

Tritium Laboratory
22 December 2010

SWAB REPORT # 568

SWAB DATE: 16 December 2010

R/V Hugh Sharp

James D. Happell

Distribution:
SWAB Committee
Timothy Deering

REPORT FOR SWAB # 568

LOCATION: Lewes, DE
VESSEL/LAB: R/V Hugh Sharp

DATE: 16 December 2010
TECHNICIAN: Charlene Grall

Sample #	Sample Identification	³ H dpm/m ²		¹⁴ C dpm/m ²	
		activity	error	activity	error
1	1st Vial Bkgnd	0	± 0	0	± 0
2	Initial bucket blank	0	± 0	21	± 35
<u>Main Lab (See Figure 1)</u>					
3	Inside Whirlpool freezer top	0	± 0	21	± 2
4	Inside Whirlpool refrigerator bottom	1	± 0	*69	± 0
5	Inside Holiday freezer	0	± 0	29	± 0
6	Deck in front of Whirlpool refrigerator	5	± 6	31	± 1
7	Benchtop across from -80 freezer	1	± 1	*51	± 36
8	Benchtop adjacent to sink	1	± 4	33	± 35
9	Middle stbd benchtop	26	± 35	25	± 33
10	Deck at aft entrance	13	± 14	*70	± 36
11	Deck in center of lab	20	± 28	34	± 34
12	Deck at stbd entrance	171	± 54	42	± 30
<u>Wet Lab (See Figure 1)</u>					
13	Wetlab Inside Holiday freezer	30	± 35	30	± 34
14	Inside Roper freezer top	26	± 30	38	± 34
15	Inside Roper refrigerator bottom	0	± 0	46	± 37
16	Fwd stbd benchtop	16	± 25	36	± 35
17	Stbd benchtop next to CTD door	18	± 27	33	± 34
18	Benchtop aft odf stbd sink	0	± 0	33	± 35
19	Aft sink area	0	± 0	38	± 36
20	Deck of vestibule area	11	± 28	18	± 34
21	Deck of vestibule area	15	± 21	49	± 36
<u>General Purpose Van (See Figure 2)</u>					
22	GPVAN Benchtop near single door	0	± 0	19	± 36
23	Benchtop near double doors	0	± 0	29	± 37
24	Sink area	0	± 0	14	± 35
25	Benchtop next to sink	4	± 14	18	± 34
26	Benchtop next to fume hood	0	± 0	43	± 36
27	Inside fume hood	1	± 0	30	± 34
28	Inside freezer bottom	0	± 0	30	± 37
29	Inside refrigerator bottom	0	± 0	37	± 36

Sample #	Sample Identification	³ H dpm/m ²		¹⁴ C dpm/m ²	
		activity	error	activity	error
30	Deck near double doors	35	± 38	25	± 33
31	Deck center of van	53	± 41	35	± 33
32	Deck near single door	51	± 47	15	± 30
<u>Radioisotope Van (See Figure 3)</u>					
33	Deck near double doors	200	± 56	*60	± 31
34	Deck in center of van	273	± 60	*74	± 31
35	Deck near single door	138	± 52	38	± 30
36	Benchtop above refrigerator	38	± 34	41	± 34
37	Inside freezer bottom	55	± 34	*65	± 35
38	Final bucket sample C.O. #1	14	± 33	14	± 33
39	Initial bucket sample C.O. # 2	8	± 42	2	± 28
40	Benchtop adjacent to freezer	46	± 37	37	± 33
41	Benchtop above freezer	0	± 0	*160	± 40
42	Inside refrigerator	*4836	± 199	*130	± 16
43	Inside fume hood	13	± 51	0	± 0
44	Sink area	124	± 51	37	± 30
45	Benchtop next to double doors	9	± 16	39	± 35
46	Final bucket blank C. O. #2	0	± 0	60	± 38

Comments

Please note that the error reported for each isotope is the two-standard deviation counting error. Minor ¹⁴C contamination was detected in three samples in Main Lab, these areas need to be cleaned before any natural tracer work. Minor ³H and ¹⁴C contamination detected in Radioisotope Van, no action required at this time. No contamination detected in the General Purpose Van.

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