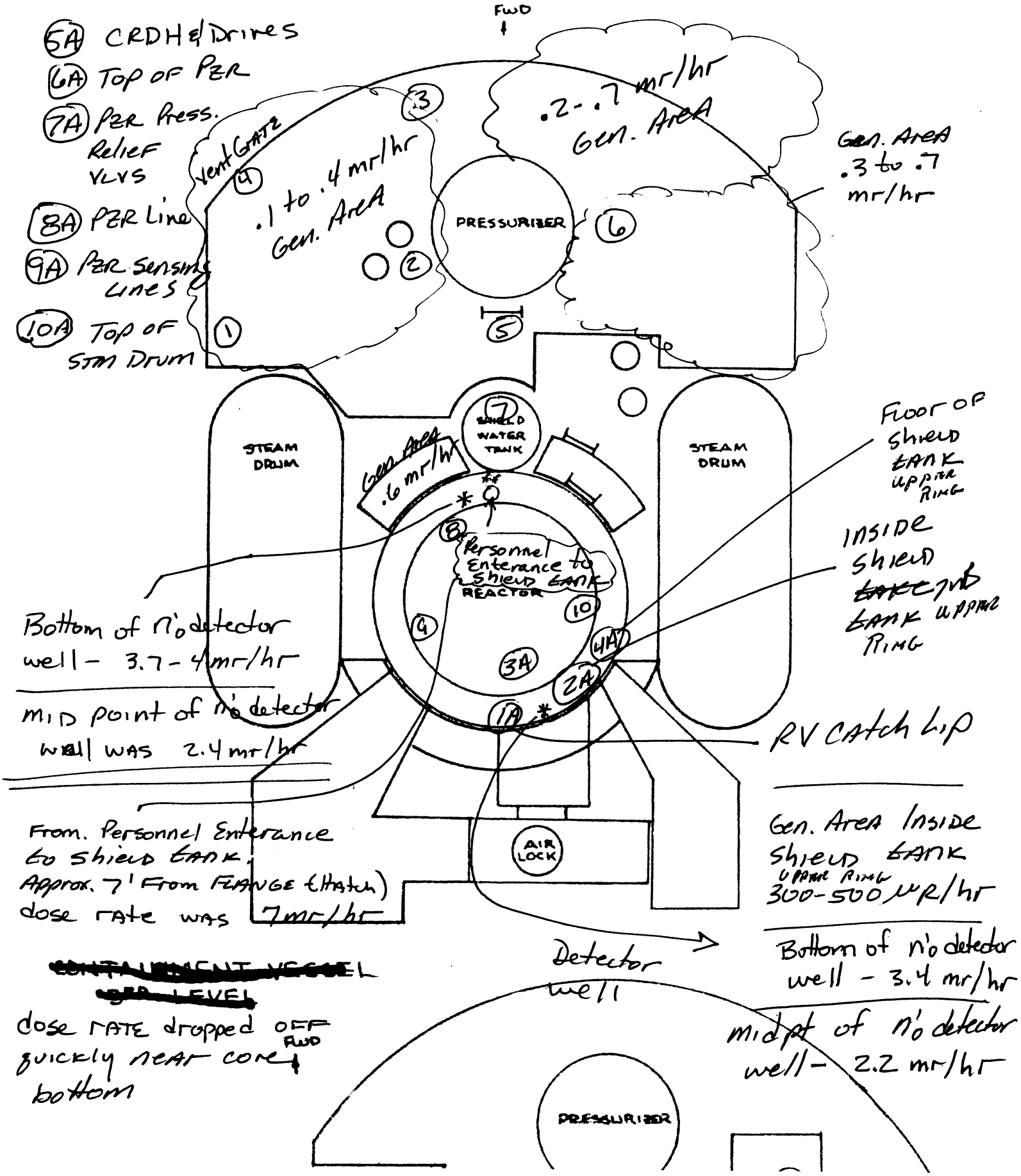
4 = 173 dpm/100 cm²
6 = 615 dpm/100 cm²
6A = 490 dpm/100 cm²
8A = 327 dpm/100 cm²
9A = 884 dpm/100 cm²
10A = 106 dpm/100 cm²

Gross Counts/30 Sec

SMEAR RESULTS IN ~~DPM/100 CM²~~ RGP cpm ~~B = BETA in mRAD/hr/100 CM²~~

NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS	NO.	RESULTS
1	<BKG	9	<BKG	1A	<BKG	9A	113		
2	<BKG	10	<BKG	2A	<BKG	10A	32		
3	<BKG			3A	<BKG				
4	39			4A	<BKG				
5	<BKG			5A	<BKG				
6	85			6A	72				
7	<BKG			7A	<BKG				
8	<BKG			8A	55				

RA – RADIATION AREA CA – CONTAMINATION AREA ALL DOSE RATES IN μrem/hr

RCA – RADIATION CONTROL AREA AA – AIRBORNE AREA

CONTAINMENT VESSEL
1ST LEVEL