



16 February 2015

SWAB REPORT # 760

SWAB DATE: 10 February 2015

R/V Sproul

James
Happell

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Date: 2015.02.18 10:23:09 -05'00'

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COMMENTS TO SWAB REPORTS

12 May 2014

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 $1000 \text{ dpm}/\text{m}^2$ 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}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 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.

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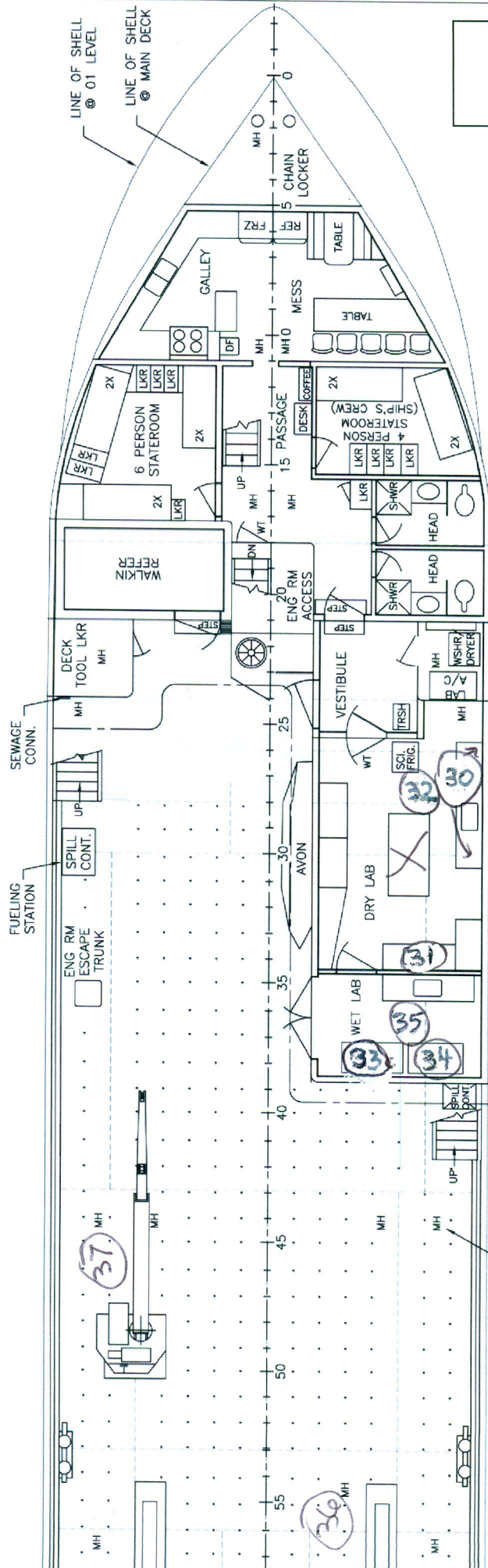
LOCATION: San Diego, CA
VESSEL/LAB: R/V Sproul

DATE: 10 February 2015
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 | 0 | ± 0 |
| | <u>Dry Lab (Figure 1)</u> | | | | |
| 30 | Stbd sink area | 0 | ± 0 | 0 | ± 0 |
| 31 | Aft Benchtop | 0 | ± 0 | 0 | ± 0 |
| 32 | Deck in center of Lab | 0 | ± 0 | 0 | ± 0 |
| | <u>Wet Lab (Figure 1)</u> | | | | |
| 33 | Aft benchtop | 0 | ± 0 | 0 | ± 0 |
| 34 | Top of aft freezer chest | 0 | ± 0 | 0 | ± 0 |
| 35 | Deck below sink area | 0 | ± 0 | 28 | ± 40 |
| 36 | Aftdeck Fantail below A-frame | 0 | ± 0 | 21 | ± 36 |
| 37 | Deck below port Hiac winch | 31 | ± 50 | 0 | ± -2 |
| | <u>Computer Van (Figure 2)</u> | | | | |
| | | 0 | ± 0 | 9 | ± 42 |
| 38 | Port benchtop | 0 | ± 0 | 20 | ± 36 |
| 39 | Stbd benchtop | 7 | ± 234 | 0 | ± 0 |
| 40 | Deck at aft entrance | 14 | ± 484 | 0 | ± 0 |
| 41 | Final bucket blank | 0 | ± 0 | 14 | ± 42 |
| | | 0 | ± 0 | 0 | ± 0 |

Comments

Please note that the error reported for each isotope is the two-standard deviation counting error. All areas tested were free from radioisotope activity that requires cleaning.



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 Figure 1

MAIN DECK
 SCALE: 1/8" = 1'-0"

18"Ø MANHOLE (TYP)

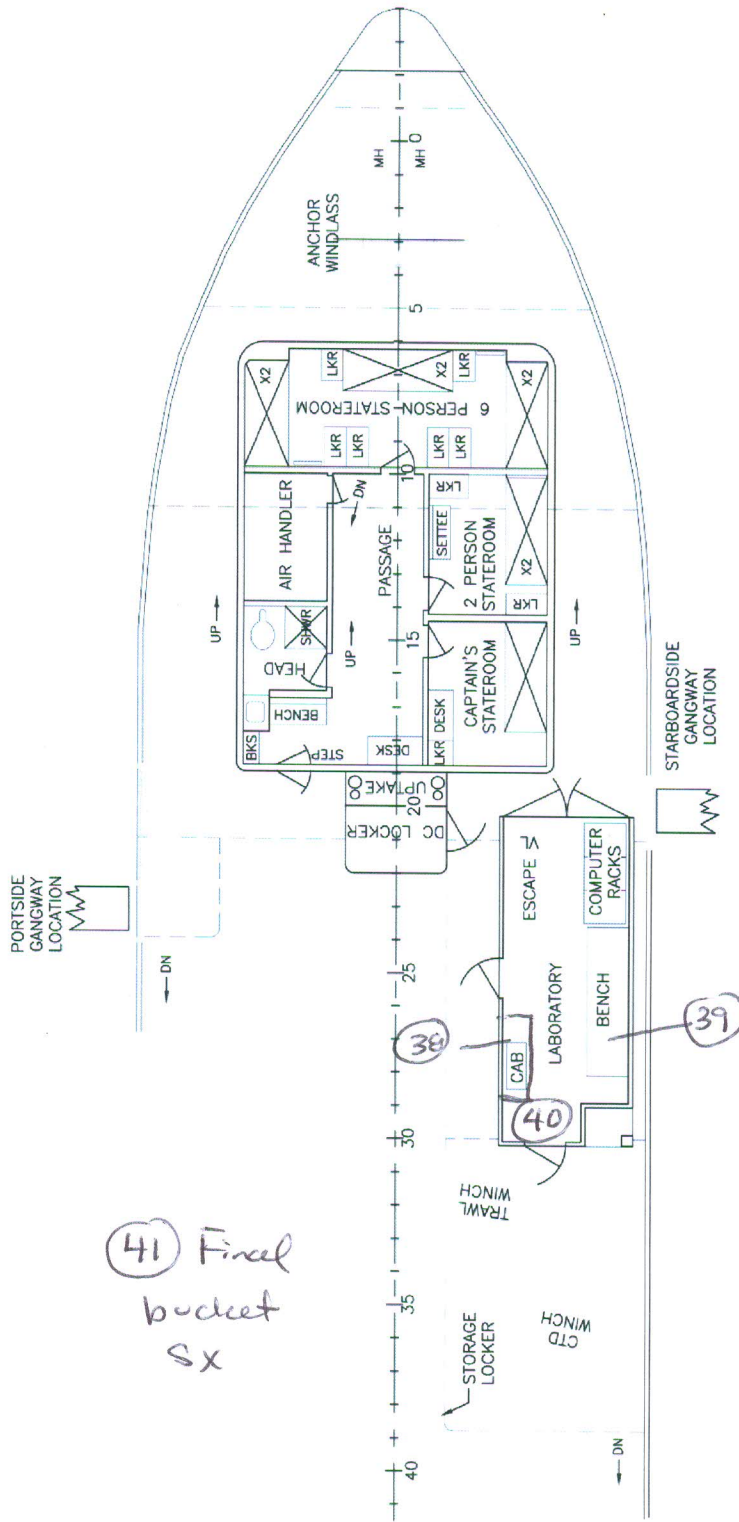
| AutoCAD File Name | | Checked By | | Date | | Approved By | | Date | |
|--|--|-------------|--|-------------|--|-------------|--|------|--|
| 02014-01-04--DWG | | RBL | | 4/19/02 | | DWL | | WLH | |
| Drawing Scale | | Drawing No. | | Drawing No. | | Sheet | | Rev | |
| 1=1 | | 02014-1 | | 02014-1 | | 4 | | 6 | |
| AS NOTED | | | | | | | | | |
| SCRIPPS INSTITUTION OF OCEANOGRAPHY SAN DIEGO, CALIFORNIA | | | | | | | | | |
| R/V ROBERT GORDON SPROUL BOOKLET OF GENERAL PLANS MAIN DECK | | | | | | | | | |
| 1001 La Jolla Village Drive, San Diego, CA 92161 619-534-7511 Fax: 619-534-7501 www.scripps.edu | | | | | | | | | |

OSTEN
 Associates, Inc.

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Figure 2



01 LEVEL
SCALE: 1/8" = 1'-0"

| | | | | | | | | | | | |
|--|--|--------------------------------------|--|-------------------------|--|------------------------|--|-----------------|--|--------------------|--|
| Scripps Institution of Oceanography San Diego, California | | AutoCAD File Name 02014-01-05-DWC | | Date 4/19/02 | | Checked By DWL | | Date 02014-1 | | Approved By WLH | |
| R/V Robert Gordon Sproul Booklet of General Plans | | Plotting Scale 1=1 | | Drawing No. AS NOTED | | Drawing No. 02014-1 | | Sheet 5 | | Rev 6 | |
| 01 LEVEL | | | | | | | | | | | |

