Tritium Laboratory
15 February 2010

SWAB REPORT # 540

SWAB DATE: 8 February 2010

R/V *New Horizon*

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Distribution:
SWAB Committee
SCRIPPS SWAB Committee
Gary Lain

REPORT FOR SWAB # 540

LOCATION: San Diego, CA
TECHNICIAN: Cecilia Roig
VESSEL/LAB: R/V *New Horizon*

DATE: 8 February 2010
STATUS: See Comments

SAMPLE #	SAMPLE IDENTIFICATION	NET ACTIVITY EXTRACTED ^{3}H dpm/m^2	^{14}C dpm/m^2	
1	1st Machine blank	0	0	
2	Initial bucket blank	13	18	
	<u>Main Lab - See Figure</u>			
3	Torrey freezer frost	16	33	
4	Upright freezer frost	0	43	
5	Inside refrigerator bottom	6	5	
6	Sink area	0	57	*
7	Deck in front of sink	0	44	
8	Benchtop forward	0	0	
9	Top of Torrey freezer	0	37	
10	Benchtop mid	0	50	*
11	Deck at entrance to ocean lab	0	7	
17	Benchtop aft	0	4	
18	Benchtop starboard	0	5	
	<u>Ocean Lab - See Figure</u>			
12	Sink Area	0	19	
13	Benchtop aft of sink	4	21	
14	Benchtop middle	0	2	
15	Sink area	0	28	
16	Deck at entrance to stairwell	0	12	
19	Benchtop forward of sink	0	0	
20	Sink area	0	23	
21	Inside fume hood	0	30	
22	Deck in front of sink	0	10	
	<u>Wet Lab - See Figure</u>			
23	Sink area	0	36	
24	Benchtop stbd. of sink	0	38	
25	Deck under sink	21	50	*
26	Deck at entrance to main lab	3	1	
27	Benchtop forward	0	25	

SAMPLE #	SAMPLE IDENTIFICATION	NET ACTIVITY EXTRACTED ^{3}H dpm/m^2	^{14}C dpm/m^2
28	Scientific freezer benchtop	0	19
29	Scientific freezer floor	4	43
	Upper Lab - See Figure		
30	Minus 80 freezer	84	0
31	Sink area	0	0
32	Deck at aft entrance	0	27
33	Deck at forward entrance	0	0
34	Final bucket blank	0	0

Comments

All areas tested on the ship were free of tritium contamination. Minor ^{14}C contamination was four in samples #6, #10, and #25. These areas needs cleaning before natural tracer work.

Take note that this SWAB test was counted on our new Tri-Carb 2910 TR LSC. This LSC with the low-level option has significantly lower background values compared to our old Wallac 1415 LSC. The implications of this lower background is that samples with values of zero on the Wallac may show small positive results on the Tri-Carb, especially for ^{14}C. A copy of the of the activity from the same samples counted on the old Wallac LSC is included.

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