



1 May 2012

SWAB REPORT # 625

SWAB DATE: 20 April 2012

R/V Point Sur

James D. Happell

Distribution:
SWAB Committee
Stewart Lamerdin

COMMENTS TO SWAB REPORTS

23 November 2010

Typical LSC instrument background values for ^3H and ^{14}C are 2 and 5 cpm, respectively. The LSC is a Tricarb 2910 TR with the low level counting option.

All samples are counted for 60 minutes, the instrument background is subtracted, and activities are reported in dpm/m^2 . Bucket blank activities are not subtracted. Counting errors (2 standard deviations) are also reported in dpm/m^2 . An error larger than the activity indicates that the activity is not significantly different from zero.

Criteria for SWAB Results

Category	^3H (dpm/m^2)	^{14}C (dpm m^2)	Recommendations
A	<500	<50	No action
B*	500-10,000	50-10,000	Needs cleaning before any natural tracer work. Decks in radiation vans with activities above 1000 dpm/m^2 should be cleaned.
C**	10,000-100,000	10,000-50,000	Must be cleaned before any use.
D***	>100,000	>50,000	May be a health hazard. Notify local radiation safety official.

Note: ^{14}C and ^{35}S have peak energies of 156 and 167 KeV, respectively; thus ^{35}S will be registered as ^{14}C by our counting techniques. Categories A, B and C are not a health hazard.

Recommended Cleaning Procedure

Wearing ordinary household rubber gloves:

^3H : Wash and scrub with radioactive cleanup detergent such as COUNT-OFF (50 ml COUNT-OFF to 4 liters of water), using sponges to distribute solution and reabsorb it.

^{14}C : Wash with 1% sulfuric or 2% hydrochloric (muriatic) acid with good ventilation (will dissolve carbonates, releasing $^{14}\text{CO}_2$). Follow up with wash as if for ^3H .

Disposal of Cleaning Materials (gloves, sponges, etc)

Categories A & B dispose as ordinary garbage, C & D dispose in radiation waste system.

Note: If category C or D is encountered, we try to notify the insitution promptly by phone or email.

REPORT FOR SWAB # 625

LOCATION: Moss Landing, CA
VESSEL/LAB: R/V Point Sur

DATE: 20 April 2012
TECHNICIAN: Cecilia Roig

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	12	± 37
	<u>Main Lab (See Figure 1)</u>				
3	Inside hood	0	± 0	14	± 35
4	Inside Kenmore chest freezer	0	± 0	0	± 0
5	Top of Kenmore chest freezer	0	± 0	8	± 37
6	Inside Maytag freezer top	0	± 0	21	± 34
7	Inside Maytag fridge bottom	0	± 0	8	± 36
8	Deck below fume hood	0	± 0	23	± 35
9	Bench top aft of hood	0	± 0	3	± 40
10	Deck below aft sink	0	± 0	14	± 35
11	Fwd. bench top stbd. of LSC	0	± 0	8	± 48
12	Bench top fwd. of fwd. sink	9	± 53	0	± 0
13	Deck below LSC	4	± 26	7	± 32
14	Deck below fwd. sink	0	± 0	3	± 102
15	Deck below AC unit	0	± 0	0	± 0
16	Deck between Kenmore & Maytag	3	± 0	0	± 0
17	Stbd. center bench top	0	± 0	18	± 34
18	Port center bench top	0	± 0	37	± 35
19	Stbd. bench top	10	± 87	0	± 0
20	Deck at stbd. entrance	10	± 38	3	± 29
21	Deck between stbd. & center benches	16	± 49	0	± 0
22	Bench top aft of fwd sink	0	± 4	10	± 34
23	Aft bench top	27	± 43	4	± 25
	<u>Wet Lab (See Figure 2)</u>				
24	Sink area	0	± 0	16	± 35
25	Deck center of lab	0	± 0	7	± 55
	<u>Main Deck (See Figure 2)</u>				
26	Deck in front of washer	22	± 81	0	± 0
27	Deck center of mess	0	± 0	8	± 35
28	Deck at top of stairs	2	± 30	3	± 32
29	Deck at bottom of stairs	8	± 133	0	± 0

Sample #	Sample Identification	³ H dpm/m ²		¹⁴ C dpm/m ²	
		activity	error	activity	error
30	Deck in center of E-Lab	25	± 89	0	± 0
31	Aft deck port of A-frame	17	± 53	0	± 0
32	Deck at base of stairs to Winch Deck	25	± 50	0	± 0
	<u>Winch Deck (See Figure 2)</u>				
33	Deck aft of winch	0	± 0	7	± 35
34	Final bucket blank	0	± 0	19	± 41

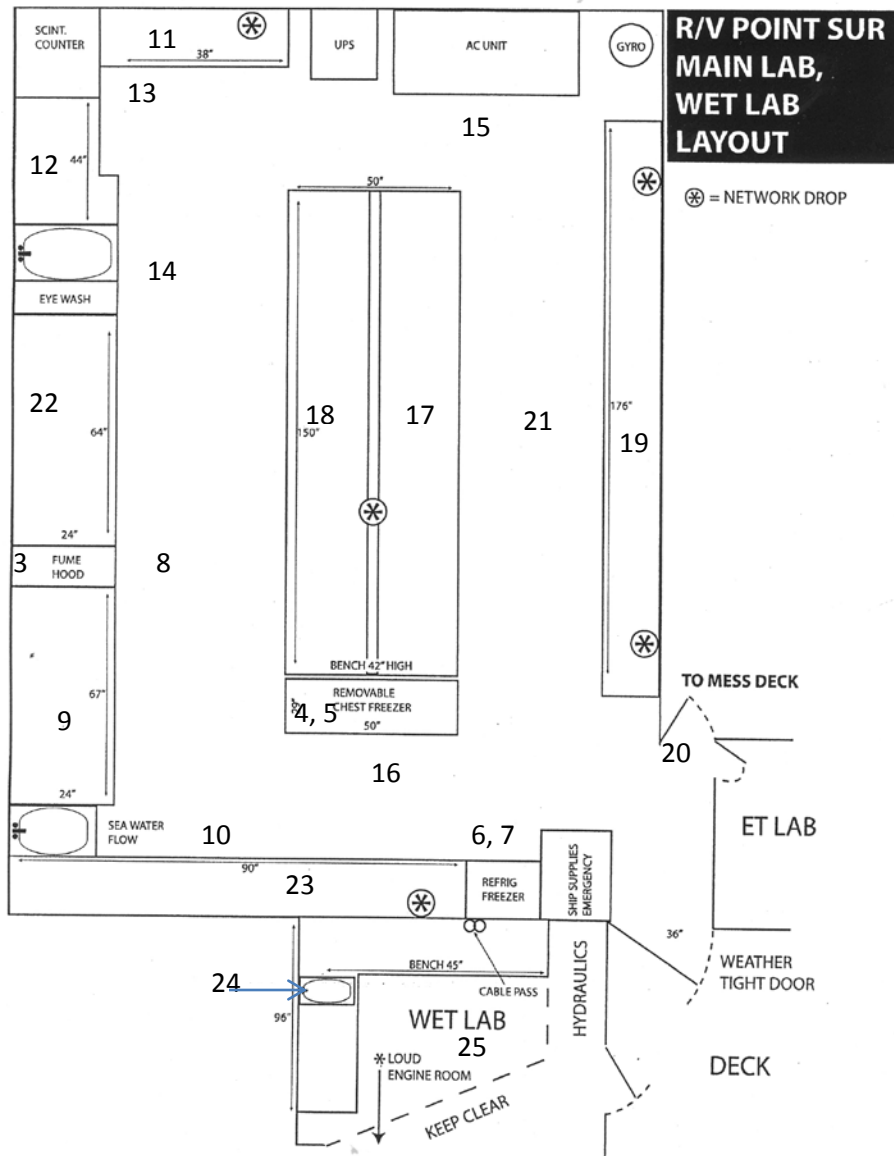
Comments

Please note that the error reported for each isotope is the two-standard deviation counting error. All areas tested on the ship were free from radioisotope contamination.

Figure 1

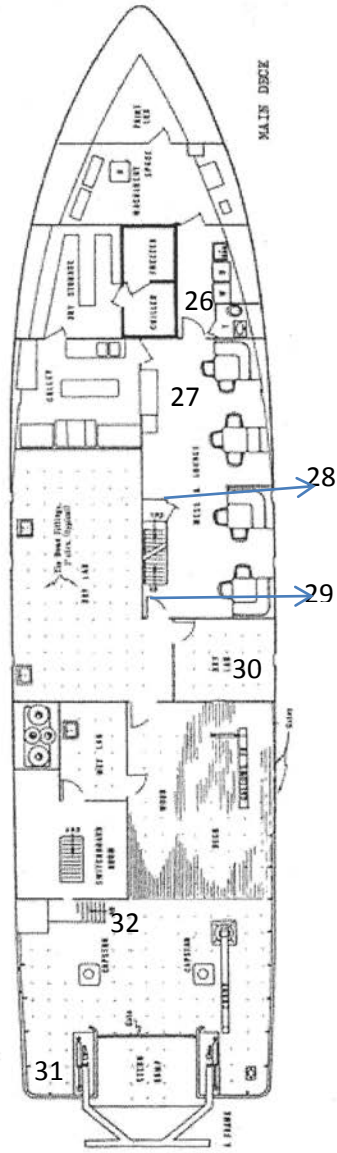
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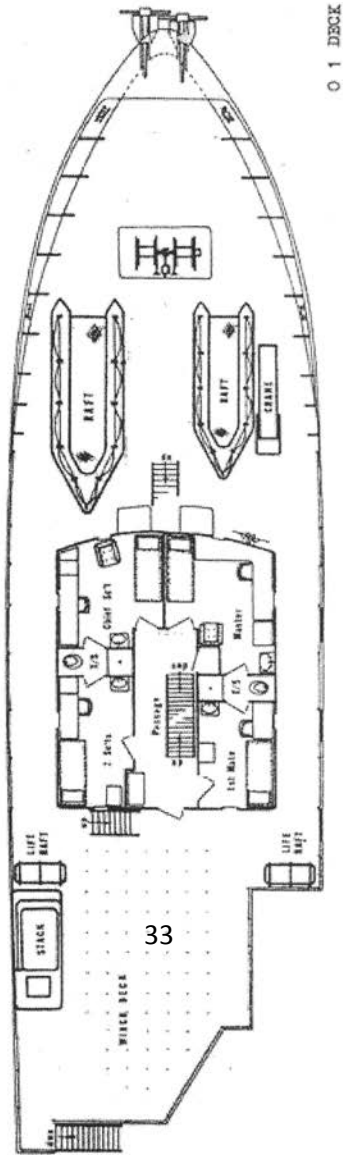
Moss Landing Marine Labs
R/V Point Sur - Main Deck Drawing

MAIN DECK



R/V Point Sur - 01 Deck Drawing

01 DECK



0 1 DECK