



23 February 2026

SWAB REPORT #1138

SWAB DATE: 13 February 2026

*R/V Atlantis & Rad Van #625.6.03*

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Distribution:  
SWAB Committee  
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## COMMENTS TO SWAB REPORTS

15 December 2021

The LSC is now a Quantulus GCT 6220, with the SWAB counting assay having background cpm of 0.3 & 1.2 for  $^3\text{H}$  &  $^{14}\text{C}$ . This replaces an LSC with background cpm of 1.6 & 5.5 for  $^3\text{H}$  &  $^{14}\text{C}$ .

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

### Criteria for SWAB Results

Category	$^3\text{H}$ ( $\text{dpm}/\text{m}^2$ )	$^{14}\text{C}$ ( $\text{dpm m}^2$ )	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 $1000 \text{ dpm}/\text{m}^2$ 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:  $^{14}\text{C}$  and  $^{35}\text{S}$  have peak energies of 156 and 167 KeV, respectively; thus  $^{35}\text{S}$  will be registered as  $^{14}\text{C}$  by our counting techniques. Categories A, B and C are not a health hazard.

### Recommended Cleaning Procedure

Wearing ordinary household rubber gloves:

$^3\text{H}$ : 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.

$^{14}\text{C}$ : 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  $^3\text{H}$ .

### Disposal of Cleaning Materials (gloves, sponges, etc)

Categories A & B dispose as ordinary garbage, C & D contact your institution's radiation safety office.

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

REPORT FOR SWAB #1138

LOCATION: Tampa, FL  
VESSEL/LAB: *R/V Atlantis*

DATE: 13 February 2026  
TECHNICIAN: Joseph Gonzalez

Sample #	Sample Identification	<sup>3</sup> H dpm/m <sup>2</sup>		<sup>14</sup> C dpm/m <sup>2</sup>	
		activity	error	activity	error
1	1st Vial Bkgnd	0 ±	0	0 ±	0
2	Initial bucket blank	0 ±	1	21 ±	13
	<u>Bio-Analytical Lab (Figure 1)</u>				
3	Deck in front of fume hood	-26 ±	76	2 ±	41
4	Benchtop across from forward sink	-18 ±	53	2 ±	24
5	Benchtop adjacent to aft sink	-34 ±	100	-1 ±	9
6	Benchtop across from aft sink	-17 ±	50	2 ±	21
7	Deck inside aft entrance	3 ±	11	6 ±	12
8	Aft sink area	-10 ±	30	3 ±	14
9	Inside Cospolich refrigerator	15 ±	16	16 ±	12
10	Inside Cospolich freezer	-32 ±	92	13 ±	14
11	Inside Frigidaire refrigerator	-20 ±	57	-2 ±	24
12	Inside Frigidaire freezer	-13 ±	38	5 ±	14
13	Forward sink area	-30 ±	86	16 ±	14
14	Deck in front of refrigerators	-16 ±	48	10 ±	13
15	Deck inside starboard entrance	-9 ±	26	1 ±	18
16	Port benchtop	14 ±	20	4 ±	10
17	Inside fume hood	-14 ±	42	2 ±	17
18	Forward benchtop	-25 ±	74	16 ±	14
19	Starboard benchtop	3 ±	9	9 ±	12
	<u>Main Lab (Figure 2)</u>				
20	Inside fume hood	-3 ±	33	-8 ±	119
21	Deck inside forward port entrance	-16 ±	46	8 ±	13
22	Benchtop adjacent to port sink	-2 ±	19	-3 ±	48
23	Port sink area	-27 ±	80	0 ±	0
24	Deck inside port entrance located aft of sink	-16 ±	48	0 ±	0
25	Starboard benchtop forward of ice machine	-26 ±	76	11 ±	14
26	Starboard benchtop forward of fume hood	12 ±	18	7 ±	11
27	Deck inside aft port entrance	-9 ±	26	1 ±	19
28	Deck inside aft entrance	-30 ±	86	13 ±	14
29	Starboard sink area	-8 ±	24	2 ±	16
30	Benchtop aft of starboard sink	-12 ±	35	16 ±	13
31	Deck in front of starboard sink	-1 ±	11	7 ±	12
	<u>Miscellaneous Areas (Figure 3)</u>				
32	Deck between walk in coolers	-13 ±	39	6 ±	13
33	Deck outside entrance of Science Storeroom	-13 ±	39	15 ±	13
34	Deck inside starboard entrance of Comp. Lab	-33 ±	97	10 ±	15

Sample #	Sample Identification	<sup>3</sup> H dpm/m <sup>2</sup>		<sup>14</sup> C dpm/m <sup>2</sup>	
		activity	error	activity	error
	<u>Hydro Lab (Figure 4)</u>				
35	Deck in front of port sink	-32 ±	92	<b>25 ±</b>	<b>14</b>
36	Deck inside starboard entrance	-33 ±	95	11 ±	14
37	Deck around the sink in ROV bay	-23 ±	68	11 ±	14
38	Inside fume hood	7 ±	13	10 ±	12
	<u>Wet Lab (Figure 5)</u>				
39	Starboard benchtop	-26 ±	75	-2 ±	32
40	Inside fume hood	-13 ±	37	<b>19 ±</b>	<b>13</b>
41	Port benchtop	-4 ±	44	11 ±	13
42	Forward sink area with wood benchtops	0 ±	1	13 ±	13
43	Deck inside starboard entrance	-14 ±	41	5 ±	14
44	Deck inside aft entrance	-14 ±	42	8 ±	13
45	Deck inside port entrance	-8 ±	24	4 ±	13
	<u>Radioisotope Van #625.6.03 (Figure 6)</u>				
46	Inside ATVIO refrigerator under bench	<b>3 ±</b>	<b>4</b>	<b>34 ±</b>	<b>14</b>
47	Inside fume hood	<b>18 ±</b>	<b>14</b>	<b>33 ±</b>	<b>14</b>
48	Benchtop adjacent to fume hood	-32 ±	92	<b>20 ±</b>	<b>14</b>
49	Benchtop above ATVIO & Haier refrigerators	108 ±	31	<b>43 ±</b>	<b>13</b>
50	Sink area	<b>20 ±</b>	<b>17</b>	<b>22 ±</b>	<b>13</b>
51	Benchtop across from refrigerators	<b>60 ±</b>	<b>24</b>	<b>41 ±</b>	<b>14</b>
52	Benchtop across from fume hood	<b>20 ±</b>	<b>14</b>	<b>33 ±</b>	<b>14</b>
53	Inside Hotpoint refrigerator	<b>20 ±</b>	<b>16</b>	<b>23 ±</b>	<b>13</b>
54	Inside Hotpoint freezer	10 ±	11	<b>23 ±</b>	<b>13</b>
56	Benchtop across from sink next to LSC	<b>215 ±</b>	<b>40</b>	<b>*95 ±</b>	<b>16</b>
57	Deck in front of fume hood	-5 ±	13	<b>25 ±</b>	<b>13</b>
58	Deck between refrigerator and sink	<b>35 ±</b>	<b>19</b>	<b>35 ±</b>	<b>13</b>
59	Deck inside entrance	9 ±	10	<b>29 ±</b>	<b>13</b>
60	Final bucket blank	9 ±	23	0 ±	17

### COMMENTS

Please note that the error reported for each isotope is the two-standard deviation counting error. Reports may now contain values less than zero. Decay counting background samples will be distributed about the background vial, which means that negative values are possible. In the past we rounded the negative values to zero. Values are only significantly above background when they are positive and larger than the error. Please note that we are now using a Quantulus 6220 LSC which counts very near natural background. While the cleanup standards have not changed all values above background will now be in bold. All areas tested inside the ship were free from isotope contamination that requires cleaning.

Minor <sup>14</sup>C contamination was found in the Rad Van. No action is necessary.

**KEY**

-  FIRE EXTINGUISHER
-  SCIENCE SEA WATER
-  COMPUTER HUB
-  SHIP EQUIP - KEEP CLEAR
-  EMERGENCY ESCAPE BREATHING DEVICE
-  1/2" x 2 FT SPACING
-  72" POWER STRIP, 6 PLUGS

**Figure 1**  
**SWAB 1138**  
**13 February 2026**

UNISTRUT:  
 BULKHEADS  
 2 FT SPACING  
 OVERHEAD FORE/AFT.  
 FULL LENGTH OF LAB  
 ALL POWER CLEAN UNLESS NOTED

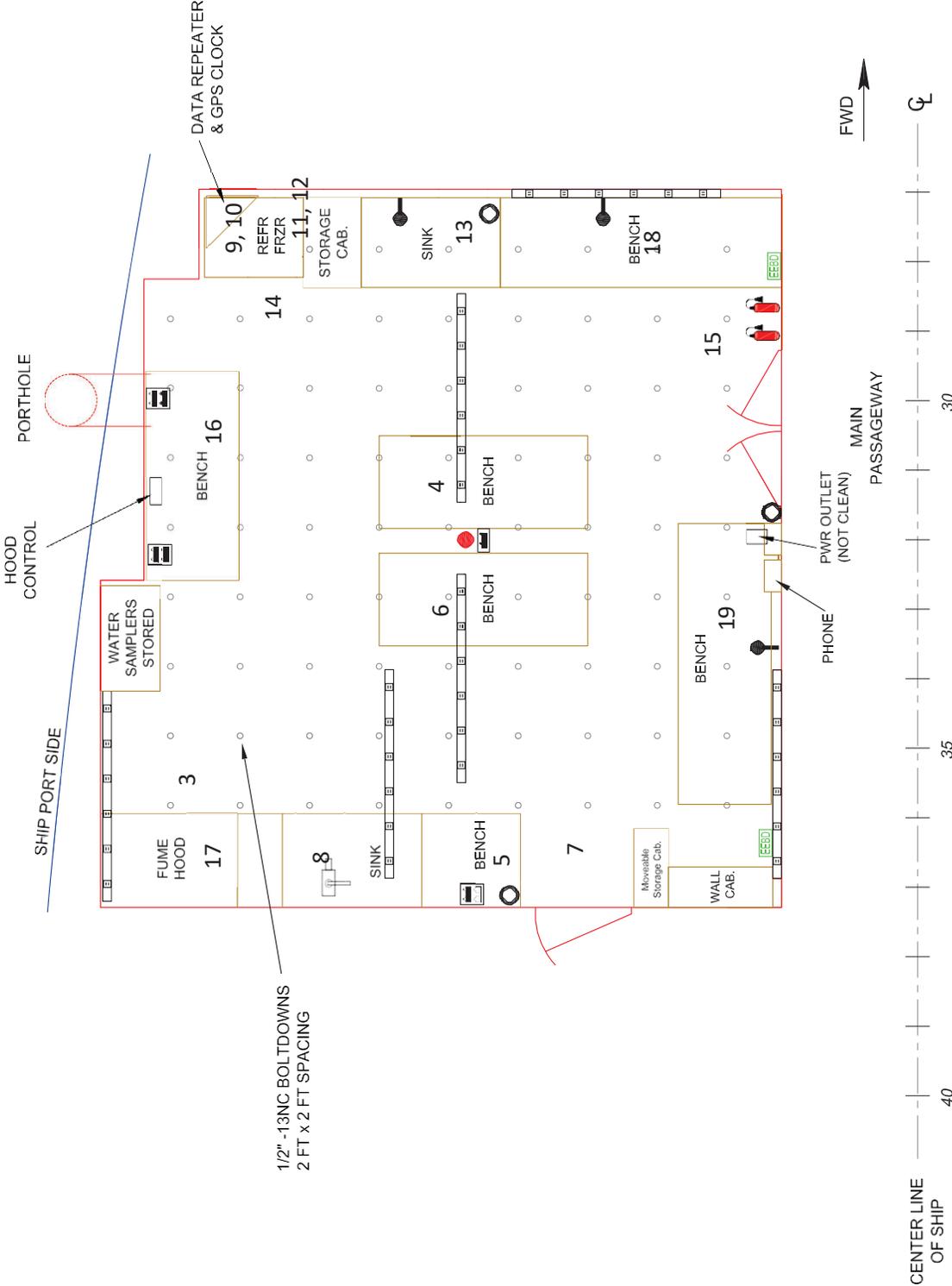
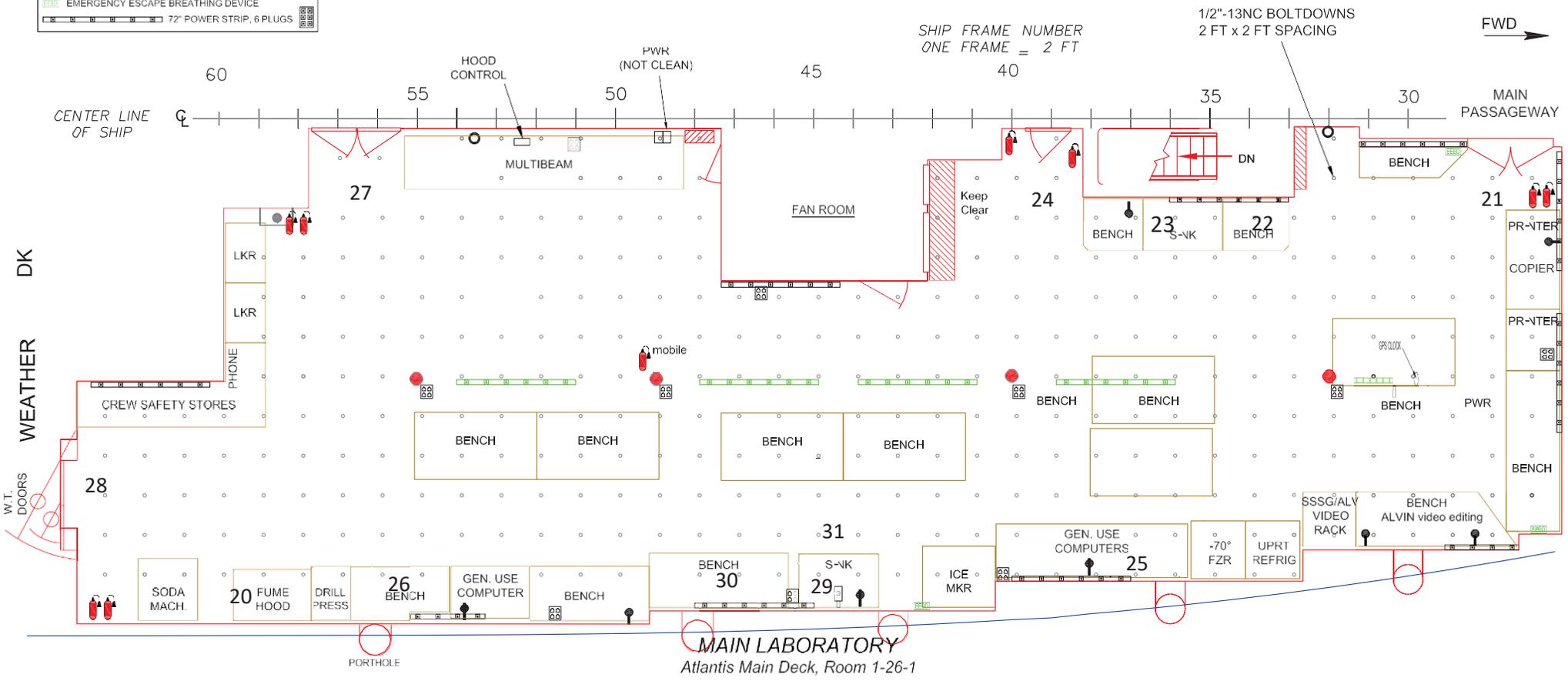


Figure 2  
 SWAB 1138  
 13 February 2026

**KEY**

- COMPUTER HUB
- SHIP EQUIP -KEEP CLEAR
- EMERGENCY ESCAPE BREATHING DEVICE
- 72" POWER STRIP, 6 PLUGS
- FIRE EXTINGUISHER
- SCIENCE SEA WATER
- CABLE PASS THRU
- COMPRESSED AIR

UNISTRUT:  
 BULKHEADS  
 2 FT SPACING  
 OVERHEAD FORE/AFT,  
 FULL LENGTH OF LAB  
 ALL POWER CLEAN UNLESS NOTED



MAIN LABORATORY  
 Atlantis Main Deck, Room 1-26-1

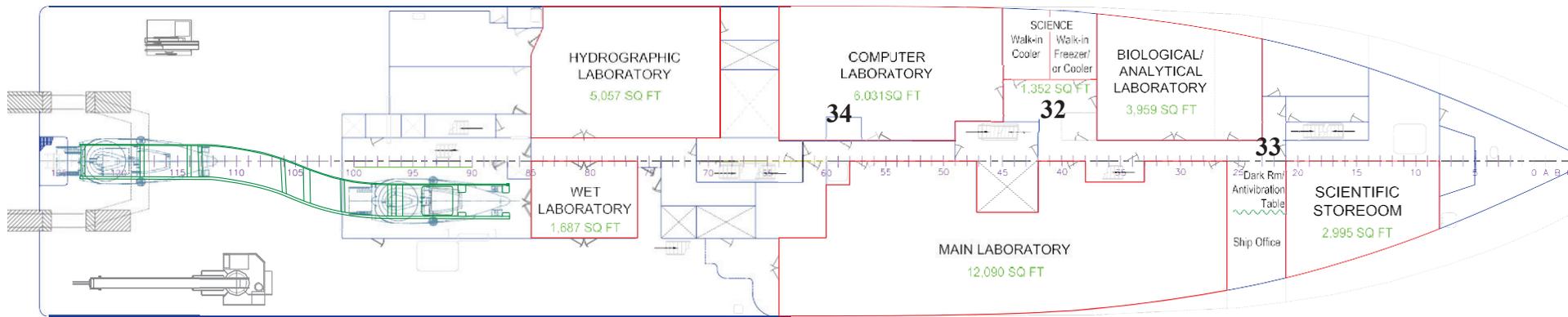


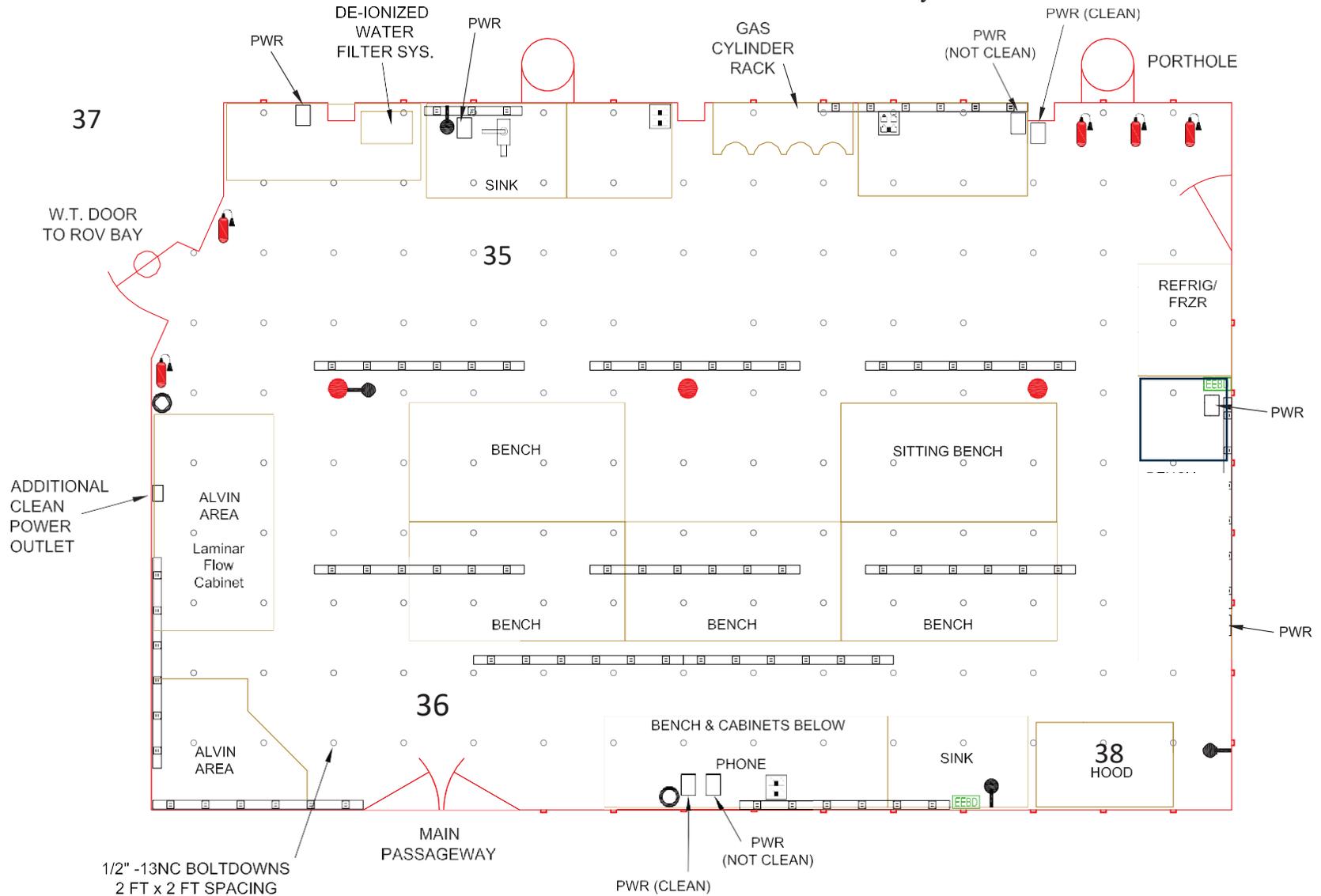
Figure 3  
 SWAB 1138  
 13 February 2026

Atlantis Laboratories and Scientific Storeroom General Locations



FULL LENGTH OF LAB  
ALL POWER CLEAN UNLESS NOTED

Figure 4  
SWAB 1138  
13 February 2026



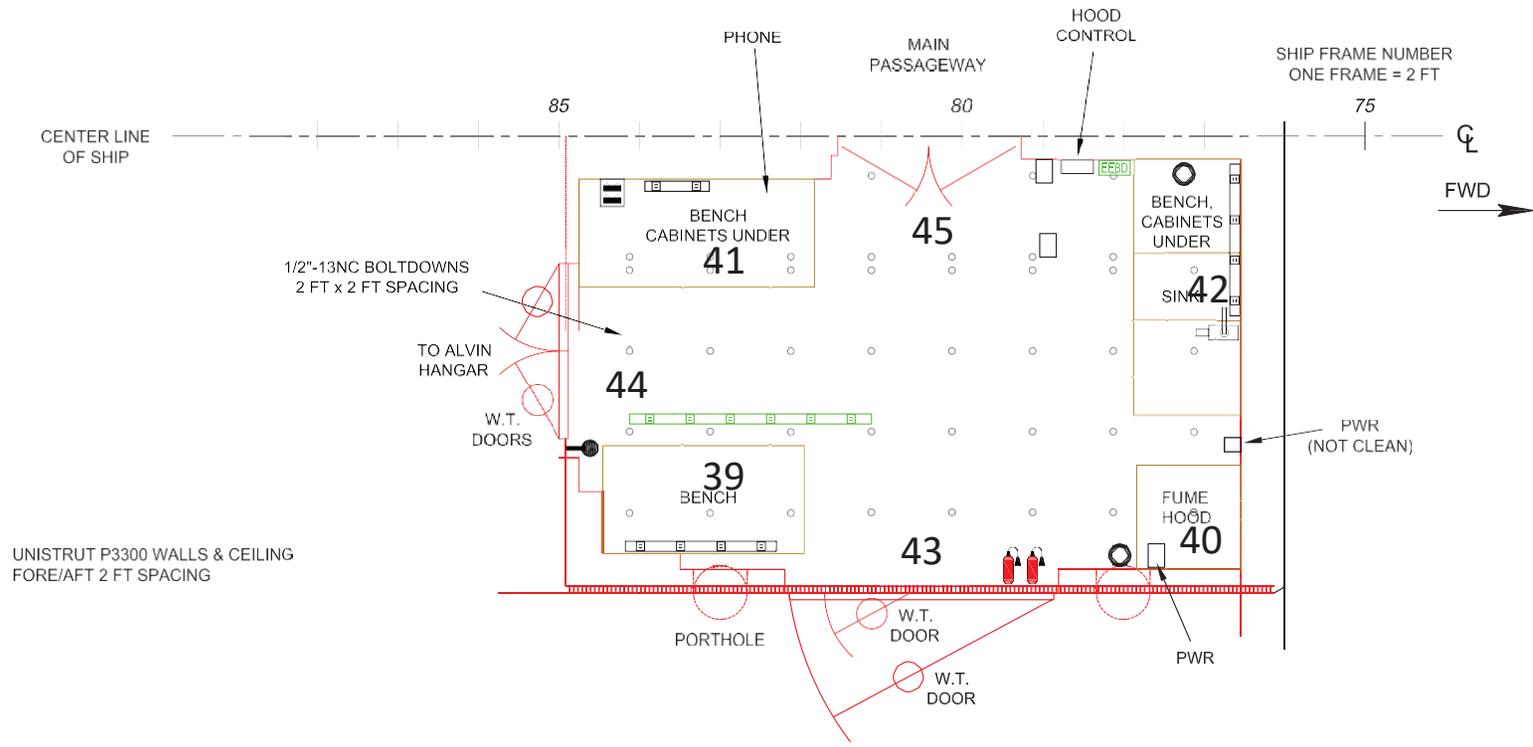
**HYDROGRAPHIC LABORATORY**  
*Atlantis Main Deck, Room 1-64-2*

**KEY**

-  COMPUTER HUB
-  SHIP EQUIP -KEEP CLEAR
-  EMERGENCY ESCAPE BREATHING DEVICE
-  72" POWER STRIP, 6 PLUGS
-  FIRE EXTINGUISHER
-  SCIENCE SEA WATER
-  CABLE PASS THRU
-  COMPRESSED AIR

UNISTRUT:  
 BULKHEADS  
 2 FT SPACING  
 OVERHEAD FORE/AFT,  
 FULL LENGTH OF LAB  
 ALL POWER CLEAN UNLESS NOTED

Figure 5  
 SWAB 1138  
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**WET LABORATORY**  
*Atlantis Main Deck, Rm 1-76-1*

# WHOI RADIOISOTOPE VAN

#625.6.03

Figure 6  
SWAB 1138  
13 February 2026

