

Tritium Laboratory
October 4, 2014

SWAB REPORT #255

SWAB DATE: 1 - 2 October 1999

R/V Laurence M Gould,
Radioisotope Vans: #1, 2, NSF#4582, Tennessee #1
Antarctic Support Associates

Dr. James D. Happell
Research Associate Professor

Distribution:
SWAB Committee
Robert Kluckhohn

REPORT FOR SWAB # 255

LOCATION : Punta Arenas, Chile
 TECHNICIAN: Cecilia Roig, Univ. of Miami
 VESSEL/LAB: R/V Laurence M. Gould, Vans

DATE : 1-2 October 1999
 STATUS: The ship is free of radioisotope contamination, all vans had minor to moderate tritium contamination.

| SAMPLE # | SAMPLE IDENTIFICATION | NET ACTIVITY EXTRACTED | |
|---|--|-----------------------------------|------------------------------------|
| | | ³ H dpm/m ² | ¹⁴ C dpm/m ² |
| 1 | Machine Blank | - | - |
| 2 | Initial Bucket blank | 0 | 0 |
| <u>Hydro Lab (See Figure 1)</u> | | | |
| 3 | Deck in front of nanopure H2O system | 17 | 0 |
| 4 | Inside freezer, bottom | 0 | 0 |
| 5 | Deck in front of freezer | 24 | 0 |
| 6 | Deck in front of fwd sink | 0 | 0 |
| 7 | Bench next to port workbench | 6 | 0 |
| 8 | Bench next to fwd sink | 0 | 0 |
| 9 | Inside fume hood | 17 | 0 |
| <u>Wet Lab (See Figure 1)</u> | | | |
| 10 | Inside fume hood | 18 | 0 |
| 11 | Inside refrigerator next to stbd aft entrance | 58 | 38 |
| 12 | Inside freezer, bottom | 46 | 49 |
| 13 | Benchtop opposite of freezer/refrigerator | 0 | 0 |
| 14 | Benchtop port of aft sink | 0 | 0 |
| 15 | Deck in front of fume hood and fwd sink | 11 | 43 |
| 16 | Deck in front of aft sink | 0 | 0 |
| <u>Dry Lab (See Figure 1)</u> | | | |
| 17 | Inside aft refrigerator, bottom | 69 | 13 |
| 18 | Deck in front of freezers fwd of Change Room | 27 | 24 |
| 19 | Deck in front of fume hood | 49 | 35 |
| 20 | Deck in front of entrance to CTD Room | 57 | 59 |
| 21 | Deck in front of port sink | 0 | 24 |
| <u>Passageways (See Figure 1)</u> | | | |
| 22 | Deck outside port entrance to Dry Lab | 19 | 0 |
| 23 | Deck outside aft entrance to Hydro Lab | 0 | 0 |
| 24 | Deck outside port entrance to Electronics Room | 0 | 13 |
| 25 | Deck outside port entrance to Laundry Room | 58 | 0 |
| 26 | Deck outside port entrance to Head | 0 | 0 |
| 27 | Deck outside port entrance to Enviro Room | 0 | 41 |
| 28 | Final bucket sample of C.O. #1 | 0 | 0 |
| <u>Radioisotope Van #1 (See Figure 2)</u> | | | |
| 29 | Initial bucket blank C.O. #2 | 16 | 0 |
| 30 | Inside fume hood | 1,152 | 31 |
| 31 | Deck in front of sink | 1,994 | 58 |
| 32 | Deck inside entrance to van | 531 | 0 |

| SAMPLE # | SAMPLE IDENTIFICATION | NET ACTIVITY EXTRACTED | |
|---|---------------------------------------|-----------------------------------|------------------------------------|
| | | ³ H dpm/m ² | ¹⁴ C dpm/m ² |
| <u>Radioisotope Van #2 (See Figure 2)</u> | | | |
| 33 | Inside fume hood | 1,297 | 7 |
| 34 | Deck in front of sink | 9,105* | 33 |
| 35 | Deck inside entrance to van | 539 | 35 |
| <u>NSF Van #4582 (See Figure 3)</u> | | | |
| 36 | Inside fume hood | 855 | 631 |
| 37 | Inside refrigerator, bottom | 21,689** | 571 |
| 38 | Deck in front of sink | 6,195 | 302 |
| 39 | Deck in front of fume hood | 10,533** | 221 |
| 40 | Benchtop right of sink | 2,068* | 0 |
| 41 | Benchtop left of sink | 1,001 | 0 |
| 42 | Benchtop opposite of sink | 1,040 | 857 |
| 43 | Benchtop right of LSC counter | 1,014 | 36 |
| 44 | Deck inside entrance to van | 2,623* | 77 |
| 45 | Final bucket blank of C.O. #2 | 0 | 0 |
| <u>Tennessee Rad Van (See Figure 3)</u> | | | |
| 46 | Initial bucket blank of C.O. #3 | 0 | 113 |
| 47 | Bench under fan | 2,003* | 12 |
| 48 | Benchtop across from LSC | 492 | 29 |
| 49 | Benchtop right of sink | 2,205* | 17 |
| 50 | Benchtop opposite of sink | 475 | 0 |
| 51 | Deck in front of fan | 897 | 0 |
| 52 | Deck in front of sink | 4,976* | 0 |
| 53 | Deck inside entrance to van | 830 | 0 |
| <u>Storage (No Figure)</u> | | | |
| 54 | Inside small "Itaier" freezer, bottom | 926 | 45 |
| 55 | Inside NSF 11549 freezer, top | 0 | 0 |
| 56 | Inside GE freezer, top | 0 | 0 |
| 57 | Inside GE refrigerator, bottom | 4,618* | 50 |
| 58 | Inside refrigerator, top | 4 | 0 |
| 59 | Inside refrigerator, bottom | 100 | 0 |
| 60 | Final Bucket blank of C.O. #3 | 0 | 0 |